September 20, 2007

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

NRC STAFF'S RESPONSE TO INTERVENOR CONCERNED CITIZENS OF HONOLULU'S AMENDED ENVIRONMENTAL CONTENTIONS #3 THROUGH #5

INTRODUCTION

On September 4, 2007, the intervenor, Concerned Citizens of Honolulu ("Concerned Citizens" or "the Intervenor") filed contentions[1] based on a Final Environmental Assessment (EA) prepared by the NRC staff ("Staff") in connection with an application[2] by Pa'ina Hawaii, LLC ("Pa'ina" or "the Licensee") for a license under 10 C.F.R. Part 36. The license would permit the possession and use of a sealed source in connection with the construction and operation of a commercial irradiator at the Honolulu International Airport. The Staff hereby responds to Concerned Citizens' Contentions.[3]

BACKGROUND

Pa'ina filed an application with the NRC on June 23, 2005, for a license for possession and use of byproduct material, and on October 3, 2005, Concerned Citizens filed a request for a

[1] "Intervenor Concerned Citizens of Honolulu's Amended Environmental Contentions #3 Through #5," September 4, 2007 ("Contentions").

[2] The Staff issued License No. 53-29296-01 to Pa'ina on August 17, 2007.

[3] Pursuant to Board Order, the Staff and the Licensee were to respond to the Contentions within 15 days of service. Order, June 21, 2007. However, because the Contentions were not received by the Staff until after 5:00 p.m. on September 4, 2007, one day has been added to the response period in accordance with 10 C.F.R. § 2.306.

hearing. The Board determined that Concerned Citizens had standing and admitted several contentions, including two environmental contentions, Environmental Contention #1 and Environmental Contention #2. *Pa'ina Hawaii, LLC*, LBP-06-4, 63 NRC 99 (2006). On March 20, 2006, the Intervenor and the Staff entered into a joint stipulation resolving all issues associated with the Intervenor's environmental contentions 1 and 2.[4] Pursuant to that stipulation, the Staff agreed to complete an EA concerning Pa'ina's application for an irradiator license. The Staff also agreed that, before it issued any final finding of no significant impact (FONSI), the Staff would issue a draft FONSI for public review and comment and hold at least one public meeting in Honolulu, Hawaii. The Intervenor reserved its right pursuant to 10 C.F.R. § 2.309(c) to file additional contentions challenging the adequacy of the Staff's review under the National Environmental Protection Act (NEPA) after the Staff published a final FONSI.

On December 28, 2007, the Staff published a draft FONSI and notice of availability of a Draft EA in the *Federal Register*.[5] On June 1, 2007, the Staff also published a supplement to the Draft EA addressing the potential environmental impacts of a terrorism attack at the facility (Appendix B). The Staff issued its Final EA on August 13, 2007, and the Intervenor's Contentions followed.

ANALYSIS

I. Requirements for Admission of Contentions

The requirements for admissible contentions are set forth in 10 C.F.R. § 2.309(f)(1). For each contention, the petitioner must provide: (1) a specific statement of the issue of law or

[4] The Board accepted the settlement agreement and dismissed Environmental Contentions 1 and 2. Order (Confirming Oral Ruling Granting Motion to Dismiss Contentions), April 27, 2006.

[5] The Intervenor filed contentions based on the Draft EA, to which the Staff responded. *See* "Intervenor Concerned Citizens of Honolulu's Contentions Re: Draft Environmental Assessment and Draft Topical Report," February 9, 2007 (Draft EA Contentions); "NRC Staff Response to Intervenor Concerned Citizens of Honolulu's Contentions Re: Draft Environmental Assessment and Draft Topical Report," March 12, 2007 (Draft EA Contentions Response).

fact to be raised; (2) a brief explanation of the basis for the contention; (3) a demonstration that the issue raised in the contention is within the scope of the proceeding; (4) a demonstration that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) a concise statement of the alleged facts or expert opinions which support the requestor's position; and (6) sufficient information to show that a genuine dispute exists on a material issue of law or fact, including references to specific portions of the application that the petitioner disputes and the supporting reasons for each dispute or the identification of each failure to include necessary information in the application and the supporting reasons for the petitioner's belief. 10 C.F.R. § 2.309(f)(1).

