

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

e. 29-1022-6 AMENDMENT NO. 5

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.

<p>Licensee</p> <p>1. Name Department of the Army</p> <p>2. Address U. S. Army Electronics Research and Development Laboratory Fort Monmouth, New Jersey</p>		<p>In accordance with application dated July 16, 1965,</p> <p>3. License number 29-1022-6 is amended in its entirety to read as follows:</p> <p>4. Expiration date December 31, 1967</p> <p>5. Reference No.</p>	
<p>6. Byproduct material (element and mass number)</p> <p>A. Any byproduct material with Atomic Nos. 3-83, inclusive (See page 2)</p>	<p>7. Chemical and/or physical form</p> <p>A. Any (See page 2)</p>	<p>8. Maximum amount of radioactivity which licensee may possess at any one time</p> <p>A. 1000 millicuries of each (See page 2)</p>	
<p>9. Authorized use (See page 2)</p> <p>A. through G. Research and Development as defined in Section 30.4(k), Title 10, Code of Federal Regulations, Part 30, "Rules of General Applicability to Licensing of Byproduct Material."</p>			

**CONDITIONS**

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above:
11. Byproduct materials specified below may also be used at the following locations:
  - (a) Ebbalt 60 sources containing a total of not more than 200 curies may be used at Oakhurst Tower Station, Ocean Township, New Jersey; Nevada Test Site; Pacific Proving Grounds; Lakehurst Naval Air Station, New Jersey; and Fort Huachuca, Arizona.
  - (b) Strontium 90 light sources containing a total of not more than 50 millicuries may be used at Oakhurst Tower Station, Ocean Township, New Jersey and Thule, Greenland.
  - (c) Cobalt 60 sources containing a total of not more than 2 curies may be used at Fort Greeley, Alaska.
12. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation."

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3. 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.
B. Cobalt 60	B. Sealed Sources	B. 440 curies total with no single source to exceed 200 curies
C. Cesium 137	C. Oak Ridge National Lab- oratory Sealed Source	C. 1 source of 125 curies
D. Polonium 210	D. Any	D. 10 millicuries
E. Polonium 210	E. Sealed Source	E. 10 curies
F. Hydrogen 3	F. Titanium-Tritide Targets	F. 50 curies - no single target to exceed 10 curies
G. Cesium 137	G. Oak Ridge National Lab- oratory Sealed Sources	G. 660 curies contained in 3 sources of 220 curies each

Conditions continued:

13. Byproduct material shall be used by, or under the supervision of, individuals designated by the U. S. Army Signal Research and Development Agency Isotopes Committee.
14. A. Each sealed source acquired from another person and containing byproduct material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for contamination and/or leakage prior to use. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, the sealed source shall not be put into use until tested.
- B. Each sealed source fabricated by the licensee shall be tested for contamination and/or leakage immediately after fabrication. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall repair and/or decontaminate and retest the source. Sealed sources fabricated for distribution and containing byproduct material (with the exception of byproduct material with a half-life not exceeding thirty days, byproduct material in the form of gas, and Iridium 192) shall, in addition to an initial test upon fabrication, be stored for a period of seven days and retested prior to transfer to another person or as otherwise specifically provided for in this license.
- C. Each sealed source containing byproduct 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 that each source tested at intervals not to exceed three months.

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## Condition 14. continued:

- D. 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 or semipermanently 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.
- E. If the test required by Subsection A. or C. of this condition 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 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 also be sent to the Director, Region I, Division of Compliance, USAEC, 376 Hudson Street, New York, New York 10014.
15. Each sealed source of licensed material to be used outside of a shielded exposure device shall bear a durable, legible, and visible tag permanently attached to the source. The tag shall be at least one (1) inch square, shall bear the conventional radiation symbol prescribed in Section 20.203(a), 10 CFR 20, and a minimum of the following instructions: DANGER - RADIOACTIVE MATERIAL - DO NOT HANDLE - NOTIFY MILITARY AUTHORITIES IF FOUND. Repair or replacement of tags shall be accomplished by persons specifically authorized by the Commission or an Agreement to perform this service.
16. 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 application dated July 16, 1965 and amendment thereto dated November 22, 1965.

For the U. S. Atomic Energy Commission

Original Signed by  
Nathan Bassinby \_\_\_\_\_  
Isotopes Branch  
Division of Materials Licensing  
Washington, D. C. 20545Date DEC 3 1965*MR MB 12-3-65*