

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

NO: NR-155-S-106-S

DATE:

MAR 8 1983

PAGE 1 OF 1

SOURCE TYPE: Radioluminous Lamp

MODEL: 11729517

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: 2.2 curies

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

PRINCIPAL USE: (R) Gas Sources, for use in the Model M114A1 Elbow Telescope.

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.

8403020067 840209
PDR FOIA
HAMMITT84-74 PDR

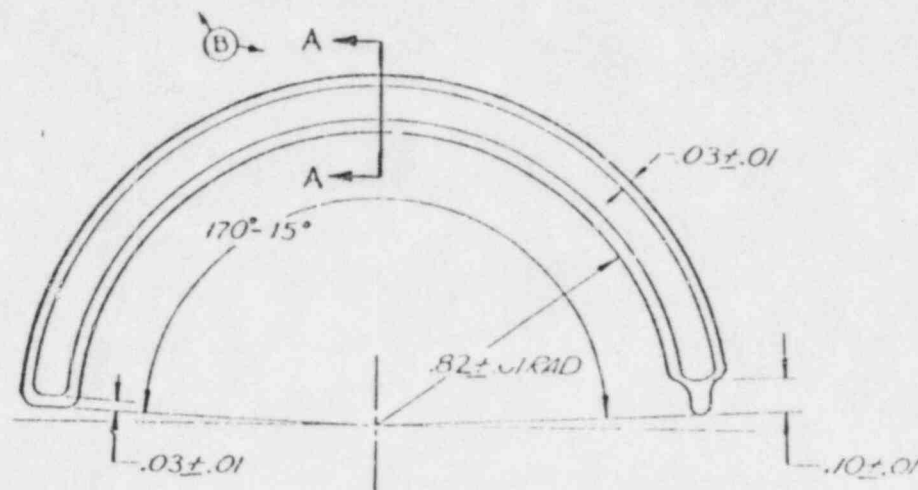
ISSUING AGENCY: U.S. Nuclear Regulatory Commission

[illegible]

4. 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 LIGHT SOURCE TO -80° 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 MICROCURIES.
4. INITIAL BRIGHTNESS - INITIAL BRIGHTNESS IS DEFINED AS THAT BRIGHTNESS MEASURED 25 DAYS AFTER MANUFACTURE. INITIAL BRIGHTNESS SHALL BE 500 MICROLAMBERTS MINIMUM.
5. DECAY RATE - INITIAL BRIGHTNESS SHALL NOT DECAY MORE THAN SIX (6)% MEASURED 90 DAYS AFTER THE INITIAL BRIGHTNESS READING.
6. VIAL TO BE FILLED WITH 99% PURE (LESS THAN 1% TRITIUM OXIDE) TRITIUM (H_3), ACTIVITY 2.2 CURIES (MAX).
7. COLOR OF PHOSPHOR - GREEN - SPECTRAL PEAK $5250\text{\AA} \pm 50\text{\AA}$
 $1/2$ PEAK WIDTH $700\text{\AA} \pm 50\text{\AA}$
8. VIAL MATERIAL - GLASS, TYPE I, CLASS A, SPEC DD-G-541.



LACQUER, ACRYLIC, SPEC MIL-L-61352,
COLOR WHITE NO. 17875 OF FED-STD-595
(FULL LENGTH OF VIAL $180^{\circ} \pm 10^{\circ}$ ARC)
.005 MAX THICKNESS.