"The contention rule is strict by design." *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 433 (2003). The Commission's procedures do "not permit 'the filing of a vague, unparticularized contention,' unsupported by affidavit, expert, or documentary support." *North Atlantic Energy Service Corporation* (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999), *quoting Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant), CLI-98-25, 48 NRC 325, 349 (1998). Likewise, Commission practice does not "permit 'notice pleading,' with details to be filled in later." *Id.* A sufficiently detailed and precise contention "focuses the hearing process on real disputes susceptible of resolution in an adjudication [and] helps to assure that . . . hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions." *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334. Precise contentions also place "other parties in the proceeding on notice of the petitioners' specific grievances and thus gives them a good idea of the claims they will be either supporting or opposing." *Id.* Proposed contentions also must concern matters within the scope of the proceeding. *Georgia Institute of Technology* (Georgia Tech Research Reactor,

Atlanta, Georgia), CLI-95-12, 42 NRC 111, 118 (1995); *Duke Power Co.* (Catawba Nuclear Station, Units 1 & 2), ALAB-825, 22 NRC 785, 790 (1985).

The Intervenor has already had the opportunity to file contentions related to the Draft EA. Thus, only contentions related to Appendix B or C—or to portions of the Final EA that have been amended since the Draft EA was published—are timely. A contention related to any portion of the Final EA that has *not* been amended since the Draft EA was published must meet the additional standards for non-timely contentions stated in 10 C.F.R. § 2.309(c)(1). Namely, the Intervenor must address: (1) good cause, if any, for failure to file on time; (2) the nature of the requestor's/petitioner's right under the AEA to be made a party to the proceeding; (3) the nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding; (4) the possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest; (5) the availability of other means whereby the requestor's/petitioner's interest will be protected; (6) the extent to which the requestor's/petitioner's interests will be represented by existing parties; (7) the extent to which the requestor's petitioner's participation will broaden the issues or delay the proceeding; and (8) the extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record. Of these factors, good cause is the first and foremost, and the absence of good cause requires a strong showing on the remaining factors. *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241, 244 (1986).

II. Concerned Citizens' Contentions

A. Amended Environmental Contention #3

1. Sufficiency of Staff's Response to Comments on the Draft EA

The Intervenor claims the Staff's response to public comments in Appendix C of the Final EA was inadequate. Contentions at 7-8. However, to the extent Amended Environmental Contention #3 relies on arguments regarding the sufficiency of the Staff's response to public comments, it is inadmissible. First, pursuant to NRC regulations, a contention must refer to specific portions of the document in dispute. 10 C.F.R. § 2.309(f)(1)(vi); *Georgia Power Company, et al.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 41 (1993). Here, the Intervenor has not identified a single comment response that is inadequate. Nor has the Intervenor explained *why* any comment response is inadequate. Rather, the Intervenor makes a blanket argument that all comment responses are inadequate and conclusory. Without further information, the Intervenor has not shown that a genuine dispute exists on a material issue of law or fact, and Amended Environmental Contention #3, to the extent it alleges deficiencies in the Staff's response to public comments, is inadmissible.

2. Sufficiency of Analysis Regarding Potential Environmental Impacts

The Intervenor also claims that the EA's analysis of potential environmental impacts is "far too cursory." Contentions at 8. In support of this claim, the Intervenor cites numerous sections for which it claims additional analysis is required. *Id.* at 8-11. However, the language in the majority of the cited sections does not differ significantly from corresponding language in the Draft EA. Without any explanation as to why these alleged deficiencies were not raised at an earlier stage of the proceeding, the Intervenor cannot rely on them as the basis for its amended contention. 10 C.F.R. § 2.309(c)(1). More specifically, the following sections cited by the Intervenor are nearly identical to sections in the draft EA: the discussion of occupational dose limits, expected dose rates, and the likelihood that a member of the public could receive

more than the public dose limit; the determination that transportation impacts would be small; the determination that the planned irradiator will have small beneficial socioeconomic impacts; the determination that it is unlikely a source would be breached in the event of an aviation accident; the discussion of the potential for contamination of pool water or breach of the pool lining as the result of an aviation accident; and the determination that the likelihood of a seismically-induced radiation accident is negligible. In addition, although the Staff explicitly stated for the first time in the Final EA that the impacts analysis for aviation accidents and natural phenomena focused on offsite impacts, Final EA at 9, because the Draft EA only discussed offsite impacts, the Intervenor's concerns about the scope of the impact analysis could—and should—have been raised in connection with the Draft EA.

The Intervenor also claims the Staff should have included additional discussion in numerous other sections of the EA. However, the Intervenor overlooks information provided in the "Final Topical Report on Aircraft Crash and Natural Phenomena Hazard at the Pa'ina Hawaii, LLC Irradiator Facility" ("Topical Report"), the "Microshield Summary Sheet for Loss of 6 Feet of Shielding Water at Pa'ina Irradiator" ("Microshield Summary"), and in documents supporting the Staff's analysis of the potential impacts of a terrorist attack described in Appendix B of the Final EA.[6] Although the Intervenor acknowledges that the Staff included more detailed analysis in the Topical Report, the Intervenor argues that the Final EA may not rely on documents incorporated by reference. As explained in the Staff's response to the Intervenor's Contentions on the Draft EA, this premise is incorrect.

