

U. S. ATOMIC ENERGY COMMISSION

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BYPRODUCT MATERIAL LICENSE NO. 37-7633-2 Amendment No. 2
(1962)

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		In accordance with application dated August 23, 1961	
1. Name	Aluminum Company of America Alcoa Research Laboratories	3. License number	37-7633-2 is amended in its entirety to read as follows:
2. Address	Prospect Road New Kensington, Pennsylvania	4. Expiration date	April 30, 1962
		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. Any byproduct material between Atomic Nos. 1 and 83, inclusive, except the following:	A. Any	A. 2 curies of each byproduct material	
9. Authorized use			
A. - B. Research and Development as defined in Section 30.4(k) of Title 10, Code of Federal Regulations, Part 30, "Licensing of Byproduct Material".			

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
- A. Byproduct material licensed in Subitem C may also be used at the Aluminum Company of America, Fabricating Works, Foil Mill, 12th Street and 2nd Avenue, New Kensington, Pennsylvania.
- B. The licensee shall comply with the provisions of Title 10, Part 30, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation".
- C. Byproduct material shall be used by, or under the direct, personal supervision of, individuals approved by the Isotopes Committee, John E. Lewis, Chairman.
- D. Byproduct material licensed as sealed sources shall not be opened by the licensee.
- E. Except as 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 his application dated March 16, 1960 and in his letter from John E. Lewis dated April 21, 1959.

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Supplementary Sheet

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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
B. Strontium-90	B. Any	B. 10 millicuries Total possession limit for Items A & B is 10 curies
C. Strontium-90	C. Sealed source (Tracer- lab, Inc. Model S-2A)	C. 1 source of 13.5 millie curies
D. Hydrogen-3	D. Any	D. 50 curies

CONDITIONS

16. Each sealed source of licensed material to be used outside of a shielded exposure device shall be acquired from the supplier with a durable, legible and visible tag permanently attached. The tag shall be at least 1 inch square, shall bear a conventional radiation symbol and a minimum of the following instructions: "Danger - Radioactive Material, Do Not Handle, Notify Civil Authorities If Found".
17. Written administrative instructions entitled "Radiation Protection Procedures, Alcon Research Laboratories" submitted with application dated March 16, 1960 shall be followed and a copy of these instructions shall be made available to each individual using or having responsibility for the use of byproduct material. Any changes in these administrative instructions shall have the prior approval of the Isotopes Branch, Division of Licensing and Regulation.
18. Byproduct material shall not be used in or on human beings, in products distributed to the public nor in field applications where such activity is released.
19. A. Each sealed source acquired from another person and containing byproduct material with a half-life greater than 30 days and in any form other than gas, shall be tested for leakage and/or contamination prior to use. 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 put into use until tested.

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19. (continued)

- B. Each sealed source fabricated by the licensee shall be tested for leakage and/or contamination immediately after fabrication. If the test reveals the presence of 0.005 microcuries 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 solid metallic Iridium 192, byproduct material with a half-life not exceeding 30 days and byproduct material in the form of gas) shall, in addition to an initial test upon fabrication, be stored for a period of 7 days and retested prior to being distributed.
- C. Each sealed source containing byproduct material with a half-life greater than 30 days and in any form other than gas, shall be tested for leakage and/or contamination at intervals not to exceed 6 months, except that each source designed as an alpha emitting source shall be tested at intervals not to exceed 3 months.
- D. The test shall be capable of detecting the presence of 0.005 microcuries of contamination on the test sample. The test sample shall be taken from the sealed source or from appropriate accessible surfaces of the device in which the sealed source is permanently or semi-permanently mounted or stored. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
- E. If the test required in A or C above reveals the presence of 0.005 microcuries 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 Licensing and Regulation, U. S. Atomic Energy Commission, Washington 25, D. C., describing the equipment involved, the test results and the corrective action taken. A copy of such report shall be sent to the manager of the nearest AEC operations office listed in Appendix D of Title 10, Code of Federal Regulations, Part 20.

For the U. S. Atomic Energy Commission

DUPLICATED
FOR DIV. OF COMPLIANCE by

Original Signed By
James R. Mason
Chief, Isotopes Branch

Date SEP 20 1961

Division of Licensing and Regulation
Washington 25, D. C.

gmb/cc

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