UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Thomas S. Moore, Chairman
Dr. Paul Abramson
Dr. Anthony J. Baratta

In the Matter of	Docket No. 30-36974-ML
PA'INA HAWAII, LLC	ASLBP No. 06-843-01-ML
(Material License Application)	December 21, 2007

MEMORANDUM AND ORDER
(Ruling on Admissibility of Intervenor's Amended Environmental Contentions)

I. Background

The history of this proceeding can be found in our numerous prior rulings and need not be recited here.[1] For present purposes, it suffices to note that in a January 2006 ruling, we granted the hearing request of the Intervenor, Concerned Citizens of Honolulu, which challenged the application of Pa'ina Hawaii, LLC, the Applicant, to build and operate a pool-type industrial irradiator using cobalt-60 sources at the Honolulu International Airport.[2] In the ruling, we admitted the Intervenor's first two proffered environmental contentions challenging the NRC

[1] See LBP-06-04, 63 NRC 99 (2006); LBP-06-12, 63 NRC 403 (2006) (Ruling on Petitioner's Safety Contentions); Licensing Board Order (Confirming Oral Ruling Granting Motion to Dismiss Contentions) (April 27, 2006) (unpublished); Licensing Board Order (Ruling on Admissibility of Two Amended Contentions) (June 22, 2006) (unpublished); Licensing Board Order (Rejecting Motion to Dismiss) (Jan. 25, 2007) (unpublished); Licensing Board Order (Posing Questions for the Parties) (April 30, 2007) (unpublished); Licensing Board Order (Regarding Environmental Contentions) (July 18, 2007) (unpublished).

[2] See LBP-06–04, 63 NRC 99 (2006).

Staff's compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA).[3] Specifically, the Intervenor's first environmental contention claimed, in effect, that the agency automatically invoked the categorical exclusion for irradiators contained in the agency's regulations without affirmatively providing, as allegedly required by relevant case law from the federal circuit encompassing Hawaii, a reasoned explanation of the applicability of the exclusion in the circumstances presented.[4] The Intervenor's second environmental contention asserted, inter alia, that the risk associated with aircraft crashes, tsunamis, and hurricanes at the proposed site met the special circumstances exception of the agency's categorical exclusion regulation, thereby requiring the Staff to prepare an environmental impact statement (EIS) or, at a minimum, an environmental assessment (EA).[5] Thereafter, the Staff and the Intervenor agreed to settle the admitted environmental contentions, stipulating that they would move jointly to dismiss them and that the Staff would prepare an environmental assessment for the Applicant's proposed irradiator as a prerequisite to issuing any Finding of No Significant Impact (FONSI).[6] At the same time, the Staff agreed to publish a draft FONSI for public comment and to hold a public meeting in Honolulu on the draft before issuing a final FONSI.[7] In late December 2006, the Staff issued its draft EA and a "Draft Topical Report of the Effect of Potential Natural Phenomena and Aviation at the Pa'ina Hawaii, LLC Irradiator Facility."[8] The

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[3] 42 U.S.C. § 4321 et seq. (2005).

[4] See Request for Hearing by Concerned Citizens of Honolulu at 19-20 (Oct. 3, 2005).

[5] See id. at 20-25.

[6] See Licensing Board Order (Confirming Oral Ruling Granting Motion to Dismiss Contentions) (April 27, 2006) (unpublished); NRC Staff and Concerned Citizens of Honolulu Joint Motion to Dismiss Environmental Contentions (March 20, 2006) [hereinafter Joint Motion].

[7] See Joint Motion.

[8] See Letter from B. Jennifer Davis, Branch Chief, Environmental Review Branch, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs, to Michael Kohn, President, Pa'ina Hawaii, LLC (Dec.

Intervenor then timely filed environmental contentions 3, 4, and 5 on the draft EA,[9] the admission of which the Staff and the Applicant opposed.[10] And, in response to the Staff's request for comments on the draft EA and FONSI, the Intervenor filed extensive comments.[11] In May 2007, the Staff released its final Topical Report[12] and in June 2007 it issued an appendix to its draft EA addressing the effects of a terrorist attack on the Applicant's proposed irradiator.[13] Finally, in August 2007, the Staff issued its final EA and FONSI.[14]

21, 2006), ADAMS Accession No. ML0634702310 [hereinafter Draft EA] (enclosing Draft Environmental Assessment Related to the Proposed Pa'ina Hawaii, LLC Underwater Irradiator in Honolulu, Hawaii); Draft Topical Report on the Effects of Potential Natural Phenomena and Aviation Accidents at the Proposed Pa'ina Hawaii, LLC Irradiator Facility, Center for Nuclear Waste Regulatory Analyses (Dec. 2006), ADAMS Accession No. ML0635603440 [hereinafter Draft Topical Report].

[9] See Letter from David L. Henkin, Staff Attorney, Earthjustice, to NRC (Feb. 9, 2007), ADAMS Accession No. ML0705101160 (enclosing Intervenor Concerned Citizens of Honolulu's Contentions Re: Draft Environmental Assessment and Draft Topical Report).

[10] See NRC Staff Response to Intervenor Concerned Citizens of Honolulu's Contentions Re: Draft Environmental Assessment and Draft Topical Report (March 12, 2007), ADAMS Accession No. ML0707306502; Applicant Pa'ina Hawaii, LLC's Answer to Intervenor Concerned Citizens of Honolulu's Contentions Re: Draft Environmental Assessment and Draft Topical Report (March 8, 2007), ADAMS Accession No. ML0707306672.

[11] See Letter from David L. Henkin, Staff Attorney, Earthjustice, to NRC (Feb. 8, 2007), ADAMS Accession No. ML0704706150 [hereinafter Intervenor Comments].

[12] See Final Topical Report on the Effects of Potential Aviation Accidents and Natural Phenomena at the Proposed Pa'ina Hawaii, LLC, Irradiator Facility (May 2007), ADAMS Accession No. ML0712808330.

[13] See Letter from Patricia Swain, Acting Branch Chief, Environmental Review Branch, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs, to Michael Kohn, President, Pa'ina Hawaii, LLC (Aug. 10, 2007), ADAMS Accession No. ML0711501211 (enclosing Appendix B: Consideration of Terrorist Attacks on the Proposed Pa'ina Irradiator).

[14] See Letter from Patricia Swain, Acting Branch Chief, Environmental Review Branch, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs, to Michael Kohn, President, Pa'ina Hawaii, LLC (Aug. 10, 2007), ADAMS Accession No. ML0711501211 [hereinafter Final EA] (enclosing Final Environmental Assessment for Proposed Pa'ina Hawaii, LLC Irradiator).

Following the Staff's issuance of its final EA, the Intervenor timely proffered amended environmental contentions 3, 4, and 5, claiming, as it did in its three contentions on the draft EA, that the Staff's final EA failed to comply with the requirements of NEPA.[15] Amended contention 3 asserts that the Staff in the final EA failed to take a hard look at the potential environmental impacts of the proposed irradiator; amended contention 4 claims that the Staff in the final EA failed to consider reasonable alternative technologies and locations; and amended contention 5 states that the Staff was obligated to prepare an EIS for the facility.[16] Asserting diverse reasons, the Staff and the Applicant opposed the admission of the amended environmental contentions.[17] The Intervenor then filed a reply.[18] As explained below, we conclude that Intervenor's amended environmental contentions 3 and 4 are admissible and that amended contention 5 is premature.

II. Regulatory Contention Requirements

The Commission's contention pleading rules, found in 10 C.F.R. § 2.309(f)(1), provide that each contention "must [be] set forth with particularity." The regulations specify in 10 C.F.R. § 2.309(f)(1)(i)-(vi) the six requirements each contention must meet to be admissible. Subsections 2.309(f)(1)(i) and (ii) state that the contention must provide a specific statement of the issue of law or fact raised and provide a brief explanation of the basis for the contention.

