



License Number 53-05379-01
Report No. 030-03546/89-01

October 4, 1989

Regional Administrator
U.S. Nuclear Regulatory Commission, Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

ATTENTION: Document Control Desk
Washington, D.C. 20555

SUBJECT: Reply To Notice Of Violation

Gentlemen:

This is in response to your letter dated September 14, 1989 on NRC inspection and notice of violation to Kaiser Foundation Hospital, Honolulu, Hawaii. The reply is as follows:

VIOLATION A

10 CFR 20.401(a) requires in part that each licensee maintain records showing the radiation exposures of all individuals for whom personnel monitoring is required.

Contrary to the above requirement, the licensee did not maintain a record showing the radiation exposure of a person who remained in the room of a radiation therapy patient between April 4 and April 7, 1989, and for whom personnel monitoring was required.

REASON FOR VIOLATION: This is the special circumstances which was described earlier in your detailed report of inspection and on my letter written to NRC, Region V on August 24, 1989. The patient's wife was allowed to stay with the patient to do tracheal suction during the course of radiation therapy. She was given a film badge but the badge was lost. This loss of the film badge was due to inadequate follow up; probably did not collect film badge to be processed.

CORRECTIVE ACTION: In the future, when there are special circumstances similar to this incident, physicist consultant will be consulted, a special Radiation Safety Committee meeting will be called to consider and approve the procedure. We may

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Kaiser Foundation Hospital
5288 Moanalua Road Honolulu, HI 96819 (808) 834-5333

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call NRC for recommendation and approval. There will be more thorough follow up on the film badge reading on the person who may receive higher radiation than usual, such as this patient's wife.

DATE OF COMPLIANCE: Immediately.

VIOLATION B

10 CFR 20.201(b) requires that each licensee make or cause to be made such surveys or evaluations as may be necessary for the licensee to comply with the regulations in this part, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present.

Contrary to the above requirement, at the time of the inspection, the licensee had not completed an evaluation of two lost personnel monitoring devices to estimate the dose recorded on the devices during October 1987 and December 1988.

REASON FOR VIOLATION: In the past, we recorded the lost film badge and investigated whether the personnel may have received any higher radiation than usual or not during the period that the lost film badge covered. It was not known to us that we needed to calculate estimated dose in numerical figures for every lost film badge.

Please note that one of the film badges that was thought to have been lost in October 1987 was found and must have been turned in by another individual (see Attachment A).

CORRECTIVE ACTION: Beginning immediately, the lost film badge will be reported by personnel and investigated. The estimated radiation exposure during that period will be calculated by considering the previous exposure record. The estimated dose will be sent to Radiation Detection Company to be included in the personnel lifetime record. New SOP was made (please see Attachments B, C, D & E).

DATE OF COMPLIANCE: Immediately.

VIOLATION C

10 CFR 35.60(b) requires each licensee to conspicuously label each syringe or syringe radiation shield that contains a syringe with a radiopharmaceutical. The label must show the radiopharmaceutical name, clinical procedure to be performed, or the patient's name.

Contrary to the above requirement, at the time of the inspection, the licensee was not labelling syringes or syringe radiation shields.

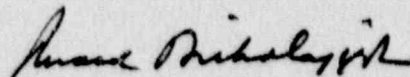
REASON FOR VIOLATION: The syringe shields were not consistently labeled because of oversight on the regulation.

CORRECTIVE ACTION: The syringe shield will be labeled with color-coded labeling of radiopharmaceuticals (see Attachments F & G). Each color code will be for the radiopharmaceutical and name of examination.

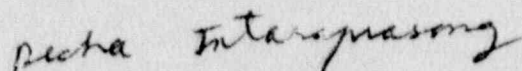
DATE OF COMPLIANCE: Immediately.

() the subject of NRC concern regarding Decha Intaraprasong, M.D., who is now both Radiation Safety Officer and Chairman of Radiation Safety Committee. Starting immediately, Peter Clapp, M.D., Radiologist, is appointed as Chairman of Radiation Safety Committee and Dr. Decha Intaraprasong will remain Radiation Safety Officer.

