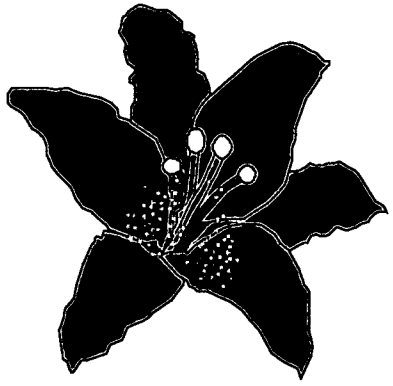
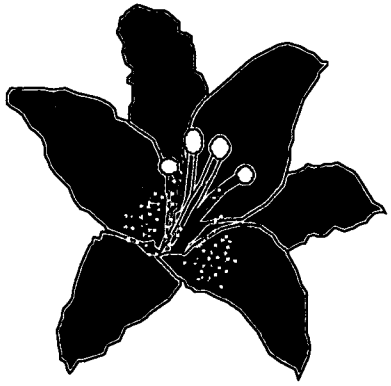


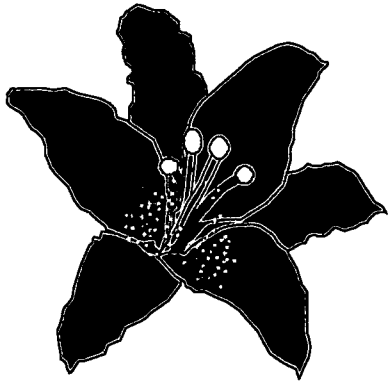
My Thoughts on Pa'ina Irradiator

By Robert Hobday



Who am I?

- *Home owner, member of community 35 years*
- *Family,Retired, Oahu is my full time home*
- *Background farming, electrical engineering,engineering analysis among others*
- *No financial ties to subject. Speaking for myself, my children and grandchildren*

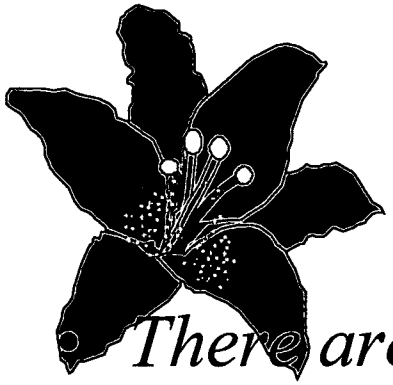


Why am I Here?

- *In 35 Yrs, Watched changes from agriculture to real estate based economy*
- *Island going from green island to concrete pavement.*
- *Yearn for beautiful flowers, produce and to preserve island waters, small farms, and island beauty and natural resources*

How can we do this?

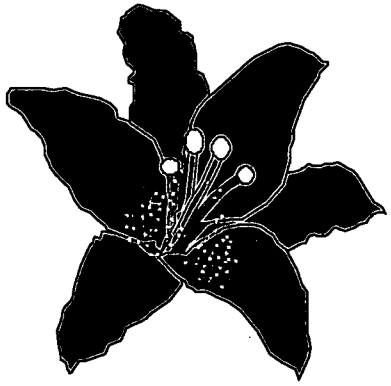
- *Only way to conserve island beauty and resources is provide alternative to conversion of farm land to condo land*
- *Make it financial profitable to cultivate land by opening up markets off island and exporting the natural products & beauty of Oahu*
- *Only way to ship quality green produce off island is with irradiator*



Why Not?

There are wealthy factions that do not want the island to be green. They want to change agriculture real estate land and, or keep their rice bowls status quo

- *Buy land cheap, build concrete jungles, consume the island land resources, take the money and go back where they came from*
- *Even now, off island interests are converting North Shore, Kuhuku, Mililani, and EWA Plains agriculture land to development. pave it in concrete and asphalt*

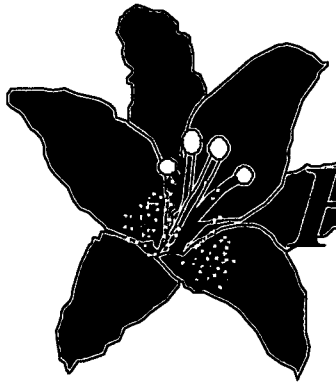


They Have…

- *Hire Lawyers interested only in preventing a green solution*
- *delay procedures and generate billable hours. (no Pro Bono work here)*
- *Spread false information, fear mongering to generate un-informed public support against the only reasonable solution to make agriculture profitable and promote the small, medium and large island farms and agriculture*

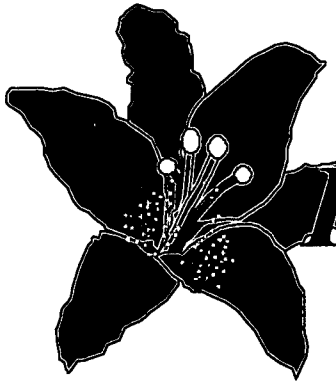
Examples of Fear mongering !