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[15] See Intervenor Concerned Citizens of Honolulu's Amended Environmental Contentions #3 Through #5 (Sept. 4, 2007), ADAMS Accession No. ML0725306342 [hereinafter Amended Environmental Contentions].

[16] See id. at 2-3.

[17] See NRC Staff's Response to Intervenor Concerned Citizens of Honolulu's Amended Environmental Contentions #3 Through #5 (Sept. 20, 2007), ADAMS Accession No. ML0726704950 [hereinafter Staff Response]; Applicant Pa'ina Hawaii, LLC's Answer to Intervenor Concerned Citizens of Honolulu's Amended Environmental Contentions #3 Through #5 (Sept. 19, 2007), ADAMS Accession No. ML0726803940 [hereinafter Applicant Response].

[18] See Intervenor Concerned Citizens of Honolulu's Reply in Support of Its Amended Environmental Contentions #3 Through #5 (Oct. 1, 2007), ADAMS Accession No. ML0727803500 [hereinafter Intervenor Reply].

Subsections 2.309(f)(1)(iii) and (iv) provide that the contention must demonstrate that the issue raised is within the scope of the proceeding and that the issue is material to the findings the agency must make to support the licensing action involved. Subsection 2.309(f)(1)(v) requires each contention to provide a concise statement of the alleged facts or expert opinions that support the pleader's position on the issue together with references to the specific sources and documents the pleader intends to rely on as support. Finally, subsection 2.309(f)(1)(vi) declares that the contention must provide sufficient information to show that a genuine dispute on a material issue of law or fact exists with the applicant, which information must either (a) include references to the specific portions of the application (including the applicant's environmental and safety reports) that are disputed and the reasons supporting the dispute, or (b) identify each instance where the application fails to contain information required by law and the reasons supporting the pleader's belief.

The Commission's contention pleading requirements are "strict by design"[19] and a contention "must be rejected" if it fails to comply with any one of the requirements.[20] The pleading requirements are meant to "focus litigation on concrete issues and result in a clearer and more focused record for decision."[21] Thus, the regulations require more than notice pleading; however, as we stated in our earlier ruling admitting the Intervenor's two initial environmental contentions, the Intervenor "is not required to provide an exhaustive discussion in its proffered contention, so long as it meets the Commission's admissibility requirements."[22] It also bears repeating from our earlier ruling in which we admitted several of the Intervenor's

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[19] Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001).

[20] Arizona Pub. Serv. Co. (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991).

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

[22] LBP-06-4, 63 NRC 99, 108 (2006).

safety contentions that "[a]t the contention admissibility stage of the proceeding . . . , a factual defense is generally irrelevant and inappropriate."[23] This is because

> [t]he contention admissibility determination . . . does not involve a decision on the substantive merits of the proffered contentions. Rather, it is a determination that a genuine, legitimate dispute of material fact or law exists with respect to the issue in question such as to warrant a further inquiry by the Board.[24]

III. Intervenor's Amended Environmental Contentions

We now turn to the application of the regulatory requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi) to the Intervenor's proffered amended environmental contentions to determine admissibility. Initially, we note that, because the Staff made almost no changes to the draft EA before issuing its final EA, the Intervenor's amended environmental contentions 3, 4, and 5 addressing the final EA are, with few exceptions, nearly identical to the Intervenor's original environmental contentions 3, 4, and 5 on the draft EA. Except in those few noted instances in which a difference between the original contentions and amended contentions is legally significant, the Intervenor's original environmental contentions are subsumed by the Intervenor's amended environmental contentions 3, 4, and 5 and we need only address the admissibility of the amended contentions.

A. Amended Environmental Contention 3

The Intervenor's third amended environmental contention asserts that the final EA fails to take the NEPA-mandated "hard look" at the potential environmental impacts of the proposed irradiator.[25] The contention is detailed and covers twenty-four pages. In a nutshell, the

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[23] LBP-06-12, 63 NRC 403, 406 (2006).

[24] Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-01-35, 54 NRC 403, 422 (2001). This does not mean, however, that a licensing board need not look at all at the support for the contention in order to determine whether this is a genuine dispute of material fact.

[25] See Amended Environmental Contentions at 6.

contention lists five major alleged deficiencies of the final EA, each asserted to run afoul of the requirements for a sufficient environmental assessment as established by Ninth Circuit NEPA precedent.

Relying upon frequently-referenced NEPA cases from the Ninth Circuit, the circuit encompassing Hawaii, the contention posits that a "hard look" requires the Staff to prepare an "up-front, coherent, comprehensive environmental analysis"[26] that provides more than general statements about possible significant impacts to the environment.[27] The contention indicates that an environmental assessment that does not provide any objective quantification of the effects of the proposed project, or an explanation of the data on which the conclusion was based, or why objective data cannot be produced does not meet the "hard look" standard of the Ninth Circuit for an environmental assessment.[28] The precedent cited in the contention explains that a satisfactory environmental assessment must provide "sufficient information" that is "more than perfunctory; it must provide a useful analysis of the cumulative impacts of the past, present, and future projects."[29] The contention then points to the final EA's failure to meet these Ninth Circuit hard look standards in five areas. The Intervenor asserts that the final EA does not (1) respond to the comments on the deficiencies of the draft EA;[30] (2) contain sufficient

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[26] Id. at 5-6 (citing Ocean Advocates v. U.S. Army Corps of Eng'rs, 402 F.3d 846, 864 (9th Cir. 2005); Ctr. for Biological Diversity v. U.S. Forest Serv., 349 F.3d 1157, 1166 (9th Cir. 2003)).

[27] See id. at 6, 25, 28 (citing Nat'l Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 730-37 (9th Cir. 2001)).

[28] See id. at 8 (citing Klamath-Siskiyou Wildlands Ctr v. Bureau of Land Management, 387 F.3d 989, 994 (9th Cir. 2004); Found. for N. Am. Wild Sheep v. U.S. Dep't of Ag., 681 F.2d 1172, 1179 (9th Cir. 2004); Sierra Nevada Forest Prot. Campaign v. Weingardt, 376 F.Supp.2d 984, 991 (E.D. Cal. 2005)).

[29] Id. at 2, 6-7 (quoting Klamath-Siskiyou Wildlands Ctr., 387 F.3d at 994, 1001 (9th Cir. 2004)).

[30] See id. at 7-8.

evidence and analysis of impacts;[31] (3) consider potential significant impacts from natural disasters, aviation accidents, and the transportation of sources;[32] (4) provide a serious, scientifically-based analysis of the risks and consequences of terrorist acts;[33] and (5) discuss impacts associated with irradiating food for human consumption.[34] In two instances, the Staff opposes the admission of portions of amended environmental contention 3 on the grounds that the contention is beyond the scope of the proceeding in violation of 10 C.F.R. § 2.309(f)(1)(iii). The Staff opposes the remainder of the contention on the grounds that it fails to show there is a genuine dispute on a material issue of law or fact as required by 10 C.F.R. § 2.309(f)(1)(vi).[35] For its part, the Applicant generally argues the contention is inadmissible because the various claims that have been asserted are moot or too late.[36]

Contrary to the arguments of the Staff and the Applicant, the Intervenor's third amended environmental contention meets the contention pleading requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi) and is admissible. This is so whether the contention is viewed as a unified

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[31] See id. at 8-14.

[32] See id. at 14-18.

[33] See id. at 18-29.

[34] See id. at 29-30.

[35] See Staff Response at 5-17.

