10-95-189

July 25, 1995

Jones
Corr. Pis
return

Note to: Janet Schlueter, NMSS

From: Harriet Karagiannis, AEOD

Subject: Request for Information on Data Involving P-32 Contamination

Per your request we have searched the data on NMED and found the attached event reports. The data include events involving the use of P-32 resulting in incidents other than contamination that may be of interest to you.

cc:
P. Baranowsky

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee | ADVENTIST HEALTH SYS-EASTERN MIDDLE Evtdte 02/13/95 Rptdte 04/1
Itemno | 950951
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr |
Abstract | During an NRC inspection, the following violation was identified: The Licensee disposed of a quantity of P-32, not in excess of 1.5 mCi, by release to the non-radioactive trash.

Licensee | AGRICULTURE, DEPARTMENT OF Evtdte 03/01/88 Rptdte 04/05/88
Itemno | 880119
Classevt | RLM CONTAMINATIO
Cause |
Expnumbr |
Abstract | PLASTIC JUG OF RAD WASTE FELL AND SPILLED DURING ON-SITE TRANSPORTATION OF WASTE BETWEEN BUILDINGS. 100 UCI P-32 AND 30 UCI S-35 SPILLED AND CONTAMINATED PAVEMENT. SITE SCRUBBED AND COVERED WITH EPOXY AND STEEL PLATE; SITE MARKED. NO OVEREXPOSURES.

Licensee | AGRICULTURE, DEPARTMENT OF Evtdte 03/02/89 Rptdte 03/0? '9
Itemno | 890127
Classevt | LAS LOST SOURCE
Cause |
Expnumbr |
Abstract | A SHIPMENT OF 250 MICROCI OF P-32 WAS SHIPPED TO THE USDA RESEARCH FACILITY AND RECEIVED 02/20/89 BUT THE AUTHORIZED RESEARCHER NEVER RECEIVED THE MATERIAL. BELIEVE MATERIAL THROWN OUT IN TRASH.

Licensee | ALBANY MEDICAL CENTER Evtdte 01/20/92 Rptdte 01/21/92
Itemno | 920071
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr |
Abstract | THE LICENSEE REPORTED THAT A BAG OF P-32 WAS REMOVED FROM A LABORATORY BEFORE PROPER DECAY AND WAS DISPOSED WITH NORMAL TRASH. THE LICENSEE RECOVERED THE WASTE.

Basic Event Information Report
(Report Name RBASIC1.FRX)

:nsee	ALBERT EINSTEIN MEDICAL CENTER	Evtdte 03/01/88	Rptdte 03/03/88
Itemno	880117		
Classevt	EXP OVEREXPOSURE		
Cause			
Expnumbr	1		
Abstract	WORKER INGESTED P-32. PNO I-88-24C GIVES UPTAKE OF 530 MILLICI AND ESTIMATED BONE SURFACE DOSE OF 20 RADS.		

Licensee	AMERICAN RED CROSS	Evtdte 08/24/92	Rptdte 08/27/92
Itemno	920806		
Classevt	RLM CONTAMINATIO		
Cause	043 SIGNIFICANT ERROR		
Expnumbr			
Abstract	CONTAMINATION PROBLEM REPORTED AT HUMAN LEUKOCYTE ANTIGEN LAB (THREE USERS WHO DO DNA LABELLING WITH P-32). WIPE OF FLOOR READ 1,000 CPM AT A 20% METER EFFICIENCY (5,000 DPM). THE WIPE MEASURED 970 PICOCI. FLOOR TILES REMOVED. LAB SUSPENDED TECHS. TECHS RETRAINED.		

ensee	AMERSHAM CORP.	Evtdte 02/06/84	Rptdte 03/02/84
ano	840076		
sevt	LAS LOST SOURCE		
e			
Expnumbr			
Abstract	SEVEN OF TEN VIALS OF RAIOACTIVE MATERIAL WERE LOST ON ROUTE TO DESTINATION. ALL SEVEN (6 P-32, 1.5 MCI TOTAL; 1 S-35, 1.5 MCI) WERE FOUND INTACT IN FIELD NEAR ALEXANDIA.		

Licensee	AMERSHAM CORP.	Evtdte 08/27/93	Rptdte 08/27/93
Itemno	940453		
Classevt	LAS LOST SOURCE		
Cause	108		
Expnumbr			
Abstract	PACKAGE SHIPPED VIA FEDERAL EXPRESS TO THE UNIVERSITY OF MARYLAND IN BALTIMORE DID NOT ARRIVE. FEDERAL EXPRESS HAD NO RECORD OF SCAN AFTER PACKAGE LEFT AMERSHAM IN IL. PACKAGE CONTAINED .25 MCI P-32.		

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	AMERSHAM CORP.	Evtdte 01/25/91 Rptdte / ,
Itemno	910205	
Classevt	LAS LOST SOURCE	
Cause	107 OTHER	
Expnumbr		
Abstract	PACKAGE CONTAINING 250 µCI P-32 WAS LOST EN ROUTE TO BATTELLE NORTHWEST LABS, RICHLAND, WA. AIRBORNE HAS NO RECORD OF DELIVERY. NO ACTION.	

Licensee	BANK OF AMERICA	Evtdte 04/09/92 Rptdte 05/26/92
Itemno	920365	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	THREE RADIOIMMUNOASSAY KITS WERE FOUND AT A PRIVATE RESIDENCE. THEY MAY HAVE CONTAINED P-32.	

Licensee	BAYLOR COLLEGE OF MEDICINE/BEN TAUB	Evtdte 05/06/93 Rptdte 05/11/93
Itemno	940565	
Classevt	OTH	
Cause	004 FIRE/EXPLOSION	
Expnumbr		
Abstract	THE LICENSEE NOTIFIED THE AGENCY OF A FIRE, WHICH OCCURRED IN A LABORATORY, IN WHICH RADIOACTIVE MATERIALS WERE USED, WAS EXTENSIVELY DAMAGED. ABOUT 10 MCI OF P-32 WAS ON AN ELECTROPHORESES GEL APPARATUS IN THE LABORATORY. SURVEYS AND WIPE TESTS FOUND LIMITED CONTAMINATION. THE CONTAMINATION WAS REMOVED AND SENT TO AN AUTHORIZED DISPOSAL SITE.	

Licensee	BAYLOR UNIVERSITY	Evtdte 06/03/92 Rptdte 06/04/92
Itemno	920539	
Classevt	EQP EQUIPMENT	
Cause	004 FIRE/EXPLOSION	
Expnumbr		
Abstract	A GEL CONTAINING LESS THAN 100 MICROCI P-32 WAS INVOLVED IN A LABORATORY FIRE. ACTIVITY WAS CONTAINED.	

Licensee	BETH ISRAEL HOSPITAL	Evtdte 09/27/85 Rptdte 10/31/85
Itemno	850478	
Classevt	OTH	
Cause		
Expnumbr		
Abstract	UNTRAINED EMPLOYEE EMPTIED RADIOACTIVE WASTE INTO COMMERCIAL WASTE. CONTAINED 400 UCI P-32, 240 UCI I-125, 120 UCI H-3, 35 UCI I-131. EMPLOYEE	

CALCULATED TO HAVE RECEIVED LESS THAN 5 MRAD TO GONADS, LESS THAN 7 MRAD TO SKIN OF LEG, LESS THAN 30 MRAD TO HAND.

Licensee | BIOGEN, INC. Evtdte 04/16/93 Rptdte 04/21/93
Itemno | 940026
Classevt | RLM CONTAMINATIO
Cause | 073 LOSS OF CONTAINMENT
Expnumbr |
Abstract | LICENSEE DETECTED P-32 CONTAMINATION IN A LAB AND ON THE FLOOR. FLOOR CONTAMINATION HAD BEEN SPREAD BY FOOT TRAFFIC. A CONSULTANT WAS HIRED TO HELP CLEAN THE AREA. THE AREA WILL BE CLOSED FOR UP TO 48 HOURS TO REMOVE CONTAMINATION.

UPDATE: THE NRC CONDUCTED AN INSPECTION AND TWO NON-CITED VIOLATIONS WERE IDENTIFIED.

Licensee | BOSTON UNIVERSITY Evtdte 04/25/95 Rptdte 04/28/95
Itemno | 950524
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
umbr |
ract | The Licensee reported the loss of approximately 250 uCi of P-32. The RSO determined the package was inadvertently placed in the regular waste on 04/25/95. The waste was collected by BFI and was taken to the Cambridge Transfer Station. BFI said the waste was probably taken to an incinerator at Havril, MA and was incinerated on 04/26/95. There would be no dose to workers or the public.

Licensee | BRANDEIS UNIVERSITY Evtdte / / Rptdte 12/18/91
Itemno | 910137
Classevt | EXP OVEREXPOSURE
Cause | 091 OTHER OPERATIONAL PROBLEM
Expnumbr | 1
Abstract | PHYSICIAN RECEIVING HAND EXPOSURE OF 35.930 FOR OCT. 1991. DOCTOR SUSPENDED FROM RADIATION WORK PENDING COMPLETION OF INVESTIGATION . COLLEAGUES ADMITTED TO PLAYING JOKE BY INTENTIONALLY EXPOSING BADGE TO A P-32 SOURCE. DISCIPLINARY ACTION WILL BE TAKEN AGAINST COLLEAGUES.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	BRIGHAM & WOMEN'S HOSPITAL	Evtdte 05/16/88 Rptdte 06/2.
Itemno	880237	
Classevt	RLM CONTAMINATIO	
Cause		
Expnumbr		
Abstract	P-32 SPILL RESULTED IN CONTAMINATION OF EMPLOYEE AND ROOM.	

Licensee	BROWN UNIVERSITY	Evtdte 02/05/82 Rptdte 02/09/82
Itemno	820101	
Classevt	EXP OVEREXPOSURE	
Cause		
Expnumbr	1	
Abstract	LABORATORY WORKER INGESTED AS MUCH AS 350 UCI OF P-32 LABELED ADENOSINE TRIPHOSPHATE (ADP). AREA MONITOR ALARMED AFTER WORKER INTERRUPTED HER LUNCH TO ENTER THE LAB. THE WORKER'S CLOTHES AND FOOD WERE FOUND TO BE CONTAMINATED. TOTAL BONE DOSE WAS ESTIMATED TO BE 10 REM (PN-82-02A).	

Licensee	BUFFALO GENERAL HOSPITAL	Evtdte 01/12/94 Rptdte 01/13/94
Itemno	950532	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	Housekeeping emptied a container labelled as "radioactive waste", containing approximately 1 mCi of P-32. The waste was probably burned in the hospital's incinerator. DOH staff calculated possible exposures from the plume from the incinerator and the dose commitment is very small.	

