



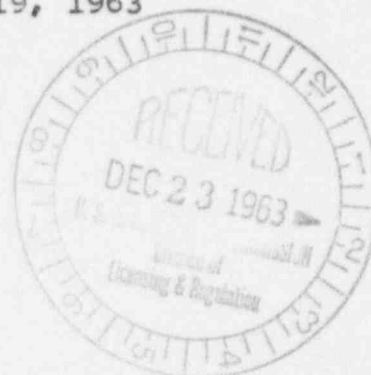
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GENERAL OFFICES • 2501 HUDSON ROAD • ST. PAUL 19, MINNESOTA • TEL: 733-1110

Nuclear Products

December 19, 1963



Mr. William O. Miller
Isotopes Branch
Division of Licensing and Regulation
U. S. Atomic Energy Commission
Washington 25, D. C.

Subject: H-3 Activated Back-
filled Self-Luminous
Sources, 3M Series 1C5

Dear Bill:

The purpose of this correspondence is to place on file the information pertinent to our 1C5 series of H-3 activated backfilled self-luminous sources. It is our intention here to register a series of sources, rather than an individual source, and to present information applicable to a typical source. Wherever possible limits in physical size, activity loadings, etc., will be presented.

As far as we are concerned these self-luminous products are sources, rather than devices. With this in mind the information required by you for sources will be presented. However, there are many instances in which the end use of a self-luminous product is as part of a device or larger source. In these cases the prospective licensee will furnish you with additional data, drawings, etc., along with his application.

Self-luminous sources in general are intended to provide light by utilizing the effect of radiation on a phosphor where other means of illumination are not as satisfactory.

Each source would contain a maximum of 10 curies of H-3. The H-3 paint is described in the enclosed "Product Specification, 3M Brand Self-Luminous Paint, H-3 Activated, 3MRPS-1A5001".

The construction of a typical source is detailed on the enclosed 3M drawing A-1921-106. Dimensions given are normal, with the maximum in any direction (length and width) being

MINNESOTA MINING AND MANUFACTURING COMPANY

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Mr. Miller

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12 inches. Shape may also change but the basic method of fabrication would remain the same.

The methods of fabrication and the quality control procedures employed, along with the prototype testing performed on this source, are detailed in the enclosed "Product Specification, 3M Brand Self-Luminous Backfilled Devices, H-3 Activated, 3MRPS-1C5001, 1 October 1962".

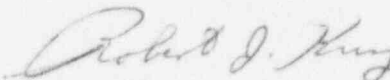
Label on each source would contain the information summarized below in the appropriate colors. In cases where this source would become part of a device, the prospective licensee would furnish additional labelling information.

3M Company
Caution Radioactive Material
Radiation Symbol
XXX mc H-3
Model 1C5 ____
Date

I trust that the information contained herein will suffice. If there are any questions please do not hesitate to contact me.