[36] See Applicant Response passim. Although it makes many mootness claims with regard to the Intervenor's contentions, the Applicant's mootness arguments boil down to the same basic one: "virtually all of the 'amended' or 'new' contentions are 'moot' because they have been studied and addressed by the NRC Staff." Id. at 32. Under the Commission's regulatory scheme, however, the fact that the Staff has issued a final EA, a final FONSI, and then issued a materials license to the Applicant before the hearing process is complete, does not render a contention moot. See 10 C.F.R. § 2.309(f)(2). With regard to lateness, the Applicant argues that the Intervenor's environmental contentions should have been raised when the Intervenor filed its initial hearing petition. See Applicant Response passim. Where, as here, no environmental report has been filed by an Applicant, the Commission's regulatory scheme provides that contentions need not be proffered until the Staff produces its environmental documents. See 10 C.F.R § 2.309(f)(2).

whole or analyzed by each of the five asserted major failings of the final EA. To simplify the analysis of the contention and to avoid substantial repetition in addressing the contention admissibility standards, we first briefly address the pleading requirements of 10 C.F.R. § 2.309(f)(1)(i)-(iv) with regard to the contention as a whole. Next, because of the focus of the Staff's admissibility challenges, we individually address the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi) with respect to each of the Intervenor's asserted five major deficiencies in the final EA. In the latter discussion, we also address the Staff's scope arguments under 10 C.F.R. § 2.309(f)(1)(iii) regarding two of the asserted deficiencies in the final EA.

In compliance with 10 C.F.R. § 2.309(f)(1)(i), the Intervenor's contention provides a specific statement of the mixed issue of law and fact by asserting that the Staff's final EA fails to take a hard look at the potential environmental impacts of the proposed irradiator. By relying on NEPA and NEPA precedent, which purportedly establish the requirements for an adequate environmental assessment, and by asserting that these requirements have not been met in the final EA, the contention provides the required brief explanation of the basis for the issues raised in accordance with 10 C.F.R. § 2.309(f)(1)(ii).

Amended environmental contention 3 also meets the scope and materiality requirements of 10 C.F.R. § 2.309(f)(1)(iii) and (iv). In settling the Intervenor's original environmental contentions, the Staff agreed to issue an environmental assessment, a NEPA environmental document, for the proposed irradiator. Therefore, the Staff's compliance with NEPA and the Commission's environmental regulations, the very issue involved in determining whether the Staff took the NEPA-mandated hard look at the potential environmental impacts of the proposed facility, is an issue squarely within the scope of the licensing proceeding as required by section 2.309(f)(1)(iii). Because the agency's compliance with NEPA and the Commission's environmental regulations is mandatory, the issue of the Staff's compliance with the

environmental laws is material to the findings the Staff must make in issuing a license to the Applicant. Thus, the contention also fully complies with the materiality requirement of section 2.309(f)(1)(iv).

Similarly, as we discuss below in addressing each of the claimed failings of the Staff's final EA, the contention meets the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi). By detailing the asserted facts, opinions, and omissions relating to the alleged deficiencies in the final EA, failings that purportedly run afoul of the standards established for an adequate environmental assessment in referenced NEPA decisions, the contention complies with section 2.309(f)(1)(v). The contention provides a concise statement of facts or expert opinion supporting the Intervenor's position that the final EA fails to meet the NEPA hard look standard. Likewise, in setting out the various failings of the final EA, the contention squarely presents a genuine dispute, as required by section 2.309(f)(1)(vi), over whether the Staff's environmental document meets the standards of Ninth Circuit precedents for a satisfactory environmental assessment and thus complies with NEPA.

In contention 3, the Intervenor asserts that the first major deficiency in the final EA is the Staff's failure to respond to its detailed comments regarding the shortcomings of the draft EA.[37] The contention states that the Intervenor's experts submitted voluminous comments to the Staff setting out, inter alia, ten major deficiencies in the draft EA.[38] As listed in the contention, those deficiencies ranged from the Staff's failure to consider significant factors when evaluating the likelihood of an aircraft crash at the irradiator to the Staff's failure to evaluate the threat of liquefaction in the subsurface soils beneath the site.[39] Relying on Ninth Circuit precedents, the

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[37] See Amended Environmental Contention at 7-8.

[38] See Intervenor Comments.

[39] See Amended Environmental Contentions at 7.

contention claims that an adequate environmental assessment must respond to the public comments concerning the project and, in responding, provide more than mere conclusory statements. The Intervenor then asserts that in the final EA, the Staff either ignored entirely the Intervenor's comments or brushed them aside with conclusory statements. In essence, the contention claims that the Staff's actions amount to an omission of any meaningful consideration of the Intervenor's comments and, in turn, preclude the type of informed decision-making required by NEPA.[40]

By both listing the subject of its ten comments to the draft EA to which the Staff failed to respond in the final EA, and identifying the Ninth Circuit case law that indicates that a satisfactory environmental assessment must respond to significant public comments, the Intervenor's contention presents a contention of omission. The contention identifies the missing information, i.e., the Staff's missing response to its ten extensive comments, and sets out the case precedents indicating that an adequate environmental assessment for a facility in Hawaii must respond to significant comments. The Intervenor thus presents all the information necessary for a contention of omission to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v), which requires a concise statement of the alleged facts and references supporting its position.[41] Similarly, as a contention of omission, the Intervenor's contention satisfies 10 C.F.R. § 2.309(f)(1)(vi) by presenting a genuine dispute between the Intervenor and the Staff over whether the final EA complies with NEPA without responding to the Intervenor's comments on deficiencies in the draft EA.

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[40] See id. at 7-8 (citing Found. for N. Am. Wild Sheep v. U.S. Dep't of Ag., 681 F.2d 1172, 1178-9 (9th Cir. 1982); Sierra Nevada Forest Prot. Campaign v. Weingardt, 376 F.Supp.2d 984, 991 (E.D. Cal. 2005)).

[41] See LBP-06-12, 63 NRC at 414 ("the pleading requirements of 10 C.F.R. § 2.309(f)(1)(v), calling for a recitation of facts or expert opinion supporting issue raised, are inapplicable to a contention of omission beyond identifying the regulatively required missing information").

In opposing the admission of the Intervenor's amended environmental contention 3, the Staff does not contest the case precedents relied upon by the Intervenor. Nor does the Staff dispute that the Intervenor filed extensive comments on, inter alia, the ten deficiencies in the draft EA listed in the contention. Similarly, the Staff does not claim that it responded in the final EA to the Intervenor's comments on the listed deficiencies in the draft EA. Rather, the Staff argues that the contention is inadmissible because the Intervenor did not "refer to the specific portions of the document in dispute" as required by 10 C.F.R. § 2.309(f)(1)(vi).[42] This being so, the Staff argues that "the Intervenor has not identified a single comment response that is inadequate" nor "explained why any comment response is inadequate."[43] Thus, the Staff argues that "the Intervenor has not shown that a genuine dispute exists on a material issue of law or fact."[44]

Putting to one side the Staff's reliance upon the portion of section 2.309(f)(1)(vi) that requires a contention to "include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes" when the matter involved here is neither the application nor the Applicant's environmental report but the Staff's final EA,[45] the Staff, in any event, badly misapprehends the contention it opposes. The first segment of the Intervenor's contention is a contention of omission and, as already explained, it meets all the requirements for such a contention. The contention effectively asserts that the Staff's final EA omits any responses to the Intervenor's extensive comments on ten deficiencies in the draft EA contrary to cited case precedents that require an adequate environmental

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[42] Staff Response at 5.

[43] Id. (emphasis in original).

[44] Id.

[45] The Staff's reliance upon Georgia Power Co., et al. (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 41 (1993) is equally misplaced. Id.

assessment to include responses to public comments. Thus, the Staff's argument that the first segment of the Intervenor's contention is inadmissable for failing to comply with section 2.309(f)(1)(vi) is without merit.[46]

The second major deficiency the Intervenor asserts in contention 3 is that the Staff failed to supply sufficient evidence and analysis in the final EA about the potential impacts of the proposed irradiator.[47] In "bullet" form, the Intervenor lists twenty-five illustrative deficits,[48] including the Staff's alleged failure to provide any calculations, analysis, or data substantiating its generalized conclusory statements about the proposed irradiator's occupational dose limit,[49]

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[46] As best we can decipher it, the Applicant's answer to the Intervenor's amended environmental contentions does not appear to address the first segment of amended environmental contention 3. See Applicant Response.