Sincerely,



Ronald Mikolajczyk
Administrator



Decha Intaraprasong, M.D.
Radiation Safety Officer

KAISER FOUNDATION HOSPITAL
 DEPT OF RADIOLOGY
 3298 MOANALUA ROAD
 HONOLULU HI 96819

Radiation Detection Company
 343 BOX 1411 - SUNNYVALE, CALIFORNIA 94088
 PHONE (408) 735-0760

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3.

ATTACHMENT

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NVLAD

DOSEMETRY REPORT

THIS REPORT IS SUBJECT TO STATE AND FEDERAL REGULATION

DIAGNOSTIC IMAGING MONTHLY

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
06				1	0	0	0	0	0	10	10	10	10	
06				26	0	0	0	0	0	0	0	0	0	0
06357389359101159	BRENNAN J		1073	0	0	0	0	0	0	145	170	355	425	
06483606849	10853BROADFOOT RICK		1089	0	0	0	0	0	0	0	0	0	0	0
06136521405	53155SCHUN NANCY		1406	0	0	0	0	0	0	0	0	0	0	0
06019305987	70637CLAPP F DR		1442	0	0	0	0	0	0	0	0	50	50	
06476382784	52039COLLIN DR D		1516	0	0	0	0	0	0	320	300	620	745	
06576291169	12358COLLINS MARIA		1522	0	0	0	0	0	0	0	0	25	30	
06568700996	22645DIWA G		1867	0	0	0	0	0	0	0	0	195	200	
06249394437	42063DOMINGO T		1895	0	0	0	0	0	0	0	0	0	0	0
06575903689	91962FRANKS DAVID		2920	0	0	0	0	0	0	0	0	0	0	0
06575744809	71056FUNAMOTO FRED		2968	0	0	0	0	0	0	10	10	95	95	
12570840633	21953GARVER PAUL		3036	X1	0	0	0	901	0	0	0	0	0	0
06170467799	60761HELFRICH F		3551	0	0	0	0	0	0	0	0	0	0	0
12170467797	60761HELFRICH F		3552	1	0	0	140	0	0	140	0	320	320	
06576923982	HIGUCHI DAN		36166	0	0	0	0	0	0	0	25	30	25	30
06575505472	HOSAKA S		3735	0	0	0	0	0	0	0	0	0	335	390
06193429571121740	HSIN C T		3781	0	0	0	0	0	0	0	0	0	5655	5660
06575117723	80463HUFF U		3793	0	0	0	01101	0	0	0	0	0	70	70
06354502619	50244INTARAPRASONG		4218	0	0	0	0	0	0	80	95	9070	9260	
06576562631110951	KAWAOKA T		4839	0	0	0	0	0	0	0	0	4145	4165	
06576588390121350	KIMURA C		4931	0	0	0	0	0	0	0	0	55	70	
06154605087	51445KIM J H		4932	X	0	0	0	901	0	0	80	95	260	275
06394600665	52862LUCZAK MARY		5353	X	0	0	0	701	0	0	0	0	70	85
06394600665	52943LUCZAK MARY		5353	0	0	0	0	0	0	0	0	0	70	85
06576641357	30746LUNDGREN M		5363	0	0	0	0	0	0	0	35	45	670	705
06576884859121363	NE ANITA		5433	0	0	0	0	0	0	0	0	0	0	0
06575662398	41357NESHIRO C		5434	0	0	0	0	0	0	0	0	0	225	225
06576506845	70547MATSUDA C		5503	45	0	55	45	55	360	440	2569	2755		
06067362187	32345MAT USHIMA S		5505	0	0	0	0	0	0	0	0	1320	1330	
06535543082	MONTGOMERY K		5789	0	0	0	0	0	0	0	0	0	0	0
06	MORGAN C		5827	0	0	0	0	0	0	40	50	40	50	
06063563494111363	NOYES E		6133	X	0	0	0	601	0	0	0	0	0	0
06063563494111363	NOYES E		6133	X	0	0	0	901	0	0	0	0	0	0
06063563494111363	NOYES E		6133	0	0	0	0	1101	0	0	0	0	0	0
06575565711	82961NUNES BERT		6154	0	0	0	0	0	0	0	50	60	75	

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LOST/DAMAGED BADGE REPORT

NAME: _____

LOST/DAMAGED (CIRCLE ONE) PERIOD: / / to / /

DEPARTMENT: _____

HOW WAS IT LOST/DAMAGED?: _____

BRIEFLY DESCRIBE DUTIES THAT HAVE TO DO WITH YOUR ROUTINE USE OF RADIATION: _____

WHAT, IF ANY, ACTIVITIES DURING THE LOST/DAMAGED PERIOD WOULD LEAD YOU TO BELIEVE THAT YOUR RADIATION EXPOSURE WOULD BE MORE OR LESS THAN USUAL: _____

PLEASE RETURN TO THE RADIATION SAFETY OFFICER. THANK YOU.

