

1020 Franklin Street Johnstown, PA 15905 (814) 533-1000 FAX (814) 533-1868

November 12, 1990

Mohamed M. Shanbaky, Chief Nuclear Materials Safety Section A Division of Radiation Safety and Safeguards Nuclear Regulatory Commission, Region I 475 Allendale Road King of Prussia, PA 19406

Docket No: 030-03046 License No: 37-05272-02 Routine Inspection: 030-03045/90/001

Dear Mr. Shanbaky:

This letter is provided to you as a response to your letter dated October 23, 1990, regarding your inspection of the Mercy Hospital of Johnstown Nuclear Medicine Department. Enclosed you will please find the responses to your noted areas of violation given in sequence:

A. The Executive Management Team of the Mercy Hospital of Johnstown has changed completely in 1990. Sam Krinsky, M.D., Ph.D., Radiation Safety Officer, is no longer on the Medical Staff of the Hospital.

I cannot provide you an answer as to why Administration did not attend the Radiation Safety Committee meetings during September, 1988 and December, 1988. The Radiation Safety Committee has been totally reorganized to include all the required members. A listing of the current Committee membership and positions are attached for your review.

B. An annual review of the Radiation Safety Program was conducted by the Radiation Safety Committee and Radiation Safety Officer on March 6, 1989, and September 19, 1990. Enclosed you will find copies of these.

C. The film badges for the period of May 10, 1990 through June 9, 1990 were sent to Landauer. However, somewhere in the transportation of the badges, they were lost. Our consulting physicist has estimated the dose to the personnel for this period. Enclosed you will find a copy of the estimated data.

9102060055 910125 REG1 LIC30 37-05272-02 PDR TO: Mohamed M. Shanbaky, Chief -2- DATE: November 14, 1990 Nuclear Materials Safety Section A Division of Radiation Safety and Safeguards Nuclear Regulatory Commission, Region 1

I believe this sufficiently addresses all the noted violations. If you have any other questions, please do not hesitate to contact me. I would like to add, as a new Administrator to Pennsylvania, I found the inspection to be very educational and of great assistance in operating our department within the scope of our license. Mrs. Marlene Taylor was very helpful and accommodating to our questions and concerns.

Thank you.

Very truly yours,

Junty Fame

Timothy J. Karnes Senior Nice President of Operations

TJK/sds

Enclosures

CC: John Straczek, Director - Imaging Sciences Louise Stumpo, Chief Technologist - Nuclear Medicine William Reisinger, M.D. - Radiation Safety Officer

RADIATION SAFETY COMMITTEE

William Reisinger, M.D. Thomas Aretz, M.D. Louise Stumpo John Straczek Timothy Karnes Maureen Nanna Albert Benshoff, M.D. Radiation Safety Officer Staff Radiologist Chief Technologist, Nuclear Medicine Department Director, Imaging Sciences Senior Vice President of Operations Vice President of Nursing Medical Director, Laboratory Estimated does for the period 5/10/90 then 5/9/90. (See Ih file bedge report for 1h pered 7/10/90 then 8/9/90)

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10	00000	CONTROL		62	Seep Shallos
	00000	TLD CONTROL		Gu	M M
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	00024	STUMPO L	180284 927	64	
	00073	PARTSCH DOLORES	173464624	Ga	IM M
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14	00081	BRAWLEY BETTY	188222908	GI P	54 54
	00092	VERBAND A L	185268943	CA P	- 29
	00092	VERBAND A L	185268943	GA	
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	00093	KRINSKY S MD	208383348	GA	2 2.
	00100	WALTERS T		1 11	

Estimated does for the period 5/10/40 then 6/9/90. (See the film bedge report for the period 7/10/90 then 8/9/90/

	r: 1	FUR EAFUJURE FU		11-	
	00000	CONTROL		62	Sup Shallow
	00000	TLD CONTROL			
	00024	L STUMPO	190262546	ch	MM
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	00073	PARTSCH DOLORES	180286927	64	M M
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	1615	Last a second	1	1 1 1	