[47] See Amended Environmental Contentions at 8-14.

[48] See id. at 8-11. Of the twenty-five listed omissions embedded within the Intervenor's second claim, it appears from the face of the final EA highly questionable, at best, whether the Staff met the applicable "hard look" standard in light of cited Ninth Circuit precedents in twelve of the listed omissions. For clarity purposes, we have assigned a number to each of the twenty-five bulleted omissions in the order they are listed in the Intervenor's second claim.

With regard to the other thirteen bulleted omissions in the Intervenor's second claim, it appears clear from the face of the final EA that each is sufficiently addressed. Thus, there is no need to determine whether they raise new and significant information and therefore, should have been raised in challenging the draft EA. See 10 C.F.R. § 2.309(f)(2); Staff Response at 5-6. On the other hand, due to the fact that each of the twelve aforementioned bulleted omissions were either already raised in response to the draft EA, or the basis for the alleged omissions did not exist at the time the draft EA was published, there is no issue as to their timeliness.

It should also be noted that the Intervenor identified in its list of omissions the Staff's allegedly insufficient discussion of the anticipated effects of a terrorist attack. See Amended Environmental Contentions at 10, omissions 22 and 23. As explained below, we are temporarily withholding consideration of the portions of the Intervenor's contentions challenging whether the Staff took the necessary hard look at the potential impacts of terrorism.

[49] See id. at omission numbers 1, 2, 9, 10, 24.

off-site consequences,[50] impact on transportation,[51] and influence on tourism.[52] Citing Ninth Circuit precedent, the contention claims that for the purpose of satisfying NEPA, an adequate environmental assessment must demonstrate that the Staff meaningfully considered the impacts of the proposed irradiator and presented more than generalized conclusory statements about the proposed irradiator's effects.[53] The Intervenor alleges that the final EA fails to demonstrate that the Staff meaningfully considered the impacts of the proposed irradiator when it failed to respond to the issues raised by the Intervenor, and instead, provided no more than generalized conclusory statements about the irradiator's effects.[54] In other words, the contention claims that the Staff's failure to provide the required substantiated analyses in the final EA amounts to an omission because the Staff failed to consider meaningfully the impacts of the proposed irradiator and therefore, failed to incorporate the type of informed decision-making required by NEPA.[55]

This portion of the Intervenor's contention presents a contention of omission because it both lists the twelve instances in the final EA in which the Staff failed to provide sufficient substantiated analyses regarding the potential impacts of the proposed irradiator, and identifies the Ninth Circuit case law that requires an environmental assessment to provide such evidence and analysis regarding the proposed irradiator. Thus, this portion of contention 3 points out the

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[50] See id. at omission numbers 3, 5-8.

[51] See id. at omission number 4.

[52] See id. at omission number 25.

[53] See id. at 8-14 (citing Ocean Advocates v. U.S. Army Corps of Eng'rs, 402 F.3d 846, 864, 866 (9th Cir. 2005); Klamath-Siskiyou Wilderness Center v. Bureau of Land Management, 387 F.3d 989, 996 (9th Cir. 2004); Idaho Sporting Cong. v. Thomas, 137 F.3d 1146, 1150 (9th Cir. 1998)).

[54] See id.

[55] See id.

missing information, i.e., the proper analysis and evidence of the impacts of the proposed irradiator, and sets out the Ninth Circuit precedent requiring an environmental assessment for a facility in Hawaii to provide such evidence and analysis. Therefore, the Intervenor presents the necessary information for a contention of omission to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v) – a concise statement of the alleged facts and references to support its position. Similarly, as a contention of omission, the Intervenor's contention satisfies 10 C.F.R. § 2.309(f)(1)(vi) by presenting a genuine dispute between the Intervenor and the Staff over whether the final EA complies with NEPA when it omits substantiated analyses and only provides generalized conclusory statements about the proposed irradiator's occupational dose limit, off-site consequences, impact on transportation, and influence on tourism.

In opposition to the second part of the Intervenor's amended environmental contention 3, the Staff again argues that the Intervenor has failed to show there is a genuine dispute on a material issue of law or fact.[56] Contrary to the Staff's argument, the Intervenor has indeed demonstrated that there is a genuine dispute between the Intervenor and the Staff over whether the final EA meets the standards in the referenced NEPA precedents for an adequate environmental assessment when it omits substantiated analyses and provides only generalized conclusory statements about the impacts of the proposed irradiator.

In opposing this part of contention 3, the Applicant takes each of the twenty-five illustrative asserted deficiencies in the final EA that the Intervenor lists in bullet form and treats each alleged deficiency as a separate contention. The Applicant then proceeds to present a merits-based refutation of each of the purported new contentions.[57] Not only does the Applicant misapprehend the import of this part of the Intervenor's contention but, as previously indicated,

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[56] See id. at 7-8.

[57] See Applicant Response at 5-29.

(a) this is a contention of omission relating to the final EA, which omission either must be addressed or an explanation provided as to why it need not be addressed; and (b) a merits-based factual refutation of contentions is inappropriate in determining the admissibility of contentions.[58]

The third major deficiency the Intervenor asserts in contention 3 is that the Staff failed to consider adequately the impact of natural disasters and aviation accidents on the proposed irradiator, as well as transportation accidents involving the irradiator's cobalt sources. Relying on Ninth Circuit precedent, this portion of the contention reiterates that an adequate environmental assessment must provide more than general statements about possible risks associated with the proposed irradiator.[59] The Intervenor states that, in the final EA, the Staff failed to provide more than general statements about possible risks associated with natural disasters and aviation accidents and failed to consider transportation accidents involving the cobalt sources. Thus, the contention claims that the Staff's actions amount to an omission of any meaningful consideration of potential risks associated with the proposed irradiator and thereby preclude the type of informed decision-making required by NEPA.

By identifying the potential risks associated with the proposed irradiator that the Staff assertedly failed to address, and by citing to the Ninth Circuit case law that requires a satisfactory environmental assessment to address these potential risks, the Intervenor's contention presents, once again, a contention of omission. Contention 3 identifies the missing information, i.e., the risk analysis of natural disasters and aviation accidents, and any consideration of transportation accidents involving cobalt sources. It also sets out the case precedent indicating that an adequate environmental assessment for a facility in Hawaii must

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[58] See LBP-06-12, 63 NRC at 406.

[59] See Amended Environmental Contentions at 14-18 (citing Klamath-Siskiyou Wilderness Center v. Bureau of Land Management, 387 F.3d 989, 994 (9th Cir. 2004)).

address such potential risks. Thus, the Intervenor presents all the information necessary for a contention of omission to satisfy the mandate of 10 C.F.R. § 2.309(f)(1)(v). Similarly, as a contention of omission, the Intervenor's contention satisfies 10 C.F.R. § 2.309(f)(1)(vi) because it presents a genuine dispute between the Intervenor and the Staff over whether the final EA complies with NEPA, without addressing the asserted risks associated with the proposed irradiator.

The Staff opposes the admission of this portion of the Intervenor's contention on a number of grounds. It argues, without any specifics, that "[t]he Intervenor cites only the assertions of its experts, without providing any explanation of the bases underlying [its] opinions."[60] The Staff then concludes that the contention fails to provide a concise statement of fact or expert opinion as required by 10 C.F.R. § 2.309(f)(1)(v). As just indicated, however, this portion of the Intervenor's contention need not contain such elements because it is effectively a contention of omission and, as such, entirely meets the requirements of section 2.309(f)(1)(v). In any event, a blunderbuss argument that fails to detail each of the contention's asserted faults and fails to include an adequate explanation with supporting authority for why the contention does not meet the standard at issue, is insufficient to defeat the admissibility of a contention.[61]

The Staff also claims that the part of the Intervenor's contention challenging the Staff's failure to consider transportation accidents involving the shipment of Co-60 sources to and from

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[60] Staff Response at 9.

