# RAS 13806

June 20, 2007

## UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

DOCKETED USNRC

#### BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

June 21, 2007 (8:00am)

SECY-02

In the Matter of Pa'ina Hawaii, LLC OFFICE OF SECRETARY Docket No. 30-36974-ML RULEMAKINGS AND ASLBP No. 06-843-01-ML

Material License Application

## INTERVENOR CONCERNED CITIZENS OF HONOLULU'S RESPONSE TO THE NRC STAFF'S ANSWERS TO THE QUESTIONS POSED IN THE LICENSING BOARD'S JUNE 6, 2007 ORDER

#### I. INTRODUCTION

Pursuant to the Atomic Safety and Licensing Board's ("Board's") June 6, 2007 order, intervenor Concerned Citizens of Honolulu responds to the answers the Nuclear Regulatory Commission ("NRC") Staff provided on June 13, 2007 to the additional questions the Board posed in its June 6, 2007 order.

#### II. CONCERNED CITIZENS' RESPONSES

A. Consistency With NUREG-1556 Does Not Establish Compliance With 10 C.F.R. § 30.33(a)(2).

While consistency with NUREG-1556 is relevant to determining whether Pa'ina Hawaii, LLC has satisfied 10 C.F.R. § 30.33(a)(2), Concerned Citizens vigorously disputes the Staff's position that "a determination that Pa'ina Hawaii's application is consistent with the guidance in NUREG-1556, Volume 6" necessarily means it "complies with all applicable safety regulations." 6/13/07 Staff Answers at 2. Review of NUREG-1556, Volume 6, confirms that the guidance "address[es] only the specific, detailed requirements of 10 C.F.R. Part 36," providing a checklist

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to help the Staff ensure an irradiator application contains certain specified information. <u>Id.</u> at 3; <u>see also</u> NUREG-1556, "Consolidated Guidance About Materials Licenses," Vol. 6, "Program Specific Guidance About 10 CFR Part 36 Irradiator Licenses" at 8-1 to 8-59 & app. C (1999). As the Staff acknowledges, "NUREG-1556 does not provide any criteria for judging compliance with 10 C.F.R. § 30.33(a)(2) other than criteria related to the general requirements of 10 C.F.R. Part 36." 6/13/07 Staff Answers at 3-4.

The Staff's cramped view of section 30.33(a)(2) violates the interpretive canon that regulations must "be read so that none of [their] terms are rendered redundant." <u>United States v.</u> <u>Bucher</u>, 375 F.3d 929, 933 (9<sup>th</sup> Cir. 2004). Section 30.33(a)(2) imposes an obligation on irradiator license applicants distinct from, not synonymous with, the requirements set forth in Part 36. As 10 C.F.R. § 36.13(a) confirms, before an irradiator license application can be approved, the applicant must "satisfy the general requirements specified in § 30.33 of this chapter," which include section 30.33(a)(2), "<u>and</u> the requirements contained in [Part 36]." (Emphasis added). While compliance with Part 36's requirements is necessary to secure an irradiator license, it is not sufficient. The applicant must, in addition, demonstrate its proposed irradiator is "adequate to protect health and minimize danger to life or property." 10 C.F.R. § 30.33(a)(2).

Even the Staff apparently recognizes that mere compliance with Part 36 is not enough, conceding that, at least where an irradiator application "is so unique that it does not fit the guidance," the Staff must consider criteria beyond those in NUREG-1556. 6/13/07 Staff Answers at 4. In this case, Pa'ina proposes to "place a source of up to a million curies of radioactivity on the grounds of the Honolulu Airport, a location at the ocean's edge that is subject to unique risks of aircraft crashes and destructive wave damage from tsunamis and

hurricanes." 4/30/07 Board Order at 6. Under these unusual circumstances, the Staff is obliged to look beyond NUREG-1556's checklist to determine whether Pa'ina "satisfies the general requirement of 10 C.F.R. § 30.33(a)(2) that an irradiator facility be 'adequate to protect health and minimize danger to life or property." <u>Pa'ina Hawaii, LLC</u> (Material License Application), LBP-06-12, 63 NRC 403, 419 (2006).

#### B. Reference To NUREG-1556 Alone Would Be Inadequate To Resolve The Issues Raised In Concerned Citizens' Safety Contention #13.