- *Poison the Food*
  - *Radiation, heat, light, gamma, can only affects things when it is present. You can't burn yourself on a cold steak after it has been cooked and the heat is off*
- *Blow up and cause all kinds of havoc!*
  - *Cobalt 60 CAN NOT blow up. PERIOD! Any disaster scenario based on that is totally false, without merit, and a flight of fantasy*



Fear Mongering cont 1.

- *<u>Terrorist Threat</u>*
  1. *With all the target rich elements on this island multiple military bases, high rises and tourist in Honolulu and Waikiki, possible portable reactors and weapons in Hickam and Pearl Harbor, military personnel on bases, a small irradiator with a low grade cobalt 60 source sitting on guarded airport land 2000 yards from an air force base with F18's flying around it all day, and heighten airport security on constant watch 24-7 ,has got to be on the bottom of any terrorist target profitability list. If they could get it, what the hell would you do with it?*
  2. *Would be located in safest place on island*



Fear Mongering cont.2

- *<u>Accident/Incident</u>*
  - *Nothing is error proof and anything can happen however remote the possibility. Accident/incident happens to be the name of the teams the military's have formed and trained to handle just such occasions.*

  - *Close location to Pearl and Hickam Can put well trained teams and equipment on scene in a matter of moments to handle much bigger problems then a cobalt 60 issue*

Bottom Line

If Hawaiian Agriculture is to survive,and be profitable, we must have this Irradiator.

- *All valid dissenting issues and concerns can be addressed and problems resolved. There are no show stoppers here*
- *I can't wait for the day when I can take Fresh Holaconia, apple bananas, mountain apples and other flowers and plants from the farmers markets to my family and friend on the mainland*
- *We can preserve our green Island Home for our selves,our children and grandchildren.by making this happen.*

Written Comments in Support of the NRC's Environmental Assessment Findings and for the Licensing of the Pa'ina Hawaii Food Irradiator at the Honolulu Airport

Submitted by Lyle Wong, Ph.D.
Plant Industry Administrator
Hawaii Department of Agriculture
1428 South King Street
Honolulu, Hawaii 96814

To
The Nuclear Regulatory Commission
Public Meeting Ala Moana Hotel, Honolulu, Hawaii
February 1, 2007

My name is Lyle Wong, I'm here tonight representing the Hawaii Department of Agriculture as Administrator of the Plant Industry Division, to provide our comments on the Nuclear Regulatory Commission's Environmental Assessment for the Proposed Pa'ina Hawaii underwater irradiator.

For purpose of background, I would like to state that Hawaii farmers have been shipping fruit to U.S. mainland markets with irradiation quarantine treatment for nearly twelve years. This is not a new technology for Hawaii.

Initial treatments (1995 to 2000) were done in commercial cobalt-60 irradiators on the mainland in Chicago and New Jersey in the absence of a commercial irradiator in Hawaii. Since August 2000, growers have been shipping fruit through a commercial irradiator on the Island of Hawaii in Keaau. The irradiator is an electrical source and is not regulated by the Nuclear Regulatory Commission.

Pa'ina Hawaii has proposed to construct a commercial irradiator on Oahu at Honolulu International Airport to service growers statewide and to provide growers on Oahu, Maui, Molokai, and Kauai more ready access to a post-harvest commodity treatment service that is not now readily available to

them. The proposed irradiator is a small underwater Cobalt-60 Category 3 irradiator. To move forward with its plans, Pa'ina Hawaii must obtain a material license from the NRC. The approval of the application has been challenged on a number of contentions, therein, the Environmental Assessment.

