

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ronald M. Spritzer, Chairman
Dr. Gary S. Arnold
Dr. William W. Sager

In the Matter of

CALVERT CLIFFS 3 NUCLEAR PROJECT,
LLC, and UNISTAR NUCLEAR OPERATING
SERVICES, LLC

(Combined License Application
for Calvert Cliffs Unit 3)

Docket No. 52-016-COL

ASLBP No. 09-874-02-COL-BD01

March 24, 2009

MEMORANDUM AND ORDER
(Ruling on Joint Petitioners' Standing and Contentions)

I. Introduction

This case arises from an application by UniStar Nuclear Operating Services, LLC and Calvert Cliffs 3 Nuclear Project, LLC (Applicant) for a combined license (COL) for one U.S. Evolutionary Power Reactor (U.S. EPR) to be located at the Calvert Cliffs site in Lusby, Calvert County, Maryland. In response to a September 26, 2008 notice of opportunity for hearing in the Federal Register,¹ a petition to intervene and a request for hearing were timely filed on November 19, 2008, by Nuclear Information and Resource Service (NIRS), Beyond Nuclear, Public Citizen Energy Program (Public Citizen) and Southern Maryland Citizens' Alliance for

¹ See Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC Notice of Hearing and Opportunity To Petition for Leave To Intervene and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation on a Combined License for the Calvert Cliffs Nuclear Power Plant Unit 3, 73 Fed. Reg. 55,876 (Sept. 26, 2008).

Renewable Energy Solutions (SoMD CARES), collectively referred to hereinafter as “Joint Petitioners.”

In this Memorandum and Order, we find that Joint Petitioners NIRS, Beyond Nuclear, Public Citizen and SoMD CARES have standing to participate in this proceeding and we admit one of their contentions as pleaded, and two of their contentions as modified by the Board.

Based on these rulings, we grant the hearing requests of NIRS, Beyond Nuclear, Public Citizen, and SoMD CARES, and admit them as parties in this proceeding.

II. Background

Under the Part 52 licensing process that governs the UniStar application for Calvert Cliffs Nuclear Power Plant, Unit 3 (CCNPP-3), an entity may apply for a single license that authorizes both new reactor construction and operation. Specifically, Subpart C of Part 52 establishes procedures for the issuance of a combined construction permit and conditional operating license for a nuclear power plant and the conduct of the hearing that is afforded for a COL. The COL is “essentially a construction permit which also requires consideration and resolution of many of the issues currently considered at the operating license stage.”² The general requirements for the contents of a COL application are set forth in 10 C.F.R. §§ 52.79-52.80.

UniStar submitted an application for a combined license to the NRC in two parts on July 13, 2007 and March 14, 2008. NRC accepted and docketed the application on January 25, 2008 and June 3, 2008. The application was revised on August 20, 2008 (Rev. 3), and the “Notice of Hearing and Opportunity to Petition for Leave to Intervene” was published in the Federal Register on September 26, 2008.³ Joint Petitioners filed a “Petition to Intervene” on November 19, 2008.⁴ Applicant and NRC Staff timely filed answers to Joint Petitioners’ Petition

² Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors, 53 Fed. Reg. 32,060, 32,062 (Aug. 23, 1988).

³ See Fed. Reg. 55,876.

⁴ See Petition to Intervene in Docket No. 52-016, Calvert Cliffs 3 Nuclear Power Plant Combined Construction and License Application (Nov. 19, 2008) [hereinafter Pet.].

to Intervene on December 15, 2008.⁵ Joint Petitioners timely filed their reply on December 22, 2008.⁶

The State of Maryland filed a motion to participate as an interested state in the Calvert Cliffs COL proceedings under 10 C.F.R. § 2.315(c) on November 21, 2008.⁷ This motion was unopposed by both NRC Staff and Applicant. The Board granted the State of Maryland's motion on January 14, 2009.⁸

The NRC Staff was delayed in releasing Rev. 3 to the public due to standard security reviews of the application.⁹ Due to this delay, Joint Petitioners were not able to review Rev. 3 until January 27, 2009.¹⁰ The Board therefore notified the Commission pursuant to 10 C.F.R. § 2.309(i) that oral argument and a Board decision would be postponed in order to give Joint Petitioners time to review Rev. 3.¹¹ The Board held oral argument on February 20, 2009 in the ASLBP Hearing Room in Rockville, MD.

⁵ See NRC Staff's Answer to Petition to Intervene in Docket No. 52-016, Calvert Cliffs 3 Nuclear Power Plant Combined Construction and License Application (Dec. 15, 2008) [hereinafter Staff Ans.]; Applicant's Answer to Petition to Intervene (Dec. 15, 2008) [hereinafter App. Ans.].

⁶ See Joint Petitioners' Reply to NRC Staff's Answer to Petition to Intervene and Applicant's Answer to Petition to Intervene (Dec. 22, 2008) [hereinafter Reply].

⁷ See State of Maryland Request to Participate (Nov. 21, 2008).

⁸ See Licensing Board Order (State of Maryland may Participate as an Interested State) (Jan. 14, 2009) (unpublished).

⁹ See Letter from Adam Gendleman, Counsel for NRC Staff, to Administrative Judges (Dec. 23, 2008) (ADAMS Accession No. ML083580215).

¹⁰ See Letter from James Biggins, Counsel for NRC Staff, to Administrative Judges (Jan. 27, 2009) (ADAMS Accession No. ML090270665).

¹¹ See Licensing Board Order (Notice Pursuant to 10 C.F.R. § 2.309(i)) (Feb. 5, 2009) (unpublished).

III. Standing of Joint Petitioners to Participate in this Proceeding

A. Legal Requirements

Standing under the Atomic Energy Act (AEA)¹²

A petitioner's right to participate in a licensing proceeding stems from Section 189a of the AEA. That section provides for a hearing "upon the request of any person whose interest may be affected by the proceeding."¹³ Under 10 C.F.R. § 2.309(d), the Commission's regulation implementing Section 189a, a licensing board must determine whether the petitioner has an interest potentially affected by the proceeding by considering (1) the nature of the petitioner's right under the AEA or the National Environmental Policy Act of 1969 (NEPA)¹⁴ to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest.¹⁵

When assessing whether a petitioner has set forth a sufficient interest to intervene, licensing boards generally use judicial concepts of standing.¹⁶ Those require the petitioner to show that (1) he or she has personally suffered or will personally suffer a distinct and palpable harm that constitutes injury in fact; (2) the injury can fairly be traced to the challenged action; and (3) the injury is likely to be redressed by a favorable decision.¹⁷ Additionally, the petitioner

¹² 42 U.S.C. § 2011 et seq. (1954).

¹³ 42 U.S.C. § 2239(a)(1)(A).

¹⁴ 42 U.S.C. § 4321 et seq. (1969).

¹⁵ 10 C.F.R. § 2.309(d)(1).

¹⁶ See Entergy Nuclear Vermont Yankee, L.L.C., & Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 552 (2004).

¹⁷ See Allen v. Wright, 468 U.S. 737, 751 (1984).

must meet the “prudential” standing requirement by showing that the asserted interest arguably falls within the zone of interests protected by the governing law.¹⁸

“For construction permit and operating license proceedings, the Commission generally has recognized a presumption in favor of standing for those persons who have frequent contacts with the area near a nuclear power plant.”¹⁹ In particular, “Commission case law has established a ‘proximity presumption,’ whereby an individual may satisfy . . . standing requirements by demonstrating that his or her residence or activities are within the geographical area that might be affected by an accidental release of fission products, and in proceedings involving nuclear power plants this area has been defined as being within a 50-mile radius of such a plant.”²⁰

In this case, Joint Petitioners are organizations rather than individuals. When an organization petitions to intervene in a proceeding, it must demonstrate either organizational or

¹⁸ See Fed. Election Comm’n v. Akins, 524 U.S. 11, 20 (1998).

¹⁹ Cleveland Elec. Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 95 (1993) (citing Virginia Elec. & Power Co. (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 56 (1979)); Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989) (stating that the presumption applies in proceedings for nuclear power plant “construction permits, operating licenses, or significant amendments thereto”).

²⁰ Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Unit 1), LBP-07-11, 65 NRC 41, 52 (2007). Accord Duke Energy Carolinas, LLC (William States Lee III Nuclear Station), LBP-08-17, 68 NRC __, __ (slip op. at 5-7) (Sept. 22, 2008); Virginia Elec. & Power Co. (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC __, __ (slip op. at 7-8) (Aug. 15, 2008); Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 149, aff’d on other grounds, CLI-01-17, 54 NRC 3 (2001).

There are several exceptions to this standing rule. In an operating license amendment proceeding, a petitioner cannot base his or her standing simply upon a residence or visits near the plant, unless the proposed action quite obviously entails an increased potential for offsite consequences. Instead, it is incumbent upon the petitioner to provide some “plausible chain of causation,” some scenario suggesting how the license amendments would result in a distinct new harm or threat in order to establish standing. Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 191 (1999). Similarly, in a materials licensing case, proximity alone does not suffice to show standing; the petitioner must also satisfy the injury-in-fact component. Nuclear Fuel Servs., Inc. (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004).

representational standing. To demonstrate organizational standing, the petitioner must show “injury-in-fact” to the interests of the organization itself.²¹ Representational standing requires a demonstration that one or more of an organization’s members would have standing to intervene on their own, and that the identified members have authorized the organization to request a hearing on their behalf.²² In addition, the interests that the representative organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the requested relief must require an individual member to participate in the organization's legal action.²³

Joint Petitioners’ asserted interests

Nuclear Information and Resource Service (NIRS)

NIRS states that it “is an information and networking center for people and organizations concerned about the safety, health and environmental risks posed by nuclear power generation.” Pet. at 1. It further states that “[b]ecause of its location in Takoma Park, Maryland, NIRS has a special interest in Maryland energy policy and economics, ratepayer protection, nuclear power, radioactive waste, renewable energy, energy efficiency and the risks posed by nuclear power plants operating in or proposed for Maryland.” Id. at 1-2. NIRS explains that it is representing the interests of its member Roma Mauro, who states in her declaration that she lives within 25 miles of the proposed reactor. She further recounts that she is “particularly

²¹ See Shaw AREVA MOX Servs. (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 183 (2007).

²² See id. Accord Sequoyah Fuels Corp. and Gen. Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994) (“An organization seeking representational standing on behalf of its members may meet the ‘injury-in-fact’ requirement by demonstrating that at least one of its members, who has authorized the organization to represent his or her interest, will be injured by the possible outcome of the proceeding.” Id. citing Houston Lighting & Power Co. (Allens Creek Nuclear Generating Station, Unit 1), ALAB-535, 9 NRC 377, 389-400 (1979)).

²³ Consumers Energy Co. (Palisades Nuclear Power Plant), CLI-07-18, 65 NRC 399, 409 (2007).

concerned about the risk of accidental releases of radioactive material to the environment, and the potential harm to groundwater supplies and local surface waters.” Mauro Decl. ¶ 2.

In addition to representing Ms. Mauro, NIRS asserts that it “has standing in its own right to bring this petition, because its offices are located within about 50 miles of the site of the proposed nuclear power plant.” Id. According to NIRS, “[a]n accident at the proposed nuclear power plant could result in radiological releases and environmental contamination that would adversely affect the health of NIRS’ employees, the value of its property, and NIRS’ ability to conduct its business.” Id. NIRS has submitted the declaration of its staff member Michael Mariotte to support the allegations of potential injury to the organization. He states that he is the Executive Director of NIRS, that he resides within approximately 45 miles of the site of the proposed new reactor, and that he is concerned that “the construction and operation of the proposed nuclear power plant could adversely affect [his] health and safety and the integrity of the environment where [he] live[s].” Mariotte Decl. ¶ 2.

Beyond Nuclear

Beyond Nuclear explains that it is “a Maryland-based public education and advocacy group that aims to educate and activate the public on issues pertaining to the hazards of nuclear power, its connection to nuclear weapons and the need to abandon both.” Pet. at 2. Beyond Nuclear claims standing to represent the interests of its members alleged to be affected by the proposed new reactor. It has submitted declarations from its members Cynthia B. Peil and William Louis Peil, who live within 30 miles of the proposed site of CCNPP-3, and from Kevin Kamps, who states that his residence is “within the 50-mile emergency planning radius” for the proposed nuclear plant. Kamps Decl. ¶ 2. Beyond Nuclear also asserts standing in its own right “because its offices are located within about 50 miles of the site of the proposed nuclear power plant.” Pet. at 3.

Public Citizen

Public Citizen describes itself as a “non-profit, non-partisan consumer rights organization based in Washington, DC with over 100,000 members nationwide, including thousands of members in Maryland.” Id. One of its members, Bruce Boxwell, has filed a declaration stating that he lives within 7 miles of the proposed nuclear plant, that he is concerned about its potential impact upon his health and safety and the environment where he lives, and that he has authorized Public Citizen to represent him in licensing proceedings concerning CCNPP-3. Boxwell Decl. ¶ 1, 3. Public Citizen, like NIRS and Beyond Nuclear, states that its offices are located within “about fifty miles” of CCNPP-3, and it therefore claims standing to protect its own interests as well as those of its member, Mr. Boxwell.

Southern Maryland Citizen’s Alliance for Renewable Energy Solutions (So MD CARES)

SoMD CARES “is a local citizen’s awareness group established to oppose the expansion of the Calvert Cliffs Nuclear Power Plant.”²⁴ Pet. at 4. It claims to have fifteen members, “all of whom live in proximity to the proposed reactor site.” Id. One such member, Steven W. Warner, has submitted a declaration stating that his residence is within 6 miles of the proposed site of CCNPP-3, that he is concerned about the proposed new reactor’s effects upon his health and safety and the environment in which he lives, and that he has authorized SoMD CARES to represent him in any licensing proceeding that concerns the safety and environmental impacts of the proposed nuclear power plant. Warner Decl. ¶ 2.

²⁴ Unlike the other Petitioners, SoMD CARES asserts standing solely in a representative capacity. It does not claim standing based on any injury to the organization itself.

B. Licensing Board's Ruling on Standing of Joint Petitioners

We conclude that Joint Petitioners have standing to represent their members who have filed declarations in this proceeding. All the Joint Petitioners have members that live within 50 miles of the proposed new reactor – in some instances much closer. The affiants are concerned about the proposed new reactor's effects upon their health and safety and the environment in which they live. An alleged injury to health and safety, shared equally by many, can form the basis for standing.²⁵ Even minor radiological exposures resulting from a proposed license activity can be enough to create the requisite injury-in-fact.²⁶ Therefore, under the 50-mile presumption explained above, the affiants could have brought this action on their own behalf. They also state that they have authorized the Joint Petitioner organizations to represent their interests in any licensing proceeding that concerns the safety and environmental impacts of CCNPP-3. Joint Petitioners therefore have each shown that one or more of their members would have standing to intervene, and that the identified members have authorized the organizations to request a hearing on their behalf. The organizations have described their purposes, which are germane to the health, safety, and environmental interests asserted by their members. Finally, neither the asserted claims nor the requested relief requires an individual member to participate in this action. Joint Petitioners have therefore established the requisite representational standing. Accordingly, we need not examine the claims of three of the Joint Petitioners that they also have organizational standing.

As we explain below, we are persuaded by neither the Applicant's objections to Joint Petitioners' standing nor the NRC Staff's position that we should deny standing to all Joint Petitioners except NIRS.

²⁵ See Philadelphia Elec. Co. (Limerick Generating Station, Units 1 and 2), LBP-82-43A, 15 NRC 1423, 1434 (1982).

²⁶ See Sacramento Mun. Util. Dist. (Rancho Seco Nuclear Generating Station), LBP-91-17, 33 NRC 379, 391 (1991).

Applicant's objections to Joint Petitioners' standing

Applicant contends that none of the Joint Petitioners has standing. It primarily argues that the Commission's 50-mile presumption of standing is outdated and should be abandoned. App. Ans. at 13-17. If we abandoned the presumption, Applicant contends, Joint Petitioners' standing declarations would be insufficient to pass the more demanding test it advocates. Id. at 17-22. Applicant also contends that "contentions must be limited to those that will afford relief from the injuries asserted as a basis for standing." Id. at 12.

The 50-mile presumption

The Commission has noted with approval that "[t]he rule of thumb generally applied in reactor licensing proceedings" includes "a presumption of standing for persons who reside or frequent the area within a 50-mile radius of the facility."²⁷

Applicant argues, however, that the Commission's "proximity presumption" is outdated when compared to contemporaneous judicial concepts of standing. These contemporaneous concepts, Applicant alleges, include a reworking of the "injury-in-fact" concept in cases such as this, where future harm is the alleged injury. App. Ans. at 13-17. Applicant points to Lujan v. Defenders of Wildlife,²⁸ in which the Supreme Court set forth the three basic elements of constitutional standing:

[T]he irreducible constitutional minimum of standing contains three elements. The party claiming standing must be able to demonstrate that: (1) it has suffered an injury-in-fact, "an invasion of a legally protected interest which is (a) concrete and particularized . . . and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is "fairly traceable to the challenged action"; and (3) it must be "likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision."²⁹

²⁷ Sequoyah Fuels, CLI-94-12, 40 NRC at 77. See also North Anna, ALAB-522, 9 NRC at 56; Gulf States Utilities Co. (River Bend Station, Units 1 and 2), ALAB-183, 7 AEC 222 (1974).

²⁸ 504 U.S. 555 (1992).

²⁹ Lujan, 504 U.S. at 560-61 (internal quotations and citations omitted). See also Friends of the Earth, Inc. v. Laidlaw Env'tl Serv., 528 U.S. 167, 180-81 (2000).