Licensee	CALIFORNIA, UNIVERSITY OF, AT LOS	Evtdte 01/05/92 Rptdte 04/20/92
Itemno	920021	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	THE LICENSEE REPORTED THE LOSS OF 500 MCi OF P-32.	

Licensee	CARNEGIE-MELLON UNIVERSITY	Evtdte 07/09/84 Rptdte 08/07/84
Itemno	840306	
Classevt	LAS LOST SOURCE	
Cause		
Expnumbr		
Abstract	SIX BAGS OF RIA WASTE CONTAINING P-32 (1.25 MCI) DISPOSED OF TO SANITARY LANDFILL IN ERROR.	

Basic Event Information Report
(Report Name RBASIC1.FRX)

nsee	CASE WESTERN RESERVE UNIVERSITY Evtdte 01/22/93 Rptdte 01/23/93
Itemno	940608
Classevt	LAS LOST SOURCE
Cause	004 FIRE/EXPLOSION
Expnumbr	
Abstract	FIRE OCCURRED IN LAB WHERE RADIOACTIVE WASTE AND MATERIAL WAS STORED. TWO BAGS OF DRY SOLID WASTE WERE FOUND 50% INTACT, IN 5 INCHES OF STANDING WATER; RESULTS OF THE SURVEYS WERE EQUAL TO OR LESS THAN MINIMUM DETECTABLE ACTIVITY. ONE BAG OF SCINTILLATION VIALS CONTAINING 9 uCI OF H-3 AND C-14 WAS NOT FOUND. STOCK VIALS OF NON-WASTE H-3 ACCOUNTED FOR. THE ONLY MISSING STOCK VIAL CONTAINED THE LAB'S ENTIRE INVENTORY OF P-32 WHICH WAS LESS THAN 10 uCI.

Licensee	CHICAGO OSTEOPATHIC HEALTH SYSTEM Evtdte 08/18/94 Rptdte 08/18/94
Itemno	950150
Classevt	OTH
Cause	107 OTHER
Expnumbr	
Abstract	A patient expired two weeks after being administered 17 mCi of P-32. The family wished for cremation, so permission was granted based on NCRP 37 recommendations. The hospital will survey the ash before it is given to the family. The survey showed most of the activity remained in the ashes. The remains were to be stored at the crematorium for one month until additional surveys were done, and the remains were processed and given to the family.

Licensee	CHILDREN'S HOSPITAL OF LOS ANGELES Evtdte 01/26/95 Rptdte 05/01/95
Itemno	950884
Classevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	The new housekeeping staff removed radioactive waste, from at least two laboratories, containing 1.5 mCi of P-32 and .5 mCi of S-35, and disposed of it as biohazardous waste. The waste was sent to BFI.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	CINCINNATI, UNIVERSITY OF Evtdte / / Rptdte / /
Itemno	840003
Classevt	OTH
Cause	
Expnumbr	1
Abstract	AN INDIVIDUAL WORKING WITH P-32 RECEIVED DOSES OF 30.63 AND 37.63 REMS TO RIGHT AND LEFT HANDS RESPECTIVELY IN 3Q82. ON 840307, A PLASTIC LINERBAG CONTAINING WASTE WITH 125 UCI I-125 WAS PLACED WITH NORMAL TRASH AND DISPOSED OF TO DUMP.

Licensee	CLEVELAND CLINIC FOUNDATION Evtdte 05/16/91 Rptdte 05/20/91
Itemno	910578
Classevt	RLM CONTAMINATIO
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	LABORATORY CONTAMINATION FROM LEAKING VIAL OF P-32; TEN INDIVIDUALS HAD SMALL AMOUNTS OF CONTAMINATION ON THEIR HANDS AND FACES. UPDATE: LICENSEE RESPONSE TO NOTICE OF VIOLATION. CORRECTIVE STEPS TO PREVENT FUTURE INCINERATION OF RADIOACTIVE MATERIALS.

Licensee	CUBIST PHARMACEUTICALS, INC. Evtdte 03/11/94 Rptdte 04/13/
Itemno	941646
Classevt	LAS LOST SOURCE
Cause	041 INTENTIONAL VIOLATION
Expnumbr	
Abstract	During an NRC Inspection, Violations of NRC Requirements were identified as follows: More than 10 uCi of P-32 was disposed of via the sanitary sewer. Specifically, on 12/28/93, 02/02/94 and 03/11/94, 20, 12, and 12.5 uCis were disposed in the sink, respectively exceeding the daily disposal limit for P-32. Update: The Licensee replies to a Notice of Violation and the Licensee will not exceed the disposal limit of 10 uCi of P-32 per sink and 20 uCi daily.

Basic Event Information Report
(Report Name RBASIC1.FRX)

nsee	DU PONT EXPERIMENTAL STATION	Evtdte 08/02/88	Rptdte 09/09/88
Itemno	880385		
Classevt	LAS LOST SOURCE		
Cause			
Expnumbr			
Abstract	TWO PACKAGES CONTAINING 500 MICROCURIES OF P-32 AS FROZEN LIQUID COMPOUNDS WERE MISSING. SIGNATURE ON SHIPPING PAPER NOT DUPONT RECEIVER; PAPER DOES NOT HAVE DUPONT RECEIVING STAMP. NO DEL-MED DELIVERIES ON 08/08/88.		

Licensee	DUKE UNIVERSITY MEDICAL CENTER	Evtdte 04/16/88	Rptdte 04/20/90
Itemno	880195		
Classevt	EXP OVEREXPOSURE		
Cause			
Expnumbr	1		
Abstract	INGESTION OF P-32 BY EMPLOYEE; 31.15 REM WHOLE BODY.		

Licensee	E.I. DU PONT DE NEMOURS & CO., INC.	Evtdte 07/07/89	Rptdte 07/07/89
Itemno	890338		
C'assevt	LAS LOST SOURCE		
:e			
umbr			
.ract	1500 3" X 2" LEAD RADIATION SHIELDS WHICH CONTAINED VIALS THAT ORIGINALLY CONTAINED 10 MILLICI OF P-32 WERE STOLEN FROM A STORAGE ROOM. THERE IS NO HAZARD FROM THE VIALS (PNO-I-89-55).		

Licensee	E.I. DU PONT DE NEMOURS & CO., INC	Evtdte 07/14/89	Rptdte 07/18/89
Itemno	890348		
Classevt	LAS LOST SOURCE		
Cause			
Expnumbr			
Abstract	PACKAGE WITH 500 MICROCI P-32 LOST IN FEDERAL EXPRESS SYSTEM.		

Licensee	E.I. DU PONT DE NEMOURS & CO., INC.	Evtdte 10/13/94	Rptdte 10/20/94
Itemno	941956		
Classevt	TRS TRANSPORTATI		
Cause	044 DEFECTIVE OR FAILED MATERIAL		
Expnumbr			
Abstract	A package containing 250 uCi of P-32 was crushed during transport. The package was delivered by Emery Air Freight to a university in British Columbia in Vancouver, Canada. The Licensee reported that there is no contamination on the crushed container. This implies that the source		

vial was intact; even though the lead pig containing the inner source vial was crushed.

Licensee | ELMHURST MEMORIAL HOSPITAL Evtdte 09/12/91 Rptdte 09/12/91
Itemno | 911027
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr |
Abstract | 3 BAGS OF LABORATORY WASTE CONTAINING 1.89 UCI OF P-32 WAS INADVERTENTLY DISPOSED OF AS ORDINARY TRASH.

Licensee | EMORY UNIVERSITY Evtdte 08/04/92 Rptdte 08/07/92
Itemno | 920762
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr |
Abstract | THE LICENSEE RECEIVED 5 VIALS CONTAINING 250 MICROCI P-32 EACH BUT COULD ONLY LOCATE 4 VIALS.

Licensee | FEDERAL EXPRESS Evtdte 07/27/93 Rptdte 07/27/93
Itemno | 940298
Classevt | LAS LOST SOURCE
Cause | 108
Expnumbr |
Abstract | Federal Express had found a package that was missing its contents, which was a PIG containing approximately 5 mCi OF P-32.

Licensee | FLORIDA, UNIVERSITY OF Evtdte 02/11/92 Rptdte 02/13/92
Itemno | 920136
Classevt | RLM CONTAMINATIO
Cause | 091 OTHER OPERATIONAL PROBLEM
Expnumbr |
Abstract | THE LICENSEE REPORTED A SPILL OF BETWEEN 0.01 AND 0.02 MCI OF P-32 ONTO A FLOOR, DOOR AND CARPET. THE AREAS WERE DECONTAMINATED AND THE DOOR WAS REMOVED FOR STORAGE AND DECAY. THE DOOR MEASURED 20 MR/HR ON CONTACT.

Basic Event Information Report
(Report Name RBASIC1.FRX)

nsee	FOX CHASE CANCER CENTER Evtdte 09/07/93 Rptdte 07/25/94
Itemno	941953
Classevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	During an NRC inspection it was discovered that the Licensee could not locate a stock vial containing 300 uCi of P-32. Update: The Licensee responds to the NRC's letter regarding violations noted in inspection report. The unaccountable loss and/or disposal occurred due to the fact that the refrigerator/freezer in which it was stored was in a common access room adjacent to a laboratory. It is assumed that this material was used by another laboratory technician and not recorded as used or disposed of. Immediately following the notification of his incident a lock was installed on the refrigerator/freezer with key available only to the laboratory technician responsible for the radioactive material.

nsee	FRED. HUTCH. CANCER RESEARCH CENTER Evtdte 08/30/91 Rptdte 08/30/91
no	910982
sevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	A JANITOR DUMPED RADWASTE IN THE REGULAR TRASH. THE LICENSEE HALTED THE TRANSFER OF THE WASTE CONTAINER TO THE LANDFILL IN OREGON. ALSO, THE LICENSEE REPORTED THE LOSS OF STOCK OF P-32. LATER THE LICENSEE REPORTED THAT THE VIALS WERE FOUND IN A CONTAINER WITH THE WRONG DATE ON THE OUTSIDE.

Licensee	HARVARD UNIVERSITY Evtdte 01/19/89 Rptdte 02/09/89
Itemno	890038
Classevt	LAS LOST SOURCE
Cause	
Expnumbr	
Abstract	A PACKAGE CONTAINING 250 MICROCI P-32 WAS MISTAKENLY THROWN OUT BY THE CLEANING PERSON.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	HARVARD UNIVERSITY Evtdte 01/13/93 Rptdte 01/14/
Itemno	940024
Classevt	RLM CONTAMINATIO
Cause	073 LOSS OF CONTAINMENT
Expnumbr	
Abstract	A WASTE CART LEAKED P-32 CONTAMINATED LIQUID WASTE IN A RESEARCH BUILDING RESULTING IN SHOE CONTAMINATIONS. AREA WAS SURVEYED AND DECONNED.