Pursuant to the NRC's regulations, an EA is:

> a concise public document . . . that serves to: (1) Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant

[6] Issues related to the availability of documents supporting the Staff's analysis of a terrorist attack are discussed in further detail in section II.A.4 below.

> impact[;] (2) Aid the Commission's compliance with NEPA when no environmental impact statement is necessary[; and] (3) Facilitate preparation of an environmental impact statement when one is necessary.

10 C.F.R. § 51.14; *see also* 40 C.F.R. §1508.9 (Council on Environmental Quality (CEQ) Regulation on Environmental Assessment). In describing what an EA must contain, the CEQ's regulation, mirrored by the NRC's regulation on Environmental Assessments at 10 C.F.R. § 51.30, merely states that an EA must "include *brief* discussions of the need for the proposal, of alternatives as required by section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted." 40 C.F.R. § 1508.9(b) (emphasis added). The NRC looks to guidance promulgated by the CEQ, which is especially instructive on the issue of the depth and breadth of the analysis that must be undertaken in the context of an EA. The CEQ's guidance emphasizes that an EA should be a "concise" document and, therefore, "should not contain long descriptions or detailed data which the agency may have gathered." "NEPA's 40 Most Asked Questions," Question 36, 46 Fed. Reg. 18,026 (Mar. 23, 1981).[7] Environmental information must, in general, be publicly available. 40 C.F.R. § 1500.1(b). Here, the Staff has complied with that requirement by making the vast majority of Staff and contractor-generated documents cited in the Final EA available to the public through the Agency Document and Management System (ADAMS). In addition, these background documents have been included in the Staff's Hearing File Updates. Rather than forcing the public to hunt down environmental documents, as the Intervenor claims, the Staff has created a public roadmap for understanding the reasoning behind its conclusions in the EA. Therefore, the Staff has complied with all requirements related to the public availability of environmental documents, and the Intervenor has failed to show there is a genuine dispute on a material issue

[7] *Also available at* http:www.ceq.eh.doe.gov/nepa/regs/40.html.

of law or fact. To the extent it relies on arguments related to the public availability of documents, Amended Environmental Contention #3 does not comply with 10 C.F.R. § 2.309(f)(1)(vi) and is therefore inadmissible.

Because the Topical Report and other source documents were properly incorporated by reference, the Intervenor's other arguments related to the sufficiency of the information in the EA are invalid. The Final EA represents the conclusions and qualitative assessments of the Staff's experts based on the available quantitative data presented in the Final EA, the Topical Report, and other underlying documents cited and incorporated by reference in the Final EA. While the Staff does not dispute that "NEPA documents are inadequate if they contain only narratives of expert opinions," of equal importance, "the conclusions of agency experts are surely entitled to deference." *Klamath-Siskiyou Wilderness Center v. Bureau of Land Management*, 387 F.3d 989, 996 (9th Cir. 2004). In the present case, the Intervenor has not shown that the Staff's EA—including the Topical Report and other data properly incorporated by reference—fails to comply with applicable legal requirements. Because the Intervenor is unable to identify a genuine dispute with regard to a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(1)(vi), Amended Environmental Contention #3 should not be admitted.

3. Consideration of Impacts from Natural Disasters, Aviation Accidents, and Transportation of Cobalt Sources

The Intervenor also argues that the EA's analysis of impacts from natural disasters, aviation accidents, and transportation of Co-60 sources is inadequate and violates "NEPA's command to take a 'hard look at the effects from proceeding with [the proposed irradiator].'" Contentions at 15, *citing Klamath-Siskiyou Wilderness Center*, 387 F.3d at 1001. These claims are at best redundant, because the Intervenor made essentially the same arguments with respect to the Draft EA in its contentions filed February 9, 2007.

Once again, the Intervenor argues that the Staff insufficiently considered earthquake risks, the size of potential tsunamis, and the effects of increased buoyancy of the source due to inundation from a hurricane storm surge or a tsunami. *See* Contentions at 15-16; Draft EA Contentions at 19. As before, the contention is not admissible. The Intervenor cites only the assertions of its experts, without providing any explanation of the bases underlying their opinions. Thus, the Intervenor has not supplied the concise statement of fact or expert opinion required by 10 C.F.R. § 2.309(f)(1)(v), and Amended Environmental Contention #3, to the extent it relies on these claims, is inadmissible.