The EA and topical report have generally confirmed our understanding regarding the risk associated with this proposed unit. The irradiator has a very small foot print, the pool dimension is approximately 8 feet by 8 feet and is 18 feet deep. The design has been described as inherently safe by the industry as the source pencils cannot be lifted out of the pool. To remove the source, a shielded shipping cast approved as a transportation container for the source, must be lowered down into the pool for the loading and unloading of the source pencil at a depth of 18 feet. The EA rates the risk of a plane crash onto the irradiator at Honolulu International Airport as 1 in 5,000 years, a seemingly negligible risk. The EA further states that the risk of the source pencils in the facility becoming dislodged and carried out of the pool by sear forces in a tsunami, hurricane and earthquake are likewise highly improbable and negligible, as well. As a result, NRC has made a preliminary finding of no significant impact in favor of the Pa'ina application.

The irradiator water in the pool does not become radioactive, nor does food treated with irradiation for insect or pathogen control become radioactive.

The Hawaii Department of Agriculture supports this finding but is aware of the continued community concerns regarding the safety of the facility. Concerns have been raised that the EA does not address acts of terrorism; NRC needs to clearly articulate and explain the roles of federal agencies in the war on terrorism and this should not be seen as a fault in the review process at hand.

At the same time, NRC needs to be informative in the review and documentation process to assure public confidence that the facility design is robust and sufficient to assure containment of the source in foreseeable activities, man-made or natural.

Further it is important that the review be science based and that the mere assertion of problems not sway the NRC to delays intended to jeopardize

this project for Pa'ina Hawaii and for growers that need means of treating fruit at the low possible costs for movement of products to export markets.

Agriculture in Hawaii is in transition from plantation production to a wide array of diverse agricultural crops not previously thought possible in Hawaii as a result of four Tephritid fruit fly species, the Mediterranean, Melon, Oriental and Malaysian flies.

New technologies have been recently developed by the USDA, Agricultural Research Service, University of Hawaii College of Tropical Agriculture and Human Resources and the Hawaii Department of Agriculture to suppress fruit fly populations to allow growers to grow higher quality crops with less pesticide inputs, through longer growing seasons. Hawaii is a too small consumer market to absorb all the new production and for growers to expand and reap the benefits of new growing opportunities, export markets need to be opened and irradiation offers this opportunity as quarantines still apply in the absence of total fruit fly eradication.

At the same time, 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 at our major ports of entry such as Honolulu International Airport. We proposed to subject cut flower and foliage shipments into Hawaii to low dose irradiation as the best possible means to reduce the risk of pest entry into Hawaii through this large pathway. Japan has proposed to use the same technology to reduce the risk of pest entry into Japan through the cut flower and foliage trade.

An irradiator will not prevent all pests from entering the state but will give Plant Quarantine programs (one state and two federal in Hawaii) a new tool to prevent entry of pests through specific pathways and to direct scare resources to higher priority areas.

And Hawaii is not alone in looking at irradiation as a quarantine treatment.

Mexico has constructed two large cobalt-60 irradiators for the treatment of papaya and mangoes and other tropical fruit for export to U.S. mainland markets; and Australia has begun shipping mangoes to New Zealand with irradiation quarantine treatment for the Queensland fruit fly. The irradiator in Melbourne, Australia providing quarantine treatment for mango shipments to New Zealand is a cobalt-60 irradiator. Thailand, Philippines,

Brazil, India and other countries are also moving in the direction of irradiation as a quarantine treatment for their agricultural products because of the efficiencies and safety of the treatment compared to other post-harvest treatment options.

And for an interesting twist in my closing comments, Hawaii has been shipping tropical fruit into California for nearly 10 years using irradiation as a quarantine treatment for hitch hiking insect pests in addition to fruit flies (i.e., applying a generic dose of 400 grays). California's approval of the very first generic treatment doses approved for use in the U.S. was based on research conducted in Japan on the low dose irradiation levels required to sterilize and/or kill various insects, data graciously provided to the Hawaii Department of Agriculture by the Japan Ministry of Agriculture, Forestry and Fisheries.

The Hawaii Department of Agriculture strongly supports the proposal of Pa'ina Hawaii to install a commercial irradiator on Hawaii which will greatly benefit agriculture in Hawaii. The HODA not only has an obligation to look out for the best interest of agriculture, but also for the people of Hawaii. We would not support a project if we thought it would pose a threat to Hawaii.

We have various holders of material licenses in Hawaii; NRC's oversight of these licenses is part of a system we have in place for the use of technology for the benefit of man and community.