	SPIT		Mercy Hos		NRC LICENSE #	37-0527	2+02	
	DRESS TE OI	S SURV		Klin St.Johnstown	1, PA. 1590EXP. DATE	12/31	/93	ter contra de actuaria
		ION SA	FETY OFFICER	William Reisinge Mr. Philip Dionn	EXP. DATE	PA-8	93	111 II II II II II II II II
			(716	Administrator le)				
1.	Floo	or pla or pla	in for the Nuc in for the Nuc	lear Medicine lear Cardiolog	Department available y Dept. available	Yes	No No	N/A N/A
2.	Are	the f	ollowing area	is marked on th	e floor plan?			
		Where	patients are	euticals are p	repared (radiopharmacy radionuclides or with wipes	Yes Yes Yes	No No No	N/A N/A N/A
	REM	ARKS :			n Mil Martin Karala (Milan Milan) (Milan Salah Sala Generatarak sebagai kerangkan sebagai kerangkan sebagai kerangkan sebagai kerangkan sebagai kerangkan sebagai k			
3.	Area	a Surv	/eys					
	a. b.	Daily (1) (2)	Daily survey Trigger level	checks with su with GM counte ls for controll areas for GM s	er. ed and	Yes Yes	No No No	N/A N/A N/A
	с.	$\binom{1}{2}$	Weekly survey Trigger level	ys, including w ls for controll	vipe tests. .ed and	Yes	No No	N/A N/A
	d.			areas for wipe or ventillation	studies every	(Yes)	No	N/A
	е.		n trap monitor	ring.		Yes	No	N/A
	REM	ARKS :						
					an and the set of the			

* Items marked with an asterisk are to be signed by the Radiation Safety Off're

Hospital	Mercy Hospital	Page	2
Date	9/19/90		
	ibration of equipment Voltage of dose calibrator Daily calibration of dose calibrator against, source	, <u>cs-/37</u> ,	,
* c.	Linearity checks: 1st qtr. YES , 2nd qtr. YES	······ *	
* d. e.	source. Linearity checks: 1st qtr. YES , 2nd qtr. YES 3rd qtr. YES , 4th qtr Accuracy Check: Last date 7/28/90 Geometrical Variation: Date 7/20/96 Plastic liner checked & inventory of sealed sources	(Yes)	No N/A
*.	done every 3 months.		
g .	Sealed sources with activity greater than 100 uCi leak tested every 6 months.	(Yes)	No N/A
h. i.	Plastic liner of the dose calibrator checked routine: Ambient radiation level measured around the sealed	ly Yes Yes	No N/A No N/A
1.	sources Molybdenum contamination checked after each elution	(Yes)	No N/A
k.	CM survey meters	ensitivit;	NOK-SEC.
Victoreen	(2) Meter <u>GM Counter#491</u> Last Calibrated <u>Presently</u> S (3) Meter Last Calibrated S	ensitivit ensitivit ensitivit	y 1MR7Hr.
Victoreen	Ionization Chambers (1) Meter Model #273Last Calibrated 3/1/90S(2) MeterLast CalibratedS	ensitivit ensitivit	y 25 mR/fx
NOTE: A	Any audio attachments to the survey meters ; yes ,		
RE	MARKS:		
5. Si	gns		
a.	Are the areas properly posted with "Caution Radioac Material" signs?	(165	No N/A
þ.	Are the areas properly posted with "Caution Radiati	CIES	NO N/A
¢,	the second and a second with "Coultion Airborr	Yes)	No N/A
d.	Are there "Notice to Employees" signs posted?	ted. Yes	
e. f.	Title 25 Section 219 and 220 post	ed. (Yes)	
g .	Sign prohibiting eating, drinking and smoking in c. Nuclear Medicine Department.		