Licensee	HAWAII, UNIVERSITY OF Evtdte 04/21/94 Rptdte 05/05/94
Itemno	940216
Classevt	TRS TRANSPORTATI
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	DURING AN NRC INSPECTION, VIOLATION SOF NRC REQUIREMENTS WERE IDENTIFIED AS FOLLOWS: THE LICENSEE TRANSPORTED RADIOACTIVE MATERIAL INCLUDING; P-32, S-35, I-124 AND H-3 OUTSIDE THE CONFINES OF THE UNIVERSITY ON PUBLIC HIGHWAYS AND: (1) THE DISCRIPTION ON THE SHIPPING PAPERS ACCOMPANYING THE SHIPMENT DID NOT INCLUDE THE CATEGORY OF LABEL APPLIED TO EACH PACKAGE OR THE TRANSPORT INDEX ASSIGNED TO EACH PACKAGE: (2) THE SHIPPING PAPERS DID NOT INCLUDE THE EMERGENCY RESPONSE PHONE NUMBER; (3) THE PACKAGES WERE NOT LABELED WITH THE REQUIRED RADIOACTIVE WHITE-I, RADIOACTIVE YELLOW-II OR RADIOACTIVE YELLOW-III LABELS; (4) THE LICENSEE DID NOT PERFORM APPROPRIATE TESTS TO DETERMINE THAT EXTERNAL RADIATION AND CONTAMINATION LEVELS WERE WITHIN ALLOWABLE LIMITS; AND (5) THE LICENSEE HAD NOT PERFORMED HAZMAT GENERAL AWARENESS/FAMILIARIZATION TRAINING FOR FUNCTION SPECIFIC TRAINING AS REQUIRED. UPDATE: THE LICENSEE REPLIES TO NOTICE OF VIOLATION.

icensee	HEALTH & HUMAN SERVICES, DEPARTMENT Evtdte 01/14/91 Rptdte 01/15/91
temno	910169
lassevt	RLM CONTAMINATIO
ause	004 FIRE/EXPLOSION
xpnumbr	
bstract	FIRE IN RESEARCH LAB CONTAINING MILLICI QUANTITIES OF P-32.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	HEALTH & HUMAN SERVICES, DEPARTMENT Evtdte 06/28/95 Rptdte 06/30/95
Itemno	950922
Classevt	EXP OVEREXPOSURE
Cause	020 INGESTION
Expnumbr	1
Abstract	The RSO informed the NRC's inspector on-site performing a routine inspection that an incident involving internal contamination of a researcher had been reported. The Licensee identified the researcher as a 32 year old female who is in her fourth month of pregnancy. The emergency response and follow-up by the Licensee confirmed the existence of a detectable radioactivity burden, however it does not appear that an annual limit on intake was exceeded. The Licensee identified the ingested isotope to be P-32. There are no adverse health consequences expected for the researcher or the fetus. The estimated ingestion is approximately 300 uCi of P-32. An Augmented Inspection team has been dispatched. Also, an NRC medical consultant has been contacted. Update: During the investigation of the original contamination, the Licensee identified approximately 25 additional individuals who have low level internal P-32 contamination. The Licensee surveyed all the water coolers and found radiation levels on the spigot and in the reservoir of one water cooler and on the floor of the building. No other water bottles were identified as being contaminated. The Licensee continues to investigate for a possible source of contamination.

Licensee	INDIANA UNIVERSITY Evtdte 04/07/95 Rptdte 04/12/95
Itemno	950464
Classevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	Four bags of radioactively contaminated waste from research laboratories were inadvertently sent to the city incinerator for disposal. The bags contained disposable gloves, paper products, and other dry waste contaminated with approximately 533 uCi of P-32, 1.25 mCi of S-35, and 250 uCi of H-3. The city incinerator's remote radiation monitoring system was not triggered by the contaminated waste. Update: The Licensee submitted a written report of this event. To prevent this from happening in the

future, a videotape which was developed by the Licensee, entitled "Radiation Protection for campus Facility Service", has been distributed to all environmental services departments for review by new employees.

Licensee | JOSLIN DIABETES CENTER, INC. Evtdte 11/15/87 Rptdte 02/24/88
Itemno | 870479
Classevt | EXP OVEREXPOSURE
Cause |
Expnumbr | 1
Abstract | EXPERIMENTER HAD BEEN USING LARGE AMOUNTS OF P-32 FOR EXPERIMENTS. 4TH QTR 87 EXTREMITY DOSE 35.13 REM; WHOLE BODY DOSE 0.03 REM. SEE ALSO ENFORCEMENT ACTION 88-54, ACC NO 8803210406.

Licensee | KAISER FOUNDATION HOSPITAL Evtdte 08/19/92 Rptdte 02/10/94
Itemno | 941040
Classevt | MD2 MISADMINISTR
Cause | 112
Expnumbr | 1
Abstract | A misadministration occurred when an incorrect dose of Phosphorus-32 was given to a patient. A dose calibrator was used to verify the Radiopharmacy's assay and an adjustment to the dose was made based on the calibrator's reading. The dose calibrator reading was found to be inaccurate during a routine audit, resulting in the discovery of the misadministration.

Update: Inspection Report and Notice of Violation.

Update: Findings of inspection, indicate the Licensee's Quality Management Program has been effectively implemented, although more attention to detail in writing, following procedures and keeping records is needed. The review of the P-32 event indicates that it was not a misadministration.

Update: Licensee responds to violation and will retrain technolgists.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	KAISER FOUNDATION HOSPITAL	Evtdte 09/08/92 Rptdte 02/10/94
Itemno	941041	
Classevt	MD2 MISADMINISTR	
Cause	112	
Expnumbr	1	
Abstract	A misadministration occurred when an incorrect dose of Phosphorus-32 was given to a patient. A dose calibrator was used to verify the Radiopharmacy's assay and an adjustment to the dose was made based on the calibrator's readings. The dose calibrator reading was found to be inaccurate during a routine audit, resulting in the discovery of the misadminstration.	

Update: Inspection Report and Notice of Violation.

Update: Findings of the inspection indicate the Licensee's Quality Management Program has been effective implemented, although more attention to detail in writing, following procedures and keeping records is needed. The review of the P-32 event indicates that this was not a misadministration.

Update: Licensee responds to violation and will retrain technologists.

Licensee	KAISER FOUNDATION HOSPITAL	Evtdte 09/16/92 Rptdte 02/10/94
Itemno	941042	
Classevt	MD2 MISADMINISTR	
Cause	112	
Expnumbr	1	
Abstract	A misadministration occurred when an incorrect dose of Phosphorus-32 was given to a patient. A dose calibrator was used to verify the the Radiopharmacy's assay and an adjustment to the dose was made based on the calibrator's readings. The dose calibrator reading was found to be inaccurate during a routine audit, resulting in the discovery of the misadminstration.	

Update: Inspection Report and Notice of Violation.

Update: Findings of the inspection indicate the Licensee's Quality Management Program has been effectively implemented, although more attention to details in writing, following procedures and keeping records is needed. The review of the P-32 event indicates that there was not a misadministration.

Update: Licensee responds to violation and will retrain technologists.

Licensee | LANCASTER GENERAL HOSPITAL Evtdte 09/15/89 Rptdte 09/15/89
Itemno | 890485
Classevt | RLM CONTAMINATIO
Cause |
Expnumbr |
Abstract | BODY CONTAINING 15 MILLICI P-32 WAS CREMATED. CREMAINS BURIED UNDER 3 FT OF EARTH.

Licensee | LANKENAU HOSPITAL Evtdte 11/06/92 Rptdte 11/19/92
Itemno | 921040
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr |
Abstract | FOUR BAGS CONTAINING P-32 AND S-35 RADIOACTIVE WASTE WERE ACCIDENTALLY PICKED UP BY A HOUSEKEEPER AND WERE PROCESSED WITH OTHER INFECTIOUS WASTE. THE BAGS WERE INCINERATED.

UPDATE: DURING AN NRC INSPECTION A NOTICE OF VIOLATION WAS ISSUED TO THE LICENSEE FOR DISPOSAL OF 1.16 MCI OF P-32, 0.10 MCI OF S-35 AND MICROCI AMOUNTS OF TC-99M.

UPDATE: THE LICENSEE RESPONDED TO THE NOTICE OF VIOLATION AND WILL RETRAIN HOUSEKEEPING AS WELL AS THE NUCLEAR MEDICINE DEPARTMENT.

Licensee | LAW ENFORCEMENT FORENSIC Evtdte 03/17/92 Rptdte 03/17/92
Itemno | 920265
Classevt | RLM CONTAMINATIO
Cause | 072 PIPE LEAKING
Expnumbr |
Abstract | A TECHNICIAN WAS DISPOSING OF 1.1 NCI OF P-32 TO THE SANITARY SEWER WHEN A PIPE IN THE BASEMENT BURST. THE LICENSEE DETECTED SOME CONTAMINATION OF THE INSULATION AND THE FLOOR.

Licensee | LONG BEACH COMMUNITY HOSPITAL Evtdte 02/24/95 Rptdte 05/01/95
Itemno | 950900
Classevt | RLM CONTAMINATIO
Cause | 108
Expnumbr |
Abstract | The Licensee reported significant contamination of their crematorium due to the release of 15 mCi of P-32.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	MAINE, UNIVERSITY OF	Evtdte / /	Rptdte 01/14/87
Itemno	870001		
Classevt	OTH		
Cause			
Expnumbr			
Abstract	EXCESSIVE CONTAMINATION ON P-32 FROM NEW ENGLAND NUCLEAR. CONTAINER DID NOT APPEAR TO BE LEAKING.		