Sincerely,

Lyle Wong

Lyle Wong, Ph.D.
Plant Industry Administrator

Docket 030-36974

Hawaii Agriculture Research Center

99-193 Aiea Heights Drive, Suite 300
Aiea, Hawaii 96701
Ph: 808-487-5561/Fax: 808-486-5020

Testimony at the NRC Public Meeting
Concerning Pa'ina's Plans to Build an Irradiator
Facility Adjacent to Honolulu Airport

February 1, 2007

I am Dr. Mel C. Jackson, Radiation Safety Officer and Director of Product Development and Services at the Hawaii Agriculture Research Center (HARC) in Aiea. The Hawaii Agriculture Research Center is a not-for-profit research institution that is dedicated to serving all of Hawaii's farmers' needs by conducting research that directly benefits them. We have seen over our more than 100-year history the devastation to agricultural concerns and the environment that invasive species and diseases can inflict, and have worked on a number of projects that have attempted to control pests and diseases that threaten Hawaii farmer's livelihoods.

As is the nature of accidentally introduced invasive species and diseases, they are not easily recognized for what they are at the point of entry into the State, and so are sometimes overlooked, despite the keen vigilance and monumental efforts of State and Federal Plant and Animal inspectors. We need only look at the recent arrivals of the coqui frog and the erythrina gall wasp to grasp the difficulties associated with preventing the spread of undesirable alien species. Now as an example, imagine the devastation that would occur to the coffee industry if coffee rust disease or coffee berry borer disease were to enter the State. There is a good chance that the Hawaii coffee industry State wide, would be put out of business. This will happen one day, no doubt, and therefore makes efficient elimination of potential pests a very pressing need.

There are a number of treatment measures that have been tried by the State to eliminate potentially devastating pests from incoming agricultural products, but at the scale required, none have been successful and consequently are not widely available today.

In addition to incoming agricultural produce, Hawaii's farmers are often severely restricted in the geographical areas to which they can export agricultural produce, because of the fear that importing areas will receive produce contaminated with pests that would devastate their local agricultural economies. In addition, there are many examples where Hawaii farm produce does not withstand the long transport to distant markets, either over-ripening or rotting in transit. If there is a way to increase Hawaii farm produce shelf life without reducing its premium quality, then an advantage for Hawaii's farming families has been gained. Without crop treatment of some kind, Hawaii's farmers will continue to suffer from reduced market opportunities, reduced return on their efforts and in many cases a quality of life marginally above subsistence.

Hawaii Agriculture Research Center has applauded the commissioning of an environmental assessment study on the proposed irradiation facility to be located near to the Honolulu Airport, because it makes the process of picking a site open to review and public input as we see here tonight. This is a vital step in assuring the public of the true nature of such a facility. Whether you agree with irradiation as a safe or ethical means of dealing with invasive species or not, the fact is, it works, and according to the environmental assessment completed by a third party, it appears to present no undue safety hazards in its proposed design format. Therefore, the Hawaii Agriculture Research Center fully supports the construction of the Pa'ina facility and strongly recommends, given the need and the results of the EA, that regulatory agencies and other parties involved in its planning and construction make haste. Hawaii's farmers are watching and waiting.

Testimony re Irradiator Facility by Pa"ina Hawaii near Lagoon Drive, Honolulu International Airport 2/1/07

My name is Ronald A. Darby, P.E.and I've been a resident of Hawaii since 1967. I have a B.S. in mechanical engineering from Penn State and a M.S. In Engineering Acoustics from The Catholic University, Washington, D.C. I have spent over 16 years as a research engineer for various firms in the D.C. area including consulting to the National Academy of Science on submarine quieting.

Starting in 1970 I had an independent engineering consulting business here in Hawaii for 20 years specializing in acoustics, noise control and vibration. My firm provided meaningful and technically defensible environmental noise impact studies, assessments and statements for project developers, owners, planners, government agencies and private citizens.

I was proud to be involved in many projects e.g. schools, music rooms, hospitals, churches, the Waikiki Shell and airport noise studies e.g. The Reef Runway.

Then there were many run-of-the mill projects seemingly overcrowding our islands e.g. mammoth destination resorts with golf courses, adding more deluxe high rise condos and hotels into an already crowded concrete jungle and various commercial as well as residential developments.

There were a few projects that in my opinion would have been very positive for Hawaii that were shot down by over zealous environmentalist concerns and common sense did not prevail. One of these projects is the development of the full potential of geothermal energy beyond the existing pilot plant on the Big Island. We now are dependent on our new coal plant and foreign oil.

Other projects include the greatly needed marinas for small boating and fishing on Oahu and Maui which never got out of planning stages and would aid in developing a boating industry befitting this island state.