[61] The Staff's argument (see Staff Response at 9) to the effect that the third portion of the Intervenor's contention is inadmissible for failing to demonstrate good cause for not raising certain "arguments" earlier is inadequate for this same reason. Moreover, the "arguments" that the Staff seems to believe should have been raised earlier with respect to the Staff's draft documents appear to have been raised by the Intervenor in its safety contentions and incorporated by reference into its environmental contention 3 on the draft EA. See Intervenor Concerned Citizens of Honolulu's Contentions Re: Draft Environmental Assessment and Draft Topical Report at 20 (Feb. 9, 2007).

the proposed irradiator is beyond the scope of the proceeding and hence inadmissible under 10 C.F.R. § 2.309(f)(1)(iii). In a footnote to its response to the Intervenor's contentions, the Staff acknowledges that it considered transportation impacts in the final EA.[62] The Staff claims, however, that it is not required to consider such impacts because transportation activities will be conducted by a Part 71 licensee and transportation impacts fall under the umbrella of a generic environmental impact statement (GEIS) on the transportation of radioactive materials, NUREG-0161.[63] Having introduced transportation impacts in the draft and final EA, the Staff cannot now fence off the subject from challenge. In any event, NEPA requires consideration of the actions connected to the activity being licensed.[64] Because the Applicant's proposed facility cannot operate without regular shipments of Co-60 sources, the transportation of the radioactive sources shipped to and from the facility, along with transportation accidents that are an inevitable fact of life, appear to be connected and intertwined actions whose potential impacts may need to be examined in the final EA.[65] Thus, in the context of a NEPA contention at the contention admissibility stage, it cannot be concluded that transportation impacts are beyond the scope of the proceeding. Further, the Staff's reliance on a GEIS in its response to the Intervenor's contention is too little and too late to defeat the contention. Thus, while discussing, albeit briefly and arguably insufficiently, transportation-related impacts in its EA, the Staff cannot now avoid the alleged shortcomings of its analysis by mentioning it in its responsive pleadings. Neither the draft nor the final EA cite this GEIS, much less summarize in the final EA the issues

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[62] See Staff Response at 11 n.9. On page 8 in the final EA, the Staff concluded that transportation impacts from normal operations would be small but omitted any consideration of impacts from transportation accidents, the subject of the Intervenor's challenge here.

[63] See id.

[64] See 40 C.F.R. § 1508.25(a)(1).

[65] See 40 C.F.R. § 1508.28.

and reasoning of the generic study as is required when incorporating such environmental documents.[66] Indeed, the sole document referenced by the Staff in its treatment of transportation impacts in the final EA is an e-mail, which does not even contain the referenced and pertinent attachments.[67]

The fourth major deficiency the Intervenor identifies in contention 3 is that the Staff failed to furnish a complete analysis of potential terrorist acts involving the proposed irradiator.[68] The contention asserts that the final EA failed to provide a serious, scientifically-based analysis of the risk of a terrorist attack, disclose data underlying its terrorism analysis, address the significance of the identified effects, and consider all reasonably foreseeable impacts.[69] In response to this portion of the Intervenor's contention, the Staff argues that the Intervenor fails to show a dispute on a material issue of law or fact, and fails to support its claim with facts or expert opinions. The Staff also argues that the Intervenor seeks to circumvent the rules that protect safeguards information.[70]

We note that a closely parallel contention is currently pending before the Commission regarding the extent of the Staff's obligation under NEPA to consider the risks and effects of a potential terrorist attack in an environmental assessment.[71] Because of the inherent limitations

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[66] See id.

[67] See Final EA at 8 (citing "(NRC, 2006d) Email from E. Keegan to M. Blevins 'Pa'ina Irradiator SER Input.' December 6, 2006.")

[68] See Amended Environmental Contentions at 18-29.

[69] Id.

[70] See Staff Response at 11-16 (citing 10 C.F.R. § 2.309(f)(1)(ii); 10 C.F.R. § 2.309(f)(1)(v); 10 C.F.R. § 2.309(f)(1)(vi); 5 U.S.C. § 552).

[71] See Pac. Gas and Elec. Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-06-23, 64 NRC 107, 108 (2006); see generally CLI-07-11, 65 NRC 148 (2007).

on the Staff's treatment of the risks and effects of a potential terrorist attack due to the nature of the underlying safeguards and other nonpublic information involved, we will withhold our ruling on the fourth segment of amended environmental contention 3 until we have the benefit of the Commission's guidance from its treatment of the analogous contention in the Diablo Canyon proceeding.

The fifth major deficiency the Intervenor cites in the final EA is the Staff's failure to consider the impacts of irradiating food on human health.[72] The contention states that recent studies have shown that 2-alkylcyclobutanone (2-ACB), a radiolytic product found exclusively in irradiated dietary fats, may be carcinogenic and would affect fresh fruits and vegetables like those to be treated by the proposed irradiator. Relying on Ninth Circuit precedent and the regulations of the Council on Environmental Quality, the contention claims that actions that are inextricably intertwined with, or connected to, the Applicant's proposed action, such as the irradiation of mangos and papayas destined for human consumption, in which studies show the presence of 2-ACB after treatment, must be considered in the environmental assessment.[73] The Intervenor asserts that the health effects from the human consumption of irradiated food is inextricably connected to the proposed use of the Applicant's food irradiator, whose primary purpose is the irradiation of comestibles. The Intervenor also claims that the increase in the supply of irradiated food from the proposed irradiator establishes the requisite causal relationship necessary to trigger the Staff's obligations to consider the potential health effects of human consumption of irradiated tropical fruits.[74] In doing so, the Intervenor claims that the Staff's failure to consider human consumption of irradiated fruits and vegetables in the final EA

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[72] See Amended Environmental Contentions at 29-30.

[73] See id. at 30 (citing Thomas v. Peterson, 753 F.2d 754, 759 (9th Cir. 1985)).

[74] See id.

is an omission, and therefore, precludes the type of informed decision-making required by NEPA.

As stated in the Intervenor's contention, the Staff's failure to address the connected action of the health effects from human consumption of irradiated mangos and papayas, and by citing to the Ninth Circuit case law that indicates that a satisfactory environmental assessment must respond to actions that are closely intertwined with, and connected to, the use of the proposed irradiator, the Intervenor's contention presents a contention of omission. This portion of contention 3 identifies the missing information, i.e., the Staff's failure to discuss the health effects of human consumption of irradiated food, and indicates that an adequate environmental assessment for a facility in Hawaii must speak to the issue of the health effects of human consumption of irradiated food. The Intervenor thus presents all the information necessary for a contention of omission to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v), which requires a concise statement of the alleged facts and references supporting its position. Similarly, as a contention of omission, the Intervenor's contention satisfies 10 C.F.R. § 2.309(f)(1)(vi) because it presents a genuine dispute between the Intervenor and the Staff over the legal issue whether the final EA complies with NEPA without consideration of the health effects of consumption of irradiated tropical fruits.