The Board's request for the Staff to "[s]pecify the portions of Volume 6 of NUREG 1556 that address the issue raised in the Intervenor's Safety Contention #13" hits the nail on the head. 6/6/07 Board Order at 2. The portions of NUREG-1556 the Staff cites in its answer give no basis for evaluating even those aspects of Safety Contention #13 the Staff has conceded are admissible: the aviation accident probability analysis and "analysis of debris force from potential aviation accidents." 3/12/07 Staff Response to Concerned Citizens' Contentions Re: Draft Environmental Assessment and Draft Topical Report at 4; see NUREG-1556, Vol. 6, at 8-5 to 8-9, 8-19 to 8-32, 8-48 to 8-51.<sup>1</sup> Nor would NUREG-1556 assist in assessing the threat posed by the extreme temperatures associated with burning jet fuel and related explosions or the degree to which an aviation accident would prevent implementation of necessary emergency procedures. See 2/9/07 Contentions at 7, 9.

<sup>&</sup>lt;sup>1</sup> Notably, to analyze the likelihood of an airplane striking Pa'ina's proposed facility, the Staff relied on an entirely different guidance, NUREG-0800. <u>See</u> Final Topical Report on the Effects of Potential Natural Phenomena and Aviation Accidents at the Pa'ina Hawaii, LLC Irradiator Facility ("Final Topical Report") at 1-5 (ADAMS Accession No. ML071280833). There is likewise nothing in NUREG-1556 that would assist the Staff in analyzing whether the force of airplane or building debris striking the irradiator during an aviation accident would result in radiation releases.

#### C. The Board Should Reject The Staff's Unsupported Claim Pa'ina's Proposed Irradiator Is Run-Of-The-Mill.

For the first time in this proceeding, the Staff asserts it has research other licensed irradiators and determined Pa'ina's proposed facility presents no unique circumstances because, allegedly, "there are currently licensed irradiators in similar locations." 6/13/07 Staff Answers at 5. As the Staff has not included the fruits of its research in the hearing file or otherwise disclosed it, there is no way for either the Board or Concerned Citizens to evaluate thoroughly the Staff's claim. Based on the information available to Concerned Citizens, the Staff's claim appears baseless and should be rejected.

That there may be other irradiators "located at or near airports" does not establish, as the Staff apparently assumes, that Pa'ina's proposed irradiator would be safe. <u>Id.</u> As the Board stressed in admitting Safety Contention #7, "the lack of a regulatory prohibition against siting an irradiator at an airport does not affirmatively establish that any airport location satisfies the general requirement of 10 C.F.R. § 30.33(a)(2)." LBP-06-12, 63 NRC at 419. In this case, due to Pa'ina's decision to locate its irradiator adjacent to active runways at a busy international airport that also serves as an Air Force base, the annual risk of an airplane striking the facility ranges from one-in-1,757 to one-in-5,000 (depending on which calculations the Board ultimately accepts). 2/9/07 Contentions at 5-6; Final Topical Report at 2-18. The Staff gives the Board no reason to believe any irradiator in the country has been licensed to operate in a location where it faces such a significant risk from aviation accidents.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Even if there were, Concerned Citizens submits the licensing decision for such facility would be unlawful absent a thorough analysis of the consequences and threshold probability for a design basis event to ensure compliance with 10 C.F.R. § 30.33(a)(2).

Moreover, to the best of Concerned Citizens' knowledge, no other irradiator currently licensed utilizes the specific design Pa'ina proposes for its facility.<sup>3</sup> Unlike the panoramic irradiators the Commission considered during Part 36 rulemaking, in which "radioactive sources ... would be relatively protected from damage [during an aviation accident] because they are generally contained within 6-foot thick reinforced-concrete walls," the sources in Pa'ina's proposed facility "would be in a pool with a liner consisting of 6 inches of concrete, with ¼-inch steel on the inside and outside." LBP-06-12, 63 NRC at 419 (citations omitted). There is no evidence any irradiator of such vulnerable construction has ever been licensed to operate anywhere near an airport, much less in a location with a risk of aviation accident anywhere near the level of Pa'ina's proposed site.

