

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, 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 6, 1995

3. License number 53-00515-01 is amended
in its entirety to read as follows:

4. Expiration date April 30, 2005

5. Docket or
Reference No. 030-06839

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. Phosphorus 32
- B. Phosphorus 33
- C. Carbon 14
- D. Hydrogen 3
- E. Sulfur 35
- F. Nickel 63

- A. Any
- B. Any
- C. Any
- D. Any
- E. Any
- F. Foil in Tracor
Model 111019-0001
detector cells

- A. 50 millicuries
- B. 30 millicuries
- C. 60 millicuries
- D. 100 millicuries
- E. 29 millicuries
- F. Not to exceed 15
millicuries per
foil

9. Authorized use

- A. through E. For use in conducting tracer studies in plants and soils. Laboratory analysis of samples.
- F. For use in gas chromatographs for sample analysis.

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

53-00515-01

Docket or Reference Number

030-06839

Amendment No. 58

CORRECTED COPY

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 99-193 Aiea Heights Drive; Aiea, Hawaii and at the Kunia Substation; Kunia Road; Waipahu, Hawaii.
11. Licensed material shall be used by, or under the supervision and in the physical presence of, individuals who have been trained as specified in application dated October 31, 1994, and who have been designated by the Radiation Safety Officer.
12. The Radiation Safety Officer for this license is Mel C. Jackson, Ph.D.
13.
 - A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
 - B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
 - C. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
 - D. Sealed sources need not be leak tested if:
 - (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

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13. (Continued)

- E. The leak test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30(b)(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, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Radiation Safety and Safeguards. The report shall specify the source involved, the test results, and corrective action taken.
- F. The licensee is authorized to collect leak test samples for analysis by Gamma Corporation. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
15. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
16. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license.
17. 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."
18. The licensee is authorized to hold radioactive material with a physical half-life of less than 90 days for decay-in-storage before disposal in ordinary trash provided:
- A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
- B. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate meter set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

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License Number

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18. (Continued)

C. A record of each disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.

19. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.

20. 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 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. Letter dated August 25, 1994

B. Application dated October 31, 1994 except Item 10, Section K., "Waste Management" Number 6, regarding the release of plants and soils to unrestricted areas

C. Letter dated November 8, 1994

D. Letter dated November 22, 1994

E. Letter dated December 20, 1994

F. Letter dated December 27, 1994 except Item 10, Section K., "Waste Management", Number 6 regarding the release of plants and soils to unrestricted areas

G. Letter dated March 31, 1995

H. Letter dated July 26, 1996

I. Letter dated October 3, 1996

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date OCT 29 1996

By

Beth A. Prange

Materials Branch

Region IV, WCFO

Walnut Creek, California 94596



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV

Walnut Creek Field Office
1450 Maria Lane
Walnut Creek, California 94596-5368

OCT 29 1996

Hawaii Agriculture Research Center
ATTN: Stephanie A. Whalen
President and Director
99-193 Aiea Heights Drive, Suite 300
Aiea, Hawaii 96701-3911

SUBJECT: CORRECTED COPY

Enclosed is a corrected copy of Amendment 58 to License 53-00515-01.

This copy was issued to correct item 1. as was noted in your letter dated October 18, 1996.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify us so that we can provide appropriate corrections and answers.

Any future correspondence relating to your license should specifically reference your license and docket numbers to expedite your inquiry.

Sincerely,

Beth A. Prange

Beth A. Prange
Sr. Health Physicist (Licensing)
Materials Branch

Enclosure: As Stated

Docket: 030-06839
License: 53-00515-01

bcc:

Docket File
WCFO Inspection File
LFDCB, T-9 E10
State of HI (License Only)

DOCUMENT NAME: G:\beth\harc

To receive copy of document, indicate in box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

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HAWAII AGRICULTURE RESEARCH CENTER

99-193 AIEA HEIGHTS DRIVE, SUITE 300, AIEA, HAWAII 96701-3911

TELEPHONE: (808) 487-5561 FAX: (808) 486-5020

18 October 1996

Ms. Beth A. Prange
US NRC, Region IV
Walnut Creek Field Office
1450 Maria Lane
Walnut Creek, CA 94596-5368

Dear Ms. Prange:

Subject: Mail Control No. 572279, License No. 53-00515-01

This letter is in response to your 9 October 1996, granting of our license amendment. On page 1 of 4 of the Material License, item 1, the licensee's name should read Hawaii Agriculture Research Center. This should also be corrected on our mailing address.

Thank you for your assistance in concluding this chapter of our license.

Sincerely yours,

Stephanie A. Whalen
President and Director,
Experiment Station

SAW:BV:cp