Hospital	Mercy Hospital
Date	9/19/90

6. Waste Disposal

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7.

a.	Is the technician who orders radiopharmaceuticals	Yes	No	N/A
ь.	If isotopes are disposed of through the second			
с.	STOLEM HAS ANVOOD CHECKAR FRA FAFA 11-1-1	Yes	No	N/A
	(Obtained from the radiopharmaceuticals done regularly?	(Yes)	No	N/A
d. e.	A A A A A A A A A A A A A A A A A A A	Tes	No	N/A
£.	Are the solids held for 10 helf lives before it	Ves	No	N/A
g.	Dose rate monitored during disposal and equal to background.	(les)		
h.	All radiation labels removed or obliterated	Vac		
	before disposal.	Yes	NO	N/A
Mis	cellaneous			
а.	Is there a procedure back starts			
	Is there a procedure book available for all the procedures done in the department?	Yes	No	N/A
b. c.	is the prescribed dose mentioned in the president is	Tes	No	N/A
	medical physicist?	(Yes)	No	N/A
d.	Are the technicians familiar with the new dimension	des	No	N/A
	misadministration rules? Are they also familiar with the 10% misadministration variation for therapeutic doses			
е.	Is the decay of the standard sources done at regular		No	N/A
£.	Are the personnel being monitored with file being			
g,		(Yes)	No	N/A
	radionuclides?	(Yes)	No	N/A
h. 1.	Do the personnel wear lab coats?	Yes	No	N/A
* •	Are the misadministration reported to the NRC and/or state and discussed at the radiation safety committee	and the second second second	No	N/A
	the set of the back of the bac			
1.	Do the technologists check the dose calibrator and survey the areas on weekends on holidays or call?	Yes	No	N/A
k.	ALC AL LEASE 4 QUARTERIV rediction cofety and the	(Yes)	No	N/A
	abserings herd with a proper quorum.	100	110	14/15
	Date of Meetings: 1st qtr. 2/15/90 3rd qtr. 8/8/90, 2nd qtr. 5/4/90 4th qtr.	,		

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lospita ite	1MERCY HOSPITAL	Page	4	
Mi	scellaneous (Continued)			
1. m.	 Visual check <u>915</u> Package survey at 1 meter <u>915</u> Surface survey <u>915</u> Final source container contamination check <u>915</u> Empty packages surveyed before disposal <u>915</u> Lectures about radiation safety given to the following pe Clerical help in Nuclear Medicine Dept 	rsonne	1:	
). Th	 (3) Nursing staff <u>415</u> (4) Transportation <u>415</u> (5) Security <u>415</u> 			
· . <u></u>	erapeutic			
a. b.	Private room with private bathroom Patient room posted with "Caution Radioactive Material" sign	Yes	No No	N/A N/A
c. d. e. f.	Visiting time noted on the patient's chart Radiation safety instructions given to patient Nursing staff provided with monitoring devices Radiation safety nursing instructions provided to staff	Yes Yes Yes Yes	No No No	N/A N/A
g. h.	administration of doses.	Yes	No No	N/A (N/A)
i. j.	Contamination check of linens prior to release	Yes	No No	
	+ only hyperthyroid patients are trusted & len than 30 mG of 1-131			

William Reisinger, M.O.

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Signature Radiation Safety Officer

Tuniothe & Sance Mr.Tim/ Karnes, CEO

Hospital Administrator

8.1.4

HOSPITAL Mercy Hospital NRC LICENSE //	37-0527	2-02	
ADDRESS 1020 Franklin St. Johnstown, PA. 159 EXP. DATE	12/31	/93	er oliveri a pitoissa O on oliveri singi siin
RADIATION SAFETY OFFICER William Reisinger, M.D.STATE LICENSE # ADMINISTRATOR Mr. Philip Dionne EXP. DATE	PA-8 5/317	93	ala ang sana ang san Sana ang sana
(Title)			
1. Floor plan for the Nuclear Medicine Department available Floor plan for the Nuclear Cardiology Dept. available	Yes	No No	N/A N/A
2. Are the following areas marked on the floor plan?			
 a. Where isotopes are stored b. Where radiopharmaceuticals are prepared (radiopharmacy) c. Where patients are injected with radionuclides d. Areas surveyed with a GM counter or with wipes 	Yes	No No No	N/A N/A N/A N/A
' REMARKS :		-	
3. Area Surveys			
	-		
 a. Daily operational checks with survey meters. b. (1) Daily survey with GM counter. (2) Trigger levels for controlled and 	Yes Yes	No No No	N/A N/A N/A
 uncontrolled areas for GM survey. c. (1) Weekly surveys, including wipe tests. (2) Trigger levels for controlled and 	Yes	No No	N/A N/A
uncontrolled areas for wipe tests. d. Room monitoring for ventillation studies every	(Yes)	No	N/A
6 months. e. Xenon trap monitoring.	Yes	No	N/A
REMARKS :			_
		6-1- 6-1-1	-

