

NRC-61B
(12-73)
10 CFR 71

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

1.(a) Certificate Number 9033	1.(b) Revision No. 3	1.(c) Package Identification No. USA/9033/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 170-129 and 14 CFR 103) and Sections 146-19-10a and 146-19-100 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 November 8, 1974.
3.(c) Docket No. 71-9033	

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) Model Nos.: 660 and 660E
- (2) Description

A steel encased, uranium shielded Gamma Ray projector. Primary components consist of an outer steel shell, polyurethane potting material, uranium shield, Zircalloy or Titanium "S" tube, and end plugs. The contents are securely positioned in the "S" tube by a source cable locking device and shipping plug. Tamper-proof seals are provided on the packaging. The maximum total weight of the package is approximately 48 pounds.

(3) Drawings

The packaging is constructed in accordance with the Technical Operations, Inc. Drawings Nos. 66025, Rev. A, Sheets 1, 2, and 3.

DAPE 7908160560

(b) Contents

(1) Type and form of material

Iridium-192 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

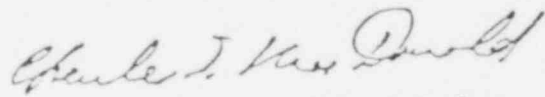
120 curies

6. The source assembly for use with this packaging is limited to Technical Operations, Inc. Model No. A424-9 as shown in Technical Operations, Inc. Drawing No. C42400, Sheet 2 of 3, Rev. F.
7. The name plate 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 general license provisions of Paragraph 71.12(b) of 10 CFR Part 71.
9. Expiration date: July 31, 1984.

