


NITE-SITE, INC.

P. O. BOX 0
ROSEMOUNT, MINNESOTA 55068

DAY  NIGHT
COMBAT SIGHTING SYSTEMS

May 24, 1977

1755

Radioisotopes Licensing Branch
Division of Fuel Cycle and Material Safety
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Quarterly report, disposal report and housing modifications.
Reference: R.R.C. Licenses, 22-13585-01, 22-13585-02, 22-13585-02G.

During December, 1976, Nite-Site Inc., renewed its program of installing self-luminous gun sights under lic. 22-13585-02G to Law Enforcement personnel. Prior to December, 1976, Nite-Site Inc., had no self-luminous sights in possession and had not installed self-luminous gun sights since 1974.

However, three year wipe tests that were performed resulted in less than .0005 μ Ci removable activity. Of the approximate 248 self-luminous gun sights that were installed during 1972, 1973 and 1974, it was found that 27 model 70H front sight housings had become separated from the type 2216 3M brand epoxy adhesive and were lost.

This problem has been eliminated by extending a "skirt" in the molded part towards the rear. This extended skirt allows the use of a small screw to assist the adhesive in holding the gun sight in place. The model 70S gun sight was also modified in the base area, resulting in a larger surface for adhesive and for the additional screw down feature. (See attached sample parts)

Both modifications are in the base areas only. Nothing has been taken away from the protection areas of the elements. The housings have been molded out of polycarbonate resins as before.

With the above improvements, Nite-Site Inc. is undertaking a program to replace the prior self-luminous gun sights. We have to date, received, tested and disposed, 119 of the original gun sights. A copy of the disposal report is inclosed.

The first quarterly report of 1977, including December, 1976, of Promethium-147 installed into gun sights are as followed:

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PDR FOIA
BAZZANE90-504 PDR

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Developed by Law Enforcement Officers For Law Enforcement Officers

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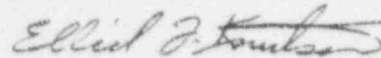
Model 70-H sets 110
Activity: 1.5 mCi Pm-147 per set
Radiation level: <0.5 mr/hr at 1 cm
Wipe test: <0.0005 μ Ci removable activity

Model 70-S units 65
Activity: 0.8 mCi Pm-147 per unit
Radiation level: <0.8 mr/hr at 1 cm
Wipe test: <0.0005 μ Ci removable activity

NOTE: Signed certifications on above are on file together with all required names, departments and addresses for your inspection.

Our experience and testing, now in its seventh year, has proven the encapsulated Promethium-147 used with our polycarbonate housings to be very favorable. Our findings will be forwarded with our application for an exempt license in the near future.

Sincerely,



Elliel F. Knutsen, Director/Licensing