

MATERIALS LICENSE

Amendment No. 04

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. M. Berkowitz & Company, Inc.

2. P.O. Box 312  
Niles, OH 44446

In accordance with letter dated  
July 8, 1985

3. License number 34-20007-01 is amended in  
its entirety to read as follows:

4. Expiration date August 31, 1990

5. Docket or  
Reference No. 030-17635

6. Byproduct, source, and/or  
special nuclear material

A. Cadmium-109

B. Americium-241

C. Cadmium-109

D. Americium-241

7. Chemical and/or physical  
form

A. Sealed source  
(IPL Model No. AN 109A)

B. Sealed source  
(IPL Model No. AN 241)

C. Sealed sources  
(Isotopes Products  
Laboratory Model No. XFB)

D. Sealed sources  
(Isotope Products  
Laboratory Model No. GFS)

8. Maximum amount that licensee  
may possess at any one time  
under this license

A. 25 millicuries

B. 50 millicuries

C. 3 sources not  
to exceed 8  
millicuries each

D. 3 sources not  
to exceed 8  
millicuries each

9. Authorized Use

A. and B. To be used in Kevex Corporation Model 0102 fluorescence analyzer for sample analysis.

C. and D. To be used in Kevex Corporation Model 0202 fluorescence analyzer for sample analysis.

CONDITIONS

10. Licensed material shall be used only at 1052 North State Street, Girard, Ohio.

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 of, Henry Zimmerman or Leslie V. Szirmay.

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**MATERIALS LICENSE**  
SUPPLEMENTARY SHEET

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13. Sealed sources containing licensed material shall not be opened.
14. Except as otherwise specified in this license, the licensee shall have available and follow the instructions contained in the manufacturer's instruction manual for the fluorescence analyzers.
15. 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. 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 microcuries 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 or from the surfaces of the device in which 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 five (5) days of the test with the U. S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by the manufacturer or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

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16. 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 applications dated July 28, 1980 and September 3, 1981; and letter dated August 26, 1983. 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

Date August 1, 1985

Original Signed  
By Evelyn R. Matson  
Materials Licensing Section, Region III

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