NAME: _____

DATE: _____

REPORT OF LOST FILM BADGE AND
ESTIMATE OF WHOLE BODY EXPOSURE

SUMMARY OF DATA:

Worker: _____ SSN: _____

Institution: _____

Dosimeter Interval: _____

Estimated Exposure: _____

DESCRIPTION:

During the period of _____, a film badge dosimeter issued to _____ was lost. An investigation was performed to determine the types and quantities of exposure received during that month. During the investigation, it was determined that there were no unusual events during this month which would have accounted for a higher than normal whole body exposure. Review of this worker's exposure records for the three months prior and three months following the lost dosimeter revealed an average of _____ mrem per month. Therefore, a whole body exposure of approximately _____ mrem should be assigned to this worker for the month of _____ and exposure records updated accordingly.

SUBMITTED BY: _____ DATE: _____



ATTACHMENT D

Date:

Radiation Detection Company
162 Wolfe Road
P.O. Box 1414
Sunnyvale, CA 94088

RE: Lost Film Badge Report

To whom It May Concern:

The following employee has lost:

Film badge _____
Ring badge _____

Name:
SSN:
Acct #:
Group #:
IBM #:
Time Period:
Estimated Radiation Exposure:

Please include estimated radiation exposure in the employee's record.

Sincerely,

Decha Intaraprasong, M.D.
Radiation Safety Officer

Diagnostic Imaging Department

SUBJECT: NUCLEAR MEDICINE

PROC: 1452-N28

DATE: 9/11/89

TITLE: LOST FILM BADGE REPORTING

REV:

5.1.1 If film badge was lost, have the personnel complete the form, then send to RSO.

- RSD OR DESIGNEE
6. Investigate the lost film badge incident.
 7. Calculate in numerical figure the estimated radiation exposure the personnel could have received during that period using the past exposure record.
 8. Send the estimated dose to the Radiation Detection Company to be included in the employee's lifetime record.

Diagnostic Imaging Department

SUBJECT: NUCLEAR MEDICINE

PROC: 1452-N32

DATE: 11/88

TITLE: RECEIPT AND ACCOUNTABILITY OF
RADIOPHARMACEUTICALS

REV: 9/89

NUCLEAR
MEDICINE
TECHNOLOGIST

8. Records on pharmacy log sheet next to the proper label the time of assay, the total volume off the label, the total activity, and the activity per milliliter. (see example, letter C).
9. As each individual patient dose is prepared, the previous assay is decayed to the present time utilizing the proper decay factor. The desired patient dose is divided by the current assay to determine the amount of solution to be withdrawn for the patient dose.
10. Using proper sterile technique, withdraw the dose and places it in the dose calibrator well.
11. Insuring that the proper dose calibrator isotope button or setting has been used. Records the dose on the pharmacy log sheet under the proper isotope label.
 - 11.1 This includes patient's name, medical record number, time of preparation, assay at the time of preparation, the total activity of the patient dose, the amount of solution withdrawn to prepare the dose, the consecutive number withdrawn from the product, the type of study to be performed, and the initials of the preparer.
12. Records the proper radiopharmaceutical and total activity on the patient requisition.
13. Places the dose in a proper syringe shield for injection.
14. Affixes the proper color coded label to the syringe, requisition and pharmacy log sheet for the dose, patient and procedure being performed. (see procedure 1452-N32-01).

Diagnostic Imaging Department

SUBJECT: NUCLEAR MEDICINE

PROC: 1452-N32

TITLE: RECEIPT AND ACCOUNTABILITY OF
RADIOPHARMACEUTICALS

DATE: 11/88

REV: 9/89

RADIOLOGIST
IN CHARGE

15. Reviews and signs the pharmacy
logsheets weekly.

15.1 The white copy is maintained on
file in the department and the
yellow copy is sent to the Pacific
Radiopharmacy for billing purposes.