We do not dispute that Lujan v. Defenders of Wildlife sets forth the basic requirements for standing applied by Article III courts. Unlike Applicant, however, we see no conflict between these basic requirements and the NRC's 50-mile presumption of standing. The presumption does not permit persons with no actual or imminent claim of injury to obtain a hearing. On the contrary, the "common thread" in the decisions applying the 50-mile presumption "is a recognition of the potential effects at significant distances from the facility of the accidental release of fissionable materials."³⁰ The NRC's regulations also recognize that an accidental release has potential effects within a 50-mile radius of a reactor.³¹ The Commission, rather than disregarding contemporaneous judicial concepts of standing, has applied its expertise and concluded that persons living within a 50-mile radius of a proposed new reactor face a realistic threat of harm if a release of radioactive material were to occur from the facility. For this reason, the Commission does not require such persons to make individual showings of injury,

³⁰ Babcock & Wilcox (Apollo, Pennsylvania Fuel Fabrication Facility), LBP-93-4, 37 NRC 72, 83 (1993).

³¹ For example, under the emergency planning provisions of 10 C.F.R. § 50.33(g), "the plume exposure pathway [emergency planning zone] for nuclear power reactors shall consist of an area about 10 miles (16 km) in radius and the ingestion pathway [emergency planning zone] shall consist of an area about 50 miles (80 km) in radius." Also, another NRC regulation implicitly recognizes that the liquid and gaseous waste systems at a nuclear power plant have the potential to affect populations at distances up to 50-miles from the plant. See 10 C.F.R. Part 50, Appendix I, Section II(D). Applicant's Environmental Report [ER] explains the requirements of this regulation with respect to the liquid waste system:

In addition to meeting the numerical As Low As Reasonably Achievable (ALARA) design objective dose values for effluents released from a light water reactor as stipulated in [10 C.F.R. Part 50, Appendix I], the regulation also requires that plant designs include all items of reasonably demonstrated cleanup technology that when added to the liquid waste processing system sequentially and in order of diminishing cost-benefit return, can, at a favorable cost-benefit ratio, effect reductions in dose to the population reasonably expected to be within 50 mi (80 km) of the reactor. Values of \$2,000 per person-rem and \$2,000 per person-thyroid-rem are used as a favorable cost benefit threshold based on NUREG-1530. Reassessment of NRC's Dollar-Per-Person REM Conversion Factor Policy, NUREG 1530, (Dec. 1995).

ER § 3.5.2.3 (emphasis added). The ER contains an equivalent explanation concerning the gaseous waste system. ER § 3.5.3.3.

causation, and redressability.³² The presumption does not grant standing to persons with merely theoretical or generalized grievances, but only to those persons who live sufficiently close to a proposed new reactor that they face an increased risk of harm if a release of radioactive material were to occur. The non-trivial increased risk constitutes injury-in-fact, is traceable to the challenged action (the NRC's licensing of a new nuclear reactor), and is likely to be redressed by a favorable decision that either denies a license or mandates compliance with legal requirements that protect the interests of the petitioners.³³

Applicant also argues that “[r]ecent D.C. Circuit decisions have added a quantitative aspect to standing determinations.” App. Ans. at 16. It notes that in Florida Audubon Soc’y v. Bentsen,³⁴ the court stated that, when a petitioner claims an increased risk of future harm, that harm must be “substantially probable” to constitute an injury-in-fact for the purposes of standing.³⁵ Applicant also observes that in Natural Resources Defense Council v. Environmental Protection Agency [hereinafter NRDC I], the court held that parties challenging an agency regulation had failed to demonstrate standing because the risk of injury was “miniscule.”³⁶ After rehearing petitions were filed, the court withdrew NRDC I and reconsidered the issue.³⁷ According to Applicant, the court held in NRDC II that a fatality rate resulting from the EPA rulemaking of 1 in 4.2 billion per person per year was “infinitesimal,” and that a 1 in 21 million chance of developing skin cancer from that same rulemaking was “similarly small,” but

³² See St. Lucie, CLI-89-21, 30 NRC at 329; Turkey Point, LBP-01-6, 53 NRC at 150.

³³ Cf. Lujan, 504 U.S. at 560-61.

³⁴ 94 F.3d 658 (D.C. Cir. 1996).

³⁵ Id. at 666 (citing Kurtz v. Baker, 829 F.2d 1133, 1144 (D.C. Cir. 1987)).

³⁶ 440 F.3d 476, 481 (D.C. Cir. 2006).

³⁷ Natural Res. Def. Council v. U.S. Env. Prot. Agency, 464 F.3d 1 (D.C. Cir. 2006) [hereinafter NRDC II].

that a 1 in 200,000 lifetime risk of developing skin cancer was sufficient to constitute a substantially probable injury-in-fact.³⁸

Applicant concludes that the threshold to demonstrate future harm falls between 1 in 200,000 and 1 in 21 million. Applicant argues, relying upon the Design Control Document (DCD) for the U.S. EPR, that the probability of an accidental release of radioactive material from that reactor falls below this threshold. See App. Ans. at 18-19 (citing the core damage and the early release frequencies for the U.S. EPR reported in the DCD). Based on this, Applicant contends that application of the 50-mile presumption in this case would lead to a result inconsistent with contemporaneous judicial concepts of standing.

We do not accept this argument for several reasons. First, because we are bound by Commission and Appeal Board precedent, we are not at liberty to reject the 50-mile presumption. Applicant responds that the Commission has instructed licensing boards to apply contemporaneous judicial concepts of standing, that current judicial requirements for standing conflict with the presumption, and that therefore we are at liberty to disregard it. Hrg. Tr. at 16. In the absence of demonstrably compelling precedent, we doubt that the Commission intends for licensing boards to disregard its rulings based on their own interpretations of contemporaneous judicial concepts of standing. Otherwise, it is for the Commission, not licensing boards, to revise its rulings.

Moreover, even if we were at liberty to accept the Applicant's invitation, it fails to establish a new trend in the law that would justify abandoning the 50-mile presumption. The Applicant relies upon NRDC II, but that decision fails to demonstrate a new trend in the case law. On the contrary, the court in NRDC II expressly refused to decide whether the risk of harm sufficient to establish standing must exceed a quantitative threshold, or in the alternative whether any scientifically demonstrable increase in the threat of death or serious illness is

³⁸ NRDC II, 464 F.3d at 8.

sufficient.³⁹ The court observed that after NRDC I was decided a conflict in the federal judicial circuits had arisen over this question.⁴⁰ The court stated that “[o]n reconsideration, we have determined that the question is one we do not have to answer in this case.”⁴¹ The court observed that according to one expert “[t]he lifetime risk that an individual will develop nonfatal skin cancer as a result of EPA’s rule is about 1 in 200,000” and the risk is slightly higher according to another expert.⁴² The court then held that “[e]ven if a quantitative approach is appropriate - an issue on which we express no opinion - this risk is sufficient to support standing.”⁴³ Accordingly, NRDC II, far from supporting Applicant’s argument, shows that the federal courts of appeal have failed to reach a consensus on the question whether a risk of future injury must exceed a numerical threshold. The most that can be said based on NRDC II is that, if such a test for standing were to be adopted, a lifetime risk of 1 in 200,000 would be sufficient.

In addition, various contemporaneous standing decisions find the “injury-in-fact” requirement satisfied without the type of quantitative proof of harm Applicant contends is required.⁴⁴ In these cases, it was sufficient that persons living in or using an area near the

³⁹ Id. at 6-7.

⁴⁰ Id. (comparing Baur v. Veneman, 352 F.3d 625, 634 (2d Cir. 2003); Cent. Delta Water Agency v. United States, 306 F.3d 938, 947-48 (9th Cir. 2002); Friends of the Earth, Inc. v. Gaston Copper Recycling Corp., 204 F.3d 149, 160 (4th Cir. 2000) (en banc), with Shain v. Veneman, 376 F.3d 815, 818 (8th Cir. 2004); Baur, 352 F.3d at 651 & n.3 (Pooler, J., dissenting)).

⁴¹ Id. at 7.

⁴² Id.

⁴³ Id.

⁴⁴ See, e.g., Laidlaw, 528 U.S. at 182-84 (2000) (Injury-in-fact was adequately documented by the affidavits and testimony of members of the plaintiff organizations asserting that the defendant’s pollutant discharges, and the affiants’ reasonable concerns about the effects of those discharges, directly affected those affiants’ recreational, aesthetic, and economic interests; plaintiffs did not have to show that the discharges actually harmed the environment); Covington v. Jefferson County, 358 F.3d 626, 638-41 (9th Cir. 2004) (sufficient to allege that

defendant's facility stated that they "feared" or were "concerned" they would be harmed by discharges from that facility, even though they did not attempt to quantify the risk of harm they might suffer. These contemporaneous standing decisions are consistent with the NRC's presumption finding petitioners to have standing based on the proximity of their residences to a proposed new reactor and their concern that the new facility may endanger their health and safety and the environment in which they live.

Furthermore, Applicant's argument fails to undermine the basis of the 50-mile presumption. As noted above, the presumption reflects the potential effect at significant distances from the facility of the accidental release of radioactive materials. Applicant here has provided no evidence to show that the effects of an accidental release from CCNPP-3 (much less nuclear reactors generally) would be limited to a shorter distance from the facility. The rationale for the 50-mile presumption does not depend upon the probability that a proposed reactor is likely to generate an accidental release of radioactive materials, but rather the fact that, if such an accident were to occur, it could realistically impact the geographic area within which the petitioners reside.⁴⁵

We also note that, although we can easily determine whether petitioners reside within 50 miles of the facility, it would be far more difficult for a licensing board to determine reliably the risk of an accidental release at this early stage of the proceeding. An applicant's vendor will typically have prepared a probabilistic risk assessment for the reactor design. However, at this early stage "there is not yet available either the Final Environmental [Impact] Statement or the Safety Evaluation Report and, thus, neither we nor the petitioners have the benefit even of the

defendant's actions "caused 'reasonable concern' of injury to" the plaintiff); Sierra Club, Lone Star Chapter v. Cedar Point Oil Co. Inc., 73 F.3d 546, 556 (5th Cir. 1996) (affiants' "concern" that discharges would impair water quality is sufficient).

⁴⁵ See supra, note 20.

Staff's own ultimate appraisal respecting accident probabilities."⁴⁶ Thus, if we were to require proof of the likelihood of an accident at this stage in the proceeding, we could be forced to rely on the vendor's estimates, which should still be considered preliminary at this point. This would frustrate the public's opportunity to dispute and put to the test the applicant's claims concerning the safety of the proposed new reactor, which is the opportunity that AEA Section 189a was intended to provide.

Although the Commission has encouraged licensing boards to apply contemporaneous concepts of standing, the ultimate test is not whether the NRC's test for standing conforms to that applied by federal courts, but whether the NRC's test represents a reasonable construction of Section 189a.⁴⁷ Under Applicant's proposed new test, licensing boards would have to defer to the vendor's preliminary risk assessment except in the unusual instance in which the petition to intervene demonstrates that the risk of harm exceeds some (vaguely defined) numerical threshold. We doubt that placing such an onerous burden on petitioners would constitute a reasonable interpretation of the AEA. As long as the petitioners reside within an area that could realistically be impacted if an accidental release occurs, it is reasonable and consistent with Section 189a to find that they have standing to challenge Applicant's safety claims and its environmental analysis under NEPA.⁴⁸

⁴⁶ River Bend, ALAB-183, 7 AEC at 225-26 (citations and footnotes omitted).

⁴⁷ Envirocare of Utah v. Nuclear Regulator Comm'n, 194 F.3d 72, 75-76 (D.C. Cir. 1999).

⁴⁸ Although it is not essential to our ruling, we note that Joint Petitioners have provided evidence to rebut Applicant's claim that risk of an accidental release of radioactive material from CCNPP-3 falls below the minimum risk allegedly required under NRDC II. In particular, Joint Petitioners have provided the Declaration of Dr. Edward Lyman, a scientist who states that he has over fifteen years of experience conducting research on security and environmental issues associated with the management of nuclear materials and the operation of nuclear power plants; that his research has included the safety and environmental risks posed by the next generation of reactors, including the U.S. EPR; and that he recently published an article on this subject in the Bulletin of the Atomic Scientists. Lyman Decl. ¶ 2. He notes that in NRDC II the Court found that a 1 in 200,000 lifetime risk of developing non-fatal skin cancer was sufficient to establish standing. Id. ¶ 5. He explains that such a lifetime risk corresponds to a 1 in 14 million annual risk for an average lifetime of 70 years, which he states is equivalent to an annual risk of

For these reasons, we cannot, and would not choose to, abandon the 50-mile proximity presumption. This makes it unnecessary for us to address Applicant's argument that, if we abandoned the presumption, Joint Petitioners' standing declarations would be insufficient to pass the more demanding test Applicant advocates. App. Ans. at 17-22.

The contentions must afford relief from injuries asserted as a basis for standing

As Applicant notes (App. Ans. at 11), the Commission has ruled that, "once a party demonstrates that it has standing to intervene on its own accord, that party may then raise any contention that, if proved, will afford the party relief from the injury it relies upon for standing."⁴⁹ Joint Petitioners' affiants state that they will be injured by releases of radioactive material that may injure their health and welfare and harm the environment in the areas where they live. The contentions they raise will afford relief from the asserted injuries. For example, Joint Petitioners argue in Contention #1 that the COLA may not be granted because the license would violate AEA provisions that prohibit foreign ownership of licensed facilities. If Joint Petitioners are correct, then the license to construct and operate CCNPP-3 must be denied, and the affiants' asserted injuries will have been prevented. Similarly, ensuring adequate decommissioning funding, the object of Contention #2, may reduce the risk of an inadvertent release of radioactive material during decommissioning. Favorable rulings on the NEPA contentions will ensure that procedures are observed that require adequate analysis of Joint Petitioners'

7.14 X 10⁻⁸. Id. ¶ 6. Dr. Lyman observes that, in its Answer, Applicant provided an estimate of large release frequency for internal, at-power events of 2.6 X 10⁻⁸ per year. Id. Dr. Lyman states that the 7.14 X 10⁻⁸ annual risk of developing non-fatal skin cancer that was sufficient to support standing in NRDC II and the estimate of a 2.6 X 10⁻⁸ large release frequency for the U.S. EPR are "on the same order of magnitude." Id. ¶ 8. Therefore, Dr. Lyman concludes, "Petitioners should be given standing if the same quantitative standard is used as the standard used in [NRDC II]." Id. Dr. Lyman also contends that the actual risk from nuclear accidents is higher than Applicant estimates. He states that "UniStar bases its risk estimate only on internal, at-power events, and neglects external events such as seismic events, low-power events and shutdown events." Id. ¶ 9. If these external events were considered, he concludes, the large release frequency would increase to 4.3 X 10⁻⁸. Id. ¶ 10.

⁴⁹ Yankee Atomic Elec. Co., (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

environmental concerns. In short, Joint Petitioners' contentions, if proved, will afford relief from the injuries they have relied upon for standing.

NRC Staff's objections to the standing of Joint Petitioners other than NIRS

NRC Staff concedes that NIRS has standing. Staff Ans. at 15. In addition, it agrees that the Commission has "noted . . . with approval" the 50-mile presumption of standing applied by licensing boards. Staff Ans. at 7. NRC Staff recognizes that we are required by Commission rulings to apply the 50-mile presumption of standing, and at oral argument the Staff declined to join in Applicant's argument that we should abandon the presumption based on alleged contemporaneous judicial concepts of standing. Hrg. Tr. at 21.

NRC Staff argues, however, that Public Citizen lacks standing because its stated organizational interest in "energy policies that best protect consumers" is not germane to the health, safety, and environmental concerns set forth in the Declaration of its member, Bruce Boxwell. Staff Ans. at 18-19. In reality, it would be hard to think of an energy policy that better protects consumers than one that protects their health and safety and the environment in which they live, and those are the interests asserted by Mr. Boxwell. We therefore find no merit in the Staff's objection to the standing of Public Citizen.

The remainder of NRC Staff's objections to the participation of Joint Petitioners other than NIRS, while presented as standing arguments, are in fact based on technical defects in the Petition and the supporting declarations. NRC Staff states that Beyond Nuclear would have standing if it had properly joined in the Petition, but it claims that Beyond Nuclear did not do so because the Petition was signed only by the representative of NIRS. We have no difficulty concluding from the text of the Petition, however, that Beyond Nuclear intended to join in the Petition. The first page of the Petition states that Beyond Nuclear and the other Joint Petitioners "hereby petition to intervene" in this COL proceeding, the basis of Beyond Nuclear's standing is described in the immediately following "Description of Petitioners," and the Petition was accompanied by three declarations to demonstrate Beyond Nuclear's standing. It is true

that Beyond Nuclear's representative did not sign the Petition. However, the Petition was submitted through the EIE system, as required, and the failure of all the representatives to sign the Petition was evidently due to a misunderstanding of the EIE system and the requirements of 10 C.F.R. § 2.304(d). Given the complexities of the EIE system, the fact that it is new, and that it was not intended to frustrate the ability of the public to participate in NRC proceedings, we will not deny Beyond Nuclear or any of the other Joint Petitioners the opportunity to participate in this proceeding due to an error that can easily be corrected and that has caused no prejudice to any other participant. To that end, we have required that the Petition be resubmitted with the signatures of all Joint Petitioners, in the manner required by Section 2.304(d). NRC Staff concedes we may allow the Petition to be re-filed to correct such procedural errors. Staff Ans. at 13 n.7. Joint Petitioners have filed the corrected Petition, and the signature issue therefore need not concern us further.

As to SoMD CARES, NRC Staff states that no declaration was submitted in which a person with standing authorized that organization to represent his or her interest in this proceeding. Staff Ans. at 19-20. However, the Declaration of Steven W. Warner did just that. The title of the initial declaration signed by Mr. Warner referred to NIRS rather than SoMD CARES, but the body of the declaration made clear that Mr. Warner is a member of SoMD CARES and that he authorized that organization, not NIRS, to represent him in this licensing proceeding. Moreover, the Board was provided with an amended declaration signed by Mr. Warner that corrected the error in the title. We will not deny a participant standing because of a minor technical error in the title of a document that resulted in no prejudice to any participant and that was promptly corrected.

