

MATERIALS LICENSE

Amendment No. 03

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

1. Berthold Systems, Inc. (BSI)

In accordance with letter dated
February 18, 1985

3. License number 37-21226-01 is amended

in its entirety to read as follows:

4. Expiration date January 31, 1988

5. Docket or
Reference No. 030-200436. Byproduct, source, and/or
special nuclear material7. Chemical and/or physical
form8. Maximum amount that licensee
may possess at any one time
under this license

A. Cobalt 60

A. Sealed sources (Berthold
Dwgs. P-2608-100,
P-2608-101, P-2602-100,
P-2651-201, P-2651-202A. As specified in
Condition 15.

B. Cesium 137

B. Sealed sources (Berthold
Dwgs. SK-1208, P-2623-100
and Amersham Buchleter Dwg.
VZ-287)B. As specified in
Condition 15.

C. Cesium 137

C. Sealed sources (Berthold
Dwg. 2645-100.000,
2653.100-100)C. As specified in
Condition 15.

D. Americium 241

D. Sealed sources (Berthold
Dwg. P-2642-100 P-2627-100)D. As specified in
Condition 15.

E. Americium 241

E. Sealed neutron sources
(Berthold Dwg. P-2611-100)E. As specified in
Condition 15.

F. Curium 244

F. Sealed sources (Berthold
Dwg. No. 2657.000-000)F. As specified in
Condition 15.

9. Authorized use

A. through F. For use and/or possession incident to:

- (1) Installation into or removal from the Berthold devices described in Condition 15.
- (2) Installation, relocation, repair, and servicing of Berthold devices including the leak testing of sealed sources and radiation surveys of devices.
- (3) Picking-up, storing, and transferring sealed sources and devices manufactured by Berthold received from customers for disposal.
- (4) Distribution of Berthold devices to persons authorized to receive the licensed material pursuant to the terms and conditions of a specific license issued by the Nuclear Regulatory Commission or an Agreement State.
- (5) Instruction and training of individuals in the use of the Berthold devices.

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10. Licensed material may be used at 611 Parkway View Drive, Pittsburgh, Pennsylvania and at customer facilities of the licensee anywhere in the United States where the U. S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."
12. Licensed material shall be used by, or under the supervision and in the physical presence of, James Mullen, Paul Woods, George Vermillion, Richard Stiffey, James Welsh, or individuals who have satisfactorily completed the training program described in the licensee's letter dated February 25, 1985.
13. A. (1) Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months, except those sealed sources as specified by the manufacturer and specifically authorized by the Commission or an Agreement State may be leak tested at intervals not to exceed three years. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 micro- curies or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
(3) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.
- B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the U. S. Nuclear Regulatory Commission, Region I, 631 Park Avenue, King of Prussia, Pennsylvania 19406, describing the equipment involved, the test results, and the corrective action taken.

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- D. The licensee is authorized to collect leak test samples in accordance with the procedures described in the licensee's application dated January 28, 1983 for analysis by Applied Health Physics, Inc. Alternatively, leak test samples may be collected and/or analyzed by other persons specifically authorized by the Commission or an Agreement State to perform such services.
14. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provisions of Title 10, Code of Federal Regulations Part 71, "Packaging of Radioactive Material for Transport and Transportation of Radioactive Material Under Certain Conditions."
15. The activities authorized by this license are approved for the following Berthold devices:

