DCS No: 030017869101l2
Date: January 15, 1991

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-I-91-6

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

Facility:
Department of Health and Human Services
National Institutes of Health
Bethesda, Maryland 20892
Docket No. 030-01786
License No. 19-00296-10

Licensee Emergency Classification:
___ Notification of Unusual Event
___ Alert
___ Site Area Emergency
___ General Emergency
_X_ Not Applicable

Subject: FIRE IN RESEARCH LABORATORY AT NIH

Region I was notified at approximately 4:00 pm on January 14, 1991 that a fire occurred at about 2:30 am on January 12, 1991 in a research laboratory in the clinical center (the main research building) at the National Institutes of Health (NIH), Bethesda, Maryland.

The licensee stated that the fire was located on a bench top in a 10 by 14 foot research laboratory, which used millicurie quantities of phosphorus-32 for immunology research. The fire was confined to that one room. No damage to the adjacent laboratories and hallway occurred. The licensee's preliminary damage estimate is approximately $120,000.

The licensee believes the cause of the fire was a water bath which was left on, evaporating all the water, and subsequently igniting the plastic liner inside the bath. Licensee radiological surveys of the burned remains confirmed that no radioactive material was involved in the fire. Consequently, no release of radioactive material occurred.

The NIH fire company responded when heat sensors, located in the ceiling of the laboratory (a requirement in all NIH research laboratories) alarmed. In accordance with the NIH Division of Safety Emergency Plan (an internal plan not required by NRC regulations), radiation safety and chemical hazard personnel responded to the incident within forty-five minutes of the initial notification. The licensee stated that no contamination or uptake of radioactive material by licensee personnel had occurred.

In the process of cleaning up the laboratory after the fire was extinguished, the licensee moved three carboys (i.e., three two-gallon polyethylene jugs) from under the bench on which the fire occurred. The carboys contained an aqueous solution of phosphorus-32 waste (total activity estimated to be less than three millicuries of phosphorus-32). Two carboys were moved intact. The bottom of the third carboy failed as licensee personnel attempted to move it, spilling half of the contents (about one gallon of liquid) onto the floor. The licensee does not know if the loss of integrity of the carboy was due to the proximity of this carboy to the fire, or from another cause. The spill was immediately contained with absorbent paper and other absorbent materials.

9101230053 910115
PDR
PNO-I-91-006 PDR

On Monday morning, January 14, 1991, radiation safety personnel completed the decontamination of the area affected by the spill (an area of approximately two feet by four feet) by pulling up the vinyl tiles and disposing of them as radioactive waste. The licensee decontaminated the floor down to the concrete few hot spots of fixed contamination on the concrete estimated to have than 1000 disintegrations per minute per 100 square centimeters remained. The licensee estimated that less than 0.5 millicuries of phosphorus-32 was spilled.

The licensee has planned a review of the circumstances surrounding the incident and a critique of their emergency response procedures on January 15, 1991. Further, the licensee stated that they will implement corrective actions to prevent future recurrences.

Region I is planning no immediate response to the event.

The State of Maryland has been notified.

There has been media interest in the incident. Region I is prepared to respond to any inquiries.

This information is current as of 8:00 am, January 15, 1991.

CONTACT: J. Gresick-Schugsta FTS 346-5382
M. Shanbaky FTS 346-5209

DISTRIBUTION:

OWFN	MNBB	L-St.	NL	Mail:	ADM:DMB
Chairman Carr	AEOD		RES		DOT:Trans only
Comm. Rogers	IRM	PDR			
Comm. Curtiss	OIG			NRC Ops Ctr _____	
Comm. Remick					

CA	EDO	Phillips	INPO----
OGC	NMSS	ACRS	NSAC----
GPA	NRR		
PA	OE	Regional Offices _____	
	SP		RI Resident Office _____
		EWW	
		ASLAP	Licensee: _____ (Reactor Licensees)

Region I Form 83
(Rev. April 1988)