Licensee	MARQUETTE UNIVERSITY	Evtdte 06/30/81	Rptdte 07/29/81
Itemno	810371		
Classevt	EXP OVEREXPOSURE		
Cause			
Expnumbr	1		
Abstract	WHILE PERFORMING WORK WITH P-32 IN MAXIMUM QUANTITIES OF 2 MCI, A RESEARCHER RECEIVED A 28.26 REM DOSE TO THE HANDS FOR THE 2ND QUARTER OF 1981. THE EXPERIMENTAL PROCEDURE USED WAS NOT DESIGNED TO MONITOR NOR MINIMIZE EXPOSURES. LICENSEE'S CORRECTIVE ACTION ACKNOWLEDGED IN RI LETTER DATED 01/18/82. 1981 EXTREMITY OVEREXPOSURE.		

nsee	MASSACHUSETTS GENERAL HOSPITAL	Evtdte 10/21/91	Rptdte 11/20/91
no	911173		
Classevt	LAS LOST SOURCE		
Cause			
Expnumbr			
Abstract	INSPECTION REPORT NOTES 3 VIOLATIONS. FIRST VIOLATION - STORAGE OF P-32 IN UNLOCKED UNGUARDED ROOM. SECOND VIOLATION - LACK OF TIMELY (WITHIN 3 DAYS) THYROID BIOASSAYS OF INDIVIDUALS HANDLING I-131 (REPEAT VIOLATION). THIRD - IMPROPER DISPOSAL OF I-131 WASTE.		

Licensee	MAYO FOUNDATION	Evtdte 03/21/93	Rptdte 04/01/93
Itemno	940044		
Classevt	RLM CONTAMINATIO		
Cause	092 FAILURE OF PROTECTIVE MEASURE FOR RELEASE		
Expnumbr			
Abstract	LAB RESEARCHER, WORKING WITH P-32, SPREAD CONTAMINATION TO UNRESTRICTED AREAS BECAUSE OF MULTIPLE FAILURES TO PERFORM PERSONAL SURVEY PRIOR TO LEAVING LAB. CONTAMINATION WAS SPREAD TO RESEARCHER'S HOME, CAR, CHURCH, AND PERSONAL CLOTHING. THE EVENT RESULTED IN A $6000.00 FINE. UPDATE: FORWARD ORDER IMPOSING CIVIL MONETARY PENALTY $6000.00; LICENSEE RESPONSE TO VIOLATION;		

AND LICENSEE REQUEST FOR MITIGATION.

UPDATE: AN ENFORCEMENT CONFERENCE WAS HELD AS A REVIEW OF THE APPARENT VIOLATIONS AND AREAS OF CONCERN. CORRECTIVE ACTIONS INCLUDED: PROVIDING TRAINING, FINGER BADGE AND BIOASSYS FOR INDIVIDUALS INVOLVED; REMIND AUTHORIZED USERS OF THEIR RESPONSIBILITIES; ESTABLISHING PROCEDURES TO IDENTIFY NEW RAD WORKERS TO THE RSO; AND INCREASING DEPTH AND SCOPE OF LAB AUDITS.

Licensee | MEDICAL COLLEGE OF HAMPTON ROADS Evtdte 01/26/93 Rptdte 02/03/93
Itemno | 940145
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr |
Abstract | THE LICENSEE REPORTED THE LOSS OF UNSEALED, LABELED RADIOACTIVE MATERIAL. LICENSEE BELIEVES THAT THE MATERIAL WAS DISPOSED OF IN A REGULAR TRASH DURING THE CHECK-IN. BECAUSE OF SHORT HALF-LIFE, A SEARCH OF THE LANDFILL WAS NOT MADE. THE MATERIAL WAS 250 uCI OF P-32.

UPDATE: AN NRC INSPECTION AND NOTICE OF VIOLATION FOR LOSS OF CONTROL OF LICENSED MATERIAL THAT MAY HAVE RESULTED IN ITS RELEASE INTO THE PUBLIC DOMAIN.

Licensee | MEDICAL X-RAY CENTER Evtdte 02/15/88 Rptdte 03/17/88
Itemno | 880093
Classevt | MD2 MISADMINISTR
Cause |
Expnumbr | 1
Abstract | PATIENT RECEIVED A P-32 DOSE THAT WAS CALCULATED WRONG.

Licensee | MICHIGAN STATE UNIVERSITY Evtdte 03/31/95 Rptdte 04/11/95
Itemno | 950463
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr |
Abstract | The Licensee reported that a package containing a package containing 250 uCi of P-32 was determined to be lost from a research laboratory. A search was initiated with negative results and the package was declared lost. A major cleaning of the laboratory took place on 03/31/95, and the Licensee believes that the P-32 was inadvertently discarded with normal trash to a landfill. The

Licensee does not believe the material was stolen.

Licensee	MICHIGAN, UNIVERSITY OF Evtdte 08/11/92 Rptdte 08/14/92
Itemno	920779
Classevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	THE LICENSEE REPORTED THAT A WORKER THOUGHT A PACKAGE CONTAINED ONLY ONE VIAL OF P-32 WHEN IN FACT THE REQUESTED ACTIVITY CAME IN TWO VIALS. THE WORKER DISPOSED OF THE SECOND VIAL CONTAINING 1.3 MCI P-32 WITH NORMAL WASTE.

Licensee	MICHIGAN, UNIVERSITY OF Evtdte 09/12/92 Rptdte 09/15/92
Itemno	920864
Classevt	RLM CONTAMINATIO
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	LICENSEE REPORTED A LABORATORY SPILL OF A SOLUBLE FORM OF P-32 (1 MCI) ON SEPTEMBER 12 AND/OR 13. THE SPILL WAS DISCOVERED WHEN CONTAMINATION WAS FOUND ON INDIVIDUALS' SHOES. CONTAMINATION WAS FOUND IN THE BUILDING OUTSIDE THE LAB, ON 40 INDIVIDUALS' SHOES AND IN THEIR HOMES, WITH A HIGHEST LEVEL OF 30,000 DPM/100 CM^2. THERE WERE NO OVEREXPOSURES. UPDATE: LICENSEE RESPONDS TO A NOTICE OF VIOLATION. CORRECTIVE ACTIONS: (1) MODIFICATION OF THE RADIONUCLIDE AUTHORIZATION APPLICATION TO REQUIRE THAT AN APPLICANT DESCRIBE TRAINING AND SUPERVISION THAT WILL BE PROVIDED TO USERS IN THE LABORATORY. (2) CHANGES TO THE PROCEDURE FOR OPENING PACKAGES CONTAINING RADIOACTIVE MATERIAL. THE NRC ACKNOWLEDGED RECEIPT OF THE LICENSEE'S LETTER AND PAYMENT FOR THE CIVIL PENALTY OF $3,750.00 PROPOSED BY THE NRC.

Licensee	MICHIGAN, UNIVERSITY OF Evtdte 04/20/95 Rptdte 04/22/95
Itemno	950118
Classevt	RLM CONTAMINATIO
Cause	107 OTHER
Expnumbr	
Abstract	The Licensee is making a report due to contamination being found in and around a laboratory. The lab where the Licensee feels the spill originated is where medical research is done. The lab had been working with 70 uCi of P-32, however, at this time the Licensee is unsure

how much of this amount was actually spilled. The lab itself shows discrete areas of contamination with a maximum contamination of 900,000 dpm/100 cm2. Areas in the hallway outside the lab showed discrete contamination levels of up to 30,000 dpm/100 cm2. There was also one area outside the building that showed a contamination level of 45,000 dpm/100cm2. In addition, several people had external contamination. There was a film crew videotaping a professor in the lab room where the spill occurred. The three members had fixed contamination on their shoes. Their rental van had contamination on the floor mats. Their hotel showed no signs of contamination. The director of the Michigan Arthritis society had slight contamination on his shoes as well as on a coat. Three people that worked in the lab were also checked and there was slight contamination found on their shoes, on their car floor mats, and areas in their homes. The Licensee is investigating the cause of the spill and is containuing to do surveys.

Licensee	MICHIGAN, UNIVERSITY OF	Evtdte 04/10/91 Rptdte 04/19
Itemno	910463	
Classevt	LAS LOST SOURCE	
Cause	107 OTHER	
Expnumbr		
Abstract	TWO SMALL STOCK VIALS OF P-32 CONTAINING 125 AND 55 MICROCI, RESPECTIVELY MISSING FROM FREEZER; BELIEVED TO BE STOLEN.	

Licensee	MICHIGAN, UNIVERSITY OF	Evtdte 11/05/91 Rptdte 12/11/91
Itemno	911244	
Classevt	LAS LOST SOURCE	
Cause		
Expnumbr		
Abstract	TWO VIALS CONTAINING APPROXIMATELY 1.25 MCI P-32 WERE EITHER NOT SHIPPED OR WERE THROWN OUT WITH THE PACKING MATERIAL.	

Licensee	MICROBAC LABS	Evtdte 02/23/89 Rptdte 03/09/89
Itemno	890112	
Classevt	LAS LOST SOURCE	
Cause		
Expnumbr		
Abstract	185 MICROCI P-32 DISPOSED OF IN NORMAL TRASH.	

nsee	MICROGENESYS, INC.	Evtdte 06/21/94 Rptdte 06/21/94
ltemno	941577	
Classevt	RLM CONTAMINATIO	
Cause	004 FIRE/EXPLOSION	
Expnumbr		
Abstract	THE LICENSEE REPORTED THAT A TECHNICIAN PREPARING TO PERFORM A DNA TEST INADVERTENTLY SPILLED A SOLUTION OF 50 MICROCURIES OF P-32 IN 200 MICRO LITERS OF WATER ON THE FLOOR OF THE LABORATORY. THE SPILL WAS REMOVED AND A RADIATION SURVEY WAS PERFORMED. THE RESULTS OF THE SURVEY FOUND A "HOT SPOT" ON THE TECHNICIAN'S LAB COAT AND BLOUSE. NO OTHER CONTAMINATED AREAS OR PERSONNEL CONTAMINATIONS OCCURED. THE LAB COAT AND BLOUSE WERE STORED AS RADIOACTIVE WASTE ALONG WITH THE SPILLED P-32 SOLUTION.	

Licensee	MILTON S. HERSHEY MEDICAL CENTER	Evtdte 02/06/95 Rptdte 02/27/95
Itemno	950191	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	The Licensee reported the loss of 1 mCi of P-32 in the liquid adenosine triphosphate (ATP) form. The source was received on 02/03/95. The source was surveyed, an inventory number was assigned and the source was delivered to the authorized user. The authorized user removed the shielded vial from the shipping cart and placed the vial in a storage freezer on the same day. On 02/06/95 the shielded container was removed from the freezer for thawing and placed on a bench top. Approximately one hour later when the lid was removed from the vial shield there was no vial inside. The Licensee has performed extensive searches and surveys to try to locate the source. Update: The vial was found among the empty vials that were collected from various laboratories by the members of the radiation safety staff. The RSO stated that approximately 10% (100 uCi) of the vial appeared to have been used.	

Licensee	MINNESOTA, UNIVERSITY OF	Evtdte 02/08/91 Rptdte 03/20/
Itemno	910254	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	LOSS OF 500 µCI P-32 AND 250 µCI S-35. INDIVIDUAL INTERRUPTED BEFORE UNPACKING MATERIALS; BOXES THOUGHT TO BE EMPTY AND INCINERATED AT HENNEPIN ENERGY RESOURCES COMPANY. MAXIMUM DOSE FROM AIR AT TOP OF STACK ABOUT 0.06 REM.	