The irradiator under question is a natural step to diversify our agriculture by exporting our unique ripened fruit to new markets and to using our limited land for growing – not for more hotels, golf courses or military training and military housing as in the Styrker project.

Michael Kohn the creator of the Pa'ina Irradiator became my neighbor and friend about 8 years ago. I consider him to be a very responsible person who really believes in the American system. He really utilizes and enjoys our unique Hawaiian environment and is sensitive to it.

I have had many discussions with Michael and others on the irradiator project and have reviewed the reports by NRC. I believe that it is a solid, safe and needed resource here as a means to create new satisfying jobs allowing Hawaii to compete in the global market without messing up our wonderful islands.

More activists should spend their time concentrating on obviously sick projects like Stryker, allowing new ships to unload 1,000 new cars per week on our already vehicle-saturated islands and providing the means to process ethanol from sugar cane or other crops.

Ronald Darby, P.E.
44-401 Kaneohe Bay Drive
Kaneohe, HI 96744

ph/fax: 808-254-3095
ronmil@hawaiiantel.net

NRC HEARING February 1, 2007

My name is James Hunt Fleming.

I am a 73 year old retired nuclear engineer with a Masters Degree in electrical engineering and post graduate work in nuclear engineering.

I am Kamaina with strong connection to agriculture in Hawaii.

My Great Grandfather immigrated to Hawaii from Scotland in 1889 when Hawaii was a Kingdom.

My Grandfather started some of the first pineapple on Maui which he eventually developed into the plantation which is Maui Land and Pine. On his own and as a member of the Board of Agriculture and Forestry he experimented with raising tropical fruit crops to diversify Hawaii's agriculture because he believed that Hawaii's dependency on sugar and pineapple was "putting all our eggs in one basket" He believed that pineapple was a luxury fruit with a market demand strongly influenced by fluctuation in the economy. Grandpa was stymied by the lack of an adequate size market in Hawaii in his effort on Maui to raise avocadoes, mangos, lichees and other tropical fruit as these products could not be shipped to the west coast because of insect infestation.

Although my ancestors were in agriculture and my father was in medicine, I went into engineering. My experience in the nuclear industry includes 4 years of design work and 27 years in handling radioactive material in a shipyard industrial environment in Hawaii---we safely refueled and maintained nuclear submarines where I eventually managed a department of 240 engineers and 800 trades people. We *NEVER* had a person injured from radioactive material in the shipyard.

I know first hand that with attention to detail in the design and construction and maintenance of equipment, with the training and frequent refresher training of workers and their supervisors, radioactive material can be safely be handled by our people in Hawaii.

Our forefathers took risks to give us the benefits of a thriving economy in Hawaii. We need to support Pa'ina's effort to assist diversified agricultural economy of Hawaii and not continue to "keep all of our eggs in one basket". We need to be able to ship our agricultural products to the west coast as other countries such as Chile, Mexico, Peru, and New Zealand currently do. Pa'ina's irradiator holds a promise to greatly advance diversified agriculture in Hawaii.

James Hunt Fleming,
653 Milokai St. Kailua, HI 96734
Email: jhfleming@earthlink.net

HAWAII STATE LEGISLATURE
STATE CAPITOL
HONOLULU, HAWAII 96813

January 30, 2007

Mr. Matthew Blevins
Senior Project Manager
Division of Waste Management and Environmental Protection
U.S. Nuclear Regulatory Commission
Office of Public Affairs
Washington, D.C. 20555

Dear Mr. Blevins:

Re: Testimony on the Draft Environmental Assessment for Proposed Pa`ina Hawaii, LLC, Underwater Irradiator

Thank you for this opportunity to provide comments regarding the proposed Pa`ina Hawaii, LLC underwater irradiator in Honolulu, Hawaii, and the U.S. Nuclear Regulatory Commission's *Draft Environmental Assessment and Information Related to the Proposed Pa`ina Hawaii, LLC Underwater Irradiator in Honolulu, Hawaii*, December 21, 2006. We are Hawaii State Legislators, representing the Senate and Representative Districts in and surrounding the proposed site location for the Pa`ina irradiator facility. Collectively, we have served as members of the Hawaii State Legislature for many years, and throughout our time in office, we have remained committed to improving the health and well-being of all of Hawaii's residents and visitors, particularly our children, seeking to create a healthy and happy environment for them. We are pleased to offer comments on our concerns regarding the draft environmental assessment, as well as general concerns regarding the approval of the construction of a nuclear irradiator facility in Honolulu.