IV. Standards for Admissibility of Contentions

In order to participate as a party in this proceeding, a petitioner for intervention must not only establish standing, but must also proffer at least one admissible contention that meets the requirements of 10 C.F.R. § 2.309(f)(1).⁵⁰ An admissible contention must: (i) provide a specific statement of the legal or factual issue sought 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, including references to specific sources and documents, that support the petitioner's position and upon which the petitioner intends to rely at the hearing; and (vi) provide sufficient information to show that a genuine dispute exists in regard to a material issue of law or fact, including references to specific portions of the application that the petitioner disputes, or, in the case when the application is alleged to be deficient, the identification of such deficiencies and supporting reasons for this belief.⁵¹

The purpose of Section 2.309(f)(1) is to “focus litigation on concrete issues and result in a clearer and more focused record for decision.”⁵² The Commission has stated that it “should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing.”⁵³ The Commission has emphasized that the rules on contention admissibility are “strict by design.”⁵⁴ Further,

⁵⁰ See 10 C.F.R. § 2.309(a), (f)(1).

⁵¹ 10 C.F.R. § 2.309(f)(1).

⁵² Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

⁵³ Id.

⁵⁴ See, e.g., Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213 (2003); Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power

contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications. Failure to comply with any of these requirements is grounds for not admitting a contention.

Several of the contentions we address below are contentions of omission. Section 2.309(f)(1)(vi) provides that, “if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner’s belief” must be provided. Identification of information missing from an application is called a contention of omission. A contention of omission claims that “the application fails to contain information on a relevant matter as required by law . . . and [provides] the supporting reasons for the petitioner’s belief.”⁵⁵ To satisfy Section 2.309(f)(1)(i)-(ii), the contention of omission must describe the information that should have been included in the ER and provide the legal basis that requires the omitted information to be included. The petitioner must also demonstrate that the contention is within the scope of the proceeding.

Section 2.309(f)(1)(v) requires the petitioner to provide a concise statement of the facts that support its position and upon which the petitioner intends to rely at the hearing. However, “the pleading requirements of 10 C.F.R. § 2.309(f)(1)(v), calling for a recitation of facts or expert opinion supporting the issue raised, are inapplicable to a contention of omission beyond identifying the regulatively required missing information.”⁵⁶ Thus, for a contention of omission, the petitioner’s burden is only to show the facts necessary to establish that the application omits information that should have been included. The facts relied on need not show that the facility

Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358-59 (2001); Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334-35 (1999).

⁵⁵ 10 C.F.R. § 2.309(f)(1)(vi).

⁵⁶ North Anna, LBP-08-15, 68 NRC ___ (slip op. at 27) (quoting Pa’ina Hawaii, LLC (Materials License Application), LBP-06-12, 63 NRC 403, 414 (2006)).

cannot be safely operated, but rather that the application is incomplete. If an applicant cures the omission, the contention will become moot.⁵⁷

Finally, if the contention alleges that the application omits information required by law, “it necessarily presents a genuine dispute with the Applicant on a material issue in compliance with 10 C.F.R. § 2.309(f)(1)(vi) [and] . . . raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance”⁵⁸ in accordance with Section 2.309(f)(1)(iv).

⁵⁷ North Anna, LBP-08-15, 68 NRC ___ (slip op. at 27); Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 383 (2002).

⁵⁸ Pa’ina, LBP-06-12, 63 NRC at 414.

V. Board Analysis and Ruling on Joint Petitioners' Contentions

A. Contention #1

Joint Petitioners state in Contention #1:

Contrary to the Atomic Energy Act and NRC Regulations, Calvert Cliffs-3 would be owned, dominated and controlled by foreign interests. Pet at 5.

Joint Petitioners argue that CCNPP-3 would be owned, controlled and dominated by a foreign corporation and a foreign government in violation of Section 103(d) of the AEA and NRC regulations.⁵⁹ According to Joint Petitioners, CCNPP-3 will be operated by Calvert Cliffs-3 Nuclear Project, LLC, which is a wholly-owned subsidiary of UniStar Nuclear Operating Services, LLC (Applicant). Pet. at 6. Applicant is 50 percent owned by Constellation Energy Group, Inc. (Constellation), a U.S. company, and 50 percent owned by Électricité de France (EdF), a French company which is 84.85 percent owned by the French government. Pet. at 6. Joint Petitioners state that EdF is also the second largest shareholder in Constellation, owning 9.5 percent of the company's stocks.⁶⁰ They attest that EdF owns more than 50 percent of Applicant, thereby exceeding a "threshold" percentage of ownership beyond which domination and control of CCNPP-3 is assumed. Pet. at 7. This ownership interest, along with the large amount of money EdF has invested in Applicant, leads Joint Petitioners to the conclusion that EdF will be "the dominant and controlling partner in this relationship." Pet. at 8.

Applicant does not dispute the alleged ownership interest EdF has in Calvert Cliffs-3 Nuclear Project, LLC. App. Ans. at 23. Applicant argues that, because a 50 percent ownership interest "threshold" does not establish control and domination as a matter of law, Joint Petitioners have not established a genuine dispute with the application. App. Ans. at 24. Furthermore, Applicant asserts that adequate safeguards are in place to ensure that EdF does

⁵⁹ 10 C.F.R. § 70.40. See also Pet. at 6.

⁶⁰ See Attachment A.

not dominate or control Applicant and thereby run afoul of the AEA and NRC regulations.⁶¹ NRC Staff argues that Joint Petitioners' Contention #1 does not meet the requirements of 10 C.F.R. § 2.309(f)(1)(v) because the contention is supported by neither expert opinion nor appropriate references. Staff Ans. at 21. NRC Staff claim that Joint Petitioners provide no expert support to substantiate their method of adding the EdF shares together to determine whether or not the prohibition on foreign ownership in the AEA is violated by the application. Staff Ans. at 20-22.

On December 23, 2008, Applicant filed a letter with the Board detailing a new agreement between EdF and Constellation Energy Nuclear Group, LLC, whereby EdF will be acquiring a 49.99 percent interest in Constellation Energy Nuclear Group, LLC.⁶² At oral argument, Applicant stated that this transaction will have no effect on the corporate structure of Calvert Cliffs-3 Nuclear Project, LLC. Hrg. Tr. at 43. If the investment agreement affects CCNPP-3 in any way, Applicant assured the Board that they will revise the COL. Hrg. Tr. at 43.

Discussion

We find Contention #1 admissible because Joint Petitioners have raised a genuine dispute with the Application on a material issue of fact.

⁶¹ App. Resp. at 23-24. Such safeguards include an investor agreement that requires EdF to vote its shares in accordance with the recommendations of the Constellation Board of Directors. UniStar Nuclear Energy, common parent of UniStar Nuclear Operating Services, LLC and Calvert Cliffs-3 Nuclear Project, LLC, has a Board of Directors that will consist of four Constellation members and four EdF members. The Chairman of UniStar Nuclear Energy (from Constellation and a U.S. citizen) will have the deciding vote on sensitive nuclear matters. The President and CEO of UniStar Nuclear Energy will also each be a U.S. citizen. Id. at 26-27.

⁶² See Letter from David A. Repka, Counsel for Calvert Cliffs-3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC to Administrative Judges (Dec. 23, 2008). Note: Constellation Energy Nuclear Group, LLC is a subsidiary of Constellation Energy Group, Inc.

Sections 103(d) and 104(d) of the AEA and Section 50.38 of NRC regulations⁶³ prohibit the NRC from issuing a reactor license “to any corporation or other entity the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government.”⁶⁴ The plain language of Sections 103(d) and 50.38 indicate that corporations wholly owned by foreign entities are per se prohibited from obtaining a license from the NRC.⁶⁵ But when the foreign entity holds only an ownership interest in the corporation, as is the case here, the NRC is permitted to issue a license under certain circumstances.

Contrary to Joint Petitioners’ assertion, the NRC has not established an ownership interest threshold or plateau above which a foreign entity is presumed to have control or domination over the applicant.⁶⁶ In fact, the legislative history of Section 103(d) reveals that the drafters of the AEA actually deleted a proposed clause that would have placed a five percent foreign ownership cap on applicants.⁶⁷ Instead, the decision of whether or not to grant a license to a corporation hinges on whether the applicant is being controlled or dominated by the foreign entity.⁶⁸

⁶³ Section 50.38 combines the language of §§ 103(d) and 104(d): “Any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license.” This section was enacted in 1956 and was not changed in the 2004 regulation revisions.

⁶⁴ 10 C.F.R. § 50.38. See also 42 U.S.C. § 2143(d).

⁶⁵ Final Standard Review Plan on Foreign Ownership, Control, or Domination, 64 Fed. Reg. 52,355, 52,358 (Sept. 28, 1999) [hereinafter SRP]. An exception to this prohibition allows a foreign corporation whose “stock is ‘largely’ owned by U.S. citizens” to be eligible for a license.

⁶⁶ Id. at 52,359.

⁶⁷ Atomic Energy Act of 1954; Pub. L. No. 83-703, S. Rep. No. 83-1699, at 3477 (1954).

⁶⁸ Under general principles of corporate law, a publicly held corporation is usually controlled by management (the Board of Directors and the Chief Executive Officer) and / or majority shareholders. “Control” is defined as management of the business. See Robert W. Hamilton & Richard A. Booth, Corporations 720 (5th ed. 2006).

The Atomic Energy Commission (AEC), predecessor to the NRC, first defined the terms “owned, controlled, or dominated” in Gen. Elec. Co. and Southwest Atomic Energy Assocs.⁶⁹ The AEC held that “the words ‘owned, controlled, or dominated’ refer to relationships where the will of one party is subjugated to the will of another, and that the congressional intent was to prohibit such relationships where an alien has the power to direct the actions of the licensee.”⁷⁰ The AEC narrowed the limitation to be oriented “toward [safeguarding] the national defense and security” of the United States.⁷¹ The D.C. Circuit provided some guidance as to what the term “common defense and security” encompassed.⁷² The court held that the focus of safeguarding should be “such things as not allowing the new industrial needs for nuclear materials to preempt the requirements of the military; of keeping such materials in private hands [to] secure against loss or diversion; and of denying such materials and classified information to persons whose loyalties were not to the United States.”⁷³ Thus, the court read the AEA restriction as being focused on safeguarding access to nuclear materials, a security issue, and not on other licensing matters.

More recently, the NRC approved a transfer of ownership application that proposed to transfer ownership of a nuclear plant to AmerGen, whose parent companies were foreign entities.⁷⁴ The NRC determined that it was not inimical to the national defense and security to grant this transfer to AmerGen, because the foreign entities were influencing matters that were

⁶⁹ 3 AEC 99 (1966).

⁷⁰ Id. at 101.

⁷¹ Id.

⁷² See Siegel v. Atomic Energy Comm’n, 400 F.2d 778, 784 (D.C. Cir. 1968).

⁷³ Id. at 784.

⁷⁴ GPU Nuclear, Inc., et al. (Three Mile Island, Unit 1), Apr. 12, 1999.

primarily economic.⁷⁵ The NRC approved the transfer by imposing conditions to safeguard safety issues from foreign influence.⁷⁶

Thus, according to precedent and past NRC actions, a domestic corporation in which a foreign entity has an ownership interest is considered “controlled or dominated” if their will is subjugated to the will of the foreign entity on primary safety matters or access policies that may be inimical to the national defense and security of the United States. However, a license will not be prohibited if the foreign entity’s influence is on other licensing activities not of primary concern to the NRC, or if the corporation follows NRC implemented conditions to isolate safety matters from foreign control.

The initial determination of whether or not a corporation or entity is controlled or dominated by a foreign entity is made at the application phase by NRC Staff. The Commission issued a Final Standard Review Plan (SRP) in 1999 that delineates review procedures and criteria NRC Staff follows and considers when making this determination.⁷⁷ If NRC Staff has reason to believe that an applicant may be owned, controlled, or dominated by foreign interests, the NRC Staff can request stock information and the disclosure of management positions held by non-U.S. citizens from an applicant, and can assess the ability of foreign entities to control the appointment of management positions.⁷⁸ NRC Staff must then determine the nature and extent of foreign ownership, control or domination; the source of foreign ownership, control or domination; and the type of actions that would be necessary to negate the consequences of

⁷⁵ See id. at See also Martin G. Malsch, The Purchase of U.S. Nuclear Power Plants by Foreign Entities, 20 Energy L.J. 263, 275-277 (1999).

⁷⁶ See GPU Nuclear, Inc., et al. (Three Mile Island, Unit 1), April 12, 1999.

⁷⁷ It should be noted that NRC Staff is not bound by the procedures set forth in the SRP.

⁷⁸ See 64 Fed. Reg. at 52,358.

foreign ownership, control or domination “to a level consistent with the Atomic Energy Act and NRC regulations.”⁷⁹

Upon a conclusion that an applicant is foreign owned, controlled or dominated, NRC Staff requires an applicant to submit a negation action plan, which “provide[s] positive measures that assure that the foreign interest can be effectively denied control or domination.”⁸⁰ Such measures include modification of contracts and agreements with foreign interests, diversification or reduction of foreign source income, demonstration of financial viability independent of foreign interests, elimination of problem debt, assignment of specific oversight duties to board members, and adoption of special board resolutions.⁸¹

The Board rules that Contention #1 is admissible. The Board finds that Joint Petitioners’ Contention #1 meets the requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi). Joint Petitioners have raised a specific statement of law or fact and have provided a brief explanation of the basis for their contention.⁸² The contention is within the scope of the proceeding because it challenges the legality of issuing the combined operating license that is the subject of this proceeding.⁸³ The issue of foreign ownership raised by Joint Petitioners is material to the findings NRC Staff must make to support the issuance of the combined operating license; whether NRC Staff can issue the license to Applicant is contingent upon their determination that CCNPP-3 will not be owned, controlled or dominated by a foreign entity, as required by the AEA and NRC regulations.⁸⁴

⁷⁹ Id. at 52,359.

⁸⁰ Id.

⁸¹ See id.

⁸² 10 C.F.R. § 2.309(f)(1)(i)-(ii).

⁸³ 10 C.F.R. § 2.309(f)(1)(iii).

⁸⁴ 10 C.F.R. § 2.309(f)(1)(iv).

Contrary to NRC Staff's arguments, Joint Petitioners have indeed satisfied the requirements of Section 2.309(f)(1)(v). NRC Staff claims that Joint Petitioners' Contention #1 is not supported by expert opinions or appropriate references. Staff Resp. at 21. Under Section 2.309(f)(1)(v), the requirement "generally is fulfilled when the sponsor of an otherwise acceptable contention provides a brief recitation of the factors underlying the contention or references to documents and text that provide such reasons."⁸⁵ Here, Joint Petitioners have both recited facts to support their contention and have provided documentation to support their assertion that Applicant is at least 50 percent owned by EdF, a foreign corporation.⁸⁶

Finally, contrary to Applicant's argument, Joint Petitioners have satisfied the requirements of Section 2.309(f)(1)(vi). Under Section 2.309(f)(1)(vi), a properly formulated contention must focus on the license application in question, and challenge specific portions of, or alleged omissions from, the application, and thereby establish that a genuine dispute exists with the applicant on a material issue of law or fact.⁸⁷

Joint Petitioners have established a genuine dispute with the Application. Though Applicant is correct in its assertion that there is no threshold above which a foreign entity is assumed to control and dominate a corporation, this policy only establishes that a foreign entity cannot be denied a license based on percentage of ownership per se.⁸⁸ NRC case law and

⁸⁵ Entergy Nuclear Generating Co. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 356 (2006) (quoting Rules of Practice for Domestic Licensing Proceedings – Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,170 (Aug. 11, 1989)).

⁸⁶ See Pet., Exh. 8, Constellation Energy Form 10-K, Fiscal Year Ending December 31, 2007 (Nov. 19, 2008); Pet., Exh. 9, Portion of Electricite de France 2007 Annual Report Showing Amount of French Government Ownership (Nov. 19, 2008); Pet., Exh. 10, Portion of Electricite de France 2007 Annual Report Showing Amount of 2007 Revenue (Nov. 19, 2008); Pet., Exh. 11, Form SC 13D, Filed with the Securities & Exchange Commission September 8, 2008, Showing Electricite de France Ownership Stake in Constellation Energy (Nov. 19, 2008); Pet., Exh. 12, Chart Showing Breakdown of Constellation Energy Generating Output (Nov. 19, 2008).

⁸⁷ See Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), LBP-07-03, 65 NRC 237, 254 (2007).

⁸⁸ See 64 Fed. Reg. at 52,358.

precedent do not prohibit considering the percentage of foreign ownership as one element in NRC's overall analysis and finding of whether or not the foreign entity is a threat to the national defense and security of the United States. Joint Petitioners' assertion that EdF's large ownership interest indicates control and domination of Applicant is undeniably a dispute with Applicant's argument that safeguards delineated in the Application negate control and domination. This issue raises a dispute of material fact with the Application. To what extent EdF actually exercises control and domination over Applicant, and whether adequate safeguards are indeed in place to negate this influence, goes to the merits of the case and is not appropriate to decide at the contention admissibility stage.⁸⁹ Furthermore, the facts indicate that EdF may acquire a larger ownership interest in Constellation in the near future. This leads the Board to the conclusion that the ultimate outcome of this issue is unclear.

Joint Petitioners have satisfied all the requirements of Section 2.309(f)(1). Contention #1 is admitted.

B. Contention #2

Joint Petitioners state in their Contention #2:

The Decommissioning Funding Assurance described in the Application is inadequate to assure sufficient funds will be available to fully decontaminate and decommission Calvert Cliffs-3. Applicants must use the prepayment method of assuring decommissioning funding. Pet. at 8.

Joint Petitioners argue that Applicant's method of funding the decommissioning of CCNPP-3 is inadequate to cover the anticipated \$378 million cost of decommissioning all their nuclear assets.⁹⁰ Pet. at 10. Applicant is utilizing a parent-company guarantee from

⁸⁹ The Commission has held that a petitioner need not prove its case at the contention admissibility stage of the proceeding. See Vermont Yankee, LBP-04-28, 60 NRC at 555; Private Fuel Storage, LLC (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004).