To the extent the Intervenor's arguments differ slightly from its arguments on the Draft EA, the Intervenor fails to explain why it did not pursue these lines of argument initially. For example, the Intervenor appears to raise new arguments claiming that in the Final EA the Staff should have considered the possible removal of all shielding water from the irradiator, the possible contamination of pool water or ground water via damaged or pulverized Co-60 sources, and the potential for monitoring equipment or irradiator personnel to be incapacitated following an aviation accident. Contentions at 9-10. The Intervenor fails to explain why these arguments could not have been raised along with its contentions on the Draft EA. The facts upon which the Intervenor bases its arguments were available at the time the Intervenor filed its contentions in February 2007. In fact, in its contentions on the Draft EA the Intervenor made a number of general arguments covering the same issues it now seeks to have admitted as contentions. Draft EA Contentions at 10-18. The Intervenor therefore fails to demonstrate good cause for not raising these arguments as part of its first set of contentions on the EA. *See* 10 C.F.R. § 2.309(c)(1); *Commonwealth Edison Co.*, CLI-86-8, 23 NRC at 244. To the extent the Intervenor seeks to expand the bases and arguments underlying Environmental Contentions #3 through #5, the Board should reject the Intervenor's attempt to modify its previously submitted contentions.

Further, the Intervenor fails to provide support for its new claims. Although the Intervenor cites expert statements to the effect that certain events should be analyzed and the potential impacts of these events would be dire, the Intervenor does not provide any opinion or factual support establishing that such events are reasonably foreseeable and must therefore be included in the EA. Thus, the Intervenor again fails to provide the concise statement of fact or expert opinion required by 10 C.F.R. § 2.309(f)(1)(v).

The Intervenor argues that in the Final EA the Staff should have examined the impact of the irradiator pool losing eight, instead of six, feet of water. Contentions at 9. In fact, the Staff *did* consider the effect of an 8-foot water loss, although the Microshield Summary Sheet for that hypothetical event was not cited in the Final EA.[8] The Staff's citation to a 6-foot water loss was used only as an "example" (Final EA at 9). In any event, the Intervenor's focus on the precise level of water loss cited in the Final EA should not obscure the fact that, in its contentions on the Draft EA, the Intervenor argued the Staff should have considered the possibility of water draining to the point where the source would be exposed, *i.e*., a water loss *greater* than 8 feet. Draft EA Contentions at 11, 14; *see also* Draft and Final EA at A-3 (noting that top of plenum will be under at least 11' 8" of water). In other words, the Intervenor could have raised—and essentially did raise—this issue in its contentions on the Draft EA, and its arguments here are either untimely or merely redundant. Further, the Intervenor fails to explain why measures described in the Final EA that will, in the Staff's view, compensate for a 6-foot water loss— the highly collimated beam, the ability to easily add water to the irradiator pool, and barriers that will restrict inadvertent worker access (Final EA at 9)—will not compensate equally well against any water loss, including an 8-foot loss. The Petitioner therefore fails to identify a genuine dispute on a material issue of law or fact, as required by 10 C.F.R. § 2.309(f)(vi).

[8] "Microshield Summary Sheet for Loss of 8 Feet of Water Shielding," (run date May 9, 2007; results verified September 17, 2007) (ADAMS ML072630315).

The Intervenor additionally argues that the Final EA should have further discussed transportation impacts. The Intervenor previously made essentially the same argument with respect to the Draft EA, and the Intervenor fails to explain why there is good cause for the Board to reconsider its arguments. *Compare* Contentions at 20 *with* Draft EA Contentions at 18. In any event, as this Board has previously acknowledged, the consideration of potential transportation impacts is outside the scope of the present proceeding. *See Pa'ina Hawaii, LLC*, LBP-06-12, __ NRC __, slip op. at 25 and 28 (2006) ("the transportation of licensed material such as the Co-60 sources used in an irradiator is governed by the Commission's regulations in 10 C.F.R. Part 71 and involves separate entities and licenses"). In addition, the NRC has previously analyzed potential impacts from the transportation of radioactive materials in a Generic Environmental Impact Statement. NUREG-0161. The Staff may rely on separate analyses of the potential impacts of related activities that are not part of the present licensed activity.[9] For purposes of NEPA, "an '[EA] need only furnish such information as appears to be reasonably necessary under the circumstances for evaluation' of a proposed action,'" *Louisiana Energy Services, LLP* (National Enrichment Facility), CLI-06-15, 63 NRC 687, 706, *quoting Fuel Safe Washington v. FERC*, 389 F.3d 1313, 1329 (10th Cir. 2004). Thus, with respect to its analysis of potential transportation impacts, the Staff has met its legal obligations. To the extent Environmental Contention #3 argues the Staff was required to consider potential transportation impacts, it fails to comply with 10 C.F.R. § 2.309(f)(1)(iii) and (vi) and, therefore, is inadmissible.

