



UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

BYPRODUCT, SOURCE AND SPECIAL NUCLEAR MATERIAL LICENSE

DEPARTMENT OF THE ARMY

HEADQUARTERS, U. S. ARMY ALASKA

APO 949

SEATTLE, WASHINGTON

DOCKET NO. 27-38

LICENSE NO. 50-10023-1
(B66)

Pursuant to the Atomic Energy Act of 1954, as amended, 10 CFR 30, "Licensing of Byproduct Material," 10 CFR 40, "Licensing of Source Material," 10 CFR 70, "Special Nuclear Material," and in reliance upon the statements and representations contained in the application dated April 15, 1963, and amendment thereto submitted February 26, 1964, by the Army's Office of the Deputy Chief of Staff for Logistics, a license is hereby issued to the Department of the Army, U. S. Army Alaska, APO 949, Seattle, Washington, to receive, transport, possess, and package waste byproduct, source and special nuclear material and to transfer said material to authorized land burial sites for disposal.

The 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 the provisions of 10 CFR 20, "Standards for Protection Against Radiation," all other applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect, and to the following conditions:

1. The licensee shall store and package radioactive materials at Fort Richardson, Alaska.
2. The licensee may possess, at any one time, not more than 100 curies of byproduct material, 6,000 pounds of source material, and 300 grams of special nuclear material.
3. Waste disposal activities shall be conducted under the supervision of individuals designated as Chief, Radiochemical Laboratory, Fort Richardson, Alaska, or Radiation Protection Officer, U. S. Army Alaska.
4. The transportation of AEC-licensed material to and from Fort Richardson, Alaska, shall be subject to the applicable regulations of the Interstate Commerce Commission, United States Coast Guard, and other agencies of the United States having appropriate jurisdiction, and where such regulations are not applicable shall be in accordance with the following requirements except as specifically provided by the Atomic Energy Commission:

A. Outside Shipping Containers.

- (1) The containers shall meet any one of the following specifications described in Appendix A attached hereto.
 - a. 15A, 15B, 12B, 6A, 6B, 6C, 17C, 17H, 19A, or 19B for the containment of radioactivity in amounts not in excess of 2.7 curies; except polonium 2 curies; or
 - b. Specification 55 for containment of solid cobalt 60, cesium 137, iridium 192, or gold 198 in amounts not in excess of 300 curies.

- (2) There shall be no radioactive contamination on any exterior surface of the container in excess of 500 d/m/100 sq. cm. alpha and 0.1 mrep/hr beta-gamma radiation.
- (3) The smallest dimension of the container shall not be less than 4 inches.
- (4) The radiation level at any accessible surface of the container shall not exceed 200 mrem/hr.
- (5) At one meter from any point on the radioactive source the radiation level shall not exceed 10 mrem/hr.
- (6) Containers which contain radioactive material emitting only alpha and/or beta radiation shall contain sufficient shielding to prevent the escape of primary corpuscular radiation to the exterior surface and to reduce the secondary radiation at the surface of the container so that it does not exceed 10 mrem/24 hours at any time during transportation.

B. Inside Containers.

- (1) Solid and gaseous radioactive materials shall be packed in suitable inside containers designed to prevent rupture and leakage under conditions incident to transportation.
- (2) Liquid radioactive materials must be packed in sealed glass, earthenware, or other suitable containers. The container must be surrounded on all sides by an absorbent material sufficient to absorb the entire liquid contents and be of such nature that its efficiency will not be impaired by chemical reactions with

the contents. Where shielding is required, the absorbent material must be placed within the shield. If the inside container meets the Specification 2R in Appendix A, the absorbent material is not required.

- (3) Materials containing radioisotopes of plutonium, americium, polonium, or curium, or the isotope strontium 90, in quantities in excess of 100 microcuries, must be packed in containers which meet Specification 2R in Appendix A.

C. Shielding.

Inside containers must be completely surrounded with sufficient shielding to meet the requirements of subparagraphs A(4), A(5), and A(6) of this condition. The shield must be so designed that it will not open or break under normal conditions incident to transportation.

D. Labeling.

Each outside container label required under Section 20.203(f) of 10 CFR 20 shall bear the following information:

- (1) Total activity in millicuries, or in the case of source and special nuclear material, the total weight;
- (2) Principal radioisotope;
- (3) Radiation level at the surface of the container and at one meter from the source; and
- (4) The name and address of the licensee.

E. Each vehicle in which licensed material is transported shall be marked or placarded on each side and the rear with lettering at least 3 inches high as follows: "DANGEROUS - RADIOACTIVE MATERIAL."

F. Accidents.

In the event of an accident involving any vehicle transporting licensed material, immediate steps shall be taken to prevent radiation exposure of persons and to control contamination.

G. Exemptions.

Specific approval must be obtained from the Atomic Energy Commission for modification of, or exemption from, the requirements of the license conditions. Requests for such approval should be directed to the Chief, Isotopes Branch, Division of Materials Licensing, Atomic Energy Commission, and should contain sufficient information to support such a request.

5. Except as specifically provided otherwise by this license, the licensee shall possess and use byproduct, source and special nuclear material in accordance with the conditions, limitations, and procedures contained in the application dated April 15, 1963, and the amendment thereto submitted February 26, 1964, by the Army's Office of the Deputy Chief of Staff for Logistics.
6. The licensee shall not receive any byproduct, source or special nuclear material until the facilities at Fort Richardson for the packaging and storage of such material has been completed in accordance with the application.

Upon completion of the facility, the licensee shall notify the Chief, Isotopes Branch, Division of Materials Licensing, U. S. Atomic Energy Commission, Washington, D. C., 20545, of the fact of such completion.

This license shall be effective on the date issued and shall expire two years from the last day of the month in which this license is issued.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by
Lyll Johnson

Date of Issuance:

JUN 16 1964