The Staff argues that this portion of the contention fails to meet the requirement of 10 C.F.R. § 2.309(f)(1)(iii) because issues related to the human consumption of irradiated food are outside the scope of the proceeding.[75] Stating that the United States Food and Drug

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[75] Although it apparently opposes the admission of the Intervenor's contention on the same grounds, the Applicant only states that "[t]his Board has already dismissed Intervenor's contentions based upon the propriety or impropriety of irradiating, and then eating, foods." Applicant Response at 29. Contrary to the Applicant's apparent belief, however, the portion of the Intervenor's second initial environmental contention that we found inadmissible raised the potential health effects of consuming mangos and papayas as a special circumstance exception precluding the Staff's application of the categorical exclusion for irradiators in 10 C.F.R. § 51.22(c)(14)(vii). In ruling that this portion of the Intervenor's contention was inadmissible, we

Administration and the United States Department of Agriculture determine the food types that may be safely irradiated, the Staff asserts that matters concerning food safety are outside the jurisdiction of the NRC. According to the Staff, the scope of this proceeding is limited to the possession of a sealed source in connection with the operation of the proposed irradiator.[76]

In the context of the Staff's compliance with the mandates of NEPA, however, the fact that other federal agencies have regulatory authority over the safety of irradiated foods does not automatically excuse the Staff from considering in the final EA the health effects associated with irradiating the tropical fruits, principally mangoes and papayas, at the proposed facility. Although as the Staff states the licensing action concerns the use of sealed sources in the proposed irradiator, that licensing action is not exempt from complying with the requirements of NEPA.[77] Where, as here, the primary purpose of the proposed irradiator is to irradiate tropical fruits, i.e., mangos and papayas, destined for human consumption, the use of the product of the irradiator is an inextricably intertwined connected action that may require the Staff to consider in the final

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held that the "possible health effects of irradiating papayas and mangos does not rise to the level of special circumstances necessary to invoke the exception under 10 C.F.R. § 51.22(b) for the categorical exclusion of irradiators." LBP-06-04, 63 NRC at 114-15. The Intervenor's present contention raises the completely different legal issue of whether, once having undertaken to prepare an environmental assessment, the Staff must consider the possible health effects of human consumption of irradiated tropical fruits in order to comply with NEPA.

Similarly, the Commission's statement in the notice of opportunity for hearing that other federal agencies are responsible for determining food types that may be safely irradiated must be read in the context of the additional statement in the notice that an environmental assessment is not required because the licensing action falls within the categorical exclusion of 10 C.F.R. § 51.22(c)(14)(vii). See Notice of License Request for Pa'ina Hawaii, LLC, Irradiator in Honolulu, HI and Opportunity To Request a Hearing, 70 Fed. Reg. 44,396, 44,396 (Aug. 2, 2005).

[76] See Staff Response at 17.

[77] See Calvert Cliffs' Coord. Comm. v. Atomic Energy Comm'n, 449 F.2d 1109, 1123 (D.C. Cir. 1971); see also Steamboaters v. F.E.R.C., 759 F.2d 1382, 1393-94 (9th Cir. 1985); S. Oregon Citizens Against Toxic Sprays, Inc. v. Clark, 720 F.2d 1475, 1480 (9th Cir. 1983); Oregon Envtl. Council v. Kunzman, 714 F.2d 901, 905 (9th Cir. 1983).

EA the possible health effects of human consumption of irradiated tropical fruits.[78] That question, however, is the legal issue raised by this legal issue contention that cannot appropriately be resolved at the contention admissibility stage and may be properly addressed only after the contention is admitted and the issue fully briefed.

B. Amended Environmental Contention 4

The Applicant seeks a materials license for the proposed irradiator for the phytosanitary treatment of fresh tropical fruits and vegetables bound for the mainland and the treatment of similar products imported into the Hawaiian Islands.[79] The Intervenor's fourth amended environmental contention asserts that, contrary to the requirements of section 102(2)(E) of NEPA, the Staff's final EA failed to consider a range of alternatives reasonably related to the purposes of the project[80] and that "might be pursued with less environmental harm."[81] Relying on NEPA precedents primarily from the Ninth Circuit, the contention states that the consideration of alternatives under NEPA is required, regardless of whether the proposed action triggers the EIS process, and that the evaluation of alternatives is an appraisal of alternative means to accomplish the general goal of an action, not an evaluation of the alternative means by which a specific applicant can accomplish his or her goals.[82]

The contention then presents two separate challenges with respect to the Staff's treatment of alternatives. First, the Intervenor claims that the final EA failed adequately to

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[78] See 40 C.F.R. § 1507.8(b); Thomas v. Peterson, 753 F.2d at 758.

[79] See Notice of License Request for Pa'ina Hawaii, LLC, Irradiator in Honolulu, HI and Opportunity to Request a Hearing, 70 Fed. Reg. 44,396 (Aug. 2, 2005).

[80] Amended Environmental Contentions at 30-34.

[81] Id. at 30 (quoting Lands Council v. Powell, 395 F.3d 1019, 1027 (9th Cir. 1988)).

[82] See id. at 30-31 (citing Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1228-29 (9th Cir. 1988); Van Abbema v. Fornell, 807 F.2d 633, 638 (9th Cir. 1986)).

analyze all reasonable alternative pest control technologies.[83] Acknowledging that the final EA briefly mentioned a discussion of two alternatives, the Intervenor, relying on Ninth Circuit NEPA precedents, asserts that the discussion of those alternatives does not "'[r]igorously explore and objectively evaluate'" the proposed alternatives.[84] According to the contention, the Staff's discussion does not quantify the relative environmental impacts and benefits of the alternative technologies and thus, does not provide a final EA that "'fosters informed decision-making' nor 'informed public participation.'"[85] As such, the Intervenor contends, the final EA violates NEPA's basic purpose. Additionally, the Intervenor asserts that the final EA failed to consider the use of an electron-beam irradiator – an alternative control technology purportedly most similar to the one the Applicant proposes, already in use on the island of Hawaii, and doing the identical tasks the Applicant intends to perform without the use of Co-60 sources.[86] Second, the Intervenor claims that the Staff's failure to consider in the final EA any alternative sites for the irradiator, including any alternate locations where the irradiator might be safe from aviation accidents and natural disasters, falls short of satisfying its legal obligations under NEPA.[87] The contention states that had the Staff looked at alternate locations for the proposed irradiator, such a comparison would have highlighted the environmental inferiority of the Applicant's chosen location at the Honolulu International Airport.[88] Relying again on NEPA case law, the contention

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[83] See id. at 31-32.

[84] Id. at 32 (quoting Morongo Bank of Mission Indians v. Federal Aviation Admin., 161 F.3d 569, 575 (9th Cir. 1998) (quoting 40 C.F.R. § 1502.14)).

[85] Id. (citing Morongo, 161 F.3d at 575 (quoting City of Angoon v. Hodel, 803 F.2d 1016, 1020 (9th Cir. 1986))).

[86] See id. at 32.

[87] See id. at 33-34.

[88] See id. at 33.

claims that "'[t]he [final EA's] failure to adequately select and analyze a reasonable range of alternatives . . . requires that [the Staff's] action be set aside.'"[89]

The Staff opposed the admission of amended environmental contention 4 on the grounds that the Intervenor provides no support for its claim that the Staff's consideration of alternative control technologies was deficient or for its claim that the Staff must consider alternative locations.[90] The Applicant argues that the contention is inadmissible because there is no meaningful testimony to support the use of the "e-beam irradiator" as an alternative control technology and the Intervenor has failed to identify a specific alternative site suitable for the proposed irradiator.[91] As explained below, we find that the Intervenor's fourth amended environmental contention meets all the contention admissibility requirements of the Commission's regulations and that the arguments of the Staff and the Applicant are without merit. Hence, the contention is admissible. Because the Intervenor's contention includes two distinct NEPA "alternatives" challenges, in effect presenting two separate contentions, we address each separately in determining the contention's compliance with the requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi).

1. The Intervenor's first challenge is aimed at the Staff's treatment of alternative quarantine technologies. Stripped to its essence, the contention asserts that, contrary to the requirements of NEPA as interpreted by Ninth Circuit precedents, the Staff failed to quantify the relative cost and benefits of the two pest control technologies mentioned in the final EA and omitted any consideration of the electron beam irradiator technology proposed in the

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[89] Id. at 34 (quoting Soda Mountain Wilderness Council v. Norton, 424 F.Supp.2d 1241, 1264 (E.D. Cal. 2006)).

[90] See Staff Response at 18.

[91] See Applicant Response at 29-31.

Intervenor's comments on the draft EA.[92] Thus, as required by 10 C.F.R. § 2.309(f)(1)(i), the contention provides a specific statement of the issues of fact and law raised, i.e., whether the Staff's treatment of alternative pest control technologies in the final EA and its failure to consider the electron beam irradiator complies with the requirements of NEPA.

