



Irradiated Papayas?

Hawaii and Food Irradiation

In July of 2005, Pa'ina Hawaii, a fruit company, announced their plan to build a food irradiation facility near the Honolulu airport. They plan to irradiate produce for export using the radioactive material cobalt-60. Food irradiation facilities create serious safety hazards, in order to create a largely unwanted product.

Safety

Hazards from the Irradiation Plants

Food irradiation facilities threaten environmental and worker safety. In the case of cobalt-60, as will be used in the planned Oahu facility, there is risk from both the transport of the radioactive material to the facility and in the presence of radioactive material at the site itself. Cobalt-60 is a dangerous material because it emits gamma radiation that can cause cancer.

Since the 1960's there have been dozens of incidents at irradiation facilities worldwide. And sometimes these accidents are cleaned-up with taxpayer money. Radioactive water has been flushed into the public sewer system; radioactive waste has been thrown into the garbage; facilities have caught fire; equipment has malfunctioned. Workers have lost fingers, hands, legs and, in several cases, their lives. Company executives have been charged with cover-ups and even sentenced to federal prison. See: <http://www.citizen.org/documents/accidentsfactsheet.pdf> for a more detailed description of facility accidents.

An Accident in Honolulu

In 1979, decontamination began at the Hawaiian Developmental Irradiator at Fort Armstrong where, years earlier, radioactive water leaked onto the roof and lawn. As part of the \$500,000, taxpayer-subsidized clean-up, nearly 50 tons of steel, 250 cubic feet of concrete and 1,100 cubic feet of soil were removed and taken to a nuclear waste dump in Washington, one of the most polluted places on Earth. The plant was shut down in 1980 and the remaining cobalt-60 was shipped to the University of Hawaii, where it was used at their research facility.

The Threat of Terrorism

Numerous security experts are concerned that terrorists could construct a "dirty bomb" using radioactive material from irradiation facilities. The Federation of American Scientists modeled the detonation of a foot-long rod of Cobalt obtained from a food irradiation plant, and found that it would contaminate 1000 square kilometers, with a 10% risk of death from cancer for residents living inside a 300 city block area for 40 years following the detonation.

After the University of Hawaii shut down their irradiation facility in 2005, a deputy director from the National Nuclear Security Administration remarked in the *Honolulu Advertiser* "The University of Hawai'i, its surrounding neighbors and the international community are safer today as a result of this effort." Further, "[t]he removal of these radiological sources [cobalt-60] has greatly reduced the chance that radiological materials could get into the wrong hands." The proposed Honolulu facility is especially alarming because it would be located next to an international airport, which is a site already subject to increased concern about security.

A Failing Technology

Food irradiation Facilities- Shuttered or Struggling

Throughout the United States, food irradiation companies have faltered financially. In the 1990's, Dole Plantation opened an irradiation facility in Hawaii to treat produce, but then shut it down. And, as previously mentioned, the University of Hawaii shut down their food irradiation facility in 2005, citing security concerns and the potential for a "dirty bomb."

Other irradiation facilities, including those of bankrupt irradiation company Surebeam, have closed their doors in recent years. Most recently, after just a year and a half of operation, a food irradiation facility operated by CFC Logistics, which used cobalt-60, shut down its operation in Pennsylvania, citing the low demand for irradiated food. CFC Logistics had been met with significant opposition- including a lawsuit- from local residents who were concerned about safety issues, and opposed to irradiated food.

Hawaii Pride, an electron-beam facility (which irradiates food using electricity instead of radioactive cobalt) in Hilo, opened in 2000 primarily to irradiate produce for export. Hawaii Pride's construction was opposed by numerous residents and local environmental groups. According to one article, Hawaii Pride claimed to have sold \$2 million worth of produce such as rambutan, longan, lychee, and mango in 2003. However, in 2004, the federal government's Animal and Plant Health Inspection Service (APHIS) described the Hawaii Pride irradiation facility as "sometimes underutilized." Many of the remaining food irradiation facilities (there are only a handful) are financially propped up by support from their parent companies. Hawaii Pride's parent company Titan, for instance, announced in 2003 that they would pay loan payments for the facility because Hawaii Pride could not. Similar arrangements have been made for other facilities around the United States. And many facilities rely on irradiating products other than food (like medical equipment) to stay in business.

Irradiated Produce in the United States – A Weak Market

Irradiated fruit in the United States, according to our research, has had a very minimal presence in grocery stores. Relative to irradiated meat in supermarkets, which itself has struggled commercially and lost significant market share, irradiated produce is rarely available domestically. Harris Teeter, a high-end grocery store that operates in the southeast, once carried irradiated papayas, but stopped in 2004. There may be other stores that carry irradiated produce, but our research indicates that there is low availability and lower demand. Many consumers reject irradiated food because of health concerns about irradiation.

Health Concerns

Recent studies have shown that food irradiation creates unique chemicals in food called 2-ACBs, which may promote tumor growth and cause cellular and genetic damage. Food irradiation also depletes vitamins and nutrients in food. Because irradiated food sold in grocery stores must be labeled, many consumers choose to avoid it.

What Can You Do to Stop the Oahu Irradiation Facility?

1. Show up to the public meeting on Wednesday, August 31, 2005, from 7 p.m. to 9 p.m. that the Nuclear Regulatory Commission is hosting. The meeting will be at: Ala Moana Hotel, 410 Atkinson Drive, Honolulu, Hawaii 96814. Telephone: 808-955-4811.
2. Call your local representative to express your concern about the irradiation facility, including concern about radioactive materials being located near an airport.
3. Contact Audrey Hill at ahill@citizen.org asking to be on the email list about this proposal.