Licensee	MINNESOTA, UNIVERSITY OF	Evtdte 02/21/90 Rptdte 02/21/90
Itemno	900136	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	THE LICENSEE REPORTED THAT AN UNLABELED PACKAGE WHICH CONTAINED P-32 WAS DISPOSED OF WITH REGULAR TRASH.	

Licensee	MISSOURI, UNIVERSITY OF	Evtdte 12/18/93 Rptdte 01/28/94
Itemno	941571	
Classevt	RLM CONTAMINATIO	
Cause	108	
Expnumbr		
Abstract	During an NRC Inspection a Notice of Violation was issued because the Licensee did not survey the hallway and entrances of the Health Science Center to assure that P-32 from a spill did not leave the laboratory. Nor did the Licensee survey hands, feet, and personnel items prior to leaving the area to assure that radiation exposure limits were not exceeded. Update: The NRC replies to the request for additional information from the Licensee.	

Licensee	NAVY, DEPARTMENT OF THE	Evtdte 10/07/93 Rptdte 10/08/93
Itemno	941027	
Classevt	RLM CONTAMINATIO	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	CONTAMINATION DISCOVERED DURING A ROUTINE SURVEY IN A RESEARCH LAB. SUBSEQUENT SURVEYS HAVE FOUND LOCALIZED AREAS OF CONTAMINATION THROUGHOUT THE FACILITY. REPORTED CONTAMINATION LEVELS RANGE FROM 43,000 - 80,000 DPM PER 100 SQUARE CENTIMETERS. PERSONNEL SURVEYS FOUND THREE INDIVIDUALS WITH EXTREMITY SKIN CONTAMINATION,	

RANGING FROM 430 - 1,750 DPM. CONTAMINATION WAS ALSO FOUND ON EIGHT PAIR OF SHOES THAT ARE BEING HELD AT THE FACILITY. SURVEYS OF SIDEWALKS, LOADING DOCKS AND STAFF AUTOMOBILES FOUND NO EVIDENCE OF CONTAMINATION. STAFF HAS BEEN SENT HOME ON ADMINISTRATIVE LEAVE WHILE NAVAL PERSONNEL SURVEY AND DECONTAMINATE THE FACILITY. CONTAMINATION INVOLVED AN ESTIMATED .250 MCI OF P-32. PERSONNEL WERE DECONTAMINATED.

Licensee NEW ENGLAND MEDICAL CENTER Evtdte 06/30/94 Rptdte 07/26/94
Itemno 941706
Classevt LAS LOST SOURCE
Cause 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr
Abstract Loss of a small quantity (.25 mCi of P-32) in liquid form. The Licensee delivered a package to a laboratory where the items in the package were unpacked. Evidently one of the items was overlooked or missed and left in the packing material. The material was then thrown in the trash for routine disposal.

Corrective Actions: The Licensee has revised their procedures to ensure that all materials have been removed and to ensure proper disposal.

Update: The Licensee submitted a written report of this event. An exhaustive check of trash dumpsters and recycling area lead to the conclusion that the activity had been removed by the trash removal contractor to a landfill.

Licensee NEW JERSEY UNIVERSITY OF MEDICINE & Evtdte 12/01/92 Rptdte 12/01/92
Itemno 940058
Classevt LAS LOST SOURCE
Cause 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr
Abstract LICENSEE RESPONDED TO AN INSPECTION REPORT IDENTIFYING AN INSTANCE WHERE RADIOACTIVE MATERIAL WAS LOST WHILE BEING STORED A AN UNRESTRICTED AREA. THE MATERIAL CONSISTED OF 0.020 MCI OF P-32.

UPDATE: NOTICE OF VIOLATION.

Licensee	NEW JERSEY UNIVERSITY OF MEDICINE & Evtdte 12/24/93 Rptdte 12/24/
Itemno	940059
Classevt	RLM CONTAMINATIO
Cause	004 FIRE/EXPLOSION
Expnumbr	
Abstract	LICENSEE REPORTED A FIRE IN A LABORATORY AT THEIR FACILITY. A GEL ELECTROPHORESES TANK WAS DESTROYED IN THE FIRE. THE TANK HAD ABOUT 1 uCI OF P-32 IN IT AT THE TIME. THE TANK AND CONTAMINATED BENCH WERE REMOVED FOR DECAY AND DISPOSAL. IN ADDITION TO THE DESTROYED TANK, SEVERAL LEAD PIGS HAD MELTED.

Licensee	NEW YORK, STATE UNIVERSITY OF, AT Evtdte 01/30/91 Rptdte 02/22/91
Itemno	910220
Classevt	EXP OVEREXPOSURE
Cause	107 OTHER
Expnumbr	1
Abstract	AN EXTREMITY EXPOSURE OF 171.350 REM WAS SUSPECTED TO HAVE BEEN BADGE ONLY SINCE AMOUNTS OF P-32 IN LAB WERE TOO SMALL TO CAUSE EXPOSURE AND EXPOSURE WAS HIGH ENERGY GAMMA. EXPOSURE IN TRANSIT WAS SUSPECTED.

Licensee	NR-AS MEDICAL LICNESEE Evtdte 09/26/91 Rptdte 09/26/
Itemno	911078
Classevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	A CANCER RESEARCH CENTER IN SEATTLE NOTIFIED OREGON THAT 27 uCI OF P-32 HAD BEEN DISPOSED OF IN THE REGULAR TRASH. THE MATERIAL WENT TO A LANDFILL IN OREGON.

Licensee	NUCLEAR MEDICINE LICENSEE Evtdte 10/05/92 Rptdte / /
Itemno	940920
Classevt	MD2 MISADMINISTR
Cause	108
Expnumbr	1
Abstract	A PATIENT WAS ADMINISTERED 8.2 MCI OF P-32 INSTEAD OF THE PRESCRIBED 5 MCI OF P-32, AS AN OUTPATIENT RECEIVING RADIATION THERAPY TREATMENT. THE TECHNOLOGIST DREW THE P-32 DOSE ASSUMING IT WAS CALIBRATED FOR THE CURRENT DAY, WHEN IN FACT IT WAS CALIBRATED FOR 10 DAYS LATER. THE ATTENDING PHYSICIAN AND PATIENT WERE NOTIFIED OF THE MISADMINISTRATION. UPDATE: THE CORRECTIVE ACTIONS REPORTED BY THE

LICENSEE INCLUDED MODIFYING THE RADIOPHARMACEUTICAL THERAPY PROTOCOL FOR P-32 AND I-131 ADMINISTRATIONS, AND PROVIDING TRAINING FOR THE TECHNOLOGIST. IN ADDITION, A WORK SHEET WAS DEVELOPED FOR P-32 THERAPY AND THE PHYSICIAN INVOLVED IN THE PROCEDURE WAS COUNSELLED.

Licensee	NUCLEAR MEDICINE LICENSEE	Evtdte 04/19/93 Rptdte 05/10/94
Itemno	941340	
Classevt	RLM CONTAMINATIO	
Cause	092 FAILURE OF PROTECTIVE MEASURE FOR RELEASE	
Expnumbr		
Abstract	66 MICROCURIES OF P-32 SPILLED AT LAB. LAB WAS ISOLATED AND DECONTAMINATED. SOME OF THE MATERIAL WAS SPILLED ON THE LAB TECHNICIANS SHIRT, HOWEVER, THERE WAS NO SKIN CONTAMINATION.	

Licensee	PENNSYLVANIA STATE UNIVERSITY	Evtdte 03/25/88 Rptdte 11/03/89
Itemno	880159	
Classevt	RLM CONTAMINATIO	
Cause		
Expnumbr		
tract	UNDETECTED SPILLAGE OF P-32 DISPERSED BY PEOPLE WALKING ON MATERIAL.	

Licensee	PRINCETON UNIVERSITY	Evtdte 05/07/85 Rptdte 06/07/85
Itemno	850246	
Classevt	OTH	
Cause		
Expnumbr	1	
Abstract	THREE VIALS CONTAINING P-32 COMPOUNDS FROM ICN RADIOCHEM. CONTENTS FROZEN. VIALS ALLOWED TO WARM TO ROOM TEMP. WHEN OPENED, CONTENTS APPARENTLY SPRAYED AND CONTAMINATED RESEARCHER. CALCULATED SKIN DOSE OF 38 REM. ONE OF TWO RELATED EVENTS.	

Licensee	PRINCETON UNIVERSITY	Evtdte 05/07/85 Rptdte 06/05/85
Itemno	850245	
Classevt	OTH	
Cause		
Expnumbr	1	
Abstract	TWO RESEARCHERS CONTAMINATED IN SEPARATE INCIDENTS WHEN P-32 SPRAYED FROM VIALS WHEN THEY WERE OPENED. VIALS RECEIVED FROZEN FROM ICN. ONE INDIVIDUAL RECEIVED 0.090 REM TO HANDS AND FOREARMS; OTHER 38 REM TO SKIN OF WHOLE BODY. INDIVIDUAL DID NOT SURVEY HIMSELF. ONE OF TWO RELATED EVENTS.	

Licensee	PRINCETON UNIVERSITY Evtdte 10/13/87 Rptdte 10/20/87
Itemno	870449
Classevt	LAS LOST SOURCE
Cause	
Expnumbr	
Abstract	0.5 MCI P-32 AS LIQUID WASTE (1 LITER) IN 5 GALLON PLASTIC CARBOY MISSING. CARBOY LABELLED. POSSIBLY DUMPED DOWN SINK.

Licensee	PRINCETON UNIVERSITY Evtdte 02/16/91 Rptdte 04/26/91
Itemno	910281
Classevt	EXP OVEREXPOSURE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	1
Abstract	A GRADUATE STUDENT RECEIVED A SKIN EXPOSURE DUE TO P-32 FROM A SKIN WOUND FROM A CONTAMINATED NEEDLE IN EXCESS OF 7.5 REM. UNDER A WORST CASE SCENARIO, THE CALCULATED DOSE WAS 18.3 REM.

Licensee	PRINCETON UNIVERSITY Evtdte 09/07/90 Rptdte 09/10/90
Itemno	900533
Classevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	THE LICENSEE REPORTED THE LOSS OF 5 MCI P-32 DURING A SHIPMENT.