⁹⁰ This estimate is measured in 2006 dollars. Joint Petitioners also note that \$378 million may be an underestimation of the cost of decommissioning CCNPP-3. See Pet. at 11.

Constellation to ensure that funding will be available at the time of decommissioning.⁹¹ Pet. at 9. According to Joint Petitioners, Constellation's responsibility for five other reactors will lead to high decommissioning liabilities that, due to Constellation's loss of share value, Constellation may not be able to cover.⁹² Pet. at 10. Applicant's other two options for decommissioning funding includes a sinking fund⁹³ and prepayment of the entire decommissioning amount.⁹⁴ According to Joint Petitioners, because CCNPP-3 is not guaranteed any electricity sales, an external sinking fund is inadequate to cover decommissioning costs. Joint Petitioners assert that prepayment of the full amount of decommissioning costs must be provided. Pet. at 11.

Applicant argues that it intends to use a combination of the parent guarantee, sinking fund, and letters of credit to cover decommissioning costs.⁹⁵ App. Ans. 28-29. It also asserts that, contrary to Joint Petitioners' position, "neither market capitalization nor share price are variables to be used in the financial test" set forth in Appendix A to 10 C.F.R. Part 30. App. Ans. at 30. Moreover, Contention #2 is an impermissible attack on NRC regulations because there is

⁹¹ According to 10 C.F.R. § 50.75(e)(1)(iii)(B), "A parent-company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in Appendix A to 10 C.F.R. Part 30."

⁹² Appendix A to Part 30 allows an applicant to provide reasonable assurance of the availability of decommissioning funds from a parent guarantee by demonstrating that the parent company passes a financial test set forth in that section. Applicant asserts that Constellation, who would be providing the parent guarantee, passes this financial test. See App. Ans. at 30.

⁹³ See 10 C.F.R. § 50.75(e)(1)(ii). An external sinking fund is "a fund established and maintained by setting funds aside periodically in an account segregated from licensee assets and outside the administrative control of the licensee and its subsidiaries or affiliates in which the total amount of funds would be sufficient to pay decommissioning costs at the time permanent termination of operations is expected." Id.

⁹⁴ See 10 C.F.R. § 50.75(e)(1)(i). "Prepayment is the deposit made preceding the start of operation...into an account segregated from licensee assets and outside the administrative control of the licensee and its subsidiaries and affiliates of cash or liquid assets such that the amount of funds would be sufficient to pay decommissioning costs at the time permanent termination of operations is expected." Id.

⁹⁵ Applicant also argues that this is new information that appears in Rev. 3, and that Joint Petitioners therefore have not raised a material issue regarding the Application. See App. Ans. at 28-29.

no requirement that the parent guarantee be satisfied at this time under Section 52.103(a).⁹⁶

Additionally, because Joint Petitioners do not challenge Applicant's use of the formula provided by NRC regulations, they must be challenging the formula itself, which is an impermissible attack on NRC regulations.⁹⁷ App. Ans. at 33.

NRC Staff argues that Joint Petitioners' Contention #2 is not material to the findings NRC must make to support this action⁹⁸ because Section 50.33(k) provides that a COL application is required to have a decommissioning report, but certification of financial assurance is not required until 30 days after the Commission publishes notice pursuant to Section 52.103(a).⁹⁹ Furthermore, NRC Staff contends that Joint Petitioners fail to establish a genuine dispute with the application¹⁰⁰ because they do not "explain how the information provided in the application does not meet the requirements of 10 C.F.R. §§ 50.75(b) or 50.33(k)." Staff Ans. at 23.

Discussion

The Board admits Contention #2 in part. We believe that it is beyond our authority to require Applicant to choose a certain method of decommissioning funding, and therefore do not admit that part of the contention. However, we find that this contention has raised a legitimate issue of law regarding the proper timing for the Applicant to submit the financial tests for parent company guarantees. We therefore admit this part of the contention.

⁹⁶ Applicant claims that, at present, UniStar is only required to "file a 'decommissioning' report that contains a certification that financial assurance for decommissioning will be provided no later than 30 days after the Commission publishes notice of initial fuel loading in the Federal Register under § 52.103(a)." App. Ans. at 31.

⁹⁷ See also 10 C.F.R. § 2.335.

⁹⁸ See 10 C.F.R. § 2.309(f)(1)(iv).

⁹⁹ See Staff Ans. at 22.

¹⁰⁰ See 10 C.F.R. § 2.309(f)(1)(v).

The Commission's decommissioning funding regulations are intended to "minimize administrative effort and provide reasonable assurance that funds will be available to carry out decommissioning in a manner that protects public health and safety."¹⁰¹ Decommissioning funding assurance for nuclear power plants is governed by 10 C.F.R. §§ 50.33(k), 50.75, 50.82 and constitutes a multiple step process. For a license under 10 C.F.R. Part 50, first the applicant must submit with its application a decommissioning report and certification that provides assurances that decommissioning funds are available to decommission the facility.¹⁰² The amount of decommissioning funds that must be available is calculated by the applicant, using the table found in Section 50.75(c)(1).¹⁰³ Second, licensees are required to annually adjust the amount of decommissioning funding assurance,¹⁰⁴ and report on the status of said funding.¹⁰⁵ Third, 5 years before permanent cessation of operations, licensees must file a preliminary decommissioning cost estimate that includes plans for adjusting levels of funds as needed.¹⁰⁶ By the time the Post-Shutdown Decommissioning Activities Report is filed,¹⁰⁷ licensees should either have (1) funds plus an estimate of expected earnings on a fund, or (2) a

¹⁰¹ Consolidated Energy Co., Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Operations, Inc. (Indian Point, Units 1 & 2), CLI-01-19, 54 NRC 109, 142 (2001) (citing General Requirements for Decommissioning Nuclear Facilities, 53 Fed. Reg. 24,018, 24,030 (June 27, 1988)).

¹⁰² 10 C.F.R. § 50.33(k)(1).

¹⁰³ This is considered to be the "cost estimate."

¹⁰⁴ 10 C.F.R. § 50.75(c)(2). See also NRC Staff, Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance, NUREG-1577 at 10, (Rev. 1 Feb. 1999) [hereinafter NUREG-1577].

¹⁰⁵ 10 C.F.R. § 50.75(f).

¹⁰⁶ Id.

¹⁰⁷ In accordance with 10 C.F.R. § 50.82.

guarantee, insurance, or other funding assurance method for the total estimated cost, as provided in 10 C.F.R. § 50.75(e).¹⁰⁸

In 2007, the Commission revised Section 50.75(b)(4) as it applies to COLs under Part 52 because the requirements in place (decommissioning report and certification of financial assurance at the application phase) were too stringent.¹⁰⁹ Under the revised rule, the COL applicant must submit a decommissioning report that contains a certification that the funding assurance will be provided no later than 30 days after the NRC publishes notice in the Federal Register of its scheduled date for initial fuel loading.¹¹⁰ In other words, a COL applicant need not submit a certification of existing financial assurance to fund decommissioning to the NRC with its application, as is required of non-COL applicants.¹¹¹

Moreover, there is no provision that requires an applicant or licensee to choose one form of decommissioning assurance over another. Licensees and applicants can demonstrate

¹⁰⁸ See NUREG-1577 at 6.

¹⁰⁹ See Licenses, Certifications, and Approvals for Nuclear Power Plants, 72 Fed. Reg. 49,352, 49,406 (Aug. 28, 2007) “[R]equiring the combined license applicant to comply with the current requirement in § 50.75(b)(4) that the operating license applicant submit a copy of the financial instrument obtained to satisfy the requirements of § 50.75(e), would place a more stringent requirement on the combined license applicant, inasmuch as that applicant would be required to fund decommissioning assurance at an earlier date as compared with the operating license applicant.”

¹¹⁰ 10 C.F.R. § 52.103(a); see also 10 C.F.R. § 50.75(b)(1).

¹¹¹ “The final rule requires that no later than 30 days after the Commission publishes notice in the Federal Register under § 52.103(a), the combined license holder must submit a report to the NRC. The report must contain a certification that financial assurance is being provided in an amount specified in the licensee's most recent updated certification (i.e., the certification provided 1 year before the scheduled date for initial loading of fuel, in accordance with the first sentence of § 50.75(e)(3)). The certification must include a copy of the financial instrument obtained to provide decommissioning funding assurance. The requirements in paragraph (f)(1) of § 52.103(a), which are applicable to the combined license holder after the Commission has made the finding under § 52.103, are adopted in the final rule without change from the proposed rule.”

72 Fed. Reg. at 49,406.

financial assurance by “one or more” of the funding mechanisms.¹¹² An applicant is permitted to choose a single method or a combination of methods to demonstrate financial assurance, as Applicant has done here.

Clearly it is beyond the authority of this Board to specify how Applicant must fulfill the decommissioning funding requirement. The Board can only decide whether or not the current funding proposal fulfills NRC requirements. Hence, the second statement of this contention, which states that the Applicant must use the prepayment option, will not be admitted. The first sentence of the contention states that the current plan for decommissioning funding is inadequate. Pet. at 8. In other words, Joint Petitioners contend that it is not adequately demonstrated in the Application that the decommissioning funding strategy is financially possible.

Funding assurance for decommissioning costs consists of four components. First, it must contain an estimate of decommissioning costs so that the amount of assurance that is required is known. NRC regulations specify that this cost estimate must be contained in the decommissioning report that is part of the COLA.¹¹³ Second, 10 C.F.R. § 50.75(b)(3) requires that the decommissioning report specify the method by which assurance will be provided. The third requirement is the assurance itself, which is finalized in the form of completed and signed financial documents. As noted supra, these signed documents are not required until 30 days after the notification in the Federal Register that the licensee has set a date to load fuel.¹¹⁴ The fourth and final component of the financial assurance, required for only some of the funding methods, is a financial test showing that the method of assurance is financially possible. Such

¹¹² See NUREG-1577 at 13.

¹¹³ 10 C.F.R. § 50.75(b)(1).

¹¹⁴ 10 C.F.R. § 52.103(a).

tests are required when the funding method includes a parent company guarantee.¹¹⁵ Although these financial tests are specified in 10 C.F.R. § 50.75(e)(1)(iii)(B), the regulations are silent as to what point in the licensing process these tests must be completed.

A review of the Standard Review Plan relevant for decommissioning funding reveals that no mention is made of financial tests or their timing.¹¹⁶ The Federal Register publication of the Final Rule for Financial Assurance Requirements for Decommissioning similarly makes no mention of the timing of the financial tests.¹¹⁷

It is worth noting that this lack of specificity is unique to licensing under Part 52. Under earlier Part 50 licensing, all funding assurance documentation was required with the operating license application; under Part 52 licensing, some of the financial assurance is not required until after the license has been issued. Due to the sparsity of license applications heretofore processed under Part 52, a body of precedent upon which to judge the accepted practice for completing financial tests is not available.

The contention states that Applicant cannot demonstrate that the decommissioning funding strategy is financially possible. It is clear from the above that such a demonstration is required at some point in the licensing process. However, both regulations and guidance documents fail to state when such proof is required. It can be argued that this proof should be completed when Applicant specifies how financial assurance will be provided, because specification of the means to provide funding is useless if those means are not fiscally possible. Similarly, this early completion of the financial test would provide potential intervenors the opportunity to review and possibly litigate aspects of the financial assurance. Alternatively,

¹¹⁵ 10 C.F.R. § 50.75(e)(1)(iii)(B).

¹¹⁶ See, e.g., NUREG-1577.

¹¹⁷ Financial Assurance Requirements for Decommissioning Nuclear Power Reactors, 63 Fed. Reg. 50,465 (Sept. 22, 1998).

there are equally good reasons why the Commission may have wanted financial tests to accompany the completed financial documents.

The Board finds that this contention has raised a legitimate issue of law regarding the proper timing for Applicant to submit the financial tests for parent company guarantees. If the financial tests are required at the application stage, then this contention has proposed a clearly admissible contention of omission. If financial tests are not required until after the license has been issued, then this contention may not be admitted.

Contention #2 is admitted in part. The Board is of the opinion that it is in the best interest of the management of this proceeding that this issue be segregated from the other contentions and immediately briefed. Accordingly, Joint Petitioners, Applicant and NRC Staff are to file briefs that include, but need not be limited to, any established relevant NRC review processes, Commission intentions regarding timing of the financial tests, and existing regulations supporting either option.¹¹⁸ If the Board determines that this issue can be decided through regulatory interpretation or examination of NRC case law, we will rule on this contention. However, if the Board determines that the regulations are ambiguous and that this is ultimately an NRC policy issue, we will refer this contention to the Commission.¹¹⁹ Shortly after issuance of this Order, the Board will convene a telephone conference to discuss the timeframe in which these briefs should be submitted.

C. Contention #3

Joint Petitioners state in Contention #3:

¹¹⁸ The Board in Crow Butte handled the resolution of a purely legal issue by asking the parties for immediate briefing on the issue in question. We follow that approach here. See Crow Butte Res., Inc. (License Renewal for the In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC __, __ (slip op. at 34) (Nov. 21, 2008).

¹¹⁹ See Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), LBP-05-10, 61 NRC 241, 297 (2005) (citing Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), LBP-95-17, 42 NRC 137, 145 (1995)).

The Calvert Cliffs-3 application's Environmental Report is unacceptably deficient because it omits from the analysis of CCNPP 3's environmental impact the new reactor's potential adverse contribution to the cumulative and potentially synergistic environmental impact of 11 operational reactor units and two proposed additional nuclear power projects on the watershed of an already severely degraded and declining Chesapeake Bay whose recovery plan is currently in serious doubt and the focus of a federal lawsuit for failure to comply with mitigation actions. Pet. at 11.

Joint Petitioners contend that the Environmental Report (ER) must analyze the cumulative effect of all existing and proposed nuclear power plants within the Chesapeake Bay (the Bay) watershed. Pet. at 13. Neither NRC Staff nor Applicant disputes that the ER must analyze the cumulative impact upon the Bay of CCNPP-3 and other past, present, and reasonably foreseeable future actions. However, the participants disagree whether the cumulative impact analysis must individually analyze the cumulative impact of CCNPP-3 and nuclear reactors located in areas of the Bay's watershed remote from the Calvert Cliffs site.

Under NEPA regulations promulgated by the Council on Environmental Quality (CEQ), "cumulative impact" is defined as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."¹²⁰ Although not expressly stated in Section 1508.7, it is implicit that the relevant past, present, and reasonably foreseeable future actions are those that may reasonably be expected to affect the same resources (e.g., water, air, or wildlife) as the proposed action. In this instance, the relevant resource is the Chesapeake Bay.

The ER's evaluation of cumulative impacts "is based on a comparison between the existing environmental conditions presented in Chapter 2 and the potential adverse environmental impacts of construction and operation detailed in Chapter 4 and Chapter 5, respectively." ER § 10.5. The existing environmental conditions described in Chapter 2 of the ER include a detailed analysis of water quality in the Bay. ER § 2.3.3. In general, the water

¹²⁰ 40 C.F.R. § 1508.7.

quality analysis does not separately evaluate the contributions of specific sources, such as nuclear power plants located outside Maryland, to the condition of the Chesapeake Bay. Rather, the ER examines existing conditions in the Bay to form an environmental baseline against which to measure the cumulative impact of the proposed new reactor. Id. Because the environmental baseline reflects the effects of all currently existing pollution sources in the Bay's watershed, it necessarily includes any contribution by nuclear power plants in the watershed, although it does not separately identify or quantify that contribution (or the contribution of any other industry).

Joint Petitioners demand that the cumulative impacts analysis should include, in addition to the ER's aggregate analysis, a separate, plant-specific analysis of the cumulative impact of CCNPP-3 and all nuclear reactors located or to be located within the Chesapeake Bay watershed. Pet. at 15. The Petition asserts that the nine existing nuclear power plant units within the Chesapeake Bay watershed¹²¹ "discharge chemical and radioactive contaminants into...tributary waters that then mix and accumulate in the Chesapeake Bay ecosystem." Pet. at 14. Joint Petitioners contend that the ER fails to acknowledge and omits from its analysis the discharge of these contaminants into the Bay. Id.

NRC Staff and Applicant respond that it is sufficient that the pollutant contribution of the nuclear power industry was included in the environmental baseline, and that a separate cumulative impact analysis specific to nuclear reactors located substantial distances from the Calvert Cliffs site need not be conducted. Applicant notes that the ER examines the cumulative environmental impact of the existing Calvert Cliffs Units 1 and 2 and the proposed Unit 3. It also points out, however, that the other nuclear power plants cited by Joint Petitioners are located more than 50 miles from the Calvert Cliffs site. Applicant argues that separate

¹²¹ These reactors are located in Virginia and Pennsylvania.

consideration of such geographically remote impacts is unreasonable and unnecessary. App. Ans. at 37.

Discussion

We agree with Applicant and NRC Staff that Joint Petitioners have failed to provide any facts or expert opinion to justify requiring individual examination of the environmental effects of reactors located at substantial distances from the Calvert Cliffs site. We therefore do not admit Contention #3.¹²²

There is no dispute that the cumulative impact analysis must include the effect of past and present actions that might affect the same resources as the proposed action.¹²³ However, Section 1508.7 does not expressly state whether the environmental effect of other past and present actions may be analyzed in the aggregate, as was done in the ER for reactors outside Maryland and most other pollutant sources, or must separately analyze individual past and present actions. Fortunately, guidance from the CEQ helps resolve this issue:

[a]gencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined. Agencies retain substantial discretion as to the extent of such inquiry and the appropriate level of explanation. Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 376-77 (1989). Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.¹²⁴

Although this guidance is not binding on us, we have not been provided with any persuasive reason why we should not follow it. The United States Court of Appeals for the Ninth Circuit recently granted deference to this guidance, stating that “CEQ’s interpretation that 40 C.F.R. § 1508.7 permits consideration of all past impacts in the aggregate is not plainly

¹²² See 10 C.F.R. § 2.309(f)(1)(v).

