PREFILED STAFF EXHIBIT 61

March 5, 2008

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-ML
	)	
(Materials License Application)	)	ASLBP No. 06-843-01-ML

NRC STAFF'S SUPPLEMENTAL TESTIMONY OF MATTHEW D. BLEVINS

Q.1: Could you please state your name, occupation, and by whom you are employed?

A.1: My name is Matthew Blevins. I am Environment Team Lead for the Western Area Power Administration in Lakewood, Colorado. Previously, I worked at the NRC from 2000 to 2007. My last NRC position was Senior Project Manager in the Office of Nuclear Materials Safety and Safeguards. In this position, I was the primary preparer of the Draft environmental assessment (EA) and Final EA for Pa'ina's proposed action. My background and involvement with the Pa'ina EA are set forth in more detail in my initial testimony, which was filed August 26, 2008.

Q.2: What is the purpose of your testimony at this time?

A.2: I intend to address certain statements by the Intervenor's witnesses that pertain to my involvement with the Pa'ina EAs.

Q.3: At this time we'll turn to the Intervenor's testimony. One of the Intervenor's experts, Mete Sozen, S.E. (IL), Ph.D., claims that you improperly relied on the visual depiction of an aircraft crash provided in Figure 5 of his February 2007 report. Sozen Testimony at A.3. Figure 5 depicts an aircraft that has crashed into Pa'ina's building and

appears to rest directly above the irradiator pool. Dr. Sozen claims that, in the wake of an aircraft crash, the "state of the aircraft would be very difficult to predict" and that you were not justified in concluding, in your initial testimony, that "not just debris, but the entire aircraft, would block access to the area above the irradiator pool." Could you address these statements?

A.3: First, as I noted in A.24 of my initial testimony, Dr. Sozen himself claimed that debris and fuel would fill the irradiator structure in the event of an aircraft crash. Dr. Sozen makes this claim on page 5 of his February 2007 report, where he states that "[u]nder actual conditions, many of the columns and girders would fracture or be torn off the connections. . . . [d]ebris and fuel would fill the structure[.]" Second, I understand that the depiction of an aircraft crash in Figure 5 is a hypothetical. My point was only that the Intervenor itself acknowledges it is possible that, in the event of an aircraft crash, debris would restrict access to the area above the irradiator pool.

Third, I did not rely on Dr. Sozen's visualization alone in concluding that, in the event of an aircraft crash, debris would restrict inadvertent access to the pool. Common sense dictates that, if an airplane were to crash into Pa'ina's building, there would be a large amount of debris onsite. It is highly likely that some of this debris would cover the irradiator pool, restricting access to some extent.

The more important point, however, is that the presence or absence of debris is completely irrelevant to assessing the radiological consequences of an aircraft crash. That is because emergency responders will exercise caution when approaching the irradiator pool regardless of whether or not debris is covering the pool. We know this because, as stated on page 22 of Pa'ina's license application, Pa'ina's operating procedures will require training of emergency response personnel. This includes representatives from local police, fire and rescue departments. This training should

ensure that emergency responders avoid any area of elevated radiation regardless of whether or not debris restricts access to the irradiator pool.

Q.4: At page C-12 of the Final EA, you state that "[i]n terms of tourism, there is no reason to believe that the irradiator would have any effect." The Intervenor claims this statement is unsupported because you do not appear to have any training or experience relevant to assessing impacts to tourism from a radiological release at Pa'ina's irradiator. Could you address the language cited by the Intervenor?

A.4: First, as made clear by the context of the statement, what I was addressing is a comment suggesting that the irradiator would have visual impacts on tourism. In response, I noted that the irradiator would be visually indistinguishable from surrounding buildings. In other words, there would be no visual impacts to tourism from seeing an irradiator because tourists would not know they are looking at an irradiator.