Similarly, while irradiators may be licensed "in coastal areas or other hurricane-prone regions," that does not mean that any are located in tsunami evacuation zones or at sites vulnerable to hurricane storm surges, as Pa'ina proposes, presenting unique risks the Staff must evaluate. 6/13/07 Staff Answers at 5; <u>see also</u> 2/9/07 Contentions at 9-14. Moreover, even if other irradiators are located in areas of seismic activity, the Staff has made no showing they have been licensed to operate at sites consisting of unconsolidated alluvial sediments, where liquefaction poses a serious threat. 2/9/07 Contentions at 14. Finally, Pa'ina's decision to locate its irradiator in the midst of a major metropolitan area, where hundreds of thousands of residents would be threatened by any mishap, and at the economic heart of the State of Hawai'i, where any

<sup>&</sup>lt;sup>3</sup> The only irradiator of similar design of which Concerned Citizens is aware closed in 2005. <u>See</u> Declaration of Marvin Resnikoff, Ph.D. at ¶ 3, attached to 10/3/05 Request For Hearing; Steve Wartenberg, "CFC Logistics closes cobalt irradiator in Bucks County," The Morning Call (Apr. 26, 2005), <u>available at http://www.milfordcitizens.org/wst\_page8.html</u> (attached). That irradiator was located in rural in Milford Township, Pennsylvania, far from major airports, coastal areas, areas of seismic activity, and highly populated cities.

disruption could inflict enormous costs, presents unique circumstances that distinguish Pa'ina's proposal from the run-of-the-mill irradiator.

## D. The Staff Must Evaluate The Likelihood Of Radiation Releases From Aviation Accidents As Part Of Both Its Safety Review And Its NEPA Analysis.

Concerned Citizens does not understand the Staff's attempt to explain away the inconsistency between its March 12, 2007 response to Safety Contention #13 (conceding that at least portions of the contention are admissible) and its May 21, 2007 answers to the Board's questions (alleging no safety review regarding aviation accidents is required).<sup>4</sup> Concerned Citizens notes, however, that the Staff continues to maintain that portions of Safety Contention #13 are admissible. 6/13/07 Staff Answers at 6-7. As discussed in its previous filings, Concerned Citizens submits the Board should admit Safety Contention #13 in its entirety.

In answering the Board's second set of questions, the Staff reiterates its claim that "there are different regulatory standards for environmental and safety reviews," which allegedly justify the Staff's failure to quantify in its National Environmental Policy Act ("NEPA") analysis the likelihood of radiation releases as a consequence of aviation accidents involving Pa'ina's proposed facility and to compare that likelihood to a design basis threshold probability. <u>Id.</u> at 6. As explained in Concerned Citizens' June 13, 2007 filing, to comply with NEPA's command to take a "hard look at the effects from proceeding with [the proposed irradiator]," the Staff was obliged to analyze thoroughly both aviation accident probabilities and consequences, including consideration of an appropriate threshold probability. <u>Klamath-Siskiyou Wilderness Center v</u>.

<sup>&</sup>lt;sup>4</sup> For example, while the Staff now claims its response to Safety Contention #13 "was not intended to imply that the portion of [the contention] related to the aircraft consequence analysis is admissible," 6/13/07 Staff Answers at 6, its March 12, 2007 filing conceded the admissibility of Concerned Citizens' claims "related to analysis of debris force from potential aviation accidents." 3/12/07 Staff Response at 4. The analysis of debris force relates to the consequences of an airplane crash, not the likelihood of a crash occurring.

<u>Bureau of Land Management</u>, 387 F.3d 989, 1001 (9<sup>th</sup> Cir. 2004); <u>see also</u> 6/13/07 Concerned Citizens' Response at 5-7. Thus, whether to perform a legally adequate review of Pa'ina's compliance with 10 C.F.R. § 30.33(a)(2) or to take the "hard look" at potentially significant environmental impacts required under NEPA, the Staff must prepare this analysis.

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Dated at Honolulu, Hawai'i, June 20, 2007.

Respectfully submitted,

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# **CFC Logistics closes cobalt irradiator in Bucks County**

# It's 'poetic justice' for foes. The market was weak, company says.

By Steve Wartenberg Of The Morning Call

April 26, 2005

While they may have lost the battle, several legal battles in fact, the opponents of the controversial cobalt 60 irradiator in Milford Township have finally won their anti-nuclear war.

"We have made a decision to shut down the irradiator," said Jim Wood, president of CFC Logistics, which has operated the nuclear irradiator at its 250,000-square-foot AM Drive cold storage warehouse since October 2003.

On Monday, Wood said the company ceased irradiating products last week.

"The market for irradiating meat never materialized and the cold storage business has exploded and is a much more profitable business for us to be in," he said, adding the elimination of the irradiator would increase cold storage capacity by about 10 percent.

"For those who opposed it, this is poetic justice," Milford Supervisor Robert Mansfield said.

Wood declined to say how much CFC Logistics, a division of the Hatfield-based Clemens Family Corp., spent on the irradiator. However, during a September 2003 hearing in Bucks County Court, Wood testified the company had spent about \$1.5 million to buy and install the irradiator and purchase the initial batch of cobalt 60 rods.