¹²³ 40 C.F.R. § 1508.7.

¹²⁴ President’s Council on Environmental Quality, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (June 24, 2005) at 2, available at <http://ceq.hss.doe.gov/nepa/regs/guidance.html>.

erroneous or inconsistent with the language of the regulation, and CEQ is the agency charged with interpreting NEPA and that adopted the regulation.”¹²⁵ Furthermore, it would be inconsistent with NEPA’s rule of reason to require that the cumulative impacts analysis individually analyze the effects of remote facilities absent a demonstration that such additional effort would lead to a different conclusion.¹²⁶

To be sure, the CEQ guidance does not state an absolute rule. It suggests that an analysis of “the effects of individual past actions” may be required when “necessary to describe the cumulative effect of all past actions combined.”¹²⁷ In this case, however, Joint Petitioners have not provided any “alleged facts or expert opinion” to show that contaminants from upstream or downstream nuclear power plants accumulate in the Chesapeake Bay in a way that merits greater analysis than that already contained in the ER.¹²⁸ Nor have Joint Petitioners provided any alleged facts or expert opinion to show that any toxic or radiological contaminant was not considered or was improperly described in the ER. A “bald assertion that a matter ought to be considered or that a factual dispute exists . . . is not sufficient”; rather, “a petitioner must provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention.”¹²⁹

¹²⁵ League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Serv. 549 F.3d 1211, 1218 (9th Cir. 2008).

¹²⁶ See Dept. of Transp. v. Pub. Citizen, 541 U.S. 752, 767 (2004) (“[I]nherent in NEPA and its implementing regulations is a ‘rule of reason,’ which ensures that agencies determine whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decision-making process.”) (citation omitted); see also Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 & 2), ALAB-455, 7 NRC 41, 48, 49 (1978).

¹²⁷ See President’s Council on Environmental Quality, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (June 24, 2005) at 2, available at <http://ceq.hss.doe.gov/nepa/regs/guidance.html>.

¹²⁸ 10 C.F.R. § 2.309(f)(1)(v).

¹²⁹ Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 180 (1998) (citing Georgia Inst. of Tech. (Georgia Tech Research Reactor, Atlanta, Georgia), LBP-95-6, 41 NRC 281, 305 (1995) (A petitioner is obligated “to provide the

Without providing supporting sources or expert opinion to justify the need for additional cumulative impact analysis, Joint Petitioners have not met the requirements of 10 C.F.R. § 2.309(f)(1)(v).¹³⁰

Joint Petitioners also argue that the ER should have analyzed the cumulative impact of CCNPP-3 and two other proposed new reactors to be located in the Chesapeake Bay watershed. Pet. at 14. COL Applications for both reactors are currently pending before the NRC. One reactor is located on the North Anna River in Virginia, the other on the Susquehanna River in Pennsylvania. Both appear to be located at least one hundred miles from the CCNPP-3 site. On the subject of the cumulative impact of proposed new projects, the Supreme Court has stated “when several proposals for . . . actions that will have cumulative or synergistic environmental impacts upon a region are pending concurrently before an agency, their environmental consequences must be considered together.”¹³¹ No evidence before us suggests that the proposed new reactors within the Chesapeake Bay watershed “will have” a cumulative or synergistic environmental impact upon the Chesapeake Bay.

We therefore do not admit Contention #3 because it lacks the support required by Section 2.309(f)(1)(v).

[technical] analyses and expert opinion” or other information “showing why its bases support its contention.”)).

¹³⁰ Joint Petitioners rely upon a “Notice of Intent to Sue” filed by the Chesapeake Bay Foundation, alleging failures by the United States Environmental Protection Agency to properly enforce federal environmental laws. Pet. at 16; see also Pet. Exh. 14, Chesapeake Bay Foundation Letter Dated October 29, 2008, “Notice of Intent to Sue for Failure to Comply with the Chesapeake 2000 Agreement” (Nov. 19, 2008). The notice is merely a statement of claims the Foundation intends to pursue in federal court. It is not admissible as evidence of the matters asserted in the notice, and therefore it does not constitute evidence sufficient to meet Joint Petitioners’ burden under Section 2.309(f)(1)(v). Moreover, the notice does not allege that toxic or radioactive discharges are causing harm to the Bay. Instead, the notice is focused on issues such as low oxygen levels caused by elevated nutrient levels and limited water clarity. Thus, the notice provides no support for Contention #3.

¹³¹ Kleppe v. Sierra Club, 427 U.S. 390, 410 (1976) (emphasis added).

D. Contention #4

Joint Petitioners state in Contention #4:

The UniStar application's Environmental Report (ER) is unacceptably deficient because it omits from the analysis of CCNPP 3's reactor (USEPR) design and safety of the CCNPP facility, additional relevant impacts arising from the expansion of the Dominion Cove Point Liquefied Natural Gas (DCPLNG) facility located 3.2 miles south of the proposed reactor. Pet. at 17

In this contention, Joint Petitioners assert that the evaluation of risk to the CCNPP-3 plant due to the expansion of the DCPLNG facility is deficient. They assert that a number of risk aspects have been omitted from the evaluation. Most of the text of this contention contains descriptions of the many omissions. However, despite the fact that Joint Petitioners quoted copiously from the Application, there is little substance in this contention.

NRC Staff's response to this contention treated the specific allegations by assigning them to five general categories. NRC Staff addressed each of these categories and argues each to be inadmissible as follows:

1. The ER does not discuss additional impacts from DCPLNG's recent expansion. This claim "is inadmissible because the application does discuss additional impacts from the DCPLNG expansion, and the Petitioner has not articulated a genuine dispute with the Applicant on a material issue." Staff Ans. at 30.
2. The ER mischaracterizes a possible LNG accident, including a large vapor cloud migrating to the site of the proposed reactor, and then igniting. This claim "is inadmissible because the Applicant does discuss a delayed ignition, migrating vapor cloud in its Application; because the Petitioner does not identify the specific sources upon which it relies for Claim 2; and because the Petitioner has not articulated a genuine dispute with the Applicant." Staff Ans. at 31.
3. The ER omits the effects of an LNG fire on the temperature of the cooling water that the existing and proposed reactors draw from the Chesapeake Bay. This claim "is inadmissible because the Petitioner has not articulated a genuine dispute with the

Applicant on a material issue, as they have provided no supporting reasons for why the alleged omission is required.” Staff Ans. at 34.

4. The ER does not discuss the impacts from the expansion of the DCPLNG off-shore pier, a part of the DCPLNG expansion. This claim “is inadmissible because it is outside the scope of this proceeding and because the Petitioner has not demonstrated a genuine dispute with the Applicant on a material issue.” Staff Ans. at 35.
5. The FSAR does not discuss LNG unloading impacts. This claim “is inadmissible because the application does discuss risks from LNG unloading operations, and the Petitioner has not articulated a genuine dispute with the Applicant on a material issue.” Staff Ans. at 37.

Applicant recognized that the original contention consisted of a large number of individual specific allegations (similar to the enumeration provided in the Board analysis below) of missing information. In general, Applicant considers this contention to be inadmissible “because the application contains the allegedly omitted analysis and because the petitioners fail to demonstrate a genuine dispute on a material issue.” App. Ans. at 37. Applicant listed the individual allegations and provided reasons why each allegation was inadmissible.¹³²

¹³² 1. Joint Petitioners fail to show that this alleged omission is material to the findings that the NRC must make.
2. Joint Petitioners failed to provide any support for the alleged omission.
3. Information alleged to be missing was, in fact, contained within the Application.
4. Contention involved plans of third parties that are not yet concrete proposals and should be rejected.
5. Joint Petitioners point to no regulatory or statutory requirement that information in the Application be at the level of detail Joint Petitioners apparently desire.
6. Contention involves information concerning a different type of LNG facility that is not relevant for the current project.
7. Joint Petitioners provide no factual or expert support to demonstrate that any of the various studies cited are relevant.
8. The alleged omission is not clearly articulated and the proposed contention does not appear to directly challenge any specific portion of the application. App. Ans. at 38-52.

Discussion

To determine the admissibility of this contention, the Board must look to the admissibility requirements provided in 10 C.F.R. § 2.309(f)(1). As a general matter, Contention #4 meets the requirements of Section 2.309(f)(1)(i)-(iv). Joint Petitioners raise the issue that the ER is deficient because it omits a risk evaluation of impacts arising from the expansion of the DCPLNG facility. Joint Petitioners provide a basis for this contention by making 18 specific allegations of omissions in the Application, arising either from the ER analysis, the Maryland Power Plant Research Program Report (PPRP)¹³³ referred to in the Application, or the plant risk evaluation. Furthermore, Joint Petitioners demonstrate this contention is within the scope of the proceeding; the issues raised concern completeness of Applicant's ER, and potentially the EIS NRC Staff will have to prepare. Finally, Joint Petitioners raise an issue that concerns the completeness of the ER, and potentially of the EIS, the completion of which is required for the issuance of a license. Therefore, the contention is clearly material.

Joint Petitioners have satisfied the first four requirements of Section 2.309(f)(1); however, they fail to fully meet the remaining two requirements for contention admissibility.¹³⁴ Joint Petitioners make a number of allegations concerning the completeness of the ER. However, as illustrated below, references to alleged facts or expert opinions to support their allegations, as required by Section 2.309(f)(1)(v), are entirely lacking. The requirement "generally is fulfilled when the sponsor of an otherwise acceptable contention provides a brief recitation of the factors underlying the contention or references to documents and text that provide such reasons."¹³⁵ Aside from listing a series of phenomena relating to potential

¹³³ See Cove Point LNG Terminal Expansion Project Risk Study, Maryland Power Plant Research Program, available at http://esm.versar.com/pprp/bibliography/PPRP-CPT-01/CovePt_FINAL_Aug2006.pdf [hereinafter PPRP Report].

¹³⁴ 10 C.F.R. § 2.309(f)(1)(v)-(vi).

¹³⁵ Pilgrim, LBP-06-23, 64 NRC at 356 (quoting 54 Fed. Reg. at 33,170).

DCPLNG accidents, Joint Petitioners have provided neither facts nor expert opinions to support their argument that the risk evaluation in the Application is inadequate because evaluation of these effects have been omitted.

Even if some scant support for these allegations is provided, this contention is inadmissible because it fails to provide any reason as to why the allegedly missing information should be included in the Application. Joint Petitioners raise Contention #4 as a contention of omission. According to Section 2.309(f)(1)(vi), “if the petitioner believes that the application fails to contain information on a relevant matter as required by law, [the petitioner must identify] each failure and the supporting reasons for the petitioner’s belief.” Here, Joint Petitioners raise 18 specific examples of deficiencies due to alleged omissions in the evaluation of plant safety with regard to the neighboring DCPLNG facility. By stating in this contention that the “Environmental Report is unacceptably deficient,” Pet. at 17, Joint Petitioners are implicitly referring to Applicant’s failure to comply with NEPA and 10 C.F.R. Part 51. Though Joint Petitioners have implicitly identified a pertinent regulation, they fail to establish that the omissions they allege are required by NEPA.

NEPA analyses are subject to a “rule of reason,”¹³⁶ but to apply a rule of reason it is necessary to have a criterion upon which reasonableness may be determined. The Commission has stated “the agency’s environmental review need only account for those impacts that have some likelihood of occurring or are reasonably foreseeable.”¹³⁷ The Commission has determined that “low probability is the key to applying NEPA’s rule of reason test to contentions that allege that a specific accident scenario presents a significant

¹³⁶ See Natural Res. Def. Council v. Morton, 458 F.2d 827, 834 (D.C. Cir. 1982).

¹³⁷ Louisiana Energy Serv., LP (National Enrichment Facility), LBP-06-08, 63 NRC 241, 258-59 (2006); see also Long Island Lighting Co. (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973).

environmental impact that must be evaluated.”¹³⁸ That is, “if the accident sought to be considered is sufficiently unlikely, such that it can be characterized fairly as remote and speculative, then consideration under NEPA is not required as a matter of law.”¹³⁹ The Commission has found that “events having a less than a one in one million probability of occurring are not ‘credible events.’”¹⁴⁰ Taken together, these individual statements lead to the conclusion that 10^{-6} is a reasonable threshold for considering events under NEPA.

To apply the rule of reason to the DCPLNG facility, it is necessary to consider the probability of an accident at the DCPLNG facility affecting CCNPP-3. The PPRP study calculated that the risk of any fatalities at the plant as a result of a hazardous event occurring at the current DCPLNG facility or the future expanded facility is estimated to be between 2 and 2 ½ per billion or 6 and 7 per billion per year, respectively.¹⁴¹ The NRC has determined that the acceptable risk to a nuclear power plant from external activities is “1.0 in a million (10^{-6}) per year for Core Damage Frequency (CDF) and 0.1 in a million (10^{-7}) per year for Large Early Release Frequency (LERF).”¹⁴²

Since the calculated risk of damage to CCNPP-3 is likely to be less than 6.6×10^{-9} , clearly the estimated risk of significant damage to CCNPP-3 is significantly less than 6.6×10^{-9} . This is more than a factor of 100 smaller than 10^{-6} , which is the threshold above which accident

¹³⁸ Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-90-7, 32 NRC 129 (1990).

¹³⁹ Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-90-4, 31 NRC 333 (1990).

¹⁴⁰ Private Fuel Storage, LLP (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 255 (2001).

¹⁴¹ “The individual risk of fatality at CCNPP from all hazardous events associated with the existing LNG facility is estimated to be between 2 and 2 ½ per billion (2.3×10^{-9}) each year, an extremely low risk level. The risk of damage to CCNPP is likely to be lower still. The individual risk from the expanded facility is between 6 and 7 per billion (6.6×10^{-9}) each year at the CCNPP.” PPRP Report at 39.

¹⁴² PPRP Report at 9.

scenarios must be evaluated for NEPA considerations, as discussed above. Similarly, it is more than a factor of 100 smaller than the 10^{-6} threshold above which it must be evaluated in the plant safety analysis.¹⁴³ Thus, for a new DCPLNG accident scenario (or one corrected as requested in this contention) to raise the severity of LNG accidents to the threshold where they must be considered in the Application, it must increase the plant risk by at least a factor of 100.

Finally, Joint Petitioners fail to satisfy Section 2.309(f)(1)(vi) because they fail to provide the supporting reasons for their belief that the risk evaluation in the ER contains omissions. As a minimal “supporting reason” for admitting this contention of omission, there should be some showing that correction of these omissions would significantly increase the calculated risk to CCNPP-3, and that this increase could potentially exceed a factor of 100. With this in mind, we examine each of the individual alleged omissions to determine if the alleged omission is, in fact, omitted from the ER, and if any credible reason is provided that the alleged omission should have been included in the ER.

1. The ER omits the effect of the aforementioned LNG spill on water triggering a cumulative domino effect on the DCPLNG pipeline and storage tanks. Pet. at 18.

This alleged omission is in error as the subject analysis was extensively included in the PPRP.

2. The ER omits analysis of the impact of temperature rise of the cooling water to CCNPP-3 and the proposed Unit 3 due to the prolonged heating of the Chesapeake Bay cooling water from the radiant heat of this ignited LNG vapor cloud. Pet. at 18.

Joint Petitioners have provided no support for the concept that an LNG fire would cause a significant increase in water temperatures in the Chesapeake Bay that would impact CCNPP-3, and has not provided any reason why this alleged effect should be included in the ER.

3. The ER omits analysis and impact of this modification to the pier which will add 150 feet to each end of the offshore platform thereby increasing the “footprint” of the pier, support pilings and platform. Pet. at 18.

¹⁴³ See Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities, NUREG-1407, at 4 (June 1991) (“Plants designed against NRC’s current criteria (NUREG CR-5042) should have no significant vulnerability to severe accidents from these events because the initiators considered in the design should have a recurrence frequency less than 10^{-6} .”).

At oral argument, NRC Staff noted that the plan for pier expansion has proceeded to the point of requesting appropriate state approvals. Hrg. Tr. at 102. Joint Petitioners fail to provide an explanation of how the “footprint” of the pier, at 3 miles from CCNPP-3, could affect the plant.

4. Figure 2.2-1 of the FSAR omits from the site map, the offshore LNG pier, underground LNG loading tunnel and the submerged DCPLNG pipeline. Pet. at 19.

Joint Petitioners fail to demonstrate that this level of detail is required on the subject figure.

Moreover, Joint Petitioners have not demonstrated that this omission is material, as the information is available in different form within the Application.

5. The ER also omits risk analysis of the impact of LNG unloading operations which involve the pier, underground tunnel, and the LNG ship carrying capacity which affect volume and duration of risk exposure. Pet. at 19.

This alleged omission is incorrect as the PPRP risk study clearly includes evaluation of unloading operations.

6. The Applicant’s ER is deficient in its risk analysis of a catastrophic LNG spill on water. Pet. at 22.

While the PPRP Study and, therefore, the ER, did not consider the loss of all LNG tanks on a tanker, they did include the effects of loss of a full tank on a tanker. Joint Petitioners provided no information suggesting why the more severe and far less likely loss of all tanks needs to be included.

7. The above conclusion omits the possibility that the fast expanding vapor cloud could migrate before ignition to the CCNPP-3 area and omits a total loss of LNG inventory from a large LNG tanker. Pet. at 25.

The referenced PPRP study does evaluate the potential for migration of a vapor cloud. Joint Petitioners provided no information suggesting why the more severe and far less likely loss of all tanks needs to be included. Hence, this is not a valid omission.

8. The Applicant’s study also omits in its analysis, the added radiant heat that could ensue when Calvert Cliffs acts as a fire fence. Pet. at 26.

Joint Petitioners do not define “fire fence,” nor does this term appear to be common terminology. Joint Petitioners do not describe how a “fire fence” could increase the risk to the CCNPP-3 due to radiant heat from an LNG accident.

9. Another omission is the risk analysis of larger LNG ships which will be docking at the modified LNG pier which is closer to CCNPP-3. Pet. at 26.