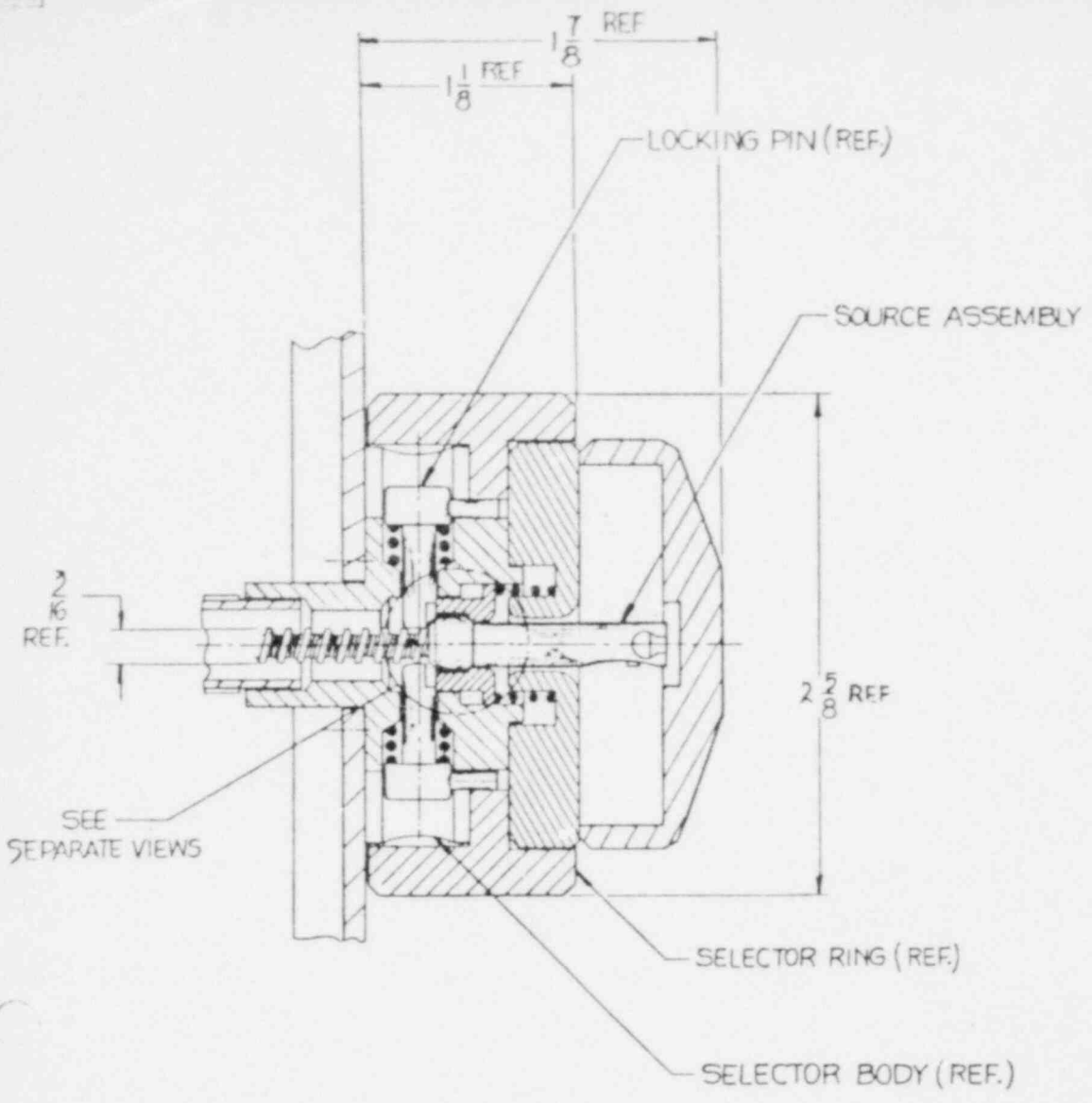
REFERENCES

Technical Operations, Inc. application dated November 8, 1974.
Supplements dated: December 15, 1978 and June 15, 1979.

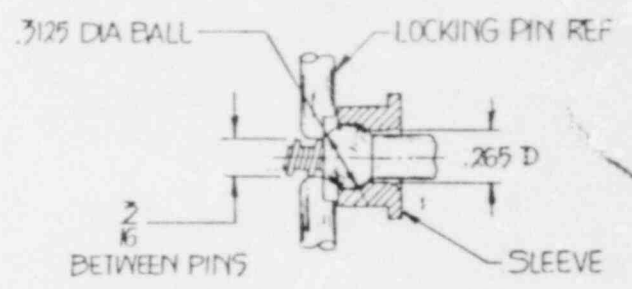
FOR THE U.S. NUCLEAR REGULATORY COMMISSION