Device Model No.	Isotope	Source Dwg. No.	Maximum Activity Per Source (millicuries)	Type of Licensee
LB 300 IRL (Series)	Cobalt 60	P-2608-100	8	Specific
LB 300 IRL (Series)	Cobalt 60	P-2608-101	8	Specific
LB 300 IRL (Series)	Cesium 137	SK1208	50	Specific
LB 300 IRL (Series)	Cesium 137	VZ287	50	Specific
LB 300 IP D/L (Series)	Cesium 137	P-2623-100	300	Specific
LB 300 IP D/L (Series)	Cesium 137	P-2623-100	30	General
LB 6600Z	Americium 241	P-2611-100	100	Specific
LB 300 L (Series)	Cobalt 60	P-2608-100	500	Both
LB 300 L (Series)	Cobalt 60	P-2608-101	500	Both
LB 300 L (Series)	Cesium 137	SK-1208	500	Both
LB 300 L (Series)	Cesium 137	VZ-287	500	Both
LB 375	Curium 244	2657.000-000	10	Both
LB 375	Cesium 137	P-2623-100	100	Both
LB 375	Americium 241	P-2611-100	100	Both
LB 379	Americium 241	P-2642-100	100	Both
LB 7400 D/L (Series)	Cobalt 60	P-2602-100	500	Both
LB 7400 D/L (Series)	Cesium 137	P-2623-100	500	Both
LB 7400 D/L (Series)	Cesium 137	P-2645-100.000	1000	Both
LB 330	Cobalt 60	P-2651-201	10	Both
LB 330	Cobalt 60	P-2651-202	10	Both
LB 330	Cesium 137	2653.100-001	32	Both
LB 360- AS	Americium 241	P-2627-100	300	Both

16. Sealed sources containing licensed material shall not be opened.
17. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of sealed sources and the date of inventory.

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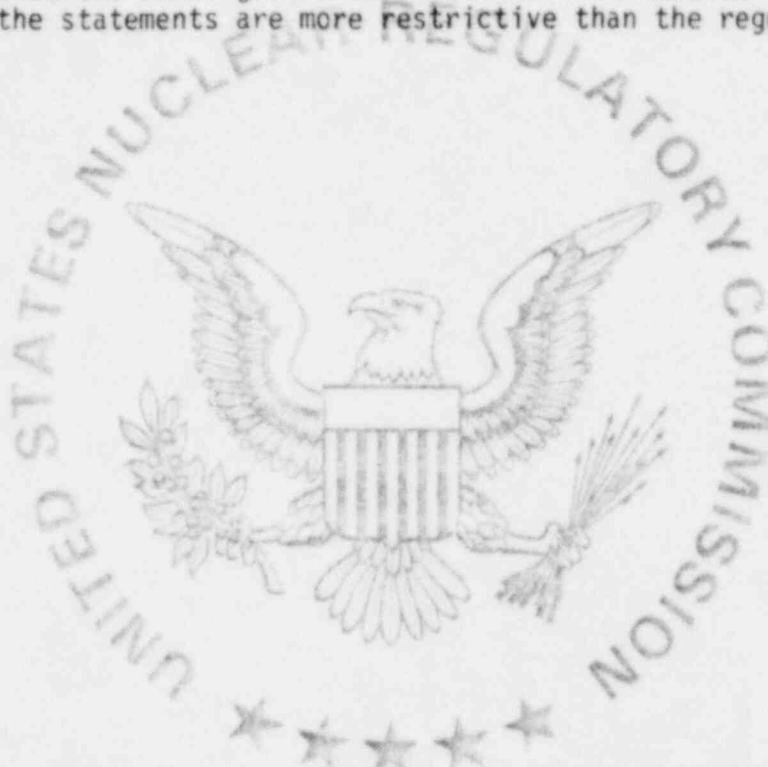
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18. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6., 7., and 8. of this license in accordance with statements, representations, and procedures contained in application dated November 12, 1982; letter dated December 10, 1982 (with attachments); and letters dated December 16, 1982, January 28, 1983, April 27, 1983, July 14, 1983, November 3, 1983, July 6, 1984, August 13, 1984, February 18, 1985, February 21, 1985, February 25, 1985, March 11, 1985, and April 29, 1985. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.



For the U.S. Nuclear Regulatory Commission

Original Signed By:

Jack Davis

Date

JUN 28 1985

By

Nuclear Materials Safety and
Safeguards Branch, Region I
King of Prussia, Pennsylvania 19406