

U. S. ATOMIC ENERGY COMMISSION
DIVISION OF COMPLIANCE
REGION I

Field Notes for:

CO Inspection Report No. 7401

Subject: General Electric Company

Valley Forge Space Center

License No. 37-02006-05

Location: P.O. Box 8555

Priority E(L-A)-II

Phil. Pa. 19101

Category _____

Type of Licensee: Research + Development

Type of Inspection: Special-limited

Dates of Inspection: 5/2/74

Dates of Previous Inspection: 8/30/73

Principal Inspector: E. Epstein

5/3/74
Date

Accompanying Inspectors: None

Date

Other Accompanying Personnel: None

Date

Reviewed By: [Signature]

Date

5/3/74
Date

Proprietary Information: None

Information in this record was deleted
in accordance with the Freedom of Information

Act, exemptions 6

FOIA- 2007-304

E-3

Persons Interviewed

Mr. J. Hamill

Mr. (b)(6)

Mr. (b)(6)

Manager, Relations

R.S.O.

User Room 2

EN 6

1. A special limited inspection was performed on May 2, 1974 to determine causes and extent of Po 210 removable contamination caused by leaking Po 210 sources reported ^{by the licensee} to RSO in a letter dated April 29, 1974.

2. (b)(6) reports and records indicated that five 3M Corp. Static Eliminator Po 210 sources, 5 mil each, were obtained during January 1974 under general license. The records indicate the following:

Source # 120683 received 1/1/74. Source taken out of its retainer ring and holder during that week and use and possession transferred to license-05 by (b)(6) alone.

Four similar sources were received 2/15/74 but these sources were not taken out of their retainer ring until 4/25/74 when leakage was noted on routine leak tests. Serial #s 120718, 120720 and 120721. They were then transferred to license-05 by (b)(6) alone. IP (b)(6) stated that source No. 120683 was used as an X ray device to determine chemical contamination of surfaces.

3. On 4/25/74 leak tests of the holders of sources 120683 120718 and 120721 gave the following: (Two others had been used in a 30 ft. long vacuum chamber and were inaccessible according to (b)(6)).

~~Results as follows~~

Source No	4/25/74	4/25/74
120683	250 K counts	5×10^5 dpm = 0.236 uci
120718	6 K	1.2×10^4 dpm = 0.0055 uci
120721	20 K	4×10^4 dpm = 0.018 uci
120720	holder 3 K	6×10^3 dpm = 0.0023 uci

On April 29, 1974 (b)(6) reported smear
direct radium survey results using a PAC-A
gas flow portable proportional survey meter with
a window 60 cm² square. Etb

Plastic apron - 6K counts/min

(b)(6) hand 1K counts or 2000 dpm.

(b)(6) lung 0.4K or 800 dpm.

3M Box (average) 4.5K or 9000 dpm.

Coating smears on a gas flow proportional counter.

Source 120683 after Film 1 applied 0.5 pci

after Film 2 applied 0.5 pci

Source 120718 0.13 uci

Film 1 applied - 0.5 pci

Film 2 applied 0.5 pci

(b)(6) reported no other surveys were
performed.

(b)(6)

stated that after leakage ^{was discovered,} attempts were made to use the Po^{210} sources covered with liquid plastic which was unsuitable and not ~~practical~~ ^{then} practical and they ^{then} covered the ~~base~~ ^{base} sources with polypropylene plastic film and sealed the circumference with epoxy resin to create a one-inch diameter sealed source. He stated wipes of the polypropylene ^{covered} sources have not exceeded 15 pCi.

A review of Tongue Committee Authorizations was made, and the only authorization for ^{(b)(6)} to use Po^{210} sources was dated April 7, 1971 which allowed use of 1-10 mCi Po^{210} as collimated X ray sources manufactured by Radiation Materials Corporation.

~~He~~ ^{(b)(6)} agreed that there was no Committee authorization by anyone but himself that authorized use of 3M Po^{210} static eliminator sources used outside their containment as bare X ray sources.

The inspector made confirming surveys using the licensee's PAC-4 Gas flow portable Proportional Gas survey meter and noted the following.

On the heel of ^{(b)(6)} report show

25000 counts alpha on (b)(6) desk,
where he had stated he used the sources on
an area 15×15 " square, 25000 counts alpha
per 60 cm^2 . In on the floor on

to floor tiles in front of a lead lined storage
safe where sources had been stored, 1500 cpm
alpha per 60 cm^2 . (b)(6) stated he
had been unaware at the extent or location
of this contamination. No more than 250 cpm
alpha contamination was noted at any other location.

Management Conference:

A management conference was held
immediately following the inspection with the
following in attendance:

J. Hamilton Manager, Relations

(b)(6)

R.S.D.

Ex 6

The inspector stressed the need to determine
the concentrations to which (b)(6) may have
been exposed to by bio assay with urine and
fecal sampling. Hamilton and (b)(6)
agree to have this bioassay performed.

The inspector also discussed the lack
of approval by the Inquiring Committee for the
use of Po^{210} sources removed removed from their
containment. Hamilton ordered the immediate

convening of the Longing Committee to consider
safe use of these sources or the immediate
disposal of them.