Licensee	PRIVATE INDIVIDUAL Evtdte 08/27/91 Rptdte 11/15/91
Itemno	910967
Classevt	RLM CONTAMINATIO
Cause	004 FIRE/EXPLOSION
Expnumbr	
Abstract	RADIATION WAS DETECTED AT A FIRE AT THE RESIDENCE OF AN EMPLOYEE OF THE CYANAMID CORP. THE CITIZEN HAD CHEMICALS FOR 'MAGIC SHOWS'. COUNTS WERE AS HIGH AS 45000 CPM. P-32 AND A SMALL AMOUNT OF URANYL CHLORIDE WERE BELIEVED TO BE PRESENT.

Licensee	PROGRAM RESOURCES, INC. Evtdte 09/19/86 Rptdte 09/24/86
Itemno	860378
Classevt	OTH
Cause	
Expnumbr	1
Abstract	PERSONNEL EXTREMITY EXPOSURE INDICATED BY RING DOSIMETER 01247 (41,880 MR TOTAL EXPOSURE). THE RESEARCH DOCTOR WAS EXPOSED WHILE PERFORMING

PHOSPHORUS-32 LABELLING DURING BADGE PERIOD AUG. 4 THRU SEPT. 5, 1986. THE PROTOCOL USED WAS NOT ROUTINE AND WLL NOT BE REPEATED IN NEAR FUTURE. UNSHIELDED VIAL HANDLED DURING PROCEDURES. INDIVIDUAL IS PROHIBITED FROM USING P-32 FOR 6 MONTHS.

Licensee | PROGRAM RESOURCES, INC. Evtdte 09/01/87 Rptdte 09/24/87
Itemno | 870390
Classevt | EXP OVEREXPOSURE
Cause |
Expnumbr | 1
Abstract | RESEARCHER RECEIVED EXTREMITY DOSE OF 41.9 R FOR PERIOD 08/04-09/05/87 FROM HANDLING P-32. UNUSUAL PROTOCOL ROUTINE USED; PROTOCOL MAY NEVER BE USED AGAIN.

Licensee | PROGRAM RESOURCES, INC. Evtdte 01/11/95 Rptdte 02/09/95
Itemno | 950459
Classevt | RLM CONTAMINATIO
Cause | 108
Expnumbr |
tract | An employee's face and wrist became contaminated when working with 10 mCi of P-32. The Licensee was sited for not assessing the potential dose to the skin of the employee. No record of the activity or size of the contaminated area was performed. The activity on the researcher's body was not ascertained. And a bioassay and dose calculation were not performed.

Licensee | PUERTO RICO, UNIVERSITY OF Evtdte 09/10/93 Rptdte 03/23/94
Itemno | 941600
Classevt | LAS LOST SOURCE
Cause | 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr |
Abstract | Licensee received a Notice of Violation for disposing of I-131, Cr-51 and P-32 in ordinary trash without first holding these materials for decay a minimum of 10 half-lives. Also, the Licensee disposed of byproduct material using the decay-in-storage method and the material had a half-life which exceeded 65 days. Specifically the Licensee disposed of S-35 waste which has a half-life of 87 days.

Update: The Licensee responds to the Notice of Violation and personnel in charge of disposing of radioactive waste was briefed on requirements.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee | PURDUE UNIVERSITY — Evtdte 07/22/91 Rptdte 04/22/92
Itemno | 910140
Classevt | RLM CONTAMINATIO
Cause |
Expnumbr |
Abstract | INSPECTION FOUND THAT ON 07/22/91 A PACKAGE OF LESS THAN THE LIMITED QUANTITY OF P-32 WAS SHIPPED AND WAS FOUND TO HAVE A SURFACE RAD LEVEL OF 40 MREM/HR (LIMIT IS 0.5 MREM/HR FOR EXCEPTED PACKAGES). THE PACKAGE SHOULD HAVE ALSO BEEN LABELED YELLOW-II. IN ADDITION, PACKAGES WERE NOT CHECKED FOR REMOVABLE CONTAMINATION PRIOR TO SHIPMENT. LICENSEE ALSO DISCHARGED 193% OF LIMIT FOR A MIXTURE OF ALL RAD MATERIALS INCINERATED (FROM 1/1/91 TO 12/31/91).

Licensee | ROCHESTER, UNIVERSITY OF — Evtdte 02/17/93 Rptdte 02/18/93
Itemno | 940515
Classevt | RLM CONTAMINATIO
Cause |
Expnumbr |
Abstract | A HEALTH PHYSICIST REPORTED BY PHONE AN INCIDENT OF RADIOACTIVE CONTAMINATION OF THE SKIN AND EYE OF A RESEARCH LAB WORKER. A GRADUATE STUDENT WAS DISPOSING OF A USED PLASTIC PIPETTE WHICH CONTAINED P-32. HE BROKE THE PIPETTE TO FIT IT IN WASTE CAN; IT SPLASHED MATERIAL NEAR HIS EYE, WHICH HE WASHED INTO THE EYE TRYING TO DECON. WORKER TAKEN TO EMERGENCY ROOM AND EYE WAS LAVAGED WITH SEVERAL LITERS OF WATER. THE DOSE TO THE EYE WAS ESTIMATED TO BE .7 REM OVER .97 CM SQUARED.

Licensee | ROCHESTER, UNIVERSITY OF — Evtdte 02/04/94 Rptdte 02/04/94
Itemno | 950734
Classevt | OTH
Cause | 004 FIRE/EXPLOSION
Expnumbr |
Abstract | A fire occurred in a hematology laboratory. The lab was permitted to use H-3, S-35, and P-32, but no materials were used in the past week. Also, the radioactive materials were stored in an area of the lab not involved in the fire. Wipe results showed no radioactive contamination. It appears that radioactive material was not involved in the fire and therefore no persons were exposed due to this incident.

ɜnsee	ROCHESTER, UNIVERSITY OF	Evtdte 03/18/91	Rptdte 03/18/91
- ɔmno	910373		
Classevt	LAS LOST SOURCE		
Cause	031 LOSS OF ADMINISTRATIVE CONTROL		
Expnumbr			
Abstract	SHIPMENT WAS LOGGED IN, BUT RESEARCHER COULD NOT LOCATE A 250 µCI P-32 SOURCE WHEN THEY CAME TO THE RADIATION SAFETY OFFICE TO PICK IT UP. IT WAS LATER FOUND INTACT IN ANOTHER LAB. PROCEDURES REVISED.		

Licensee	RUTGERS STATE UNIVERSITY	Evtdte 06/09/89	Rptdte 06/16/89
Itemno	890297		
Classevt	LAS LOST SOURCE		
Cause			
Expnumbr			
Abstract	CUSTODIAL WORKER DISPOSED OF TRASH CONTAINING 1.5 MILLICI P-32 WITH NORMAL TRASH; TRASH DISPOSED OF IN PA. INADEQUATE TRAINING CITED.		

Licensee	SMA EQUIPMENT	Evtdte 09/13/93	Rptdte 09/13/93
Itemno	941180		
ssevt	LAS LOST SOURCE		
se	108		
umbr			
Abstract	FOUND CONTAINER WITH "CAUTION RADIOACTIVE MATERIALS" LABELED P-32. RADIATION SURVEY INDICATED BACKGROUND ONLY.		

Licensee	TENNESSEE, UNIVERSITY OF	Evtdte 12/16/94	Rptdte 02/03/95
Itemno	950406		
Classevt	LAS LOST SOURCE		
Cause	107 OTHER		
Expnumbr			
Abstract	A 250 uCi P-32 source was delivered to a doctor at the university. It was signed for and placed in a freezer. The source was reported stolen from the freezer. An investigation of the likely disposal routes failed to produce either the source or any leads.		

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	TEXAS CHILDREN'S HOSPITAL	Evtdte 06/05/92 Rptdte 06/05,
Itemno	920546	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	LICENSEE REPORTED THAT 100 MICROCI OF P-32 WERE TRANSFERRED TO A SANITARY LANDFILL. A NEW EMPLOYEE IN HOUSKEEPING INADVERTENTLY REMOVED A TRASH BAG FROM A CONTAINER CLEARLY MARKED AS "RADIOACTIVE".	

Licensee	TEXAS HEALTH CENTER, UNIVERSITY OF	Evtdte 05/05/92 Rptdte 05/06/92
Itemno	920441	
Classevt	LAS LOST SOURCE	
Cause	203	
Expnumbr		
Abstract	250 MICROCI OF P-32 WERE LOST WHEN THE LICENSEE APPARENTLY FAILED TO REMOVE FROM PACKAGING AND IT WAS SENT TO A RECYCLING COMPANY.	

Licensee	TEXAS HEALTH SCIENCE CENTER,	Evtdte 12/01/93 Rptdte 06/17/94
Itemno	941529	
Classevt	EXP OVEREXPOSURE	
Cause	107 OTHER	
Expnumbr	1	
Abstract	The Licensee notified the Agency of a 1.740 rem exposure to an employee during the fourth quarter monitoring period. The Licensee determined that the individual wore a ring badge on the outside of a glove while handling P-32 and contaminated the badge. While not working with radioactive material, the employee clipped the contaminated ring badge to the back of his whole body badge, exposing and contaminating the wholebody badge. The exposure report indicated an irregular exposure to the whole body badge. A deletion was granted and a minimal exposure assessment was accepted. The Licensee was cited for failure to submit a written report within thirty days.	

Licensee	TEXAS MEDICAL, UNIVERSITY OF	Evtdte / / Rptdte 08/13/91
Itemno	910076	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	WASTE CONTAINING 82 µCI OF P-32 AND S-35 WAS DISPOSED OF AS REGULAR TRASH. A NEW EMPLOYEE IN HOUSEKEEPING INADVERTENTLY PLACED RADWASTE IN THE ROUTINE TRASH. LICENSEE WAS CITED.	

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	TEXAS, UNIVERSITY OF, M.D. ANDERSON Evtdte 08/18/93 Rptdte 08/20/93
Itemno	940763
Classevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	THE LICENSEE NOTIFIED THE AGENCY OF AN UNAUTHORIZED DISPOSAL OF RADIOACTIVE MATERIAL. THE LICENSEE ESTIMATED THAT 2.03 MCI OF H-3, 0.01 MCI OF C-14, 2.10 MCI OF P-32, 2.01 MCI OF S-35, AND .10 MCI OF I-125 WAS DISPOSED OF AS REGULAR TRASH. THE 6.25 MCI OF RADIOACTIVE MATERIAL WAS REMOVED FROM LABORATORIES AS REGULAR TRASH, PLACED IN A DUMPSTER, AND DISPOSED OF IN A LOCAL LANDFILL. A NEW EMPLOYEE HAD BEEN ASSIGNED WASTE PICKUP DUTIES IN A LABORATORY WITHOUT HAVING RECEIVED RADIATION SAFETY TRAINING. ALL NEW EMPLOYEES IN THE FUTURE WILL BE TRAINED BEFORE BEING ASSIGNED TRASH PICKUP DUTIES. THE LICENSEE WAS CITED FOR THE VIOLATION.