As state legislators, we have a responsibility to not only support agricultural growth and economic prosperity within the State, but also to protect our residents from public health and safety dangers in the community. It is with these objectives in mind that we voice our concerns.

Draft Environmental Assessment

The need for the preparation of either an environmental assessment (EA) or an environmental impact statement (EIS) regarding the proposed irradiator facility in Honolulu, Hawaii is important when determining the feasibility and propriety of establishing such facilities. Accordingly, the NRC has recently published the Draft Environmental Assessment on the proposed Pa`ina irradiator facility which ultimately indicated the determination that a "Finding of No Significant Impact" is appropriate.

The Draft EA indicated that there will be no significant impacts on land use, historical and cultural resources, noise, air quality, visual quality, water quality, water use, and public or occupational health during operation. However what stands out in the Draft EA are the findings that there will also be only minimal beneficial impacts to socioeconomics and no significant beneficial impact to ecology with regard to controlling invasive species. Additionally, it was determined that the impacts of approving and denying the application for the irradiator facility are in fact similar. The Draft EA included an analysis of the potential safety concerns regarding the proposed facility's ability to withstand aviation accidents, natural phenomena, and abnormal events, concluding that none of the foregoing would have significant impacts on public health and safety. However, the analysis fails to address other potential hazards associated with the facility based upon the proposed location near the Honolulu International Airport.

The proposed location for the facility, near the Honolulu International Airport, is disconcerting as the area already presents numerous safety concerns that will be exponentially increased by the facility's erection. The location is near the ocean, subject to the risks of damage and destruction resulting from flooding and tsunamis; near the airport, threatened by the risks of plane crashes; and near Hickam Air Force Base and Pearl Harbor, further exposed to the risks of terrorist acts. These concerns are at the forefront of the minds of many residents, particularly in the wake of the events of September 11, 2001, the Asian Tsunami in Indonesia, Hurricanes Katrina and Rita, as well as the recent series of earthquakes in October, 2006, centered off the coast of the island of Hawaii, one of which resulted in a statewide power outage that ensued for several hours. The presence of a food irradiation facility in the midst of these types of occurrences could prove truly catastrophic for not only the residents and workers in the areas surrounding the airport, but the island of Oahu and the State in its entirety. Although the Draft EA addressed some of these concerns, to a certain extent, the issue of terrorist attacks was conspicuously absent, though the threat poses a real concern in the current political climate and based on the proximity of the proposed location to the airport and military installations.

Therefore, despite the finding that the Pa`ina irradiator facility will have no significant environmental impact, the potential dangers continue to pose a real threat to the people

of Hawaii. It is important to factor into the decision making process not only the potential benefits but also the potential costs to the taxpayers and make a determination whether the risks are sufficiently and justifiably outweighed by the benefits. The finding of no significant socioeconomic benefit is one that should be carefully considered in making the final decision on the facility's approval. In other words, simply because it can be done, should it, and even if it should, should it be constructed in that location? We continue to be concerned not only about the dangers of the proposed facility, but also about the proposed facility's location and whether a more appropriate location on Oahu exists. These are the questions that have not been satisfactorily answered and are the catalyst of our continued presence at these meetings and continued reservations regarding the approval of Pa`ina's application.

Hazards Posed by a Food Irradiation Facility

Additionally, while it is true that irradiation facilities are not a new phenomenon in this country or even worldwide, accidents and other negative incidents have occurred on numerous occasions. These incidents have often required remedy at the expense of the State and its taxpayers. The very existence of an irradiation facility presents the potential risk of exposure to radioactive materials in many ways, including the transport, loading, and unloading of the Cobalt-60 that is planned to be used at the facility. In other situations, radioactive water has infiltrated public sewer systems; radioactive waste has been wrongly disposed in the garbage; radiation has leaked; facilities have caught fire; equipment has malfunctioned; and employees have been injured, some fatally. While these are possible maladies, there are certain known problems that will result from operating a food irradiation facility, including increased air pollution and dangerous working conditions for the facility's workers. Hawaii prides itself on the natural beauty of the islands, predicated on the clear air, beaches, and forestry that my colleagues and I have fought to preserve. Therefore, meaningful choices must be made when the introduction of environmental hazards is at issue.

