

## PRELIMINARY NOTIFICATION

X000

Date: August 29, 1980

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURENCE--PNO-III-80-161 Page 1 of 2

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information presented is as initially received without verification or evaluation and is basically all that is known by IE staff as of this date.

Facility: Argonne National Laboratory  
Department of Energy  
Argonne, Illinois

SUBJECT: CONTAMINATION FROM RUPTURED GUNSIGHT CONTAINING Pm-147

Region III (Chicago) received notification that contamination had been found on a security guard and in the security building at Argonne National Laboratory. The contamination was traced to a ruptured luminous gunsight on a Department of Energy (DOE) weapon containing 0.7 millicuries of promethium-147 (Pm-147). The weapon was brought to Argonne by an individual as part of a DOE training exercise which involved 300 individuals from various DOE and law enforcement offices around the country.

Some contamination was as high as 10,000-25,000 counts per minute over an area of 4" x 4". DOE is surveying the clothing of all individuals who participated in the exercise including those who returned home.

The sights were manufactured by an NRC licensee, 3M Company. The Pm-147 in these sights was incorporated into fired ceramic microspheres. These microspheres are too large to be respirable. Leach tests show that the material will not leach from the microspheres if ingested. Broken microspheres will not leach since the material is incorporated into the ceramic. Pm-147 is a weak beta emitter so no significant dose to the GI track would result and it is not an external radiation hazard.

The Region III office delivered a copy of the licensing Safety Analysis Report to Argonne National Laboratory this morning. The U. S. Army, which has a large number of these gun sights, has been informed of the incident for their information. Because of breakage rates of 5 to 8 percent per year, the Army removed these sights from field use a few years ago and is keeping them in storage.

DOE has issued a press release.

This Preliminary Notification is issued for information only and no further action by IE is anticipated.

PRELIMINARY NOTIFICATION

8010060044

PRELIMINARY NOTIFICATION

PNO-III-80- 161

Page 2 of 2

Region III received notification of this occurrence by telephone from an Argonne National Laboratory Emergency Coordinator at 4:50 p.m. (CDT), August 28, 1980. This information is current as of 10:15 a.m. (CDT), August 29, 1980.

Contact: C. Paperiello, RIII, 384-2511; B. Davis, RIII, 384-2510.

Distribution: Transmitted H St. 11:27  
Chairman Ahearne Commissioner Hendrie  
Commissioner Gilinsky Commissioner Bradford  
Commissioner Kennedy ACRS

S. J. Chilk, SECY  
C. C. Kammerer, CA  
(For Distribution)

Transmitted: MNBB 11:30  
W. J. Dircks, EDO  
C. Michelson, AEOD  
J. J. Fouchard, PA  
N. M. Haller, MPA  
G. W. Kerr, OSP  
H. K. Shapar, ELD

P. Bldg. 11:45  
H. R. Denton, NRR  
R. H. Vollmer, NRR  
R. J. Mattson, NRR  
D. F. Ross, NRR  
D. Eisenhut, NRR  
S. H. Hanauer

IE:XOOS 11:25 (IE:HQ Dist)  
Landow \_\_\_\_\_ (6 min/page)  
J. J. Cummings, OIA

MAIL  
R. Minogue, SD  
IE:XOOS  
Document Mgt. Br. (For PDR/L)

Regional Offices 11:50

Willste Bldg. 11:47  
J. G. Davis, NMSS  
T. E. Murley, RES

*RF*  
*RF 11:55*  
*RF 12:05-3M*  
*RF 12:00*

PRELIMINARY NOTIFICATION