* Items marked with an asterisk are to be signed by the Radiation Safety Off're

	ltal	ilercy Hospital Page	2	
Date		9/19/90		
Þ	Cali	bration of equipment		
		Voltage of dose calibrator		
	ь.	Daily calibration of dose calibrator against, C5-/37	.,	
*	c.	VDC VDC		
*	d.	Accuracy Check: Last date 7/28/90		
	e.	Geometrical Variation: Date 7/20/90		
	Ι.	Plastic liner checked & inventory of sealed sources Yes	No No	N/A
	g.	Sealed sources with activity greater than 100 uCi (Yes)	No	N/A
		leak tested every 6 months.		
	h.	Plastic liner of the dose calibrator checked routinely (Yes) No	N/A
	1.	Ambient radiation level measured around the sealed (Tes) No	N/A
	1.	Molybdenum contamination checked after each elution (Yes	No	N/A
		GM survey metars	NO	11/11
		(Dedicated check source sent during calibration) des	Ng.	N/A
		(1) HELEL MONITOR LASE CALLOLATED //30/00 SENSICIVI	ty 2K	sec.
Victo:	reen	 (2) Meter CM Counter#491 Last Calibrated Presently Sensitivi (3) Meter Last Calibrated Sensitivi 		hr.
		(3) Meter Last Calibrated Sensitivi (4) Meter Last Calibrated Sensitivi		
		Ionization Chambers		
ictore	en	(1) Meter Model #273 Last Calibrated 3/1/90 Sensitivi	ty 25	mR/. fr
		(2) Meter Last Calibrated Sensitivi	ty	
NOTE	A	ny audio attachments to the survey meters : yes :		
a 7 far de Rad I				
		ing addie accounting to the barrey meters , just		
		0		
		ARKS:		_
		0		
5.		ARKS :		
	REM	ARKS:		-
	REM Sig	ARKS: ns Are the areas properly posted with "Caution Radioactive Material" signs?	D No	- N/#
	REM. Sig	ARKS: ns Are the areas properly posted with "Caution Radioactive Material" signs? Are the areas properly posted with "Caution Radiation	_	
	REM Sig	ARKS: Are the areas properly posted with "Caution Radioactive Material" signs? Are the areas properly posted with "Caution Radiation Area" signs Are the areas properly posted with "Caution Airborne	D No	N/A
	REM Sig a. b.	ARKS: Are the areas properly posted with "Caution Radioactive Material" signs? Are the areas properly posted with "Caution Radiation Area" signs Are the areas properly posted with "Caution Airborne Material" signs? Yes	D No	N/# N/#
	REM Sig a. b. c. d.	ARKS: Are the areas properly posted with "Caution Radioactive Material" signs? Are the areas properly posted with "Caution Radiation Area" signs Are the areas properly posted with "Caution Airborne Material" signs? Are there "Notice to Employees" signs posted? Yes	No No No	N/# N/# N/#
	REM Sig a. b. c. d. e.	ARKS: Are the areas properly posted with "Caution Radioactive Material" signs? Are the areas properly posted with "Caution Radiation Area" signs Are the areas properly posted with "Caution Airborne Material" signs? Are there "Notice to Employees" signs posted? Up to date 10 CFR 19, 20, and 35 available and posted.	No No No	N/# N/# N/# N/# N/#
	REM Sig a. b. c. d.	ARKS: Are the areas properly posted with "Caution Radioactive Material" signs? Are the areas properly posted with "Caution Radiation Area" signs Are the areas properly posted with "Caution Airborne Material" signs? Are there "Notice to Employees" signs posted? Yes	No No No No No No	N/# N/# N/#

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Hospital	Mercy Hospital
Cate	9/19/90

6. Waste Disposal

10.00

7.