Licensee	TEXAS, UNIVERSITY OF, MEDICAL Evtdte 09/15/93 Rptdte 09/16/93
Itemno	940750
Classevt	LAS LOST SOURCE
Cause	091 OTHER OPERATIONAL PROBLEM
Expnumbr	
Abstract	THE LICENSEE NOTIFIED THE AGENCY THAT RADIOACTIVE MATERIAL HAD INADVERTENTLY BEEN DISPOSED OF AS NORMAL TRASH. THE LICENSEE DETERMINED THAT THE HOUSEKEEPING STAFF HAD PLACED A BAG OF RADIOACTIVE WASTE, CONTAINING 50 uCI OF P-32 AND 1.6 uCI OF I-125, WITH THE ROUTINE WASTE WHICH WAS TAKEN TO A LANDFILL. THE LICENSEE HAS DISCUSSED THE PROBLEM WITH THE DIRECTOR OF HOUSEKEEPING AND THE STAFF WAS GIVEN TRAINING ON THE PROPER HANDLING OF RADIOACTIVE WASTE. THE LICENSEE WAS CITED FOR THE VIOLATION.

Licensee	TEXAS, UNIVERSITY OF, SOUTHWESTERN, Evtdte 03/23/93 Rptdte 03/25/93
Itemno	940564
Classevt	OTH
Cause	004 FIRE/EXPLOSION
Expnumbr	
Abstract	THE LICENSEE NOTIFIED THE AGENCY THAT A FIRE HAD OCCURRED IN A LABORATORY LICENSED FOR RADIOISOTOPE USE. VIALS OF P-32, S-35 AND C-14 WERE STORED IN A LAB REFRIGERATOR. THE RADIOISOTOPES WERE NOT DAMAGED. A 30 UCI CS-137 SOURCE WAS FOUND UNDAMAGED INSIDE A SCINTILLATION COUNTER. AN AGENCY INVESTIGATION AND SURVEY OF THE LABORATORY

DETECTED NO RADIOACTIVE CONTAMINATION. THE FIRE WAS CAUSED BY A SHORT IN AN ELECTRICAL OUTLET AND $800,000.00 IN DAMAGES RESULTED.

Licensee THE SCRIPPS RESEARCH INSTITUTE Evtdte 07/14/94 Rptdte 03/14/95
Itemno 950565
Classevt LAS LOST SOURCE
Cause 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr
Abstract The Licensee reported an inadvertent transfer of 250 uCi of P-32 DCTP.

Licensee TUFTS UNIVERSITY SCHOOL OF MEDICINE Evtdte 09/22/89 Rptdte 09/25/89
Itemno 890507
Classevt RLM CONTAMINATIO
Cause
Expnumbr
Abstract STUDENT SPILLED VIAL OF P-32. FLOOR OF SMALL HALLWAY AND LAB CONTAMINATED.

Licensee UNIFORMED SERVICES UNIVERSITY OF Evtdte 11/20/84 Rptdte 08/19/85
Itemno 840575
Classevt RLM CONTAMINATIO
Cause
Expnumbr
Abstract INSPECTION REPORT RESPONSE CONTAINS INFORMATION ON P-32 SPILL.

Licensee UNIFORMED SERVICES UNIVERSITY OF Evtdte 07/06/94 Rptdte 07/28/94
Itemno 941966
Classevt LAS LOST SOURCE
Cause 031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr
Abstract The Licensee discovered that seven boxes containing P-32 contaminated dry solid waste were released without monitoring to Brown-Ferris Industries (BFI). The Licensee dispatched a radiological technologist team to BFI to retrieve the boxes. A detailed monitoring of the boxes revealed measurable activity at one corner of two of the seven boxes.

Basic Event Information Report
(Report Name RBASIC1.FRX)

nsee	UNIVERSITY HOSPITAL OF CLEVELAND Evtdte 01/20/88 Rptdte 03/25/88
Itemno	880053
Classevt	LAS LOST SOURCE
Cause	
Expnumbr	
Abstract	PACKAGE CONTAINING 500 MICROCURIES P-32 DELIVERED TO RECEIVING DEPARTMENT ON FRIDAY AND THEN TO ORDERING LAB ON MONDAY. DRY ICE FOUND MELTED AND CONTENTS SPOILED. INDIVIDUAL FROM SHIPPING DEPARTMENT TRASHED PACKAGE. WHEREABOUTS OF PACKAGE UNKNOWN.

Licensee	UNIVERSITY OF HEALTH SCIENCES Evtdte 05/05/91 Rptdte / /
Itemno	910533
Classevt	OTH
Cause	004 FIRE/EXPLOSION
Expnumbr	
Abstract	FIRE STARTED IN RESEARCH LAB IN REFRIGERATOR WHERE TRACERS WERE STORED. CONTAMINATED MATERIAL WAS COLLECTED AND MOVED TO RADWASTE. WIPES OF FLOOR, CEILING, SURROUNDING HALLWAYS AND AIR DUCTS SHOWED NO DETECTABLE CONTAMINATION. INVOLVED 75 µCI OF P-32.

nsee	UNSPECIFIED LICENSEE Evtdte 10/05/92 Rptdte 10/09/92
Itemno	920934
Classevt	MD2 MISADMINISTR
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	1
Abstract	INFORMATION ABOUT THE EVENT WAS SPARSE DUE TO LEGAL REQUIREMENTS OF THIS AGREEMENT STATE. THE LICENSEE REPORTED THAT A PATIENT WAS ADMINSTERED 8.2 MCI OF P-32 INSTEAD OF 5 MCI FOR AN OUTPATIENT THERAPY TREATMENT. THE PATIENT WAS DISCHARGED IN STABLE CONDITION. THE PATIENT AND ATTENDING PHYSICIAN WERE NOTIFIED OF THE ERROR. THE LICENSEE PLANNED TO OBSERVE THE PATIENT DUE TO A HISTORY OF THROMBOCYTOSIS.

Licensee	V.A. MEDICAL CENTER Evtdte 06/14/85 Rptdte 07/10/85
Itemno	850321
Classevt	OTH
Cause	
Expnumbr	1
Abstract	FILM BADGE SHOWED EXPOSURE OE 23.73 REM (SKIN) FOR MAY 1985. INDIVIDUAL HAD BEEN WORKING WITH P-32.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Licensee	V.A. MEDICAL CENTER Evtdte 04/30/87 Rptdte 05/1
Itemno	870233
Classevt	EXP OVEREXPOSURE
Cause	
Expnumbr	1
Abstract	SMALL SPILL OF 0.1 MCI P-32 REPORTED. SHOES AND SHIRT CONTAMINATED.

Licensee	V.A. MEDICAL CENTER Evtdte 01/14/88 Rptdte 02/05/88
Itemno	880045
Classevt	EXP OVEREXPOSURE
Cause	
Expnumbr	1
Abstract	P-32 CONTAMINATION WAS SPREAD FROM HOT LAB THROUGH STAIRWELLS AND OTHER LABS. MATERIAL FROM SUNYAB. ONE PERSON SUFFERED SKIN CONTAM.: 6.3 RAD HAND; 0.8 RAD NECK. WORKER WORKED OVER OPEN BOX WHEN LABELING TISSUE CULTURE MEDIUM. DROPLETS GENERATED WHEN VIAL WAS OPENED.

Licensee	V.A. MEDICAL CENTER Evtdte 04/08/89 Rptdte 04/28/89
Itemno	890195
Classevt	LAS LOST SOURCE
Cause	
Expnumbr	
Abstract	500 MICROCI OF P-32 SOLUTION WAS LOST THE WEEKEND OF APRIL 8-9,1989 IN ITS ORIGINAL CONTAINER. THE MATERIAL IN ITS ORIGINAL CONTAINER POSES AS A THREAT TO NO ONE. BELIEVED TO HAVE BEEN THROWN OUT AS TRASH.

Licensee	V.A. MEDICAL CENTER Evtdte 05/24/93 Rptdte 05/26/93
Itemno	940060
Classevt	LAS LOST SOURCE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	
Abstract	LICENSEE REPORTED THAT A RADIOACTIVE WASTE CONTAINER HAD BEEN DISPOSED OF AS BIOLOGICAL WASTE. THE BAG CONTAINED LAB WASTE CONTAMINATED WITH P-32 AND S-35. THE WASTE HAD BEEN SENT TO A COMMERCIAL MEDICAL WASTE INCINERATOR AND BURNED WITHOUT BEING DETECTED BY NAI DETECTORS.

Basic Event Information Report
(Report Name RBASIC1.FRX)

nsee	V.A. MEDICAL CENTER	Evtdte 02/24/94 Rptdte 03/04/94
Itemno	941060	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	A RESEARCHER AT THE VA MEDICAL CENTER OF LONG BEACH, CA., ORDERED FIVE MILLICURIES OF I-125 IN THE FORM OF SODIUM IODIDE FROM NEW ENGLAND NUCLEAR CORP. OF BILLERICA, MASSACHUSETTS. THE MATERIAL WAS SENT VIA FEDERAL EXPRESS ON THAT SAME DAY FOR NEXT DAY DELIVERY. ON 02/24/94, FEDERAL EXPRESS CLAIMS THAT THE MATERIAL WAS DELIVERED, HOWEVER, NO RECORD OF DELIVERY EXISTS AT THE MEDICAL CENTER. THE RESEARCHER CLAIMS NOT TO HAVE RECEIVED THE MATERIAL, AS WELL. TO MAKE MATTERS WORSE, ANOTHER RESEARCHER RECEIVED ANOTHER RADIOACTIVE MATERIAL (250 MICROCURIES OF P-32) FROM THE SAME SUPPLIER VIA FEDERAL EXPRESS ON THE SAME DELIVERY DATE. CONTACT READINGS ON THE I-125 PACKAGING ARE 0.07 MR/HR. AN INVESTIGATION INTO THE LOCATION OF THE MISSING I-125 IS BEING CONDUCTED. UPDATE: AFTER AN EXTENSIVE SEARCH OF THE PREMISES THE LICENSEE HAS NOT BEEN ABLE TO LOCATE THE MISSING PACKAGE OF I-125 AND NOW BELIEVES THAT SOMEONE UNKNOWINGLY DISCARDED THE PACKAGE WITH THE LICENSEE'S NON-RADIOACTIVE WASTE. THE LICENSEE HAS A DETECTION SYSTEM FOR WASTE LEAVING ITS FACILITY, BUT BELIEVES THAT THE RADIATION LEVELS FROM THE PACKAGE WERE TOO LOW TO BE DETECTABLE. THE LICENSEE PLANS NO FURTHER ACTION AS THE RADIATION LEVEL IS TOO LOW TO REASONABLY DETECT, THE PACKAGE COULD NOT EASILY BE IDENTIFIED BY A MEMBER OF THE PUBLIC AS RADIOACTIVE SINCE IT IS NOT LABELED, AND THE LIKELIHOOD OF ANYONE INGESTING SUCH A MINUTE QUANTITY OF MATERIAL (5 MICROLITERS OF SOLUTION) IS MINIMAL. THE LICENSEE NOTIFIED THE STATE OF CALIFORNIA.	

