

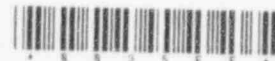
MATERIALS LICENSE

Amendment No. 15

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.

OFFICIAL RECORD COPY

Licensee		In accordance with the application dated February 26, 1997,	
1. Packard BioScience Company dba Canberra Industries		3. License Number 06-15099-01 is amended in its entirety to read as follows:	
2. 800 Research Parkway Meriden, Connecticut 06450		4. Expiration Date June 30, 2002	
		5. Docket or Reference No. 030-08562	
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. Any byproduct material with Atomic Nos. 3 through 83, inclusive	A. Any	A. Not to exceed 1 millicurie per isotope and 10 millicuries total	
B. Any byproduct material with Atomic Nos. 84 through 98, inclusive	B. Any	B. Not to exceed 5 microcuries per isotope and 100 microcuries total	
C. Hydrogen 3	C. Any	C. 10 millicuries	
D. Carbon 14	D. Any	D. 5 millicuries	
E. Hydrogen 3	E. Plated sources (MF Physics Models A-210, A-7111, A-801, NG-1254, or Sodern Model Genie 26 neutron generators or equivalent models as specified in License Condition No. 17)	E. 15 curies	
F. Uranium 233 and 235	F. Fuel rods (uranium dioxide fuel pellets in Zircalloy)	F. 350 grams	
G. Uranium enriched in the uranium 235 isotope	G. Deposited sources (Reuter-Stokes; RS-P6-0805-134, 93% uranium 235, and RS-P6-2403-114, 18% uranium 235, fission chambers)	G. Not to exceed 1 microcurie per source and 6 microcuries total	



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| H. Any byproduct material with Atomic Nos. 3 through 83, inclusive | H. Sealed sources | H. Not to exceed 200 millicuries per source and 1000 millicuries total |
| I. Any source material or byproduct material with Atomic Nos. 84 through 98, inclusive | I. Sealed sources | I. Not to exceed 20 millicuries per source and 50 millicuries total |
| J. Plutonium 239 | J. Sealed source
(Isotope Products Custom source Capsule No. 193 or Model PH1-239) | J. 600 microcuries |
| K. Americium 241 | K. Sealed sources
(Photon source)
(New England Nuclear Model NER-478, NER-476A, or NES-128S) | K. 2 curies |
| L. Americium 241/Lithium | L. Sealed sources
(Gammatron Model AN-HP) | L. Not to exceed 11 curies per source and 33 curies total |
| M. Californium 252 | M. Sealed sources
(Frontier Technology FTC-CFXXX, Isotope Products N-252-3) | M. Not to exceed 2 millicuries per source and 7 millicuries total |
| N. Enriched Uranium (not to exceed 5 percent U-235) | N. Solid (New Brunswick Lab Model No. CRM 969) | N. 1000 grams |
| O. Plutonium | O. Solid (New Brunswick Lab Model Nos. CRM 136, CRM 137, and CRM 138) | O. 1 gram |

9. Authorized use

- A. through O. Research and development as defined in 10 CFR 30.4; testing and calibrating of instruments and distribution of sealed sources to persons specifically licensed by the Commission or an Agreement State.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at 800 Research Parkway, Meriden, Connecticut and at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulatory use of licensed material.
11. A. Licensed material listed in Subitems 6.A. through 6.O. shall be used by, or under the supervision of, Craig K. Davidson; Dorothy R. Davidson, Ph.D.; or Robert C. Woodard. Licensed material listed in Subitems 6.A. through 6.D., 6.H., 6.I., 6.K., 6.N., and 6.O. shall be used by, or under the supervision of, Frazier L. Bronson, CHP; Jim Colaresi; Charles J. Passo, Jr.; Barbara L. Reider, CHP; Orren Tench, Leroy Booth, or David Groff.
- B. The Radiation Safety Officer for this license is Robert C. Woodard.

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12. Licensed material shall not be used in or on human beings.
13. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
14. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
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 three months.
C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
E. Sealed sources and detector cells 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 transfer 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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- F. The 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 and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- G. The licensee is authorized to collect leak test samples for analysis by the licensee. 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.
15. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license. Records of inventories shall be maintained for five years from the date of each inventory, and shall include the quantities and kinds of byproduct material, manufacturer name and model numbers, location of sources and/or devices, and the date of the inventory.
16. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
17. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
18. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material."
19. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days and sulfur-35 for decay-in-storage before disposal in ordinary trash, provided:
- A. Waste to be disposed of in this manner shall be held for decay a minimum of ten half-lives.
- B. Before disposal as ordinary trash, the waste shall be surveyed at the container surface with the appropriate survey instrument 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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- C. A record of each such disposal 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.
20. 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), 40.36(b), and 70.25(d) for establishing financial assurance for decommissioning.
21. 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 November 30, 1984
 - B. Application and letter dated April 25, 1988
 - C. Letter dated July 19, 1988
 - D. Letter dated August 5, 1988
 - E. Application dated March 8, 1990
 - F. Letter dated March 9, 1990
 - G. Letter dated December 4, 1990
 - H. Letter dated January 6, 1993
 - I. Letter dated February 2, 1993
 - J. Letter dated February 18, 1993
 - K. Letter dated July 9, 1993
 - L. Letter dated July 21, 1993
 - M. Letter dated August 2, 1993
 - N. Letter dated September 8, 1993
 - O. Letter dated September 13, 1993
 - P. Letter dated September 24, 1993
 - Q. Letter dated June 29, 1995
 - R. Letter dated August 30, 1995
 - S. Letter dated February 26, 1997