The Intervenor's challenge to the adequacy of the Staff's treatment of pest control alternatives also complies with the requirement of 10 C.F.R. § 2.309(f)(1)(ii), which mandates that the Intervenor provide a brief explanation of the basis for the contention. First, the contention asserts that Ninth Circuit NEPA precedents involving environmental documents indicate that the treatment of alternatives must rigorously explore and objectively evaluate alternatives in a manner that fosters informed decision making and public participation.[93] Next, the contention claims that the Staff's cursory discussion of the methyl bromide gas and heat treatment alternatives in the final EA fails this standard by not quantifying the relative impacts or benefits of these alternatives.[94] Thus, the contention adequately explains the foundation for the Intervenor's challenge to the adequacy of the Staff's treatment of alternatives in the final EA. Second, with regard to the Staff's failure to consider the electron beam irradiator alternative, the contention indicates that the scope of analyzed alternatives in an environmental assessment is judged by a reasonableness standard.[95] The contention then states that despite the comments from the Intervenor on the draft EA, urging the Staff to consider the alternative of the electron beam irradiator,[96] the Staff neither considered the alternative in the final EA, nor explained why

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[92] See Amended Environmental Contentions at 30-34.

[93] See id. at 32.

[94] See id. at 31-32.

[95] See id. at 31 n.9.

[96] See Intervenor Comments.

the alternative need not be considered.[97] Thus, in compliance with section 2.309(f)(1)(ii), the Intervenor fully explains the basis for its challenge to the Staff's failure to consider the electron beam irradiator alternative.

The Intervenor's contention also meets the scope and materiality requirements of 10 C.F.R. § 2.309(f)(1)(iii) and (iv). Each of the Intervenor's challenges in the contention raises issues directly related to the adequacy of the Staff's final EA and the Staff's compliance with the mandates of NEPA. As such, the issues are squarely within the scope of the issues in the materials license proceeding as required by section 2.309(f)(1)(iii). And, because the agency's compliance with the requirements of NEPA is nondiscretionary, the Staff's compliance with NEPA in issuing a final EA is material to the findings the Staff must make in granting any material license to the Applicant. Thus, the contention also meets the materiality requirement of Section 2.309(f)(1)(iv).

Additionally, the first part of contention 4 dealing with alternate technologies satisfies the requirements of Section 2.309(f)(1)(v) and (vi). Relying on Ninth Circuit precedent, the contention effectively states that for the purposes of complying with NEPA, an adequate environmental assessment must provide a rigorous and objective evaluation of the relative environmental costs and benefits of the methyl bromide gas and heat treatment technologies in relation to the proposed Co-60 irradiator[98] as well as consider the alternative technology of the electron beam irradiator.[99] Thus, the contention claims that the Staff's actions amount to an omission both of any rigorous and objective evaluation of the relative costs and benefits of the

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[97] See Amended Environmental Contentions at 32.

[98] See id. (quoting Morongo Band of Mission Indians v. Fed. Aviation Admin., 161 F.3d 569, 575 (9th Cir. 1998)).

[99] See id.

two alternative technologies briefly mentioned by the Staff and of any consideration of the electron beam irradiator alternative. Hence, the Intervenor's contention presents a concise statement of facts supporting its position and the precedents it relies upon as required for a contention of omission under 10 C.F.R. § 2.309(f)(1)(v). Contention 4 identifies the final EA's missing analyses i.e., a rigorous and objective evaluation of the relative costs and benefits of the proposed alternatives and the consideration of the named alternative technology, and sets out the case precedent indicating that an adequate environmental assessment for a facility in Hawaii must address such alternatives in the prescribed manner. Further, as a contention of omission, the Intervenor's contention satisfies 10 C.F.R. § 2.309(f)(1)(vi). The contention presents a genuine dispute between the Intervenor and the Staff over whether the final EA complies with NEPA by failing to present the asserted alternatives review and the asserted alternative technology.

In opposing the admissibility of the first part of amended environmental contention 4, the Staff does not claim, for example, that the Ninth Circuit NEPA precedents relied upon by the Intervenor are inapposite. Rather, the Staff merely asserts, without more, that the contention is inadmissible because "the Intervenor offers no facts or expert opinion in support of its assertion that the Staff's analysis was faulty" and cites 10 C.F.R. § 2.309(f)(1)(v).[100] As previously explained, however, the contention meets the requirements of section 2.309(f)(1)(v) because the Intervenor presents the requisite facts and references necessary to support the issue raised and thus it needs no expert opinion. The contention asserts that the Staff's cursory treatment of the methyl bromide gas and heat treatment alternatives in the final EA fails to quantify the relative impacts and benefits of theses alternatives relative to the proposed Co-60 irradiator. Relying upon Ninth Circuit NEPA precedents indicating that an adequate environmental

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[100] Staff Response at 18.

assessment must provide a rigorous and objective evaluation of the costs and benefits of the considered alternatives, the contention claims that the final EA does not meet this standard. Thus, contrary to the Staff's argument, the contention adequately supports the Intervenor's challenge to the adequacy of the Staff's consideration of alternative pest control technologies.

The Intervenor also adequately supports the portion of its contention asserting that the Staff failed to consider the alternative of the electron beam irradiator. The contention states that the electron beam irradiator is most similar to the proposed irradiator and that one is currently in use on the Island of Hawaii performing the identical tasks planned for the Applicant's facility.[101] Further, the contention asserts that the electron beam irradiator is a non-nuclear technology that would eliminate the potential impacts associated with the release of radioactive material and exposures to unshielded sources, thereby altering the environmental impact and cost-benefit balance relative to the proposed irradiator.[102] Finally, the contention states that, in its comments on the draft EA, the Intervenor urged the Staff to consider this reasonable non-nuclear technology.[103] Thus, the Intervenor provides sufficient support for the portion of the contention claiming that to comply with NEPA the Staff, in its final EA, must either consider the electron beam irradiator alternative or explain why the alternative need not be considered. Completely ignoring the factual underpinning for the contention, the Staff's sole argument against the admissibility of this portion of the contention is that it relies upon the declaration of one of the Intervenor's experts whose "declaration merely states that an electron-beam irradiator is a viable alternative in general, and [] offers no explanation as to the basis for the expert's opinion

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[101] See Amended Environmental Contentions at 32.

[102] See id.

[103] See id.

that the use of an electron-beam irradiator would be reasonable in the present case."[104] The Staff's argument conveniently overlooks the fact that, after setting forth the factual foundation for the contention, the Intervenor uses a "see also" citation to the declaration of one of its experts.[105] Because the Intervenor details the factual basis for the contention, the contention needs no expert opinion to support the Intervenor's position that NEPA requires the Staff in the final EA either to consider the reasonable alternative of the electron beam irradiator or to explain why it need not be considered.[106]

2. The second part of the Intervenor's challenge is directed at the Staff's treatment of alternative locations for the proposed irradiator. In short, the contention asserts that the Staff fails to meet the requirements of NEPA because the final EA omits any consideration of

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[104] Staff Response at 18.

[105] See Amended Environmental Contentions at 32. The Staff also mischaracterizes the substance of the cited declaration. Contrary to the Staff's characterization, the cited portion of the declaration addresses the avoidance of the terrorism risk of the proposed irradiator by eliminating the use of radioactive Co-60 sources. See Amended Environmental Contentions, Exh. 1, Thompson Decl. 14, ¶ VI-2 (Oct. 3, 2005).