Second, I do not claim to have any training, experience or education that specifically qualifies me to assess impacts to tourism from a radiological release at Pa'ina's irradiator. I do not believe that any such background is necessary. That is because the Final Topical Report prepared by the CNWRA establishes that it is not reasonably foreseeable there will be a radiological release involving Pa'ina's irradiator. If a radiological release is speculative, any secondary impact to tourism tied to such a release is also speculative. In other words, there was no need to evaluate impacts to tourism because the CNWRA found that the events that might cause those impacts were speculative.

Q.5: One of the Intervenor's experts, Dr. Resnikoff, claims that the Microshield calculations you performed are not entirely accurate because you assumed that the lip of the irradiator pool would provide some degree of shielding for the cobalt-60 sources. Is that the case?

A.5: No. The Microshield calculations I prepared did not assume that any shielding would be provided by the lip of the irradiator pool. In fact, the Microshield dose rates are taken at the pool surface, within the irradiator lip. It appears that Dr. Resnikoff is misconstruing the data in the Microshield summary sheets. The shielding taken into account in the Microshield summaries comes from the dimensions shown in the figures from Appendix A of the final EA. In addition to the source shielding noted by a thin layer of tin, the top manifold of the plenum is included, which is represented by the quarter-inch thick iron shield. I would note that I used iron in the calculations to approximate stainless steel because they have similar densities. The other shielding included in the Microshield summaries is water and air. These calculations do not assume any shielding from the irradiator pool lip.

Q.6: In the second portion of amended environmental contention 3, the Intervenor argues that the Staff failed to provide data, analyses or calculations to support twelve different statements in the Final EA. In your initial testimony, you addressed each of those alleged omissions. Could you comment on the Intervenor's Supplemental Statement as it pertains to those twelve alleged omissions?

A.6: Yes. It appears that the Intervenor does not dispute the explanations I provided regarding nine of the twelve alleged omissions. Specifically, the Intervenor does not appear to take issue with my testimony addressing segments 1–3, 5–9 and 11 in the second portion of amended environmental contention 3. The Intervenor's only claim with respect to those segments is that the Staff should have provided a more complete explanation in the EA itself. The three segments that the Intervenor continues to dispute are segments 4, 10 and 12. Segment 10 relates to whether an aircraft crash would leave debris around the pool, while segment 12 concerns tourism impacts. I have discussed those issues above and in my initial testimony. Segment 4 alleges that the Staff should have more thoroughly addressed transportation impacts. This is also an

issue I addressed in my initial testimony, at paragraph A.16. Because the Intervenor does not appear to have submitted any rebuttal or supplemental testimony on this point, I will not address this issue further.

Q.7: Turning to the alternatives analysis in the EA, in your initial testimony you explained that the Staff did, in fact, consider the alternative technology of electron-beam irradiation. You testified that you researched electron-beam irradiation and concluded that the technology was suitable for the treatment of the products Pa'ina intends to process at its facility. You also testified, however, that the Staff removed the electron-beam alternative from consideration prior to finalizing the EA because of substantial uncertainty as to the economic viability of this technology. Could you elaborate on this point?

A.7: Electron-beam irradiation is an alternative that the Staff considered initially. In fact, page 6 of the EA, which addresses the "Need for the Proposed Action," mentions that an electron-beam irradiator is presently operating in Hawaii. As I explained in my initial testimony, however, at the time I was researching alternatives to Pa'ina's proposed action, I found that there was substantial economic uncertainty regarding the future of electron-beam irradiation. Because of this uncertainty, I removed electron-beam irradiation from the alternatives discussed in the Final EA. This does not mean that I failed to consider the technology. In fact—and as stated in my initial testimony—I found that electron-beam irradiation would be suitable for most of the products Pa'ina might process at its facility. My decision to not address this technology in the Final EA was based on economic uncertainty, and this decision was supported by numerous articles suggesting that there were significant questions as to whether this technology would be economically feasible for Pa'ina to use. Staff exhibits 63 and 64 provide support for that conclusion. Given that it has been almost two years since I looked into this issue, I cannot say whether the articles included as exhibits 63 and 64 were the same articles I

reviewed at the time I was helping prepare the EA. However, these articles are representative of the information I reviewed, and I believe they provide ample support for my conclusions. Specifically, they state that electron-beam irradiators were experiencing significant financial difficulties, with a number of the irradiators going out of business or requiring financial assistance from their parent companies. Hawaii Pride is mentioned as being in the latter category.

