

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	In accordance with letter dated December 16, 2010 and application dated March 8, 2011
1. Pa'ina Hawaii, LLC	3. License Number 53-29296-01 is amended in its entirety to read as follows:
2. P.O. Box 30542 Honolulu, Hawaii 96820	4. Expiration date August 31, 2017
	5. Docket Number 030-36974 Reference Number

- | | | |
|---|----------------------------------|--|
| 6. Byproduct, source, and/or special nuclear material | 7. Chemical and/or physical form | 8. Maximum amount that licensee may possess at any one time under this license |
| A. Cobalt-60 | A. Sealed sources ([REDACTED]) | A. [REDACTED] |

9. Authorized Use:
- A. For use in a Gray*Star Model Genesis II underwater irradiator for the irradiation of material except explosives, and flammable or corrosive material, subject to Condition 13 of this license.

CONDITIONS

10. Licensed material may be used or stored only at the licensee's facilities located at:
- A. 192 Palekona Street, Honolulu, Hawaii (island of Oahu), and
 B. 92-1780V Kunia Road, Kunia, Hawaii (island of Oahu).
11. Licensed material shall only be used by, or under the supervision of, individuals who have satisfactorily completed the training and examination described in the application dated June 23, 2005, and letter received on October 4, 2005 (ML052860241), and have been approved by the licensee's Radiation Safety Committee, and have been designated in writing by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
12. The Radiation Safety Officer (RSO) for this license is Andrew Buchan.

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13. A. The licensee shall not install sealed sources in the source rack and plenum until it has assured that the facility has been constructed as described in the application dated June 23, 2005, and subsequent communications described in Condition 22, and has satisfactorily completed the applicable tests required by 10 CFR 36.41.
- B. At least (30) days before the installation of sealed sources in the source rack and plenum, the licensee shall notify in writing to the U.S. Nuclear Regulatory Commission, Region IV, 612 East Lamar Boulevard, Suite 400, Arlington, Texas 76011-4125, ATTN: Chief, Nuclear Materials Safety Branch A, of the proposed date of installation of the sealed sources.
- C. Prior to beginning irradiations, the licensee shall notify in writing to the U.S. Nuclear Regulatory Commission, Region IV, 612 East Lamar Boulevard, Suite 400, Arlington, Texas 76011-4125, ATTN: Chief, Nuclear Materials Safety Branch A, that the assurance and tests required by Condition 13.A. and the surveys required by Condition 14, have been satisfactorily completed.
14. The licensee shall perform radiological surveys of the areas in the irradiator facility after each installation and/or reconfiguration of source(s) in the plenum to confirm that the radiation dose rates comply with 10 CFR 36.25(b). These surveys shall include areas surrounding the air tubes or hoses coming out of the pool. The licensee shall maintain records of the results of these surveys.
15. Sealed sources or source rods containing licensed material shall not be opened or sources removed or detached from source holders by the licensee.
16. The licensee shall implement the material accountability program described in the application dated June 23, 2005, to account for all sealed sources containing licensed material received and possessed under this license.
17. The licensee shall not perform repairs or alterations of the irradiator involving removal of shielding or access to the licensed material. Installation, removal, replacement, and disposal of sealed sources in the irradiator shall be performed by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
18. The licensee is not authorized to make modifications to the source plenum described in the application dated June 23, 2005, without specific authorization by the U.S. Nuclear Regulatory Commission. The licensee shall test the movement of the product conveyor system for proper operation to meet the requirement in 10 CFR 36.41(f) for the protection of sources.

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- 19. Notwithstanding the requirements in 10 CFR 36.59, the licensee shall perform leak tests capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on a test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 612 East Lamar Boulevard, Suite 400, Arlington, Texas 76011-4125, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
- 20. Nothing in this license relieves the licensee from complying with the rules and regulations of the U.S. Food and Drug Administration, or any other requirements governing the irradiation and distribution of food products for human consumption.
- 21. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."



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22. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- A. Application dated June 23, 2005 (ML051920106)
- B. Letter received October 17, 2005 (ML052900484)
- C. Letter received November 30, 2005 (ML053460276)
- D. Letter dated March 9, 2006 (ML060730528)
- E. Letter received March 31, 2006 (ML061000640)
- F. Letter received September 7, 2006 (ML062640490)
- G. Teleconference notes dated September 28, 2006 (ML062770071)
- H. E-mail dated April 18, 2007 (ML071090410)
- I. Letter dated December 16, 2010 (ML110200712)
- J. Application dated March 8, 2011 (ML110670660)
- K. E-mail and enclosure dated March 24, 2011 (ML111070005)
- L. Letter dated April 13, 2011 (ML111070002)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: May 16, 2011By: /RA/
Roberto J. Torres, Senior Health Physicist
Nuclear Materials Safety Branch B
Region IV
Arlington, Texas 76011-4125