[106] For its part, the Applicant opposes the admission of this portion of the Intervenor's contention stating that the final EA addressed all reasonable alternatives and that there is no meaningful manufacturing, scientific or economic testimony showing that the electron beam irradiator "is appropriate for irradiating uneven foods of various and large thickness." Applicant Response at 30. In a footnote, the Applicant then lists what it calls "unrebutted facts" about electron beam technology from a document in the Hearing File. Id. at 30 n.6. The cited Hearing File document is neither cited nor relied upon by the Staff in the final EA. Because the Staff in the final EA neither mentioned the electron beam technology nor explained why it did not consider that alternative, the adequacy of the final EA cannot rest upon a rationale now supplied by the Applicant. In any event, the Applicant's argument attempts a merit-based refutation of the alternative technology that is inappropriate in determining the admissibility of a contention. See LBP-06-12, 63 NRC at 406. Interestingly, the Hearing File document relied upon by the Applicant for "unrebutted facts" regarding electron beam technology, also indicates that the methyl bromide gas treatment considered by the Staff in the final EA as an alternative pest control technology is not an approved quarantine method for the Applicant's primary tropical fruit, papayas. See E-mail from Michael Kohn, President, Pa'ina Hawaii, LLC, to Matthew Blevins, Senior Project Manager, Division of Waste Management and Environmental Protection, NRC (Feb. 28, 2007), ADAMS Accession No. ML070600583.

reasonable alternative locations that would purportedly avoid or minimize the proposed irradiator's adverse impacts on the environment.[107] Thus, the contention satisfies 10 C.F.R. § 2.309(f)(1)(i) because it provides a specific statement of the sole issue of law raised, i.e., whether the Staff's failure to consider any alternative locations for the irradiator complies with the requirements of NEPA.

Additionally, the Intervenor's challenge to the Staff's failure to consider alternative locations complies with the requirement of 10 C.F.R. § 2.309(f)(1)(ii) requiring that the Intervenor provide a brief explanation of the basis for its legal issue contention. The contention asserts that the Staff failed to consider any alternative locations and that Ninth Circuit NEPA precedents indicate that the NRC was obligated to consider site alternatives that might cause less environmental harm.[108] Thus, the contention adequately explains the foundation for the Intervenor's legal challenge to the Staff's failure to consider site alternatives in the final EA.

The contention also meets the scope and materiality requirements of 10 C.F.R. § 2.309(f)(1)(iii) and (iv). The Intervenor's challenge in the contention raises a legal issue directly relating to the completeness of the Staff's final EA and the Staff's compliance with the mandates of NEPA. Therefore, the issues are squarely within the scope of the issues in the materials license proceeding called for by section 2.309(f)(1)(iii). Further, because the agency's compliance with the requirements of NEPA is mandatory, the Staff's compliance with NEPA in issuing a final EA is material to the findings it must make in granting the Applicant any materials license. Thus, the contention also meets the materiality requirement of Section 2.309(f)(1)(iv).

Finally, this part of the Intervenor's legal issue contention that the Staff failed to consider alternate site locations satisfies the requirements of Section 2.309(f)(1)(v) and (vi). Relying on

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[107] See Amended Environmental Contentions at 33-34.

[108] See id.

Ninth Circuit precedent, the contention states that for the purposes of complying with NEPA, an adequate environmental assessment must consider a reasonable range of alternatives, including site alternatives, that may be pursued and cause less environmental harm.[109] The contention asserts that had the Staff considered alternative locations, such consideration would have highlighted the environmental inferiority of the proposed location. Relying on its expert's declarations, the Intervenor states that (1) sites located away from the lagoon at the airport would eliminate threats from tsunami runup and hurricane storm surges; (2) sites on solid ground, rather than unconsolidated fill, would eliminate liquefaction during earthquakes; and (3) sites away from the airport runway would reduce the threat of airplane crashes.[110] Thus, the contention claims that the Staff's actions amount to an omission of any reasonable review of less environmentally-harmful, alternate site locations.[111] By identifying the appropriate standard by which to evaluate alternative site locations for the proposed irradiator, and by citing to the Ninth Circuit case law that requires such an evaluation, the Intervenor's contention presents a legal issue contention of omission and meets the requirements of 10 C.F.R. § 2.309(f)(1)(v), to the extent such requirement is applicable to a legal issue contention. In addition, as a contention of omission, the Intervenor's contention satisfies 10 C.F.R. § 2.309(f)(1)(vi) because it presents a genuine dispute between the Intervenor and the Staff over the legal issue whether the final EA complies with NEPA because it fails to consider any alternative site locations.

In opposing the admission of the contention, the Staff argues that it is not required to consider remote and speculative alternatives. It argues that because the Intervenor has not

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[109] See id. (citing Lands Council v. Powell, 395 F.3d 1019, 1027 (9th Cir. 2005); Soda Mountain Wilderness Council v. Norton, 424 F.Supp.2d 1241, 1264, 1264 (E.D. Cal. 2006)).

[110] See id.

[111] See id.

identified a specific alternative location, and because there is no evidence to suggest that the Applicant would consider any other location for its irradiator, the Staff's consideration of the impacts on an unknown alternate location would be remote and speculative.[112] In its reply, the Intervenor reiterates that the evaluation of alternatives under NEPA is an evaluation of the alternative means to accomplish the general goal of an action, not an evaluation of the alternative means by which a particular applicant can reach its goal. Therefore, the Intervenor argues, whether the Applicant would consider another location is irrelevant in defining a range of alternatives.[113] The respective positions of the Staff and the Intervenor serve to highlight that this portion of the contention raises a purely legal issue that cannot appropriately be resolved at the contention admissibility stage. Rather, the merits of the legal issue contention can only be addressed after the contention is admitted. Finally, and more importantly, where, as here, the burden of compliance with NEPA falls on the Staff, the obligation to examine alternative sites falls upon the Staff and not the Intervenor.

C. Amended Environmental Contention 5

The Intervenor asserts in amended environmental contention 5 that the Staff was obligated under NEPA to prepare an EIS for the proposed irradiator because the final EA raised substantial questions as to whether the project "may cause significant degradation of some human environmental factor."[114] We need not address the admissibility of amended environmental contention 5 at this time. Given that contentions 3 and 4 are admissible and question whether the Staff correctly prepared the final EA, the contention is premature. Upon

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[112] See Staff Response at 18-19. The Applicant also argues that the Intervenor has not identified a specific alternate location. See Applicant Response at 29-30.

[113] See Intervenor Reply at 42.

[114] Amended Environmental Contentions at 34 (quoting Idaho Sporting Cong. v. Thomas, 137 F.3d 1146, 1149 (9th Cir. 1998) (emphasis in original)).

reaching the merits of contentions 3 and 4, should we find that the final EA is adequate, we will then be in a position to determine whether the proposed irradiator might cause significant degradation of some human environmental factor, and thus require the Staff to prepare an EIS. On the other hand, should we find that the final EA is inadequate, the EA will need to be supplemented or amended before it can be determined whether an EIS is required.

IV. Conclusion

As set forth in the foregoing decision, we admit Intervenor's amended environmental contentions 3 and 4 and find that amended environmental contention 5 is premature. After the Commission issues its rulings on the pending certified questions and a ruling in the Diablo Canyon proceeding, we will hold a telephone conference with the parties in which we will discuss how we expect the parties to address the subject matter of the admitted contentions of omission.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD*

/RA/

Thomas S. Moore, Chairman
ADMINISTRATIVE JUDGE

/RA by Thomas S. Moore for:/

Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

/RA/

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Rockville, Maryland
December 21, 2007

* Copies of this memorandum and order were sent this date by Internet e-mail transmission to counsel for (1) Applicant Pa'ina Hawaii, LLC.; (2) Intervenor Concerned Citizens of Honolulu; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
PA'INA HAWAII, LLC	)	Docket No. 30-36974-ML
	)	
	)	
(Honolulu, Hawaii Irradiator Facility)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB MEMORANDUM AND ORDER (RULING ON ADMISSIBILITY OF INTERVENOR'S AMENDED ENVIRONMENTAL CONTENTIONS) have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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[Original signed by Evangeline S. Ngbea]

Office of the Secretary of the Commission

Dated at Rockville, Maryland
this 26th day of December 2007