This information is consistent with comments the Staff received at our February 1, 2007 public meeting on the draft EA. As I recall, the only comments we received concerning electron-beam irradiation were negative. Looking again at the transcript of that meeting, I see that one commenter stated that "the last irradiator failed . . . it was in financial ruin." That's at page 96 of the transcript. Another commenter suggested that the NRC should look into "the other irradiators that have collapsed financially." That's at page 104. Given that there was only one existing food irradiator in Hawaii, I understood these comments to be referring to Hawaii Pride's electron-beam irradiator. I would note that a number of commenters stated that they were opposed to food irradiation generally, and that these comments also applied to the electron-beam alternative.

After the public meeting, I contacted Michael Kohn, Pa'ina's President, seeking his input on possible alternatives to the proposed action. In an e-mail to Mr. Kohn dated February 14, 2007, I specifically asked him to "elaborate on any consideration you gave to alternative technologies (*e.g.*, electron beam or heat treatment)." Mr. Kohn responded to my inquiry on February 28, 2007. Both my e-mail to Mr. Kohn and his response are included in Staff Exhibit 26. On page 3 of his response, Mr. Kohn states:

> The economic future of x-ray technology was put on hold when Sure Beam, the vendor, went bankrupt, leaving investors with losses in excess of $100 million. Even the Big Island X-ray facility had to reorganize under new ownership. It would make little sense for Paina Hawaii to invest in a failed company and a technology that does not suit Hawaii's needs.

Mr. Kohn's statement was entirely consistent with the comments the Staff received at the February 1, 2007 public meeting, and also with the information I came across during my own research into the electron-beam alternative. Based on all this information, I concluded that the electron-beam alternative would not meet the goals of Pa'ina's proposed action. I therefore removed this alternative from consideration.

Q.8: Did you consider the possibility that electron-beam irradiation might eliminate at least some hazards potentially associated with irradiation using cobalt-60 sources?

A.8: Yes, however, I did not consider that factor significant, because the Staff's evaluation of Pa'ina's proposed action did not reveal any significant environmental impacts from the use of cobalt-60 sources. In particular, the analysis prepared by the CNWRA showed that it was not reasonably foreseeable there would be any loss of control of cobalt-60 sources that might result in significant environmental impacts.

Q.9: Have you reviewed the testimony of Eric B. Weinert, Vice President of CW Hawaii Pride, LLC, submitted as part of the Intervenor's rebuttal and supplemental testimony?

A.9: Yes. Mr. Weinert's rebuttal testimony addresses my initial testimony in this proceeding, while his supplemental testimony addresses the testimony of Pa'ina President Michael Kohn. The essence of Mr. Weinert's testimony is that electron-beam irradiation is an economically feasible technology and that Hawaii Pride has made a profit in recent years. All I can say is that Mr. Weinert's testimony appears to be at odds with the information available at the time the Staff was preparing the Final EA.

Q.10: Did you contact Mr. Weinert to ask questions about electron-beam irradiation?

A.10: No. I do not recall Mr. Weinert submitting any comments on the Draft EA. The Draft EA, like the Final EA, did not address electron-beam irradiation. Had Mr. Weinert submitted comments on the Draft EA, it is possible I would have contacted him.

Q.11: Does Mr. Weinert's testimony give you reason to question the conclusions in the Final EA?

A.11: No. Mr. Weinert's testimony does nothing to change my views regarding the environmental impacts of either cobalt-60 irradiation or electron-beam irradiation. Mr. Weinert's testimony only suggests that electron-beam irradiation may be somewhat more feasible economically than the Staff concluded at the time it was preparing the Final EA. I cannot say whether Mr. Weinert's statements are accurate, or whether they held true at the time the Staff was preparing the Final EA.