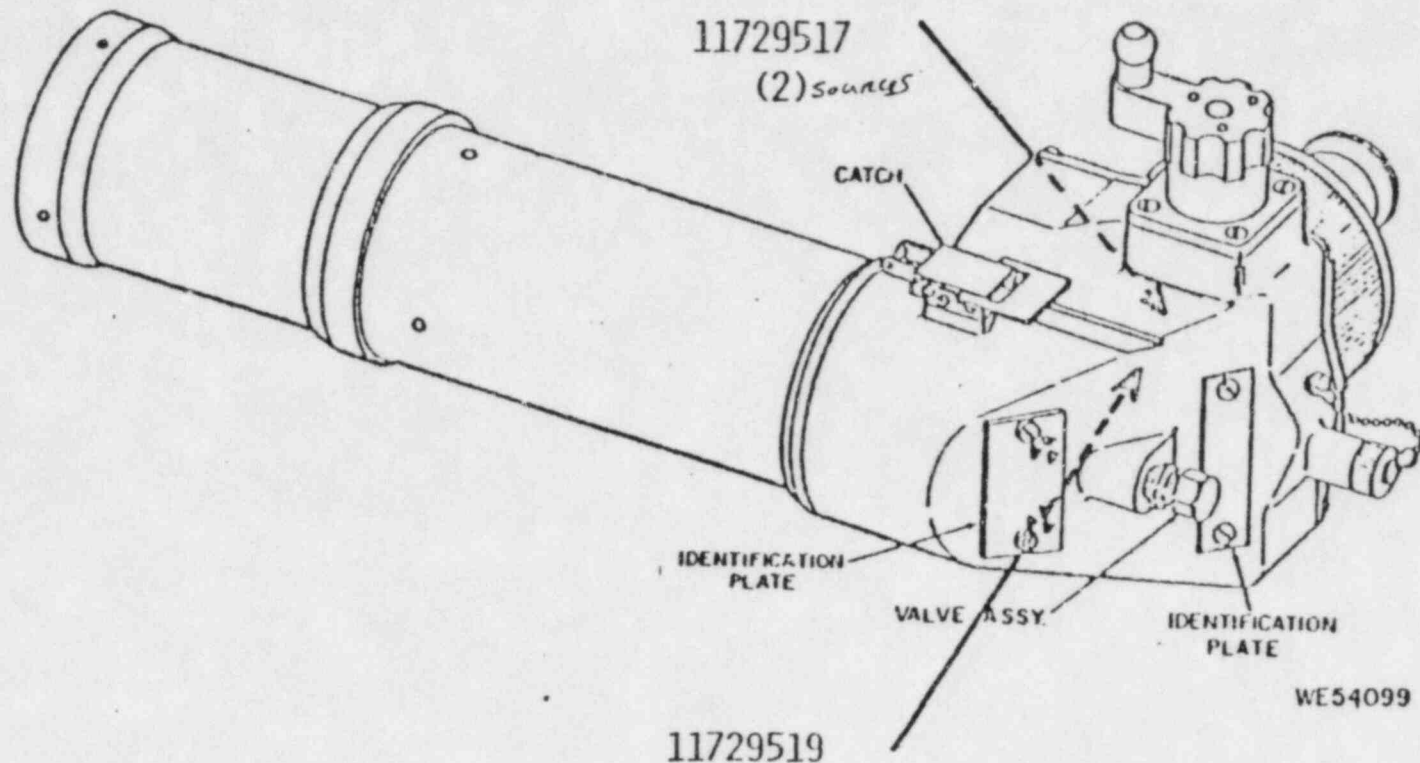
SECTION A-A

PART No. 11729517

SQAP-11729517

SOURCE USED ON:
M114A1 Elbow Tel

MIN. MECHANICAL PROPERTIES		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		ORIGINAL DATE 72 OCT 4		11729517 U.S. AIR FORCE RESEARCH AND DEVELOPMENT COMMAND DOWRY, NEW JERSEY 07001	
TS		TOLERANCES ON FRACTIONS 0- DECIMALS 2 ANGLES 2		UNAT 18	ON 1.3		
TS				INACT	CHA		
BS 2		MATERIAL		ENGT mko	TEST 11/2/72		
BA	11729008	HSCP ELB					
BN		SEE ENGINEERING RECORDS					
		NEXT ASSY USED ON					
BN		APPLICATION		SUBMITTED 13 April			
		PROTECTIVE FINISH		APPROVED John J. DeGiacomo			
		DTS NOT 000		SIZE 1/2		LINE SENT NO 19200	DRAWING NO 11729517
		APPLY PART NO		CLASS 11		UNIT NO	SHEET 1



Telescope Elbow M14A1 (Radioactive)