	а.	Is the technician who orders radiopharmaceuticals			
		andre of martinum Dossession limiter?	Yes	No	N/A
	Ь.	system has anybody checked the safe light?	Yes	No	N/A
	с.	Inventory of radiopharmaceuticals done regularly? (Obtained from the radiopharmacy on a daily basis)	(Yes)	No	N/A
	d.	" " " " " " " " " " " " " " " " " " "	-		
	e.	NAME OF OFOTSEE HILL UIEDVEDI POVONNUM	Yes	No	N/A
	f.	ALE LINE SOLIDS held for 10 half lives before di	Tes		N/A N/A
P	g.	Dose rate menicored during disposal and equal to background.	(Yes)		
1	h.	All radiation labels removed or obliterated			
		before disposel	Yes	No	N/A
1	misc	cellaneous			
	a.	Is there a procedure book qualitable for all			
		Is there a procedure book available for all the procedures done in the department?	Yes	No	N/A
	ь.	is the prescribed dose mentioned in the presedue to the	0		
1	с.	a cite procedure book checked and signed by a	Yes	No No	N/A N/A
		montogr buysicise:	100	NO	N/A
	1.00	Are the technicians familiar with the new diagnostic	(les)	No	N/A
		misadministration rules? Are they also familiar with the 10% misadministration variation for therapeutic doses			
1	е.	and a the standard sources done of regular		1.10	27/4
	c		(les)	140	N/A
	£.	Are the personnel being monitored with film badges and	Yes	No	N/A
5	g .	THE PAULES PHU ALL TILM DADDA FACARda Available			
		Do the technicians use syringe shields while handling radionuclides?	(Yes)	No	N/A
	n.	Do the personnel wear lab coats?	(Val)	÷	27/4
	i.	Are the misadministration reported to the NDC and/an	Yes	No	N/A N/A
		state and discussed at the radiation safety committee			u/A
1	j.	move sais	-		
		Do the technologists check the dose calibrator and survey the areas on weekends on holidays or call?	Yes	No	N/A
ł	ς.	Are at least 4 quarterly radiation sofory committee	(VIII)		
		meetings herd with a proper quorum.	(Yes)	No	N/A
		Date of Meetings: 1st qtr. 2/15/90 . 2nd atr. 5/4/90			
		3rd qtr. 8/8/90, 4th qtr.			

Page 3

lospital	MERCY HOSPITAL	
ite	9/19/90	manal contraction and
Mis	cellaneous (Continued)	
1.	Radioactive package receipt	

- Package survey at 1 meter us
- (3)Surface survey mis
- (4) Final source container contamination check 445 (5) Empty packages surveyed before disposal
- (5) Empty packages surveyed before disposal <u>115</u> Lectures about radiation safety given to the following personnel:
 - Clerical help in Nuclear Medicine Dept. 435
 Housekeeping personnel 435
 - Housekeeping personnel 415 Nursing staff 415
 - (3)
 - (4) Transportation 415
 (5) Security 415

Therapeutic

m.

1.

 a. Private room with private bathroom b. Patient room posted with "Caution Radioactive	Yes No N/A
Material" sign	Yes No N/A
 c. Visiting time noted on the patient's chart d. Radiation safety instructions given to patient e. Nursing staff provided with monitoring devices f. Radiation safety nursing instructions provided to staff 	Yes No N/A Yes No N/A Yes No N/A Yes No N/A
 g. Areas surrounding the patient surveyed for radiation h. Thyroid burden measured for personnel involved in	Yes No N/A
administration of doses.	Yes No N/A
 Contamination check of linens prior to release j. Contamination check of room prior to release 	Yes No N/A Yes No N/A

