

U.S. NUCLEAR REGULATORY COMMISSION
CERTIFICATE OF COMPLIANCE
For Radioactive Materials Packages

1.(a) Certificate Number 9029	1.(b) Revision No. 3	1.(c) Package Identification No. USA/9029/B()	1.(d) Pages No. 1	1.(e) Total No. Pages 2
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2. PREAMBLE

- 2.(a) This certificate is issued to satisfy Sections 173.393a, 173.394, 173.395, and 173.396 of the Department of Transportation Hazardous Materials Regulations (49 CFR 170-189 and 14 CFR 103) and Sections 146-19-10a and 146-19-10c of the Department of Transportation Dangerous Cargoes Regulations (46 CFR 146-149), as amended.
- 2.(b) The packaging and contents described in item 5 below, meets the safety standards set forth in Subpart C of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Materials for Transport and Transportation of Radioactive Material Under Certain Conditions."
- 2.(c) This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

3. This certificate is issued on the basis of a safety analysis report of the package design or application—

3.(a) Prepared by (Name and address): Technical Operations, Inc. Northwest Industrial Park Burlington, Massachusetts 01803	3.(b) Title and identification of report or application: Technical Operations, Inc. application dated September 10, 1979, as supplemented.
	3.(c) Docket No. 719029

4. CONDITIONS

This certificate is conditional upon the fulfilling of the requirements of Subpart D of 10 CFR 71, as applicable, and the conditions specified in item 5 below.

5. Description of Packaging and Authorized Contents, Model Number, Fissile Class, Other Conditions, and References:

(a) Packaging

- (1) Models Nos.: 676 and 676E
- (2) Description

A steel encased, uranium shielded Gamma Ray Projector. Primary components consist of an outer steel shell, internal bracing, polyurethane potting material, depleted uranium shield, and a zircalloy "S" tube. The contents are securely positioned in the zircalloy "S" tube by a source cable locking device and shipping plug. Temper-proof seals are provided on the packaging and a 1/4-inch thick steel shipping plate is bolted over the source locking mechanism for additional protection during transport. The total weight of the package is approximately 545 pounds.

(3) Drawings

The packaging is constructed in accordance with the following Technical Operations, Inc. Drawings Nos.:

67690, Sheets 1, 2, 3, 4 and 5 of 5, Rev. A
66025, Sheets 2 and 3 of 3, Rev. A

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(b) Contents

(1) Type and form of material

⁶⁰cobalt as sealed sources which meet the requirements of special form as defined in §71.4(o) of 10 CFR Part 71.

(2) Maximum quantity of material per package

330 curies of ⁶⁰cobalt.

6. The source shall be secured in the shielded position of the packaging by the shipping plug source assembly, and locking device. The shipping plug, source assembly used must be fabricated of materials resisting a 1475°F fire environment for one-half hour and maintaining their positioning function. The ball stop of the source assembly must engage the locking device. The flexible cable of the source assembly and shipping plug must be of sufficient length and diameter to provide positive positioning of the source in the shielded position.
7. The nameplates shall be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.
8. The package authorized by this certificate is hereby approved for use under the general license provisions of Paragraph 71.12(b) of 10 CFR Part 71.
9. Expiration date: December 31, 1984.

REFERENCES

Technical Operations, Inc. application dated September 10, 1979.

Supplement dated October 4, 1979.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Charles E. MacDonald
Charles E. MacDonald, Chief
Transportation Certification Branch
Division of Fuel Cycle and
Material Safety

Date: DEC 21 1979

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