Licensee	V.A., DEPARTMENT OF	Evtdte 04/26/89 Rptdte 04/26/89
Itemno	890221	
Classevt	LAS LOST SOURCE	
Cause		
Expnumbr		
Abstract	0.5 MILLICI OF P-32 DEOXYCYTIDINE TRIPHOSPHATE WAS LOST AND NEVER FOUND.	

Licensee	V.A., DEPARTMENT OF Evtdte 03/01/94 Rptdte 03/0.
Itemno	950470
Classevt	TRS TRANSPORTATI
Cause	108
Expnumbr	
Abstract	A package of accelerator produced radiopharmaceuticals was received from Mallinckrodt. The outside of the package was contaminated. One spot read 22 mR/hr. Wipes were 12 k dpm gamma and 500,000 dpm beta. P-32 is the suspected contaminant. Mallinckrodt was notified.

Licensee	V.A., DEPARTMENT OF Evtdte 05/11/90 Rptdte 06/11/90
Itemno	900303
Classevt	OTH
Cause	107 OTHER
Expnumbr	
Abstract	THE LICENSEE REPORTED THE RECOVERY OF AN EMPTY CONTAINER WHICH HAD CONTAINED 0.25 MCI OF P-32.

Licensee	VANDERBILT UNIVERSITY Evtdte / / Rptdte 07/31/91
Itemno	910071
Classevt	EXP OVEREXPOSURE
Cause	031 LOSS OF ADMINISTRATIVE CONTROL
Expnumbr	2
Abstract	TWO EMPLOYEES BADGES AS WELL AS TWO UNUSED TEMPORARY BADGES HAD A HIGH READING FOR MAY 1991. ONE NURSE WORKED WITH NO MORE THAN TWO IR-192 IMPLANT PATIENTS, THE OTHER WORKED IN LAB WITH P-32. NO EVIDENCE OF EXPOSURE IN MAGNITUDE REPORTED.

Licensee	VERMONT, UNIVERSITY OF Evtdte 06/06/90 Rptdte 06/12/90
Itemno	900349
Classevt	OTH
Cause	
Expnumbr	
Abstract	THE LICENSEE REPORTED THAT P-32 CONTAMINATION WAS FOUND IN SEVERAL LABORATORY AREAS, ON A WORKER'S GLOVES, AND ON THE UPPER LEFT ARM OF AN INDIVIDUAL. AN AUDIT DETERMINED THAT THE CAUSE OF THE EVENT WAS THE LICENSEE'S FAILURE TO INSTITUTE PROPER RADIATION CONTROLS FOR THE USE OF P-32.

nsee	VIRGINIA POLYTECHNIC INSTITUTE	Evtdte 10/08/90 Rptdte 11/21/90
1. ..no	900595	
Classevt	RLM CONTAMINATIO	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	THE LICENSEE REPORTED A LABORATORY CONTAMINATION. A WORKER HOMOGENIZED RAT TISSUE THAT CONTAINED P-32; THERE WAS CONTAMINATION ON THE WORKER'S GLOVE WHICH WAS SPREAD TO THE SEAL, BLADE SHAFT AND VESSEL. AN AEROSOL FORMED AND CONTAMINATED THE LAB. THE RSO FOUND THE CONTAMINATION AND DETERMINED THAT THERE WERE NO PERSONNEL CONTAMINATIONS OR OVEREXPOSURES. THE LAB WAS CLOSED FOR DECAY.	

Licensee	WISCONSIN, UNIVERSITY OF, AT	Evtdte 06/08/94 Rptdte 06/10/94
Itemno	941580	
Classevt	LAS LOST SOURCE	
Cause	113	
Expnumbr		
Abstract	The Licensee reported that several bags containing P-32 waste were removed from a storage area in a laboratory. The waste was in red biohzard bags inside a plexiglass box which was marked as containing radioactive material. The bags, however, were not marked. Laboratory personnel had recently placed vials containing a maximum of 4 mCi of P-32 in the waste bags. The Licensee believes that the bags were likely removed by the custodial personnel. It is likely the waste went to the Madison Energy Recovery Inc. incinerator. The Licensee is considering modifying its radioactive waste handling procedures, including keeping waste containers and storage areas locked and procuring yellow bags to hold radioactive waste. Update: The NRC conducted an inspection and the Licensee was found to be in violation of NRC requirements.	

Licensee	WYETH-AYERST RESEARCH, INC.	Evtdte 06/15/92 Rptdte 06/17/92
Itemno	920585	
Classevt	LAS LOST SOURCE	
Cause	031 LOSS OF ADMINISTRATIVE CONTROL	
Expnumbr		
Abstract	A PACKAGE CONTAINING 49.2 MCI OF P-32(PHOSPHORIC ACID) WAS DELIVERED TO AN INCORRECT ADDRESS. THE ADDRESSEE WAS LICENSED TO RECEIVE SUCH MATERIAL AND RETURNED THE SHIPMENT TO ICN BIOMEDICAL IN	

IRVINE, CA.

Licensee | YALE UNIVERSITY — Evtdte 10/16/84 Rptdte 11/08/84
Itemno | 840507
Classevt | LAS LOST SOURCE
Cause |
Expnumbr |
Abstract | 10 MCI OF P-32 REPORTED MISSING ON 10/16 FOUND. MATERIAL DELIVERED TO WRONG LAB. PACKAGE INTACT.

Licensee | YALE UNIVERSITY — Evtdte 12/03/85 Rptdte 12/20/85
Itemno | 850599
Classevt | LAS LOST SOURCE
Cause |
Expnumbr |
Abstract | A LOSS OF A PACKAGE OF RADIOACTIVE MATERIAL, 2.0 MCI OF P-32, WAS REPORTED. UNOPENED PACKAGE WAS INADVERTANTLY PLACED IN THE NORMAL TRASH BY A LAB EMPLOYEE WHO WAS CLEANING AWAY WHAT HE THOUGHT WAS EMPTY CARTONS. TRASH DISPOSED OF AND BURIED AT LANDFILL.

Licensee | YALE UNIVERSITY — Evtdte 06/27/87 Rptdte 07/
Itemno | 870311
Classevt | OTH
Cause |
Expnumbr |
Abstract | P-32 SPILL OF LESS THAN 1 MCI P-32. CONTAMINATION OF HALL, TWO STAIRWELLS AND LAB. NO INDICATION OF WHOLE BODY EXPOSURE OR SKIN EXPOSURES.

Licensee | YALE UNIVERSITY — Evtdte 05/18/88 Rptdte 06/14/88
Itemno | 880242
Classevt | LAS LOST SOURCE
Cause |
Expnumbr |
Abstract | SOURCE WITH 500 MICROCI P-32 PLACED ON FLOOR TO LET DRY ICE SUBLIME WAS INADVERTENTLY MOVED AND DISPOSED OF TO WASTE (SANITARY LANDFILL). ON 05/19, WASTE RECEPTACLE WITH LESS THAN 1 MICROCI EACH H-3, C-14, I-125 ALSO SENT TO MUNICIPAL LANDFILL.

Basic Event Information Report
(Report Name RBASIC1.FRX)

Evtdte 09/02/93 Rptdte 12/06/93

nsee	YALE UNIVERSITY
..mno	940970
Classevt	EXP OVEREXPOSURE
Cause	017 SKIN ABSORPTION
Expnumbr	1
Abstract	TECH A CONDUCTED AN EXPERIMENT INVOLVING THE USE OF .05 MCI OF P-32 DURING THE MORNING. THAT SAME AFTERNOON TECH A ADDED SOME WATER TO A WATER BATH USED TO HOUSE HYBRIDIZATIONS. SOMETIME LATER (1/2 HOUR) THAT AFTERNOON, TECH A DISCARDED THE COLUMN (CONTAINING APPROXIMATELY .02 MCI OF P-32). AROUND 1600 HOURS THAT SAME AFTERNOON, TECH B WAS PERFORMING A CONTAMINATION SURVEY OF HIS AREA. TECH A EXTENDED HER ARMS FOR TECH B TO SURVEY. CONTAMINATION WAS DETECTED ON THE INSIDE OF TECH A'S RIGHT FOREARM. IT WAS DETERMINED THAT CONTAMINATION WAS ON BOTH HER SHIRT SLEEVE AND SKIN. SHE REMOVED THE CONTAMINATED SHIRT, DONNED A LAB COAT AND THEN WASHED THE CONTAMINATED AREA OF HER ARM. TECH A'S ARM WAS REMONITORED AND NO RESIDUAL CONTAMINATION WAS DETECTED. IT IS BELIEVED TECH A CONTAMINATED HERSELF WHEN SHE REACHED BEHIND A PLEXIGLASS SHIELD TO DISCARD THE P-32 COLUMN. A COUNT RATE OF 1000 CPM (99 MREM) WOULD BE USED TO ESTIMATE HER EXPOSURE, BASED ON THE AVAILABLE INFORMATION.

BRIEF INCIDENT REPORT:

(Submit this completed form to Dayne Brown upon conclusion of incident)

Date/Time of Occurrence: April 1988 Location: Duke Univ & Medical Ctr.

Incident Number: 215

Type of Incident: C (see codes below)

Brief Description: (response/outcome) Limit equivalent of approximately 10 typed lines.

Duke Univ. & Medical Center had a PhD to receive an internal exposure to ~~P~~ P^{32} in or about April 1988. The calculated exposure whole body dose 31.15 Rem. Activity 5.96 mCi ± 3.7 mCi. How the person received the amount of P^{32} could not be determined. See report

Codes/Type:

(C) Contamination
(E) Exposure (badge readings included)
(IR) Industrial Radiography
(LF) Licensed Facility
(LS) Lost Source
(RM) Radioactive Material
(O) Other: fire, illegal possession/disposal, theft, etc.
(SS) Sealed Source
(T) Transportation, includes air shipments
(NPP) Nuclear Power Plant (reported to this office for State inspection)