This expansion will place the nearest point on the pier approximately 2 percent closer to the CCNPP-3 facility. Joint Petitioners fail to provide any information to suggest that this small change in distance will significantly increase the risk to CCNPP-3, thus failing to demonstrate the materiality of this allegation.

10. The Applicant’s ER also omits the 2005 Sandia National Laboratories study (SAND 2005-7339), that confirmed the range of LFL (Lower Flammability Limit) could be as far as 11,175 meters or 7 miles. Pet. at 26.

The subject Sandia study involved a site-specific assessment of a particular LNG facility of a different design. Joint Petitioners made no showing that studies of that facility are applicable to the facility at Cove Point.

11. Table 2.2-10 Toxic Vapor Cloud Analysis omits analysis of possible Toxic Air Pollution from rapid LNG vaporization and mass high combustion of gasified LNG on a catastrophic LNG spill over water. Pet. at 27.

As stated in the Application, there is no toxicity limit for natural gas. This was not disputed by Joint Petitioners.

12. The conclusions and assumptions described in 2.2.3.1.1 Explosions, use the TNT equivalency method and omit the explosions caused by the consequences of a catastrophic LNG spill over water which may not behave similarly or use the same assumptions, thereby omitting analysis of an appropriate method for evaluating damage. Pet. at 27.

This allegation suggests that the TNT equivalency method may not be appropriate. However, the TNT equivalency method is the method endorsed in Reg. Guide 1.91¹⁴⁴ for evaluation of explosions. The contention fails to provide any reason why TNT equivalency may not be

¹⁴⁴ Regulatory Guide 1.91, “Evaluation of Explosions Postulated to Occur on Transportation Routes near Nuclear Power Plants,” Rev. 1 (1978).

appropriate for this analysis. No other support for this argument is provided. This is a vague and bald assertion that is an insufficient basis to support a contention.

13. The aforementioned analysis and discussion of 2.2.3.1.2 Flammable Vapor Clouds (Delayed Ignition) omits full breach of ship borne LNG over water (Chesapeake Bay) especially at or near the LNG offshore pier where the greatest safety risk occurs. Pet. at 28.

This is a repetition of allegation 6, and for the same reason does not provide support for a valid contention.

14. The assumption that the “entire contents of the vessel leaked forming a 1 cm thick puddle providing a significant surface area to maximize evaporation and the formation of a vapor cloud” definitely omits risk analysis of a catastrophic LNG spill over water. Pet. at 28.

The PPRP risk study clearly includes evaluation of the consequence of a LNG spill over water. Since this information is contained in the PPRP study, this allegation does not reflect a genuine omission from the Application.

15. The aforementioned conclusions for 2.2.3.1.3 Toxic Chemicals, Table 2.2.7 and Table 2.2-8 utilized the PPRP study of DCPLNG which is deficient on the current situation of “full breach of the ship borne LNG spill on water.” Pet. at 29.

This statement alleges that specific tables of the ER are deficient because they relied on the PPRP study. No facts are provided to support this as a deficiency.

16. PPRP study also omitted the LNG Spill Consequence Studies depicted in the aforementioned GAO-07-316 Feb 2007 report. Pet. at 29-30.

Joint Petitioners provide no factual or expert support to demonstrate that any of the various studies described in the GAO report are relevant to and call into question any of the conclusions in the PPRP Study.

17. The Applicant’s ER and the PPRP Study both omit analyses that size and spread of the flammable vapor cloud affects LNG pool fire size and duration, with heat flux greater than 350kW/m^2 given “worst case conditions” for an LNG spill over water that could be different from the assumptions made for a “worst case condition” that would occur on a nuclear power plant since only CCNPP-3 has the unique siting of DCPLNG with an offshore unloading pier within its hazard inclusion zone. Pet. at 30.

This allegation is not sufficiently clear to express any genuine dispute with the Application. No information is provided to support the allegation that a heat flux of 350 kW/m² is a more appropriate value of heat flux to use than the value used in the PPRP study.

18. Furthermore, the ER and PPRP omit risk analysis of secondary fires that would probably occur with instantaneous combustion from radiant heat of the LNG pool fire which will burn office paper, carpet, office furniture and computers and risk damaging sensitive equipment, negatively impacting safety and operations of CCNPP-3 and the proposed reactor. Pet. at 30.

Joint Petitioners have failed to provide any information that would suggest that secondary fires could be started at the CCNPP-3 due to radiant heat from a LNG fire. Additionally, the PPRP and the Application both include this allegedly missing evaluation and indicate that such secondary fires would not occur. Since the allegedly missing information is indeed included in the Application, this is not a genuine omission.

In summary, each of the specific allegations of omissions does not individually pass the standards of admission for contentions for reasons specified above. The contention does not claim that correction of these alleged omissions will increase the calculated risk to the plant nor is there any suggestion that the combined effect of all alleged deficiencies could have a factor of 100 effect on the risk from that facility. This is the chance of risk necessary for the LNG facility to pose a significant risk to CCNPP-3. Thus, this contention does not raise a material issue. Due to Joint Petitioners' failure to meet all the requirements of 10 C.F.R. § 2.309(f)(1), this contention is not admitted.

E. Contention #5

Joint Petitioners state in Contention #5:

The UniStar application's Environmental Report (ER) is unacceptably deficient because it omits the combined and cumulative mechanical stress to Chesapeake Bay biota caused by the cooling water intake pumps for the proposed Unit 3, CCNPP units 1 and 2 water intake pumps and the water ballast intake pumps of the LNG tanker ships that are operational during LNG unloading operations at the Dominion Cove Point LNG (DCPLNG) pier. Pet. at 32

Joint Petitioners assert that the cumulative mechanical stress¹⁴⁵ of these three major pump sources has a deleterious effect on biota in an already deteriorating Chesapeake Bay. Pet. at 32. They argue that the effects of the cooling pumps at Calvert Cliffs Units 1 and 2, along with the effects of the ballast pumps from tanker ships docking at DCPLNG, should be analyzed cumulatively with the effects of the cooling pumps at CCNPP-3. Because this analysis is not included in Applicant's ER, Joint Petitioners contend that the Application is inadequate. Id.

Applicant claims that Contention #5 is inadmissible because the ER includes the analysis Joint Petitioners allege is omitted.¹⁴⁶ App. Ans. at 53. Furthermore, Applicant argues that Joint Petitioners fail to provide any factual or expert support for this contention, thereby failing to fulfill the requirements of 10 C.F.R. § 2.309(f)(1)(v). Id. at 55. NRC Staff contends that Joint Petitioners fail to identify the portions of the Application that are relevant to the alleged omissions and fail to identify how the alleged omission is a matter required by law to be included in the Application. Joint Petitioners therefore do not satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi). Staff Ans. at 39-41.

Discussion

Applicant has shown that the ER addresses the cumulative impact of the cooling water intake pumps for CCNPP-3 and Calvert Cliffs Units 1 and 2. The ER also considers the overall cumulative impact of the CCNPP-3 pumps upon the Chesapeake Bay and its biota. Joint Petitioners have not provided any facts or expert opinion to show that the analysis in the ER must be further developed to specifically address the effects of the ballast water intake pumps.

¹⁴⁵ Joint Petitioners clarified at oral argument that the "mechanical stress" of concern in this contention consists of impingement, entrainment and the stirring up of sediment due to the additional flow of water caused by intake pumps. Hrg. Tr. at 109.

¹⁴⁶ Applicant identifies the sections in which the cumulative effects analysis is included: Sections 3.4.2.1, 5.3.1.1, 5.3.1.2, and 10. Applicant also claims that its inclusion of the LNG terminal in this analysis can be found in Sections 2.8.6 and 10.5.2 of the Application.

Accordingly, we do not admit Contention #5.

Joint Petitioners identify the information missing from the ER as an analysis of the combined mechanical stress imposed by the Calvert Cliffs and ballast water intake pumps on the Chesapeake Bay and its biota. As discussed in the Board's Contention #3 analysis, supra, "cumulative impact" is defined as the "impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."¹⁴⁷

The Board has examined the sections of the ER cited by Applicant to support its argument that the allegedly missing information is included in the ER. ER Section 5.3.1.2 discusses CCNPP-3's water intake structure and how it affects fish and other aquatic life in the Bay through entrainment and impingement. It also discusses the extensive data collected concerning the impact upon aquatic biota of the water intake structures for Calvert Cliffs Units 1 and 2. ER Section 5.3.1.2 then explains that the cumulative impact of the CCNPP-3 water intake structure and the existing intake structures for Units 1 and 2 will be minor:

Based on the facts that (1) the proposed cooling tower-based heat dissipation system will, under normal circumstances, withdraw small amounts of Chesapeake Bay water compared to CCNPP Units 1 and 2, (2) the design of the intake structures and cooling water system incorporates a number of features that will reduce impingement and entrainment, and (3) the experience that suggests that the Chesapeake Bay fish and shellfish populations have not been adversely affected by operation of CCNPP Units 1 and 2, it is concluded that the impacts of the intakes for the cooling water systems will be SMALL and will not warrant mitigation measures beyond the design features previously discussed.

ER Section 10.5 describes the cumulative impacts of the construction and operation of CCNPP-3. Concerning the cumulative impact of CCNPP-3's water intake structures and cooling water system upon the Bay, it states:

Aquatic impacts attributable to operation of the CCNPP Unit 3 intake structures and cooling water systems include impingement of organisms on the traveling screens and entrainment of fish and invertebrate eggs and larvae

¹⁴⁷ 40 C.F.R. § 1508.7.

within the cooling system. Use of closed-cycle cooling systems at CCNPP Unit 3 will significantly reduce these impacts compared to power plants that operate open-cycle (once-through). In addition, CCNPP Unit 3 will incorporate additional design criteria to limit impingement including intake approach velocities to less than 0.5 ft/sec (0.15 m/sec).

Although some small amount of entrainment will occur, studies indicate that the CCNPP site area is not a spawning area for key species of commercial or recreational value, and that entrainment at CCNPP Units 1 and 2 has not resulted in detectable changes in population levels. Further, the dominant species that occur in the CCNPP site area of the Chesapeake Bay have not been identified as requiring habitat protection.¹⁴⁸

On the other hand, no ER section identified by Applicant singles out for separate discussion the combined impact on the Bay and its biota of the CCNPP-3 water intake pumps, the water intake pumps for Units 1 and 2, and the ballast water intake pumps. Contention #5 alleges that the ER should have included this analysis.

The contention includes a specific statement of law or fact to be raised or controverted and provides a brief explanation of the basis for their contention. Contention #5 is within the scope of the proceeding, since it concerns the adequacy of the ER for CCNPP-3. Contention #5 is a contention of omission. A properly pled contention of omission claims that “the application fails to contain information on a relevant matter as required by law . . . and [provides] the supporting reasons for the petitioner’s belief.”¹⁴⁹ Because the omitted information is required by law, such a contention, if supported, “necessarily presents a genuine dispute with the Applicant on a material issue in compliance with 10 C.F.R. § 2.309(f)(1)(vi) [and] . . . raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance.”¹⁵⁰

As with Contention #3, however, Joint Petitioners have failed to provide facts or expert opinion that would require Applicant to expand the existing cumulative impact analysis. The

¹⁴⁸ ER § 10.5.2.

¹⁴⁹ 10 C.F.R. § 2.309(f)(1)(vi).

¹⁵⁰ Pa’ina Hawaii, LLC, 63 NRC at 414.

requirements of Section 2.309(f)(1)(v) have been interpreted to require a petitioner to “present the factual information and expert opinions necessary to support its contention adequately,”¹⁵¹ and to “provide documents or other factual information or expert opinion that set forth the necessary technical analysis to show why the proffered bases support its contention.”¹⁵² A petitioner’s issues will be ruled inadmissible if the petitioner “‘has offered no tangible information, no experts, no substantive affidavits,’ but instead only ‘bare assertions and speculation.’”¹⁵³

Here, Joint Petitioners have provided no supporting documents or references to support their position that the cumulative effects of CCNPP-3 cooling water intake pumps, added to the effects of Units 1 and 2 intake pumps and ballast water intake pumps for DCPLNG tankers, will have a significant, deleterious effect on Chesapeake Bay biota that has not already been considered in the ER. In particular, Joint Petitioners do not support their claim that proximity of the CCNPP-3 intake to the DCPLNG terminal somehow makes the cumulative impacts worse than acknowledged in the ER’s cumulative effects discussion. Although Joint Petitioners submitted a letter detailing a suit by the Chesapeake Bay Foundation against the federal government, they do not explain how the suit supports this contention.¹⁵⁴

Therefore, due to Joint Petitioners’ failure to support this contention with facts or expert opinions, Contention #5 is not admitted.

F. Contention #6

Joint Petitioners state in Contention #6:

¹⁵¹ Louisiana Energy Serv., LP (National Enrichment Facility), LBP-04-14, 60 NRC 40, 55 (2004).

¹⁵² Pilgrim, 64 NRC at 355.

¹⁵³ Vermont Yankee, LBP-04-28, 60 NRC at 555 (quoting Fansteel, Inc. (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)).

¹⁵⁴ See Pet., Exh. 14.

The application is deficient in its discussion of high-level waste that would be generated by Calvert Cliffs-3.

6-A: Failure to Evaluate Whether and in What Time Frame Spent Fuel Generated by Calvert Cliffs Unit 3 Can Be Safely Disposed Of. Pet. at 35.

Joint Petitioners contend that the ER “is deficient because it fails to discuss the environmental implications of the lack of options for permanent disposal of the irradiated (i.e., “spent”) fuel that will be generated by the proposed reactors.” Pet. at 35. Recognizing that the Commission has addressed this issue on a generic basis by regulation, Joint Petitioners state that, “[w]hile Applicants may have intended to rely on the NRC’s Waste Confidence decision, issued in 1984 and most recently amended in 1999, that decision is inapplicable because it applies only to plants which are currently operating, not new plants.” Pet. at 37. According to Joint Petitioners, the Commission has given “no indication that it has confidence that repository space can be found for spent fuel and other high-level radioactive waste from new reactors licensed after December 1999.” Id.

Discussion

Other boards have considered contentions much like this one, and have consistently rejected them.¹⁵⁵ We agree that the contention is inadmissible. As one recent decision explained,

In its Waste Confidence Rule, the Commission has made a determination, on a generic basis, that spent fuel generated by “any reactor” can be safely managed and that sufficient repository capacity will be available. When the Commission promulgated a revised Waste Confidence Rule in 1990, it expressly stated that its conclusions should apply to “the spent fuel discharged from any new generation of reactor designs.” The Commission reaffirmed its 1990 findings in a 1999 status report, in which it concluded that “no significant and unexpected events have occurred . . . that would cast doubt on the Commission’s Waste Confidence findings or warrant a detailed reevaluation at this time.” More

¹⁵⁵ See Tennessee Valley Authority (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC __, __ (slip op. at 61-62) (Sept. 12, 2008); Vogtle, LBP-07-3, 65 NRC at 267-68; Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 246-47 (2004); Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 268-69 (2004); Sys. Energy Res., Inc. (Early Site Permit for Grand Gulf ESP Site), LBP-04-19, 60 NRC 277, 296-97 (2004).

recently, in 2007, the Commission amended the Waste Confidence Rule to clarify that the rule encompasses COL applications such as Duke's. In light of the plain language of the rule and its regulatory history, the Waste Confidence Rule applies to this proceeding.¹⁵⁶

Contention #6A is therefore an impermissible challenge to the Rule, and we may not admit it.

6-B: Even if the Waste Confidence Decision Applies to This Proceeding, It Should be Reconsidered. Pet. at 44.

Joint Petitioners ask the Board to reconsider a Commission regulation. We are prohibited from doing so by 10 C.F.R. § 2.335(a). Absent a showing of 'special circumstances' under 10 C.F.R. § 2.335(b), which Joint Petitioners have not made, this matter must be addressed through Commission rulemaking.¹⁵⁷ In that regard, the Commission has announced proposals to revise its Waste Confidence Rule and its Waste Confidence Decision, and that it is accepting public comment on both proposals.¹⁵⁸ Joint Petitioners and others who believe the Waste Confidence Rule needs revision must use those proceedings to express their concerns.¹⁵⁹ Contention #6B is not admitted.

G. Contention #7

Joint Petitioners state in Contention #7:

UniStar Nuclear Operating Service's (UniStar) application to build and operate Calvert Cliffs Nuclear Power Plant Unit 3 violates the National Environmental Policy Act by failing to address the environmental impacts of the waste that it will generate in the absence of licensed disposal facilities or capability to isolate the radioactive waste from the environment. UniStar's environmental report does not address the environmental, environmental justice, health, safety, security or

¹⁵⁶ William States Lee, LBP-08-17, 68 NRC at ___ (slip op. at 29-30) (footnotes and citations omitted).

¹⁵⁷ North Anna, LBP-04-18, 60 NRC at 270.

¹⁵⁸ See Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation, 73 Fed. Reg. 59,547 (Oct. 9, 2008); Waste Confidence Decision Update, 73 Fed. Reg. 59,551 (Oct. 9, 2008).

¹⁵⁹ See Oconee, CLI-99-11, 49 NRC at 345 ("If Petitioners are dissatisfied with our generic approach to the problem, their remedy lies in the rulemaking process, not in this adjudication.").

economic consequences that will result from lack of permanent disposal for the radioactive wastes generated. Pet. at 47.

This statement is expanded in Joint Petitioners' discussion and in the Declaration of Diane D'Arrigo, Joint Petitioners' expert on "the policy aspects and general technical characteristics of so-called 'low-level' radioactive waste." Pet. at 48-52; D'Arrigo Decl., ¶ 2.¹⁶⁰ Joint Petitioners' primary concern is that, in the absence of an off-site disposal facility, "the issue of long-term radioactive waste management and disposal of Class B, C and Greater-Than-C 'low-level' radioactive waste is not adequately addressed in the Calvert Cliffs-3 COLA." Pet. at 48. Joint Petitioners observe that the Application's discussion of solid radioactive waste management assumes that LLRW generated at CCNPP-3 will be sent to an offsite disposal facility. Id. at 48-49. Various sections of the ER that discuss radioactive waste management rely on this assumption.¹⁶¹ In addition, the ER includes a diagram, described as a "flow diagram of the inputs and processes associated with the solid waste system,"¹⁶² which shows various LLRW streams being processed, temporarily stored on-site, and then shipped to a "Low Level Rad [sic] Waste Disposal Facility." ER, Figure 3.5-8.