"I am so thrilled," said Kim Haymans-Geisler, a member of Concerned Citizens of Milford, a grass-roots group formed to fight the irradiator. "We've worked so long and so hard and so many people have cared about this issue for so long."

Since word began to spread in February 2003 that CFC Logistics sought a license from the U.S. Nuclear Regulatory Commission to build an irradiator, local residents, and later Milford Township officials, fought the facility, initiating — and losing — a string of license challenges and lawsuits.

They lost each one, the last on Jan. 11 when Judge Michael Farrar of the Atomic Safety and Licensing Board issued an order officially ending the agency's hearing, which reviewed the license the NRC granted CFC Logistics on Aug. 27, 2003.

"This is wonderful news," said Brenda McCardle, a former board member of Concerned Citizens. "We felt like we couldn't win against big business, but we were kind of hoping the demand [for irradiated products] wouldn't be out there."

According to Martin Stein, chief executive officer of GrayStar, the New Jersey company that built the Milford irradiator, the facility currently contains more than 900,000 curies of cobalt "pencils," metallic rods that resemble thick car antennas.

The facility is licensed for 1 million curies.

The pencils — which emit a bluish glow — are at the bottom of a 20-foot, water-filled well. A computer-operated hoist system lowered casks filled with food or nonfood products into the well, where they were then irradiated.

During its operations, CFC Logistics irradiated nonfood products such as medical supplies, botanicals and spices.

"They called last week and said they were shutting down and wanted us to know," Stein said, adding that an improved irradiator has been developed that sells for \$1.6 million.

"That doesn't count the cobalt, which could double the cost," he said.

Neil Sheehan, an NRC spokesman, said CFC Logistics has had informal talks with the NRC, "but they haven't formally submitted anything" about decommissioning the irradiator.

Sheehan said the NRC has a lengthy set of requirements, and the first step is the removal of the rods. This will be done by Revis, the British company that sold and delivered the rods to CFC Logistics.

"Then they would have to come to us with a decommissioning plan," Sheehan said. "If we approve it, they would dismantle the irradiator and we would conduct final surveys to make sure there is no residual radioactivity. Then there is an independent survey, then the termination of their license."

Stein said the well will be filled with concrete.

There were no hazardous incidents at the Milford facility during its 19 months of operation, according to Sheehan, and Stein and Wood said it worked perfectly.

In 2003, the U.S. Department of Agriculture approved the use of irradiated meat in school lunch programs, claiming it would protect children from food-borne illnesses such as E. coli and salmonella.

However, a large market for irradiated meat has not developed, because of the increased cost and the fears irradiated meat could be harmful. No schools in the Lehigh Valley currently use

#### irradiated meat.

Although Concerned Citizens lost their many legal battles with CFC Logistics, Haymans-Geisler believes the work of her group, and others opposed to irradiators and the consumption of irradiated food, has helped their cause and prevented the growth of the market for irradiated beef.

"We did put a cloud over their business," she said.

Throughout the past two years, Wood has maintained CFC Logistics followed NRC regulations, the irradiator was not a threat to local residents, and irradiated products are not harmful. The court victories and safe operation of the irradiator, he often stated, helped prove his point.

"You can always look at things in hindsight," he said. "But at the time we thought we made the best decision we could. If you're not willing to take a risk you shouldn't be in business, and now we're making a good decision to stop and not drag this out for another two years."

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#### CERTIFICATE OF SERVICE

The undersigned hereby certifies that, on June 20, 2007, a true and correct copy of the foregoing document was duly served on the following via e-mail and first-class United States mail, postage prepaid:

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Dated at Honolulu, Hawai'i, June 20, 2007.

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VIA FIRST CLASS MAIL

### **TRANSMITTAL LETTER**

TO: Office of the Secretary U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 Attention: Rulemakings and Adjudications Staff

David L. Henkin FROM:

DATE: June 20, 2007

Pa`ina Hawaii, LLC (Materials License Application), RE: Docket No. 30-36974-ML, ASLBP No. 06-843-01-ML

ENCLOSURES	DATE	DESCRIPTION
Original and two copies:	6/20/07	INTERVENOR CONCERNED CITIZENS OF HONOLULU'S RESPONSE TO THE NRC STAFF'S ANSWERS TO THE QUESTIONS POSED IN THE LICENSING BOARD'S JUNE 6, 2007 ORDER;
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