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

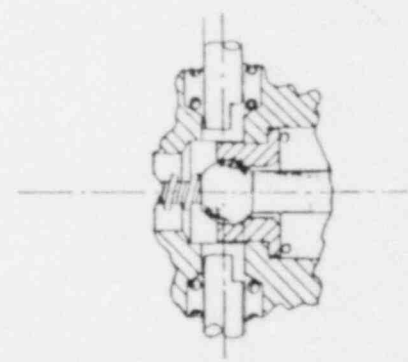
Date: JUL 25 1979



SECTION B-B

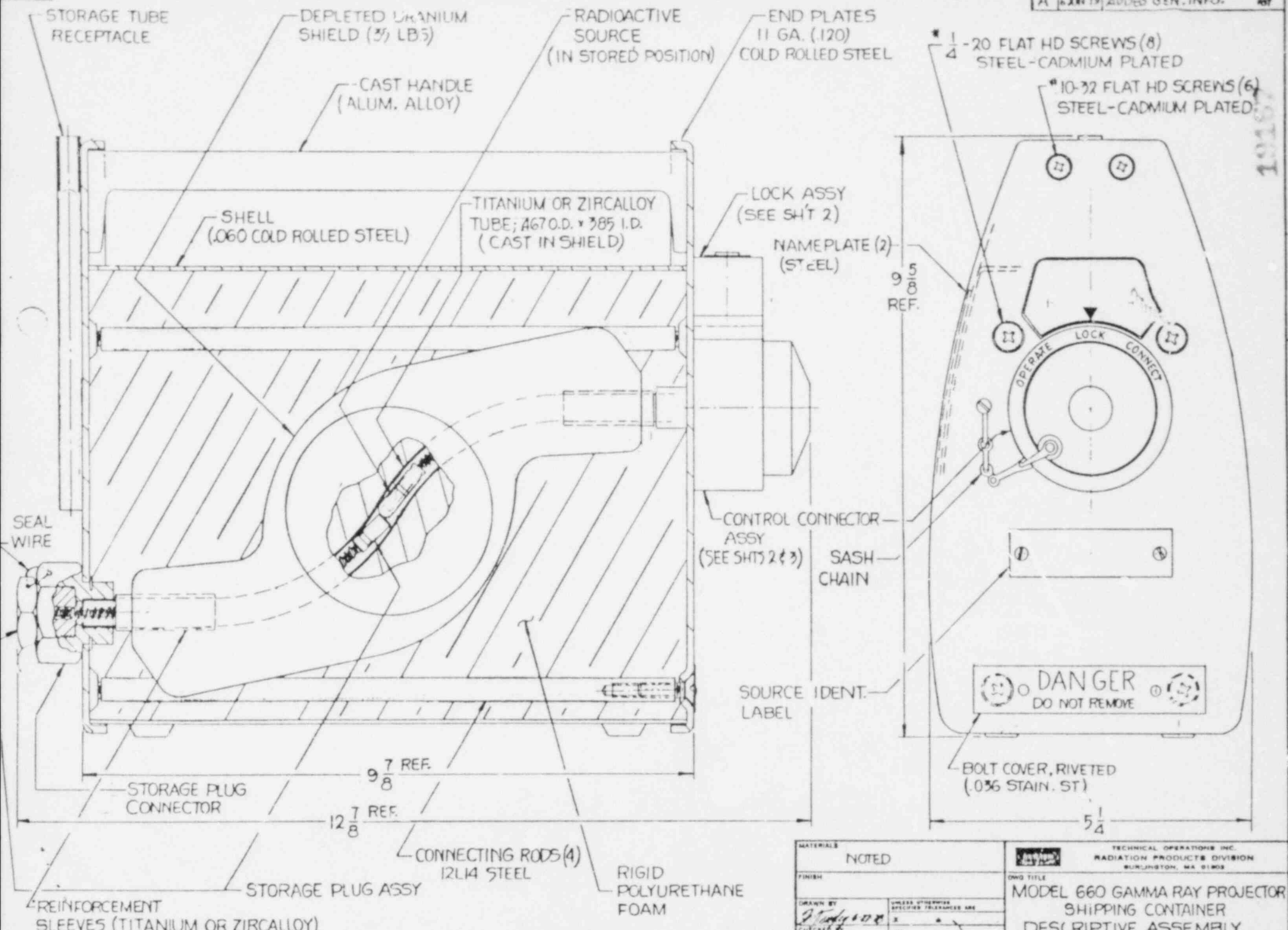


LOCKED POSITION



UNLOCKED POSITION

MATERIALS		NOTED		 TECHNICAL OPERATIONS INC. RADIATION PRODUCTS DIVISION BURLINGTON, MA 01808	
FINISH				DWG TITLE MODEL 660 GAMMA RAY PROJECTOR SHIPPING CONTAINER DESCRIPTIVE ASSEMBLY	
DRAWN BY <i>[Signature]</i>	CHECKED BY <i>[Signature]</i>	UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: .125 .125 .005 .005 .001 .001	CLASSIFICATION C	DWG. NO. 66025	REV A
APPR IN	ANGLES FRACTIONS	SCALE 2:1	SHEET 3 OF 3		



TOTAL WEIGHT 48 LBS

MATERIALS NOTED		TECHNICAL OPERATIONS INC. RADIATION PRODUCTS DIVISION BURLINGTON, MA 01803	
FINISH		DWG TITLE MODEL 660 GAMMA RAY PROJECTOR SHIPPING CONTAINER DESCRIPTIVE ASSEMBLY	
DRAWN BY <i>J. Taylor</i>	UNLESS OTHERWISE SPECIFIED TOLERANCES ARE X .1 XX .05 XXX .01	CLASSIFICATION C	DWG NO. 66025
APPROV.	ANGLES FRACTIONS	SCALE	REV A

101507