4. The Staff's Consideration of Potential Impacts from Terrorism

Amended Environmental Contention #3 next raises claims relating to Appendix B of the EA, which contains the Staff's analysis of the impacts of potential terrorist acts involving the

[9] The Staff did consider the potential impacts of transportation of sources from the Port of Honolulu to the irradiator location. However, because these transportation activities will be conducted by a Part 71 licensee, the potential impacts from transportation are under the umbrella of the GEIS, and, therefore, were not required to be included in the present EA.

planned irradiator. This portion of Amended Environmental Contention #3 is divided into several subsections, each of which the Staff will address below.

a. Evaluating the risk of a terrorist attack

The Intervenor argues that the Staff failed to provide either a quantitative or qualitative analysis of the risk of a terrorist attack at the planned irradiator. In the first instance, there is no legal requirement for the EA to include a quantitative calculation of risk. As the Ninth Circuit recognized, a "numeric probability of a specific attack is not required in order to assess the likely modes of attack, weapons, and vulnerabilities of a facility, and the possible impact of each of these on the physical environment, including the assessment of various release scenarios." *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1031 (9th Cir. 2006). Further, an agency may "conduct a low probability-high risk consequence analysis without quantifying the precise probability of risk." *Id.* This is precisely what the Staff did, screening potential threat scenarios and evaluating all plausible (though sometimes unlikely) scenarios. EA at B-5. The Staff explained the methodology used to screen out implausible scenarios, although—for reasons discussed in the next section of this response—not all information regarding the threat assessment has been made publicly available. Thus, to the extent Amended Environmental Contention #3 relies on the absence of a quantitative risk assessment as a basis, it fails to show a dispute on a material issue of law or fact and, therefore, is inadmissible.

The Intervenor also poses several threat scenarios it argues the Staff should have analyzed. However, while the contention cites expert statements claiming that such scenarios should be considered, the Intervenor fails to explain whether these scenarios are plausible. Thus, this portion of Amended Environmental Contention #3 is not adequately supported by fact or expert opinion as required by 10 C.F.R. § 2.309(f)(1)(v) and is inadmissible.

b. Disclosing facts underlying the Staff's terrorism analysis

The Intervenor argues that Appendix B does not contain sufficient information because it omits a detailed description of the Staff's terrorism analysis. While NEPA *generally* requires public disclosure of information related to EAs, where the technical basis for an assessment is protected information that is not subject to release under the Freedom of Information Act ("FOIA"), 5 U. S. C. § 552, the agency *need not disclose* all information underlying the assessment. *See Weinberger v. Catholic Action of Hawaii*, 454 U.S. 139, 145 (1981) (noting that "Congress has . . . effected a balance between the needs of the public for access to documents prepared by a federal agency and the necessity of nondisclosure or secrecy" and holding that "NEPA's public disclosure requirements are expressly governed by FOIA"). As the Ninth Circuit acknowledged in the context of the *Diablo Canyon* licensing action, due to the nature of the information required to complete an analysis of the environmental impacts of a potential terrorist attack, "a *Weinberger*-style limited proceeding might be appropriate." *San Luis Obispo Mothers for Peace*, 449 F.3d at 1034. The Commission has also provided guidance in this area: in ordering the NRC staff to complete a supplemental EA analyzing the potential impact of a terrorist act at Diablo Canyon, the Commission stated that while it "expect[s] the NRC Staff to rely on as much public information as practicable and to make public as much of its revised [EA] as feasible[, the Commission] recognize[s] that it may prove necessary to withhold some facts underlying the Staff's findings and conclusions as 'safeguards' information." *Pacific Gas & Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-07-11, 65 NRC 148, 150-51 (2007). In the present case, much of the technical basis for the Staff's analysis of the vulnerabilities of Pa'ina's irradiator is

contained in a document that includes safeguards information and is not publicly available.[10] Nonetheless, the Staff has endeavored to explain as much of its content and approach to the analysis as possible, in keeping with the guidance provided by the Ninth Circuit and the Commission. Because the EA complies with all applicable case law, the Intervenor has not shown that a genuine dispute exists on a material issue, and, therefore, this portion of Amended Environmental Contention #3 is inadmissible.