Since the 1960s, there have been dozens of accidents reported in relation to irradiation facilities throughout the world. These incidents should not be overlooked. Even here in Hawaii, in 1979, the decontamination process began at the Hawaiian Development Irradiator at the former Fort Armstrong on Oahu where radioactive water had leaked on the premises. Although the leaking had occurred years earlier, the issue was only addressed at that time and the facility was subsequently shut down in 1980. The clean-up involved the removal of approximately 50 tons of steel, 250 cubic feet of concrete, and 1,100 cubic feet of soil, all of which required transport to a nuclear waste dump more than 2,700 miles away in Hanford, Washington. The $500,000 clean-up was a necessary and costly endeavor that had to be subsidized with taxpayers' money.

The remaining Cobalt-60 from the former Fort Armstrong facility was transported to the University of Hawaii where it was housed until 2005 when it was transported to the mainland United States and disposed of. Although the University of Hawaii had sought removal four years prior, the removal was finally accomplished as the result of the federal government's growing concerns, in the wake of the events of September 11, 2001, regarding the existence and location of radioactive materials that could be used in constructing bombs. The presence of the Cobalt-60, which it does not appear was being or had been utilized by the University of Hawaii since its transport in 1980, posed great dangers to the surrounding community. On October 30, 2004, the area surrounding the campus, Manoa, Hawaii, suffered severe flooding requiring Governor Linda Lingle to proclaim a state disaster for which moneys from the State's major disaster fund were made available and for which federal assistance was sought. The University of Hawaii suffered significant damage to its facilities, equipment, supplies, and power supply, causing the school library to close until clean-up and recovery could occur. Of great concern to campus officials was the state of the radioactive materials in the wake of the flooding. Thankfully, campus officials were highly sensitive and alert to the presence and dangers of the Cobalt-60 and were able to timely ascertain its stability. The potential additional disaster that was averted in this situation raises more questions about the ability of Pa`ina Hawaii's ability to safely operate and maintain a facility in the urban area proposed.

As the facility will directly impact the community, due consideration must be given to the taxpayers' position on risk tolerance in light of the potential dangers, including the potential costs of clean-up, as well as the plans and procedures for safeguards against these dangers.

Hazards of Irradiated Food

Furthermore, although food irradiation is an accepted practice which has been in existence for approximately the last fifty years, many of us still harbor reservations as to the true safety and long-term implications of consuming irradiated food. Although it has been tested, the utilization of radiation to eliminate disease-causing germs from foods is not a widespread practice and, therefore, may present several unknown or negative long-term effects that could endanger the health and the lives of the consumers. Recent studies have indicated that food irradiation creates certain chemicals that may promote tumor growth and cause cellular and genetic damage. These concerns must be further investigated before consumers can be assured of food safety.

Moreover, research does not indicate that there is a strong market for irradiated food in this country, particularly in regards to produce, which is likely due to consumers' health concerns over irradiated food. Also altered appearance and taste reflect negatively on the irradiation process. Again, part of Hawaii's allure is its fresh produce, which is

enjoyed by residents and visitors, who often transport fruits to their homes. Unsafe and poor-tasting produce will not enhance, but rather damage Hawaii's agricultural economy and may eventually negatively affect the tourism industry as well.

Although not all of these concerns are directly relevant to your review, they speak to the greater issue of the dangers of the unknown associated with an irradiation facility; thus magnifying the larger concern about Pa`ina Hawaii's ability to adequately address public health and safety concerns in operating an irradiation facility in Hawaii and, more specifically, in the proposed location.

Conclusion

Once again, we would like to thank you for the opportunity to present comments on the proposed Pa`ina irradiator facility and the Draft EA. We trust that you will carefully consider our concerns as well as those of our constituents and other interested parties. Please feel free to contact us should you have any questions regarding this testimony.

Sincerely,

Suzanne Chun Oakland
Hawaii State Senator, 13th District

Senator Gordon Trimble
Hawaii State Senator, 12th District

John Mizuno,
Hawaii State Representative, 30th District

Karl Rhoads
Hawaii State Representative, 28th District

NRC Public Hearing Regarding a Commercial Co-60 Irradiator to be Built in Honolulu

Statement of Support

1) An irradiator with capsules of Cobalt-60 under 18 ft of water, and no movement of the capsules at anytime, is a very safe facility.
I speak from my 35 years of experience in managing and operating such an irradiator on the campus of the University of Hawaii at Manoa (1968-2003). I used the irradiator for experiments on various tropical fruits, and I have trained more than 300 researchers and graduate assistants for the safe operations of the Hawaii Research Irradiator. During those years, not a single incident or accident occurred.

