

**U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE**

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee		
1. Name	Melpar, Incorporated Research Division	3. License number 45-7548-2 (H69)
2. Address	Arlington Boulevard Falls Church, Virginia	4. Expiration date August 31, 1969
		5. Reference No.
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
A. Cesium 137	A. Helium welded, double encapsulated sealed source	A. 2,000 curies
9. Authorized use		
A. To be used in an American Nuclear Corporation "CES-I-RAD 2000" for the study of radiation effects, excluding the irradiation of explosives.		

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
11. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation."
12. Byproduct material shall be used by, or under the supervision of, Robert C. McIlhenny.
13. A. Each sealed source containing byproduct material shall be tested for leakage and/or contamination at intervals not to exceed 6 months. In the absence of a certificate from a transferor indicating that a test has been made within 6 months prior to the transfer, the sealed source shall not be used until tested.

(See Page 2)

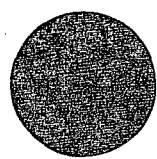
For the U. S. Atomic Energy Commission

Original Signed by
Isotopes Branch Daniel B. Howell
by Division of Materials Licensing
Division of Licensing and Regulation
Washington 25, D. C.

Date _____

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CONDITIONS

- 13. B. The tests shall be capable of detecting the presence of 0.05 microcurie of contamination on the test sample. The test sample shall be taken from appropriate accessible surfaces of the device in which the sealed source is permanently or semipermanently mounted or stored. 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 0.05 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 days of the test with the Director, Division of Materials Licensing, U. S. Atomic Energy Commission, Washington, D. C., 20545, describing the equipment involved, the test results, and the corrective action taken. A copy of such report shall be sent to the Director, Region II, Division of Compliance, USAEC, 50 Seventh Street, Northeast, Atlanta, Georgia, 30323.
 - D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
- 14. The procedures contained in American Nuclear Corporation's instruction manual for the "CES-I-RAD 1000" device shall be followed and a copy shall be made available to each person using or having responsibility for the use of the byproduct material.
 - 15. Except as specifically provided otherwise by this license, the licensee shall possess and use byproduct material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in the application dated June 2, 1964, signed by Dr. P. E. Ritt, and enclosures thereto.

For the U. S. Atomic Energy Commission

Original Signed by
Daniel B. Howell
by Division of Materials Licensing
Division of Licensing and Regulation
Washington 25, D. C.

Date _____

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