As Joint Petitioners note, however, "after June 30, 2008 . . . no facility in the United States is licensed and able to accept for disposal, Class B [or] C . . . radioactive waste from the Calvert Cliffs Unit 3 nuclear power reactors." Pet. at 49. The Barnwell, South Carolina disposal facility was closed to Class B and C radioactive waste from facilities operating in Maryland and various other states on June 30, 2008. D'Arrigo Decl., ¶ 5. After that date, generators of Class B and C radioactive waste in Maryland will have no licensed disposal site to which to send their

¹⁶⁰ The electronic copy of Ms. D'Arrigo's November 19, 2008 declaration that was submitted to the NRC did not include her signature. However, Joint Petitioners subsequently provided a second declaration, dated December 22, 2008, in which she stated that she did in fact sign her November 19 declaration.

¹⁶¹ ER §§ 3.5.4.1, 3.5.4.2, 3.5.4.3, 3.5.4.5.

¹⁶² ER § 3.5.4.

waste. According to Joint Petitioners, Applicant has failed “to offer a viable plan for disposal of Class B, C and Greater-than-C so-called ‘low-level’ waste generated in the course of operations, closure and post-closure of Calvert Cliffs Unit 3” in the absence of an off-site disposal facility such as Barnwell. Id. Joint Petitioners further state that “the applicant provides no detail regarding the ongoing onsite management and potential impact from permanent or very long term storage of all the B, C and >C radioactive waste from operations on the site of generation.” Pet. at 48.

Joint Petitioners’ second concern also reflects their belief that, without a permanent off-site disposal facility, LLRW will remain on-site indefinitely. According to Joint Petitioners, this means that “[t]he Environmental Report should also evaluate the impacts of licensing the site itself under 10 C.F.R. Part 61” Pet. at 50.

Joint Petitioners’ final concern is that, due to on-site storage of LLRW, the decommissioning cost estimate may be inadequate:

In Section 1.3.1, the decommissioning cost estimate does not reference the cost of Class B, C and Greater-than-C radioactive waste that may be stored on site at that point. Section 1.3.3 Decommissioning Costs and Funding – Status Reporting.

Finally, Joint Petitioners state in a footnote that the contention raises a challenge to Table S-3 of 10 C.F.R. § 51.51. Pet. at 47 n.7. They state that this challenge is justified because, under Marsh v. Oregon Natural Resources Council,¹⁶³ the EIS for the licensing of CCNPP-3 must include new and significant information relevant to the environmental impacts of the proposed facility.

Applicant and NRC Staff oppose admission of Contention #7. NRC Staff argues that the contention may not be admitted because it raises an impermissible attack upon Table S-3 of 10 C.F.R. § 51.51. Staff Ans. at 46. Applicant and NRC Staff contend that licensing of a disposal site under 10 C.F.R. Part 61 is too speculative and therefore not material to the findings the

¹⁶³ 490 U.S. 360 (1989).

NRC must make to grant the COL. Id. at 49; App. Ans. at 63. Applicant further notes that the disposal of Greater-Than-Class-C waste is not directly affected by the closure of the Barnwell facility because it is the responsibility of the federal government. App. Ans. at 63. Applicant also argues that there is a “clear disposition path” for removing Class B and C wastes from the CCNPP-3 site, and that the information sought by Joint Petitioners is already contained in the ER. Id. at 63-66.

Discussion

We agree with Applicant and NRC Staff that the contention is inadmissible in so far as it concerns Greater-Than-Class-C waste, licensing of a disposal site under 10 C.F.R. Part 61, or a challenge to Table S-3 of 10 C.F.R. § 51.51. The contention is also inadmissible as a challenge to the decommissioning cost estimate. Nevertheless, despite these inadmissible aspects of the contention, we have narrowed it to a specific NEPA contention that meets the admissibility criteria of 10 C.F.R. § 2.309(f)(1) and does not conflict with NRC regulations. We admit the narrowed contention.

Inadmissible Aspects of Contention #7

Although Joint Petitioners refer to “Class B, C, or Greater-Than-Class-C radioactive waste,” Pet. at 49, only the management of Class B and Class C wastes is properly the subject of this contention because only those types of waste are directly impacted by the closure of the Barnwell facility.¹⁶⁴ The partial closure of the Barnwell facility does not directly affect the disposal of Greater-Than-C radioactive waste because the disposal of that type of waste is the

¹⁶⁴ Petitioners do not argue that Applicant lacks an off-site disposal facility for Class A waste. Therefore, that class of waste is also not at issue here. We further note that liquid and gaseous wastes, after treatment to reduce activity, are disposed of to the Chesapeake Bay (liquid waste) or to the atmosphere (gaseous waste). ER §§ 3.5.2.1, 3.5.3.2. Therefore, the management of those wastes would not appear to be impacted by the partial closure of the Barnwell facility. Our analysis therefore proceeds on the understanding that the partial closure of Barnwell impacts Class B and C solid wastes from the Calvert Cliffs reactors.

responsibility of the federal government.¹⁶⁵ Joint Petitioners have not provided any factual foundation to show that the United States will fail in its responsibility to provide for the disposal of Greater-Than-Class-C waste.

The claim that Applicant should consider licensing the CCNPP-3 site under 10 C.F.R. Part 61 is outside the scope of this proceeding. Similar claims were rejected in recent cases that also involved proposed reactors in states that, like Maryland, presently lack access to a disposal facility for Class B and C waste.¹⁶⁶ In the first of these rulings, the board stated that, “[e]ven assuming arguendo that Dominion might someday require a permit under Part 61 for a disposal facility, that issue is too speculative at present and is therefore not ‘material to the findings the NRC must make to support the action that is involved in’ the present proceeding.”¹⁶⁷ The Commission recently affirmed the other ruling dismissing this portion of an equivalent contention, stating that “Part 61 is inapplicable here because it applies only to land disposal facilities that receive waste from others, not to onsite facilities such as Bellefonte’s where the licensee intends to store its own low-level radioactive waste.”¹⁶⁸ The Commission’s resolution of the issue is controlling here.

Joint Petitioners’ allegation that the decommissioning cost estimate is inadequate suffers from much the same defect as its argument that Applicant must obtain a waste disposal permit. Joint Petitioners allege that Application provides “no recognition of the increased costs that may be associated with disposal of a cumulative total LLRW from operations in addition to

¹⁶⁵ 42 U.S.C. § 2021c(b)(1)(D). See Virginia Electric & Power Co. (Combined License Application for North Anna Unit 3), LBP-08-15, 68 NRC __, __ (slip op. at 21 n.86) (Aug. 15, 2008).

¹⁶⁶ North Anna, LBP-08-15, 68 NRC at __ (slip op. at 26-27); Bellefonte, LBP-08-16, 68 NRC at __ (slip op. at 58).

¹⁶⁷ North Anna, LBP-08-15, 68 NRC at __ (slip op. at 26-27) (quoting 10 C.F.R. § 2.309(f)(1)(iv)).

¹⁶⁸ Tennessee Valley Authority, (Bellefonte Nuclear Power Plant, Units 3 and 4), CLI-09-03, 69 NRC __, __ (slip op. at 5-6) (Feb. 17, 2009).

the LLRW generated by dismantling the facility.” Pet. at 51. In other words, Joint Petitioners insist that not only should Applicant obtain a permit to dispose of LLRW from operations on-site, it should also include in its estimate of decommissioning costs the cost of such permanent disposal. Unlike the need for extended on-site storage, which represents a more plausible and imminent concern, arguments premised on the prediction that someday the Calvert Cliffs site will become a permanent disposal facility for LLRW from operations are “too speculative at present and . . . therefore not ‘material to the findings the NRC must make to support the action that is involved in’ the present proceeding.”¹⁶⁹

Conflict with Table S-3

We also agree with NRC Staff that we may not admit any aspect of Contention #7 that challenges Table S-3 of 10 C.F.R. § 51.51. Even if Joint Petitioners have correctly interpreted the Supreme Court’s holding in Marsh v. Oregon Natural Resources Council, the Commission has recently held that a licensing board may not admit a contention that directly or indirectly challenges Table S-3, and we are bound by that ruling.¹⁷⁰

The question remains, however, whether any aspect of Contention #7 may be admitted without creating a conflict with the regulation. Although we are not required to narrow contentions to make them acceptable, we may do so.¹⁷¹ We will therefore review the purpose of Table S-3 to determine whether Contention #7 may be narrowed to avoid conflict with the regulation.

The Supreme Court explained the function of Table S-3 as follows:

The environmental impact of operating a light-water nuclear power plant includes the effects of offsite activities necessary to provide fuel for the plant

¹⁶⁹ North Anna, LBP-08-15 68 NRC at ___ (slip op. at 26-27) (quoting 10 C.F.R. § 2.309(f)(1)(iv)).

¹⁷⁰ Bellefonte, CLI-09-03, 69 NRC at ___ slip op. at 9.

¹⁷¹ Pennsylvania Power & Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), LBP-79-6, 9 NRC 291, 295-96 (1979).

("front end" activities), and of offsite activities necessary to dispose of the highly toxic and long-lived nuclear wastes generated by the plant ("back end" activities). The dispute in these cases concerns the Commission's adoption of a series of generic rules to evaluate the environmental effects of a nuclear power plant's fuel cycle. At the heart of each rule is Table S-3, a numerical compilation of the estimated resources used and effluents released by fuel cycle activities supporting a year's operation of a typical light-water reactor.¹⁷²

The Court further noted:

For example, the tabulated impacts include the acres of land committed to fuel cycle activities, the amount of water discharged by such activities, fossil fuel consumption, and chemical and radiological effluents (measured in curies), all normalized to the annual fuel requirement for a model 1000 megawatt light-water reactor.¹⁷³

One component of the fuel cycle is the disposal of LLRW. The Commission has noted that "Table S-3 assumes that solid, low-level waste from reactors will be disposed of through shallow land burial, and concludes that this kind of disposal will not result in the release of any 'significant effluent to the environment.'"¹⁷⁴ We may not admit a contention which challenges that assumption or conclusion. But the Commission also stated, "we do not rule out that, in a future COL proceeding, a petitioner could proffer an application-specific contention suitable for litigation on the subject of onsite storage of low-level radioactive waste."¹⁷⁵ The Commission further concluded that "[t]he questions of the safety and environmental impacts of onsite low-level waste storage are, in our view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions."¹⁷⁶ Furthermore, the Commission observed that, even if it had chosen to promulgate a "low-level waste confidence" rule, such a rule would not, if it followed the

¹⁷² Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, 462 U.S. 87, 90-91 (1983) (footnotes omitted).

¹⁷³ Id. at 91 n.5.

¹⁷⁴ Bellefonte, CLI-09-03, 69 NRC at ___ (slip op. at 8 n.30).

¹⁷⁵ Id., slip op. at 11 n.42 (emphasis added).

¹⁷⁶ Id., slip op. at 11 (emphasis in original).

pattern of the high-level waste confidence rule, “alter any requirements to consider in the adjudicatory proceeding the environmental impacts of waste storage during the term of the license.”¹⁷⁷

Also, “Table S-3 does not include health effects from the effluents described in the Table,” and that issue, as well as others specifically noted, “may be the subject of litigation in the individual licensing proceedings.”¹⁷⁸ Both Contention #7 and Ms. D’Arrigo’s Declaration raise concerns about the health effects of extended on-site storage of LLRW. Because the health effects of disposal of LLRW may be litigated in individual licensing proceedings, the health effects of extended on-site storage may be litigated as well.

We therefore conclude that we may, without creating a conflict with Table S-3, admit an application-specific contention concerning the environmental consequences of the need for extended onsite storage of LLRW as the result of the closure of the Barnwell facility, assuming that contention satisfies the requirements of 10 C.F.R. § 2.309(f)(1). Contention #7, as we have described it above, raises such an issue, although it also raises other issues described above that we can not admit. The Board has therefore narrowed Contention #7 as follows:

The ER for CCNPP-3 is deficient in discussing its plans for management of Class B and C wastes. In light of the current lack of a licensed off-site disposal facility, and the uncertainty of whether a new disposal facility will become available during the license term, the ER must either describe how Applicant will store Class B and C wastes on-site and the environmental consequences of extended on-site storage, or show that Applicant will be able to avoid the need for extended on-site storage by transferring its Class B and C wastes to another facility licensed for the storage of LLRW.

This narrowed contention is limited to the ER’s failure to address the need for, and the environmental consequences of, long-term storage of Class B and C waste at the Calvert Cliffs site, or that long-term storage will not be necessary. The narrowed contention is site- and design-specific and concerns only extended on-site storage, not permanent disposal, of Class B

¹⁷⁷ Id., slip op. at 11-12 (emphasis added).

¹⁷⁸ 10 C.F.R. § 51.51(b), n.1 to Table S-3.

and C wastes. It challenges neither the assumption of Table S-3 that low-level waste from reactors will eventually be disposed of through shallow land burial, nor the Table's conclusion that this kind of disposal will not result in the release of any significant effluent to the environment. Joint Petitioners agreed that a contention of this nature would address their site-specific concerns without creating a conflict with Table S-3. Hrg. Tr. at 129-30. Applicant did not claim that a contention focused on site-specific or design-specific issues would conflict with Table S-3, id. at 130-32, although it has various other objections to the contention that we address below. The Board concludes that this contention, as we have narrowed it, is not a challenge to Table S-3.¹⁷⁹

Analysis of Narrowed Contention #7 under 10 C.F.R. § 2.309(f)(1)

The Board has examined the contention admissibility standards of 10 C.F.R. § 2.309(f)(1) and finds that this narrowed contention satisfies those requirements. Contention #7 is a "contention of omission, i.e., one that claims, in the words of 10 C.F.R. § 2.309(f)(1)(vi), 'the application fails to contain information on a relevant matter as required by law . . . and the supporting reasons for the petitioner's belief.'"¹⁸⁰ In the recent North Anna decision, the Board found that a similar contention satisfied the requirement to provide a specific statement of the legal or factual issue sought to be raised by alleging, in relevant part, that the applicant's environmental report should have examined the environmental consequences of long-term storage of LLRW at the North Anna site.¹⁸¹ The requirement of Section 2.309(f)(1)(i) is met here as well because the contention adequately describes the information that should have been included in the ER.

¹⁷⁹ During oral argument, we discussed with the participants a narrowed contention similar to the one we now admit. Hrg. Tr. at 126-41.

¹⁸⁰ North Anna, LBP-08-15, 68 NRC at ___ (slip op. at 21-22); (quoting Pa'ina Hawaii, LLC, LBP-06-12, 63 NRC at 413.

¹⁸¹ Id. (citing Pa'ina Hawaii, LLC, LBP-06-12, 63 NRC at 413).

Joint Petitioners have also provided a brief explanation of the basis of Contention #7. They explain that the ER incorrectly assumes that a permanent LLRW disposal facility exists, that in the absence of such a disposal facility LLRW is likely to remain on-site for an extended period, and that the ER fails to explain the environmental and public health consequences of extended on-site storage. Joint Petitioners have adequately identified the legal basis of the contention by alleging that such disclosure is required by NEPA (and implicitly by the NRC's NEPA regulations, 10 C.F.R. Part 51). Pet. at 50. Accordingly, Joint Petitioners have satisfied the requirements of 10 C.F.R. § 2.309(f)(1)(ii).¹⁸²

Contention #7 is within the scope of this proceeding, as required by Section 2.309(f)(1)(iii). The Notice of Hearing and Opportunity to Petition for Leave to Intervene for this proceeding¹⁸³ explained that the Licensing Board would consider the Application under Part 52 for a COL for CCNPP-3. Contention #7 challenges the legal sufficiency of the ER included in the Application and is therefore within the scope of the proceeding.¹⁸⁴

Contention #7 is material to compliance with NEPA and the NRC's regulations implementing NEPA, and it therefore satisfies the requirement of Section 2.309(f)(1)(iv).¹⁸⁵ The environmental report prepared for a COL application must describe the proposed action and discuss, among other things, "[t]he impact of the proposed action on the environment," "[a]ny adverse environmental effects which cannot be avoided should the proposal be implemented," and "[a]ny irreversible and irretrievable commitments of resources which would be involved in

¹⁸² See North Anna, LBP-08-15, 68 NRC at ___ (slip op. at 22-23); Pa'ina, LBP-06-12, 63 NRC at 414.

¹⁸³ See 73 Fed. Reg. 55,876 (September 26, 2008).

¹⁸⁴ See North Anna, LBP-08-15, 68 NRC at ___ (slip op. at 23); Pa'ina, LBP-06-12, 63 NRC at 414.

¹⁸⁵ See 10 C.F.R. Part 51.

the proposed action should it be implemented.”¹⁸⁶ The information submitted in the ER pursuant to these requirements “should not be confined to information supporting the proposed action but should also include adverse information.”¹⁸⁷ Contention #7 alleges omissions from the analysis required by Section 10 C.F.R. § 51.45(b) and (e) and NEPA. In substance, it alleges that the discussion of LLRW management in the ER does not reflect current conditions but rather those that existed prior to the partial closure of the Barnwell facility, and therefore the ER fails to accurately describe the proposed action and its impact on the environment. Accordingly, it is material to the ER’s compliance with the NRC’s regulations, and ultimately to the agency’s compliance with NEPA.