c. Significance of identified impacts

The Intervenor argues that the Staff did not properly consider the significance of certain impacts analyzed in the EA, disagreeing with the Staff's conclusion that there is a low risk radioactive material will escape the irradiator pool even if sources are damaged by a terrorist act. The Staff's conclusion is supported by the analysis in the Topical Report. EA at B-6. The Intervenor objects to the Staff's reasoning, relying on the same argument it offers in support of Amended Contention #3, *i.e.*, that the Staff failed to conduct a quantatative risk assessment of environmental impacts. However, as discussed in section II.A.3 above, the Intervenor does not provide any opinion or factual support for its view that such events are reasonably foreseeable—or even plausible—and must therefore be included in the EA. Thus, the Intervenor has not provided the concise statement of fact or expert opinion required by 10 C.F.R. § 2.309(f)(1)(v), and Amended Environmental Contention #3, to the extent it relies on this claim for a basis, is inadmissible.

The Intervenor also raises the prospect that terrorists would seek to use source material at the Pa'ina irradiator by, for example, constructing a "dirty bomb" out of stolen Co-60. Contentions at 20-23. The Intervenor argues that in the Final EA the Staff did not properly consider either the context or intensity of such an attack. However, page B-6 of the Final EA

[10] LaChance, Jeffrey, "Draft Vulnerability Assessment of Materials Facilities," March 8, 2004, Sandia National Laboratory for U.S. Nuclear Regulatory Commission. (SGI).

identifies no fewer than five potential consequences resulting from the theft of radioactive material, including consequences that could be linked to a dirty bomb. To quantify the significance of the effects of a dirty bomb—using specific factors as they apply to the proposed Pa'ina irradiator and specific threat scenarios—would require that the Staff delve into classified information, and, for reasons discussed in section II.A.4.b above, the Staff has not undertaken such an analysis in the Final EA.

d. Consideration of all reasonably foreseeable impacts

The Intervenor argues that the Staff did not consider all reasonably foreseeable impacts, namely, potential long-term effects from a dirty bomb and the potential impacts of a terrorist act in transit. This portion of Amended Environmental Contention #3 is also inadmissible.

The EA states that a dirty bomb would require potentially costly clean-up. Perhaps because of the cost of the clean-up, the Intervenor apparently assumes no clean-up would occur, thus resulting in "long-term human health, environmental, and socioeconomic effects." Contentions at 27. However there is no fact or expert opinion demonstrating that such a scenario is plausible. Therefore, this portion of Amended Environmental Contention #3 is inadmissible.

The Intervenor also maintains that the Staff should have considered impacts arising from potential terrorist attacks on the sources while in transit. As discussed in section II.A.3 above, a discussion of environmental impacts from transportation of sources is outside the scope of the EA. In addition, although the Intervenor cites to expert opinion that potential terrorist attacks during transportation should be considered, there is no explanation as to the basis for these opinions. For these reasons, this portion of Amended Environmental Contention #3 is inadmissible.

e. Security compensatory measures

The Intervenor assumes that the Staff has improperly relied on security compensatory measures to mitigate potential effects of a terrorist act involving the irradiator because, in the EA, the Staff has not provided supporting analytical data. Contentions at 28. The Intervenor's assumption is incorrect. The mitigation measures discussed in the EA are contained in an Order issued to all irradiator licensees.[11] This Order, in turn, is based on vulnerability and threat assessments that are not available to the public. Therefore, as discussed in section II.A.4.b above, the detailed technical bases underlying the Staff's analysis of the mitigation measures cannot be included in the EA. The Staff has, however, explained the purpose of these measures, which include "prevent[ing] the theft of radioactive material . . . and assur[ing] prompt response by law enforcement . . . to implement protective actions to mitigate severe consequences." EA at B-6. Further—and contrary to the Intervenor's assertion—these mitigation measures are not the sole basis for the Staff's FONSI. Rather, the Staff's finding was based on a *combination* of the continued evaluation of the threat environment, the compensatory measures, continued security assessments involving potential consequences of terrorist attacks against irradiators, coordination with law enforcement, the NRC's existing safety and security requirements, and design requirements for irradiators. EA at B-7 to B-8. The Intervenor has not shown that, based on all these factors, the Staff's FONSI with respect to terrorist acts was inappropriate. Moreover, the Intervenor has offered no expert opinion or fact in support of its position. This portion of Amended Environmental Contention #3 is therefore inadmissible.

[11] "Order Imposing Compensatory Measures—Al Panoramic and Underwater Irradiators Authorized to Possess Greater Than 10,000 Curies of Byproduct Material in the Form of Sealed Sources," U.S. Nuclear Regulatory Commission, EA 02-249, June 6, 2003 (SGI).