2) Co-60 is not soluble in water; it would therefore never contaminate any water sources. The NRC, in its Environmental Assessment (EA), has carefully assessed the potential effects of tsunami or earthquake on the cobalt sources, and concluded that the integrity of the sources will not be affected. When I was managing the Hawaii Research Irradiator, I consulted two experts about these potential problems. What they told me was essentially the same as NRC's recent findings.

3) It is impossible for anyone to dive down to the bottom of the pool to try to steal the Co-60 capsules. This is because the capsules are fastened as a plaque or plaques and are bolted on the floor of the pool. Also, there are steel frameworks within the pool blocking access to the source. A person, if he could get near the source, will become sick and weakened within minutes if he attempts to pry open the capsules.

4) All reputable authorities on food irradiation and food safety such as the FAO, WHO, IAEA, USFDA, USDA, IFT, AMA, ADA, etc. have declared irradiated foods safe for human consumption.

5) As part of my 37 years of research on irradiation of tropical fruits at the University of Hawaii at Manoa, I have eaten more irradiated papayas than anyone else on this planet, which is easily a Guinness World record. And I am very healthy, when compared to many people my age or younger.

6) I fully support the construction of the commercial irradiator near the Honolulu International Airport by Pa'ina Hawaii LLC because it will be a safe facility, and the irradiator will help the agricultural economy of the State of Hawaii. I urge the NRC to issue a license for such installation as soon as possible.

February 1, 2007

James H. Moy, Ph.D.
Professor Emeritus in Food Engineering
University of Hawaii at Manoa

Irtmtpaina7-70201-HCM17

Nuclear Regulatory Commission Public Hearing
Proposed Pa'ina Hawai'i LLC Irradiator
Ala Moana Hotel, Honolulu, Hawai'i
February 1, 2007

Andrew G. Hashimoto
Dean and Director
College of Tropical Agriculture and Human Resources
University of Hawai'i at Manoa

1) The University of Hawai'i has had a Cobalt-60 irradiator on campus for 40 years, without a single incident or accident. Over this period, experience and research have shown that both the facility and the irradiated foods were very safe. The irradiator was decommissioned in 2005. Dr. James Moy, a world renowned expert on irradiation of tropical fruits and the manager of this facility for 35 years, will give additional details about the safety of the facility and the irradiated food.

2) Many produce from Hawai'i must be irradiated before being exported to the rest of the USA or other countries. There is only one irradiator located in the state, in Hilo on the island of Hawai'i. It is cost and time (i.e. shelf-life) prohibitive to ship produce from the other islands to Hilo for irradiation prior to export. Having another irradiator for redundancy would be advantageous when one of the irradiators is unavailable for maintenance, etc.

3) An irradiator on the island of Oahu will greatly increase the export opportunities for farmers in Hawai'i and generate additional agricultural revenue for the State of Hawai'i.

4) The assessment by the Center for Nuclear Waste Regulatory Analyses shows that the likelihood of aircraft or natural disasters to cause the irradiator to endanger the public health or safety is negligible.

5) I support the construction of the commercial irradiator near the Honolulu International Airport by Pa'ina Hawaii LLC because it will be a safe facility, and the irradiator will help the agricultural economy of the State of Hawai'i. The benefits of this facility far out weight the risks.

Aloha,

My name is Damian Paul and I have lived in Hawaii since 1973. My wife and I have raised our 8 children on this island and we now have 8 grandchildren living on Oahu. We are extremely concerned about an Irradiation facility being put on our island. Especially what concerns us is the danger of accidents. Since the 1960's, dozens of accidents- as well as numerous acts of wrongdoing- have been reported at irradiation facilities throughout the United States and the world. Radiation waste has been thrown into the garbage. Radiation has leaked. Facilities have caught fire. Equipment has malfunctioned. I know even the folks who serve and work on the Nuclear Regulatory Commision are aware of all the risks.

The majority of people in Hawaii do not want this irradiation facility on Oahu or anywhere else in our state. We already had an expensive clean-up in 1979 at the state run Hawaiian Developmental Irradiator at Fort Armstrong where years earlier, radioactive water leaked onto the roof and the front lawn.

Irradiated food has been linked to liver cancer and forms chemicals known or suspected in birth defects. Irradiation destroys vitamin, protein, essential fatty acids and other nutrients- up to 80% of vitamin A in eggs and half the Beta Carotene in Orange Juice.

Our government may approve its use but that doesn't mean citizens will be believe its safe or that we will buy irradiated food.

Mahalo,
Damian Paul
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