Very truly yours,

MINNESOTA MINING AND
MANUFACTURING COMPANY
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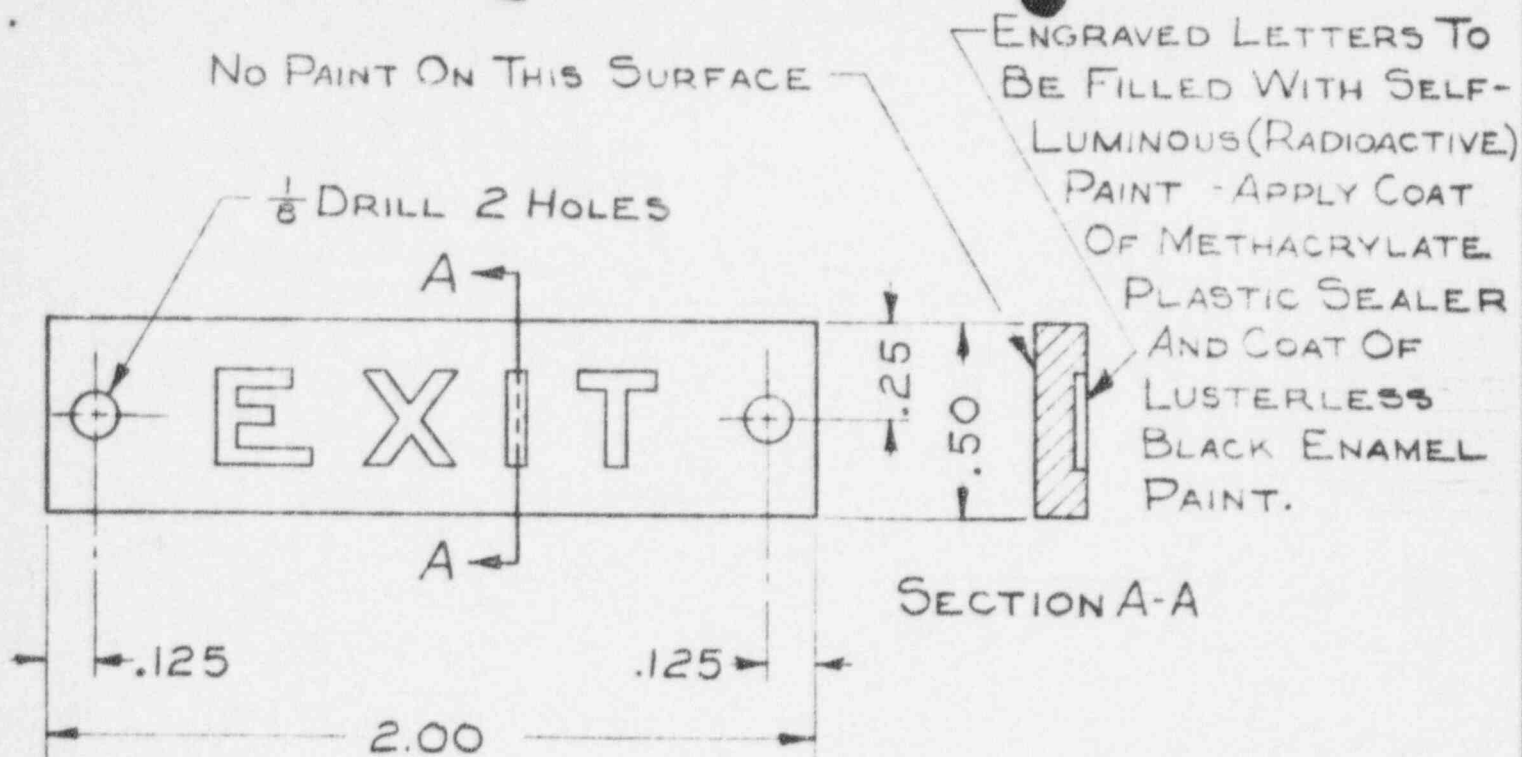


Robert J. Kunz
Supervisor
Administrative Services
TCAAP-588

RJK/ar

Encl:





3M SERIES
IC2
IC5

NOTE:

UNLESS OTHERWISE SPECIFIED,
ALL LETTERS AND NUMERALS
TO BE STANDARD LEROY.
ENGRAVED FROM BACK SIDE
.030" DEEP. LINE WIDTH
TO BE .050"

SEALED SOURCE AND DEVICE FILES

Received 12/23/63 W/Letter Dated 12/19/63
Revised by _____

Superseded by _____ Date _____
Reviewed by _____

MAT'L.

CLEAR PLEXIGLAS
OR EQUAL

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USED ON

EXCEPT AS NOTED. FINISH OPTICALLY CLEAR

ISSUE ISSUE DATE AND CHANGE RECORD REV. CH.

EXCEPT AS NOTED. TOLERANCES

FRAC. DIM. \pm WELD-CSTG DIM. \pm
DEC. DIM. $\pm .005$ ANGULAR DIM. \pm

DIVISION STAFF LAB ENGR PROJ.

TITLE

DR. J. D. SWENSON SCALE 2" = 1"

TYPICAL BACKFILLED
SELF-LUMINOUS SOURCE

CH. APP.

MINNESOTA MINING & MANUFACTURING CO.
ST. PAUL, MINNESOTA

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