5. Impacts Associated with Irradiating Food for Human Consumption

This portion of Amended Environmental Contention #3 is identical to a portion of the original Environmental Contention #3. Draft EA Contentions at 23. Neither the Draft EA nor the Final EA discusses impacts associated with irradiating food for human consumption and, therefore, there is no cause for a new contention on this topic at the present time. Moreover, because the Board has not yet ruled on the admissibility of any of the Draft EA Contentions, the Staff renews its arguments from its Response to the Draft EA Contentions.

As explained on page 12 of that Response, issues related to human consumption of irradiated food are outside the scope of the present licensing action. Fruits and vegetables were generically approved for irradiation by the FDA in 1986. "Irradiation in the Production, Processing, and Handling of Food," 51 Fed. Reg. 13,376 (April 18, 1986). In addition, as noted by the Commission in the *Federal Register* notice for the present licensing action, the FDA and the USDA determine which foods can safely be irradiated. "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 (August 2, 2005). Considering the safety of irradiated food is outside the NRC's jurisdiction and is not included in the particular licensing action at issue here, *i.e.*, possession of a sealed source in connection with the operation of the proposed irradiator at the Honolulu International Airport. Therefore, to the extent Amended Environmental Contention #3 relies on arguments related to human consumption of irradiated food, the contention does not comply with the requirements of 10 C.F.R. § 2.309(f)(1)(iii) and is inadmissible.

B. Amended Environmental Contention #4

Amended Environmental Contention #4 questions the adequacy of the Staff's consideration of alternatives to the proposed action, including alternative technologies and locations, and is nearly identical to original Environmental Contention #4. *See* Draft EA Contentions at 24-27. Because the Board has not yet ruled on the admissibility of any of the

Draft EA Contentions, the Staff renews its arguments from pages 13 and 14 of its Draft EA Contentions Response.

An EA must consider the impacts of the proposed action, the "no-action" alternative (*i.e.*, the status quo), and a "reasonable range" of alternatives. 40 C.F.R. § 1502.14(a)-(c); *Westlands Water Dist. v. U.S. Dept. of Interior,* 376 F.3d 853, 868 (9th Cir. 2004). However, "The choice of alternatives is 'bounded by some notion of feasibility' and an agency is not required to consider 'remote and speculative' alternatives." *Id., quoting Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.,* 435 U.S. 519, 551 (1978). Nor must an EA include a discussion of alternatives that are "not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences." *Headwaters, Inc. v. Bureau of Land Management, Medford Dist.,* 914 F.2d 1174, 1180-1181 (9th Cir. 1990), *citing Northern Plains Resource Council v. Lujan,* 874 F.2d 661, 666 (9th Cir.1989).

The Intervenor does not show that the range of alternatives considered in the Final EA is unreasonable. With respect to the consideration of alternative technologies, the Staff did consider two alternative methods for controlling fruit flies—methyl bromide gas and heat treatment—and the Intervenor offers no facts or expert opinion in support of its assertion that the Staff's analysis was faulty. 10 C.F.R. § 2.309(f)(1)(v). The Intervenor also argues that the Staff should have considered the use of an electron-beam irradiator, citing the declaration of one of its experts. However, the expert's declaration merely states that an electron-beam irradiator is a viable alternative in general, and it offers no explanation as to the basis for the expert's opinion that the use of an electron-beam irradiator would be reasonable in the present case.

With respect to alternative locations, the Intervenor offers no support for its argument that the Staff unreasonably failed to consider such locations. The Staff is not required to

consider remote and speculative alternatives. There is no evidence to suggest that the Licensee would ever construct the proposed irradiator at any location other than the location listed in the license application and analyzed by the Staff in the Final EA.[12] Where the Licensee has given no indication of alternative locations it would consider, and where there are no specific alternative locations suggested, any determination by the Staff as to the potential impacts of the proposed facility on an unknown alternative location would be unduly remote and speculative.[13] Because Amended Environmental Contention #4 fails to raise a genuine dispute on a material issue of law or fact, and because the contention is not supported by facts or expert opinion, it is inadmissible.

C. Amended Environmental Contention #5

Amended Environmental Contention #5, like the Intervenor's original Environmental Contention #5, argues that in the present case the Staff must prepare an EIS. As discussed below, Amended Environmental Contention #5 remains inadmissible because it fails to raise a genuine dispute on a material issue of fact or law.

