

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF SEALED SOURCE

NO: NR-155-S-110-S

DATE: MAR 8 1983

PAGE 1 OF 1

SOURCE TYPE: Radioluminous Lamp

MODEL: 11733736

MANUFACTURER/DISTRIBUTOR:

Department of the Army
U.S. Army Armament Material
Readiness Command (DRSAR-SF) ...
Rock Island, IL 61299

MANUFACTURER/DISTRIBUTOR:

ISOTOPE: Hydrogen-3

MAXIMUM ACTIVITY: 1.0 curies

LEAK TEST FREQUENCY: See License No. 12-00722-06

PRINCIPAL USE: (R) Gas Sources, for use in Model M64 sight unit

DIAGRAM: See Attachments 1 and 2.

CUSTOM DEVICE: X YES NO

CUSTOM USER:

U.S. Department of Defense

REFERENCES: This registration document was formulated from information contained within U.S. Dept. of Army License No. 12-00722-06.

8403020087 840209
PDR FOIA
HAMMITT84-74 PDR

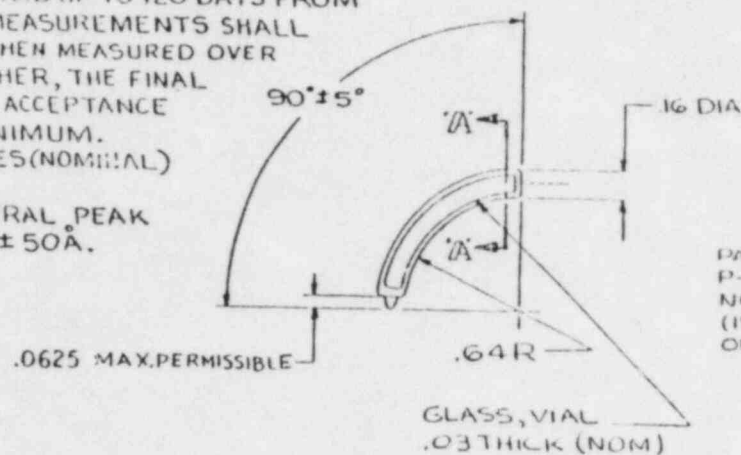
ISSUING AGENCY: U.S. Nuclear Regulatory Commission

REQUIREMENTS:

1. MARKING, LABELING AND SHIPPING OF PACKAGES AND CONTAINERS SHALL BE IN ACCORDANCE WITH MIL-STD-1458.
2. THERE SHALL BE NO EVIDENCE OF PHYSICAL FAILURE SUCH AS FRACTURING OR LIGHT LOSS DUE TO EXPOSING THE LAMP TO -60°F AND +160°F FOR A PERIOD OF 8 HOURS AT EACH TEMPERATURE.
3. AFTER SUBMERGING THE LAMP IN ROOM TEMPERATURE WATER FOR 4 HOURS, RADIOACTIVE CONTENT OF THE WATER SHALL NOT EXCEED .005 MICROCURIE.
4. VIAL TO BE FILLED WITH TRITIUM (H_2) OF 94% - 96% PURITY.
5. PRIOR TO MAKING BRIGHTNESS MEASUREMENTS, LAMPS SHALL BE ALLOWED TO STABILIZE FOR A PERIOD OF 25 DAYS FROM MANUFACTURE.
6. FOLLOWING THE STABILIZATION PERIOD AND UP TO 120 DAYS FROM DATE OF MANUFACTURE, BRIGHTNESS MEASUREMENTS SHALL NOT SHOW A DECAY IN EXCESS OF 2.5% WHEN MEASURED OVER ANY CONSECUTIVE 30 DAY PERIOD. FURTHER, THE FINAL BRIGHTNESS MEASUREMENT AT TIME OF ACCEPTANCE SHALL BE 600 MICROLAMBERTS MINIMUM.
7. INTERNAL PRESSURE 2.50 ATMOSPHERES (NOMINAL) AT +70°F.
8. COLOR OF PHOSPHOR: GREEN SPECTRAL PEAK $5250\text{\AA} \pm 50\text{\AA}$, $\frac{1}{2}$ PEAK WIDTH $700\text{\AA} \pm 50\text{\AA}$.

NI	REPLACE REV 30 WITH CHANGE, LRP FRANK 0030 PRODUCTION RELEASE LRP	16 MAR 77	16 MAR 77
A	NOR TRA 5041, 170107	16 MAR 77	16 MAR 77
ES	NOR F912515, 79-11-06 (ECP F032501, 80-02-20)	30 MAR 77	30 MAR 77

SOURCES USED ON:
M64 Sight Unit
(Scale, Course Azimuth, Mount)



PAINT, EPOXY, SPEC MIL-P-47115, TYPE I, COLOR WHITE NO. 17875 OF FED-STD-595 (180° ARC FOR FULL LENGTH OF VIAL, APPLY TWO COATS (MIN.))

SECTION A-A

SUGGESTED SOURCE(S) OF SUPPLY	
VENDOR	VENDOR PART NO.
SELF POWERED LIGHTING LTD CO. IDENT NO. 29218 8 WESTCHESTER PLAZA ELMSFORD, N.Y. 10523	NOT AVAILABLE
SAUNDERS-ROE DEVELOPMENTS LTD. MILLINGTON ROAD HAYES MIDDLESEX UP3 4NP, ENGLAND	NOT AVAILABLE
BRANDHURST CO. LTD. P.O. BOX 70 HIGH WYCOMBE BUCKINGHAMSHIRE HP12-3PS ENGLAND	NOT AVAILABLE
MERC & BENTELI NUCLEAR AG FREIBURTSTRASSE 52-1 CH-3172-NIEDERWANGEN SWITZERLAND	NOT AVAILABLE

APPLICABLE DOCUMENTS
SQAP 11733736

SPECIFICATION CONTROL DRAWING

U.S. ARMY AMMUNITION RESEARCH & DEVELOPMENT CENTER
DAVENPORT, MISSISSIPPI 39211

PART No. 11733736

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE 74 MAR 11		LAMP, RADIOLUMINOUS	
TOLERANCES ON DECIMALS & ANGLES		FINISH 160		SIZE 19200	
MATERIAL CH133741 ME TLSCP		TRAZER 160		DRAWING NO. 11733736	
HEAT TREAT APPLICATION		SUPPLIER M. P. G. & S. Co. Inc.		SCALE 2:1	
PROTECTIVE FINISH		APPROVED A. Polidoro		SHEET 1 OF 1	

NO: NP-155-S-110-S

DATE: MAR 9 1983

ELBOW TELESCOPE
RETICLE
SOURCE#11739555

FINE AZIMUTH SCALE
SOURCE#11733744-2

SCALE INDICIES (4)
SOURCE#11733736

FINE ELEVATION
SCALE
SOURCE#11733744
-1

COURSE ELEVATION
SCALE
SOURCE#11733737

LEVEL VIALS
SOURCE#11729510-1

COURSE AZIMUTH SCALE
SOURCE#11733736

Sightant: 151