Pa'ina's view, of course, is that operating a cobalt-60 irradiator would be economically advantageous. Mr. Weinert's testimony, which for the most part is contradicted by the testimony of Pa'ina President Michael Kohn and by other relevant information I came across during my review of alternatives, gives me no reason to question my decision to remove the electron-beam irradiator from consideration in the Pa'ina EA.

Mr. Weinert also appears to confirm that operating an electron-beam irradiator will use more electricity than a cobalt-60 irradiator. Mr. Weinert does not dispute Mr. Kohn's statements, in A.4 and A.10 of his testimony, that there is a "huge requirement for electricity" associated with an electron-beam irradiator, that Hawaii has high electricity costs, and that Hawaii's electricity depends upon "imported carbon-based oil." Mr. Weinert also confirms, in A.5 of his testimony, that there is a 93% energy loss when converting e-beams to x-rays. While Mr. Weinert claims that the electricity costs are lower than the estimates provided by Mr. Kohn, he does not appear to dispute that an electron-beam irradiator will use significantly more electricity than a cobalt irradiator. In other words, the electron-beam alternative will require more energy to operate than the electron-beam alternative, using more resources.

Finally, at the time the Staff was preparing the Draft and Final EAs, we had before us the Intervenor's comments and contentions alleging that there is a significant cancer risk from consuming irradiated food. The Intervenor submitted a substantial amount of information on that issue, including declarations and supporting documents from William Au, Ph.D., whom the Intervenor identified as a food safety expert. Using electron-beam irradiation as an alternative technology would have done nothing to reduce the food safety risk alleged by the Intervenor. In other words, even if the Staff had discussed the electron-beam irradiator in the EA itself, this would not have addressed one of the Intervenor's main areas of concern. The Staff did, however, discuss in the EA both heat immersion and methyl bromide treatment, two alternative technologies that would have removed the Intervenor's food safety concern. Although the Intervenor is now arguing that electron-beam irradiation would have much fewer environmental impacts than cobalt-60 irradiation, at the time we were preparing the EAs, the Intervenor was essentially suggesting that neither technology should be used to treat food at Pa'ina's facility.

Q.12: Is there anything you would add regarding alternatives?

A.12: Yes. In its Supplemental Statement, the Intervenor continues to argue that the Staff should have considered alternative locations for Pa'ina's irradiator. As I stated in my initial testimony, the NRC Staff typically does not consider alternative sites in an EA. In any event, even if the Staff were required to consider alternatives sites in some situations, I believe there was no need to do so here. One of Pa'ina's goals for its proposed action was to treat products for import into Hawaii. This explains Pa'ina's decision to seek a site adjacent to Honolulu International Airport and near the Port of Honolulu. Placing the irradiator away from these ports of entry would have impeded the goals of Pa'ina's proposed action. I recall that, at the February 1, 2007 public meeting, the Staff received a written comment from Lyle Wong, Ph.D., Plant Industry

Administrator for the Hawaii Department of Agriculture. This letter is Staff exhibit 35. In his letter, Dr. Wong emphasized the importance of irradiation technology and stressed the need to locate such a facility near ports of entry. At page 3 of his letter, Dr. Wong states that “to protect Hawaii from the constant threat of new invasive species of agriculture, environment and public health in Hawaii, post-entry treatment capacity is need[ed] at our major ports of entry such as Honolulu International Airport.”

Q.13: Does this conclude your testimony?

A.13: Yes.

March 4, 2009

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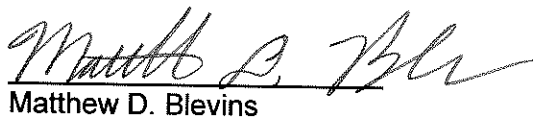
AFFIDAVIT OF MATTHEW D. BLEVINS

I, Matthew D. Blevins, do hereby declare under penalty of perjury that my statements in the foregoing testimony and my statement of professional qualifications are true and correct to the best of my knowledge and belief.



Matthew D. Blevins

Executed in Lakewood, Colorado
this 4th day of March, 2009