The NRC's regulations require that an EIS be completed for any action "significantly affecting the environment" or that "involves a matter which the Commission, in its discretion, has determined should be covered by an" EIS. 10 C.F.R. § 51.20(a)(1)-(2). For all actions, aside from those actions categorically excluded or on a select list of actions for which an EIS is required, the NRC's general practice, consistent with CEQ regulations in 40 C.F.R. § 1508.9(a),

[12] The Intervenor cites an e-mail from Michael Kohn of Pa'ina to Jack Whitten of the NRC as evidence that other sites would be feasible. However, in that same document, Mr. Kohn states that the Applicant does "not intend to move to a new location." Note to File from Roberto Torres, NRC. (ADAMS ML062770248).

[13] In addition, where the Licensee indicates it will not carry out the proposed action at any location other than the location identified in the application—as the Licensee has here—an analysis of "alternative locations" at which no facility will ever be built or operated is subsumed within the analysis of the no-action alternative. *Headwaters, Inc.,* 914 F.2d at 1180-1181. The Staff should not be required to analyze potential impacts that are already covered by other completed analyses.

is to perform an EA and then to determine whether the action is significant enough to warrant an EIS based on the findings of the EA. *See "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions and Related Conforming Amendments,*" 49 Fed. Reg. 9352, 9361-62 (Mar. 12, 1984). Here, following appropriate Commission guidance, the Staff has prepared an EA, and, based on that EA, has arrived at a FONSI. Thus, in accordance with long-standing Commission policies and procedures, no EIS is required.

In the Ninth Circuit, in which Pa'ina's irradiator will be located, "an agency's decision not to prepare an EIS will be overturned only if it was unreasonable." *Seattle Community Council Federation v. Federal Aviation Admin.*, 961 F.2d 829, 832 (9th Cir. 1992). In determining whether an agency's decision is reasonable, courts typically consider whether, notwithstanding the FONSI, there are substantial questions about whether the proposed action may have a significant impact upon the human environment. *Save the Yaak Comm. v. Block*, 840 F.2d 714, 717 (9th Cir. 1988). Courts also consider whether the EA provides "a convincing statement of reasons why potential effects are insignificant." *The Steamboaters v. FERC*, 759 F.2d 1382, 1393 (9th Cir. 1985). As discussed above in connection with Amended Environmental Contentions #3 and #4, the Staff has performed and EA that complies with the NRC's regulations as well as applicable NRC and CEQ guidance documents. The Intervenor has not shown that the Staff's analysis with respect to impacts or alternatives is inadequate. Thus, it cannot be said that the Staff's FONSI was unreasonable.

The Intervenor argues that because the proposed irradiator is "controversial," and "'substantial questions are raised as to whether [the] project . . . may cause significant degradation of some human environmental factor,'" an EIS must be prepared. Contentions at 35, *citing National Parks & Conservation Association v. Babbitt,* 241 F.3d 722, 736 (9th Cir. 2001). However, as discussed above, the allegedly "substantial" questions raised by the

Intervenor are not sufficiently well-supported to form admissible contentions.[14] Regardless of the public controversy surrounding a project, where the intervenor fails to show the Staff's EA is inadequate or inconsistent with applicable laws and regulations, a FONSI based on that EA cannot be said to be unreasonable and, thus, may not be overturned on review. Further, the controversy over a proposed project is just one of several factors to be considered when determining whether the environmental impacts of a proposed project are significant. 40 C.F.R. § 1508.27. Here, the Staff has completed an EA, and based on its analysis of the factors discussed in the EA, the Staff has determined that the environmental impacts from the planned irradiator will not be significant. No EIS is required, and the Board should not admit Amended Environmental Contention #5.

CONCLUSION

The Intervenor's Amended Environmental Contentions #3 through #5 are either untimely, lacking in requisite support, or unable to identify a dispute on a material issue of law or fact with respect to the Staff's Final EA. Accordingly, the Board should refuse to admit any of these contentions.

Respectfully submitted,

/RA by Michael J. Clark/
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Dated at Rockville, Maryland
this 20th day of September, 2007

[14] Even if this Board were to find some portion of the EA insufficient, that would not necessarily trigger an EIS. The proper remedy would likely be supplementation of the EA, rather than completion of a full EIS.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S RESPONSE TO INTERVENOR CONCERNED CITIZENS OF HONOLULU'S AMENDED ENVIRONMENTAL CONTENTIONS #3 THROUGH #5" in the above-captioned proceedings have been served on the following by deposit in the United States mail; through deposit in the Nuclear Regulatory Commission's internal system as indicated by an asterisk (*), and by electronic mail as indicated by a double asterisk (**) on this 20th day of September, 2007.

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