

LEXINGTON SIGNAL DEPOT

LEXINGTON, KENTUCKY

IN REPLY REFER TO:
SIGDL-4C

9 October 1961

ARM2.941209.152b

SUBJECT: Radiation Exposure

TO: Commanding Officer
U. S. Army Environmental Hygiene Agency
ATTN: Lt Col Ralph S. Penner
Army Chemical Center, Maryland

1. Reference is made to telephone conversation on 6 October 1961 with Mr. Philip G. Jackson, Chief Nucleonics Branch this depot, regarding exposure of film number 009jDA worn by Pvt-2 John T. Whalen III during the period of 5-30 September 1961.


2. The following information is offered to assist you in your investigation of the possible cause or manner of exposure. The densities on the film as read with an Eberline FD-11 densitometer were: open window-1.48, aluminum filter-1.29, copper filter-1.39, cadmium-tungsten filter-1.73. The film component is the Dupont 555 type and the filters in the badge were .040" aluminum, .040" copper, and .030" cadmium plus .010" tungsten.

3. On the basis of the density readings of the film behind the various filters, it was apparently exposed to a high energy gamma radiation. The dosage on the film has been evaluated as 1.650 rems based on exposure to high energy gamma radiation with an energy above 1 mev. This evaluation was made for the following reasons: the increased darkening behind the cadmium-tungsten filter is usually observed when the badge is exposed to energies above 1 mev such as those associated with Cobalt⁶⁰; the extra amount of darkening in the open window could be caused by scatter from the source container or other material in the vicinity.

4. We are inclosing film number 009jDA for your inspection. Two additional films are also inclosed to assist you in your inspection; C01- a control film with no exposure and 003- exposed to approximately 1.5 roentgens of Cobalt 60 radiation. By visual inspection it can be seen that the patterns on film number 009jDA and 003 are very similar. It is requested that film number 009jDA be returned to this depot for filing after your investigation.

FOR THE COMMANDER:

3 Incl
as


ALTON H. PHILBRICK
CWO, W-4, USA
Chief, Depot Maint Div

Washington National Record Center
Office of the Army Surgeon General
Record Group 112

Accession #: 67A-4511

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File: Over exposure Second U.S. Army