For the U.S. Nuclear Regulatory Commission

Original Signed By:

By John R. McGrath

Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

Date APR 30 1997

APR 30 1997

Robert C. Woodard
Radiation Safety Officer
Packard BioScience Company
dba Canberra Industries
800 Research Parkway
Meriden, CT 06450

Dear Mr. Woodard:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

Original Signed By:
John R. McGrath

John R. McGrath
Senior Health Physicist
Division of Nuclear Materials Safety

License No. 06-15099-01
Docket No. 06-08562
Control No. 06-011

Enclosure:

Amendment No. 15

DOCUMENT NAME: R:\WPS\MLTR\L0615099.01

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI				
NAME	McGrath <i>JRM</i>						
DATE	04/07/97	04/ /97	04/ /97	04/ /97	04/ /97		

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Canberra Industries, Inc. 800 Research Parkway, Meriden, CT 06450 Telephone 203-238-2351 FAX 203-235-1347



FAX#: (610) 337-5269

ATTN: John McGrath
USNRC

Date: March 20, 1997

RE: Packard BioScience Company Amendment

Dear Mr. McGrath:

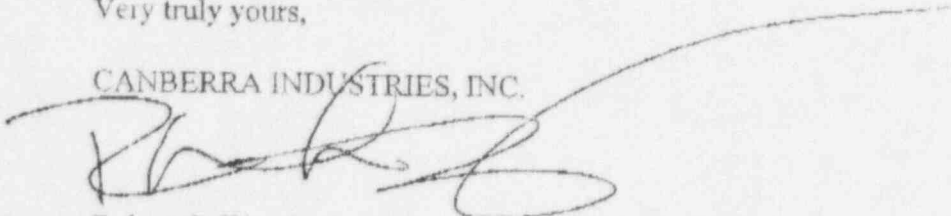
As per our telecon earlier today, please change the wording of our amendment to name the licensee as follows:

Packard BioScience Company
dba Canberra Industries

Thank you for your cooperation and assistance with this change.

Very truly yours,

CANBERRA INDUSTRIES, INC.



Robert C. Woodard
RSO

cc: G. Serrano
J. Tamburro



February 26, 1997

Mr. Keith D. Brown, Ph.D.
U. S. Nuclear Regulatory Commission, Region I
Division of Nuclear Materials Safety
475 Allendale Road
King of Prussia, PA 19406

030-08562

Re: License Amendment to NRC License No. 06-15099-01
Licensee: Canberra Industries, Inc.

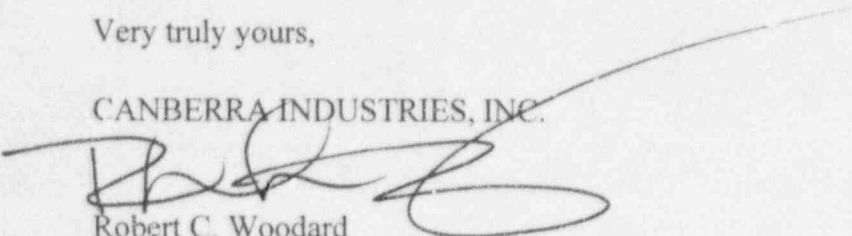
Dear Dr. Brown:

This is to request an amendment to License No. 06-15099-01 to reflect a name change of the licensee. The licensee's name will change from Canberra Industries, Inc. to Packard BioScience Company dba Canberra Nuclear Products Group at this location, and such change will become effective on or about March 4, 1997. The date of such change is intended to coincide with a pending recapitalization transaction described in a letter to the NRC dated January 10, 1997 and approved by the NRC on January 17, 1997.

Enclosed is a check for \$610.00 for the amendment processing fee pursuant to 10 C.F.R. 170.31(3(m)). If you have any questions or require additional information, please contact me at (203)639-2249.

Very truly yours,

CANBERRA INDUSTRIES, INC.



Robert C. Woodard
Radiation Safety Officer

cc: E. Olcott, President and CEO, Canberra Industries, Inc.
G. Serrano, President, Nuclear Products Group
J. Tamburro, Corporate Counsel

Enclosure

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: PROGRAM CODE: 03214
: STATUS CODE: 0
: FEE CATEGORY: 3M 2C 3P
: EXP. DATE: 20020630
: FEE COMMENTS: SEE 9/17/90 NOTE
: DECOM FIN ASSUR REQD: N
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A. REGION

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