For a contention of omission, the petitioner’s burden is to show the facts necessary to establish that the application omits information that should have been included. Joint Petitioners have met their burden to show that the ER omits information necessary to assess the environmental consequences of the proposed new reactor in light of the closure of the Barnwell facility. Neither Applicant nor NRC Staff disputes that the Calvert Cliffs nuclear power reactors (the two existing reactors and the proposed CCNPP-3) currently lack a permanent disposal facility for the Class B or C wastes they generate. As the Commission recently observed regarding a COL application from the Tennessee Valley Authority (TVA), an applicant that also lacks access to the Barnwell facility, “this closure would preclude TVA from disposing its low-level waste at Barnwell and would force TVA to store that waste onsite instead – at least until another low-level waste disposal facility agrees to accept such waste from Alabama nuclear facilities.”¹⁸⁸ Similarly, Class B and C wastes from the Calvert Cliffs reactors will have to be managed on-site if neither an alternative disposal site nor an off-site interim storage

¹⁸⁶ 10 C.F.R. § 51.45(b)(1), (2), (5).

¹⁸⁷ 10 C.F.R. § 51.45(e).

¹⁸⁸ Bellefonte, CLI-09-03, 69 NRC at ___ (slip op. at 4).

facility is available during the license term.¹⁸⁹ Furthermore, the Commission “has acknowledged that the future availability of disposal capacity for low-level radioactive waste remains highly uncertain.”¹⁹⁰

The ER, however, fails to acknowledge the closure of the Barnwell facility to Class B and C waste from Calvert Cliffs, much less explain how Applicant intends to manage LLRW from CCNPP-3 in the absence of an off-site disposal facility. Ms. D’Arrigo states in her Declaration that the COLA “provides no detail regarding the ongoing site management and potential impact for all the [Class B and C] radioactive waste from operations on the site of generation.” D’Arrigo Decl., ¶ 10. She stresses that the ER should contain a detailed analysis of the plans for and consequences of extended on-site management of LLRW. She states that “[s]ome so-called ‘low-level’ radioactive waste can give high doses of radiation if one is exposed unshielded.” D’Arrigo Decl., ¶ 9. The COLA assumes that off-site disposal facilities will be available to receive the full range of radioactive waste generated at Calvert Cliffs, but in Ms. D’Arrigo’s opinion, “[c]onsidering the long history of failed so-called ‘low-level’ radioactive waste disposal sites in the country, assumptions that new ones will be available are not justified.” *Id.*, ¶ 13.

For the reasons previously stated, the omitted information is material to the ER’s compliance with 10 C.F.R. § 51.45(b) and (e), and to the agency’s compliance with NEPA. Joint Petitioners need not show that Applicant is incapable of providing long-term storage for LLRW in compliance with NRC regulations. It is sufficient that Joint Petitioners have shown that the ER omits the information necessary to demonstrate that capability. Accordingly, Contention #7 has sufficient factual support, as required by 10 C.F.R. § 2.309(f)(1)(v).

¹⁸⁹ The Applicant requests a license that “shall expire 40 years from the date upon which the NRC makes a finding that acceptance criteria are met under 10 CFR 50.103(g) . . . or allowing operation during an interim period under 10 CFR 52.103(c)” COLA, Part I: General Information, § 1.1.4.

¹⁹⁰ Bellefonte, CLI-09-03, 69 NRC at ___ (slip op. at 10).

Under Section 2.309(f)(1)(vi), when an application is alleged to be deficient, the petitioner must identify the deficiencies and provide supporting reasons for its position that such information is required. For the reasons already explained, Joint Petitioners have adequately identified the deficiencies and explained why further information is required concerning the Applicant's plans for management of Class B and C wastes. Joint Petitioners therefore have established a genuine dispute with the Applicant on a material issue.

Applicant's argument that the information sought by Joint Petitioners is either unnecessary or already contained in the ER

Applicant challenges Joint Petitioners' assumption that "the lack of a licensed disposal site for Class B and C wastes necessarily means that the waste will remain onsite indefinitely." App. Ans. at 63-64 (citing Pet. at 50). Applicant notes that, under 10 C.F.R. § 20.2001, "a power reactor licensee could transfer the material to another licensee that is licensed to accept and treat waste prior to disposal." *Id.* at 64. Therefore, according to Applicant, there is a "clear disposition path" for its Class B and C wastes even without access to the Barnwell facility. *Id.* Applicant thus reasons it need not address the impact of the partial closure of Barnwell in the ER. We disagree.

In substance, Applicant argues that it can mitigate the adverse consequences of the lack of a disposal site by shipping its Class B and C wastes to another licensee. If that is Applicant's plan, it should have been disclosed in the ER. As the Supreme Court made clear in Robertson v. Methow Valley Citizens Council, NEPA requires that an EIS disclose mitigation measures:

[O]ne important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences. The requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of [NEPA] and, more expressly, from CEQ's implementing regulations. Implicit in NEPA's demand that an agency prepare a detailed statement on "any adverse environmental effects which cannot be avoided should the proposal be implemented," 42 U.S.C. § 4332(C)(ii), is an understanding that the EIS will discuss the extent to which adverse effects can be avoided. . . . More generally, omission of a reasonably complete discussion of possible mitigation measures would undermine the "action-forcing" function of NEPA. Without such a discussion, neither the agency nor other interested

groups and individuals can properly evaluate the severity of the adverse effects.¹⁹¹

NEPA also requires that agencies take a “hard look” at the environmental effects of their planned action, and that an EIS be updated to reflect new information that is relevant to the environmental consequences of the proposed action.¹⁹²

Of course, NEPA compliance is ultimately the responsibility of the NRC, not the applicant. However, the Commission has made clear that petitioners must raise NEPA contentions in response to the ER, rather than await the agency’s draft environmental impact statement (DES):

[T]he adequacy of the NRC's environmental review as reflected in the adequacy of a DES or FES is an appropriate issue for litigation in a licensing proceeding. Because the adequacy of those documents cannot be determined before they are prepared, contentions regarding their adequacy cannot be expected to be proffered at an earlier stage of the proceeding before the documents are available. But this does not mean that no environmental contentions can be formulated before the staff issues a DES or FES. While all environmental contentions may, in a general sense, ultimately be challenges to the NRC's compliance with NEPA, factual aspects of particular issues can be raised before the DES is prepared. As a practical matter, much of the information in an Applicant's ER is used in the DES. Just as the submission of a safety-related contention based on the FSAR is not to be deferred because the staff may issue an SER requiring a change in a safety matter, so too, the Commission expects that the filing of an environmental concern based on the ER will not be deferred because the staff may provide a different analysis in its DES. Should that circumstance transpire, there will be ample opportunity to either amend or dispose of the contention.¹⁹³

Moreover, the NRC regulation listing the information that must be included in the ER restates essential NEPA requirements.¹⁹⁴ In particular, the mandate of 10 C.F.R. § 51.45(b)(2) that the

¹⁹¹ 490 U.S. 332, 351-352 (1989) (citations and footnotes omitted).

¹⁹² See Marsh, 490 U.S. at 374. Marsh involved new information that became available after the agency’s decision had been made, but before the project had been completed. There can be even less doubt that new information that becomes available before the agency decision (here, the issuance of the license) must be included in the NEPA analysis.

¹⁹³ Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983).

¹⁹⁴ Compare 10 C.F.R. § 51.45(b) with 42 U.S.C. § 4332(C).

ER disclose “any adverse environmental effects which cannot be avoided should the proposal be implemented” duplicates the identical NEPA requirement that the Supreme Court in Methow Valley construed to require “a detailed discussion of possible mitigation measures” in an EIS.¹⁹⁵ This implies that the ER must also contain such a detailed discussion.

The ER fails to satisfy that requirement. If Applicant intends to send the Class B and C wastes that previously went to Barnwell to a licensed off-site facility for long-term storage, the ER fails to describe such a plan. On the contrary, in the few instances where the ER mentions shipping LLRW off-site prior to disposal, it is usually in the context of processing prior to shipment to a disposal facility. For example, the ER states that dry active waste “may be shipped in the ‘as collected’ form to an offsite licensed processor for volume reduction treatment and final packaging and shipment to a disposal facility.” ER § 3.5.4. The ER also refers to “[s]olid low level waste . . . shipped offsite for processing and disposal.” ER § 3.8.3. Merely describing a practice of sending LLRW to a processor when a disposal facility was available is an entirely different matter from a plan to send LLRW to another licensee for long-term storage when a disposal facility no longer exists. The ER fails to describe such a plan or to identify an off-site licensee that has agreed to accept Applicant’s Class B and C wastes even though there is no longer a disposal facility to which the licensee can send the wastes. Thus, the ER omits “a reasonably complete discussion of possible mitigation measures.”¹⁹⁶

The narrowed Contention #7, however, does permit Applicant to demonstrate that it has a feasible plan under which another licensed facility will receive the Class B and C wastes

¹⁹⁵ Methow Valley, 490 U.S. at 351 (construing 42 U.S.C. § 4332(C)(ii)).

¹⁹⁶ Id. at 352.

generated by CCNPP-3 during the license term. At present, however, the ER falls short of the requirements of 10 C.F.R. § 51.45(b) and (e) and NEPA.¹⁹⁷

Applicant also claims that “the application clearly addresses both the plan for handling LLRW onsite and the environmental impacts of storing such waste.” App. Ans. at 64.

On the contrary, the ER contains no plan for extended on-site storage of LLRW in the absence of a disposal site, nor does it examine the environmental impacts of such long-term storage.

Rather, storage capacity is discussed in the context of the capacity to handle LLRW prior to shipment to an off-site disposal facility. For example, the ER states, in Section 3.5, that “[s]olid radioactive wastes are collected and packaged for temporary storage, shipment and offsite disposal.” The ER further explains:

Once treated, the solid waste, along with treated concentrates, is stored in one of two areas. One area is a tubular shaft storage area for the high activity drums and the other is a temporary storage area for low to medium activity drums. Once the activity has reduced to a low enough level, the drums are transported to an offsite repository for final disposal.¹⁹⁸

The ER fails to demonstrate adequate storage capability in the absence of the “offsite repository for final disposal.”¹⁹⁹ The FSAR reports that Applicant has “the capacity to store several years’ volume of solid waste (excluding dry active waste) resulting from plant operation.”²⁰⁰ A plan for the long-term storage of LLRW must provide for much more than “several years’ volume of solid

¹⁹⁷ In its Answer to the Petition, Applicant states that “Studsvik,” which operates a facility in Erwin, Tennessee, plans to treat and assume responsibility for storage and final disposal of Class B and C wastes. Applicant further reports that the Constellation Energy Group has signed a contract with Studsvik for such services. App. Ans. at 64 n.44. An adequate plan to transfer LLRW to Studsvik might resolve the issue presented by Contention #7. For the reasons explained in the text, however, Applicant’s plan must be provided in the ER, not in a litigation document.

¹⁹⁸ ER § 3.5.4.

¹⁹⁹ Id.

²⁰⁰ EPR FSAR § 11.4.1.2.1.

waste.”²⁰¹ It must demonstrate that Applicant will be able to store on-site the volume of LLRW that will be generated during the license term. The ER contains no such demonstration.

Also, if Applicant’s plan is to store its Class B and C wastes on-site, it must analyze in the ER the environmental consequences of such extended on-site storage. Contrary to Applicant’s argument, App. Ans. at 64-66, that analysis is not in the ER. Although the ER discusses to some extent environmental consequences of its present on-site LLRW management system, nowhere is there any indication that need for extended on-site storage because of the partial closure of the Barnwell facility was part of the analysis. On the contrary, the ER assumes that an off-site disposal facility for LLRW is available.²⁰² Thus, the ER assumes a shorter period of on-site storage than will be necessary absent an off-site disposal facility, and a smaller volume of LLRW that will require storage. This outdated analysis does not comply with 10 C.F.R. § 51.45(b) and (e) or NEPA.

Finally, we note that another licensing board recently admitted a safety contention based on the applicant’s lack of a definite plan for LLRW management in light of the partial closure of the Barnwell facility.²⁰³ In that case, unlike this one, the application did at least refer to a “concept” for managing LLRW on-site absent a permanent disposal facility. The board nevertheless admitted the contention, explaining:

None of this detail is included or explicitly referenced in the FSAR of the Vogtle Units 3 and 4 COLA. . . . And the single sentence in the FSAR referring to the “planned VEGP Units 1 and 2 Low Level Radwaste Storage Facility,” without more, would not seem to provide the level of detail necessary to determine whether SNC’s plan for handling LLRW from proposed Vogtle Units 3 and 4 in the absence of an offsite disposal facility would comply with 10 C.F.R. Part 20 limits. Moreover, . . . the discussion and analysis in both documents make it clear that what is being considered is no more than a “concept” that lacks SNC adoption as an actual plan for longer-term LLRW storage for the proposed

²⁰¹ Id.

²⁰² See ER §§ 3.5, 3.5.4, 3.5.4.1, Figure 3.5-8.

²⁰³ Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-09-03, 69 NRC __ (Mar. 5, 2009).

Vogtle units. Thus, Joint Petitioners raise a genuine dispute as to whether information on SNC's extended LLRW storage plan that should have been included has been omitted from the COLA for Vogtle Units 3 and 4.²⁰⁴

Similarly, in the present case the ER does not include a plan for the management of Class B and C wastes in the absence of an off-site disposal facility, much less analyze any impact the plan may have on the Calvert Cliffs site. Instead, the ER's plan for LLRW management presumes that an off-site disposal facility remains available. Joint Petitioners have therefore made a sufficient showing that the ER fails to contain the information concerning the proposed action and its environmental consequences required by 10 C.F.R. § 51.45(b) and (e) and NEPA.

We admit Contention #7 as we have narrowed it because it meets the admissibility criteria of 10 C.F.R. § 2.309(f)(1) and does not conflict with NRC regulations.

VI. Conclusion and Order

Based, therefore, upon the preceding findings and rulings, it is, this 24th day of March, 2009, ORDERED as follows:

A. Joint Petitioners Nuclear Information Resource Services, Beyond Nuclear, Public Citizen Energy Program and Southern Maryland Citizens' Alliance for Renewable Energy Solutions are admitted as parties in this proceeding and their Request for Hearing and Petition to Intervene are granted. A hearing is granted with respect to their Contention #1 as pleaded and Contention #7 as narrowed by the Board. Joint Petitioners' Contention #2 is admitted in part and denied in part, as set forth herein. Joint Petitioners' Contentions #3, #4, #5, and #6 are not admitted.

B. The Board considers that Contention #2 raises a legitimate issue of law regarding the proper timing for the applicant to submit the financial tests for parent company guarantees. The Board is of the opinion that it is in the best interest of the management of this proceeding that this issue be segregated from the other contentions and briefed immediately. Accordingly, Joint

²⁰⁴ Id., slip op. at 26-27.

Petitioners, Applicant and NRC Staff are to file briefs that include, but need not be limited to, any established relevant Staff review processes, Commission intentions regarding timing of proofs and existing regulations supporting either option. Shortly after issuance of this Order, the Board will convene a telephone conference to discuss the timeframe in which these briefs should be submitted.

C. 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.

FOR THE ATOMIC SAFETY
AND LICENSING BOARD²⁰⁵

/RA/

Ronald M. Spritzer, Chairman
ADMINISTRATIVE JUDGE

/RA/

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ADMINISTRATIVE JUDGE

/RA/

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ADMINISTRATIVE JUDGE

Rockville, Maryland
March 24, 2009

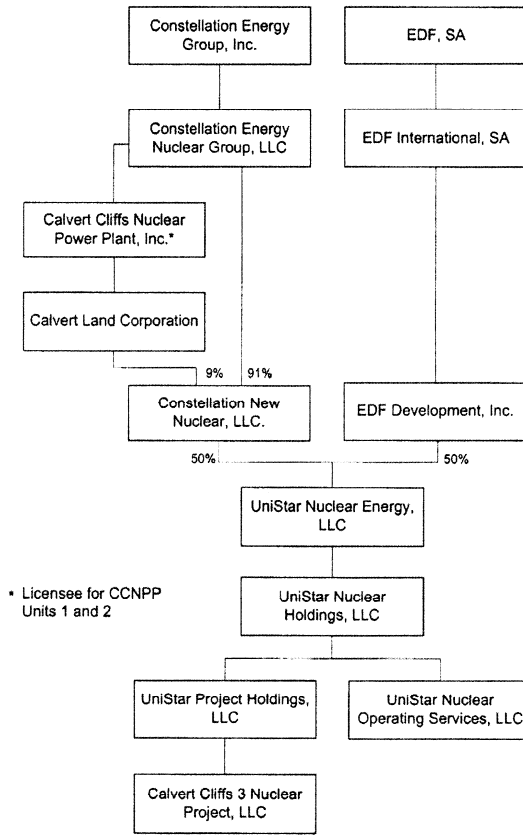
²⁰⁵ Copies of this Order were sent this date by the agency's E-Filing system to the counsel/representatives for: (1) Joint Petitioners Nuclear Information and Resource Services, Beyond Nuclear, Public Citizen Energy Program, and Southern Maryland Citizens Alliance for Renewable Energy Solutions; (2) UniStar Nuclear Operating Services, LLC and Calvert Cliffs-3 Nuclear Project, LLC; (3) NRC Staff; and (4) State of Maryland.

ATTACHMENT A

Part 1

GENERAL INFORMATION

(Organizational Structure)



* Licensee for CCNPP Units 1 and 2

Part 1

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
CALVERT CLIFFS 3 NUCLEAR PROJECT, LLC.)
AND UNISTAR NUCLEAR OPERATING)
SERVICES, LLC) Docket No. 52-016-COL
)
(Calvert Cliffs 3 Nuclear Project, LLC))
)
(Combined License))

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing MEMORANDUM AND ORDER (RULING ON JOINT PETITIONERS' STANDING AND CONTENTIONS) (LBP-09-04) have been served upon the following persons by Electronic Information Exchange.

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Docket No. 52-016-COL
MEMORANDUM AND ORDER (RULING ON JOINT PETITIONERS' STANDING AND
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Docket Nos. 52-016-COL
MEMORANDUM AND ORDER (RULING ON JOINT PETITIONERS' STANDING AND
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[Original signed by Christine M. Pierpoint]
Office of the Secretary of the Commission

Dated at Rockville, Maryland
this 24th day of March 2009