* only hyperthyroid patients are treated & len than 30 mG of I-131

William Reisinger, M.D. Signature

Radiation Safety Officer

temother france Mr. Tim/ Karnes, CEO

Vignature Hospital Administrator

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1 4 4 4

ADM,	IATION SAFETY OFFICER Sam Krinsy, MD. Ph. D. STATE LICENSE # INISTRATOR Sr. Catherine MnGroenty, R.S.M. EXP. DATE 5/	PA. 31/92	- 8	
	(Title)			
1.	Floor plan for the Nuclear Medicine Department available Floor plan for the Nuclear Cardiology Dept. available	Yes	No No	N/A N/A
2.	Are the following areas marked on the floor plan?			
R	 a. Where isotopes are stored b. Where radiopharmaceuticals are prepared (radiopharmacy) c. Where patients are injected with radionuclides d. Areas surveyed with a GM counter or with wipes 	Yes Yes	No No No	N/A N/A N/A N/A
	REMARKS:			
	REMARKS:			
3.	REMARKS:			
3.	Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica	Yes Yes	No	N/А А\И
3.	 Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing 	Yes) Yes	No No	N/A N/A
3.	 Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing before lunch and before they leave the department? e. Any unusual survey results in the controlled and 	Yes Yes Yes	No No	А/И А/И А/И
3.	 Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing before lunch and before they leave the department? e. Any unusual survey results in the controlled and uncontrolled areas? f. Is the charcoal surveyed for saturation with Xenon 	Yes Yes Yes Yes	No No No	N/A N/A N/A N/A
3.	 Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing before lunch and before they leave the department? e. Any unusual survey results in the controlled and uncontrolled areas? 	Yes Yes Yes	No No	А/И А/И А/И

Hospital Date	Mercy Hospital of Johnsto 3/6/89	O	Page 2
	Calibrated weekly again	of last calibration) egainst Co-57 standard nst CS-137-Ba-133- ^{CC} Bod librator is checked even	rces? (Yes) No N/A
b.	Survey meters		
	Mini-Monitor -G.M. Cou	nter 7/6/88	2 K - Counts/sec.
	(type)	(last calibrated on)	(maximum sensitivity) (full scale)
	Victoreen G.M. Counter Model #491	5/11/88	1 MR/Hr.or 150 CPM
	(type)	(last calibrated on)	(maximum sensitivity) (full scale)
	Victoreen Ionization C Model #273 .	hamber 3/1/89	25 MR/HR.
	(type)	(last calibrated on)	(maximum sensitivity) (full scale)
	(type)	(last calibrated on)	(maximum sensitivity) (full scale)
	(type)	(last calibrated on)	(maximum sensitivity)
NOTE:	radiation level?	meters measure 0.1 mR/h chment to one of the su	(Yes) No N/A
	Is the survey meter ch	ecked before use?	Yes No N/A
c.	Bar pattern of the gam	gamma camera taken dail ma camera taken weekly? quipment <u>As per physic</u> and NCRP Repo	(Yes) No N/A
5. Sig a.	Are the areas properly Material" signs?		(Yes) No N/A
b.	Area" signs	posted with "Caution R	adiation Yes No (N/A
c. d.	Are the arias properly Meterial" signs? Are there "Notice to E	posted with "Caution A mployees" signs posted?	(Yes) No N/A
Ρ.	Do the employees know available?	where 10 CFR 19 and 20	are (Yes) No N/A

REMARKS :

Hospital	Mercy	Hospital	of	Johnstown
Date				

6. Is the technician who orders radiopharmaceuticals aware of maximum possession limits?

If isotopes are disposed of through the sewage system, has anybody checked the safe limit?

Inventory of radiopharmaceuticals done regularly? (Obtained from the radiopharmacy on a daily basis)

Waste disposal of radiopharmaceuticals done regularly?

REMARKS :

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7. Miscellaneous

Is there a sign prohibiting eating, drinking, and smokin in the Nuclear Medicine Department?	g Yes No N/A
Is there a procedure book available for all the procedur done in the department?	Yes No N/A
Is the prescribed dose ment. Ded in the procedure book?	Yeb No N/A
Are the technicians familiar with the new diagnostic mis administration rules? They are also familiar with the 1 misadministration variation for therapeutic doses.	
Is the decay of the standard sources done at regular intervals?	Yes No N/A
Are the sealed sources wipe tested every 6 months?	(Yes) No N/A
Are the personnel being monitored with film badges and ring badges?	Yes No N/A
Do the technicians use syringe shields while handling radionuclides?	Yeb No N/A
Do the personnel wear lab coats?	Yes No N/A
Continuing Education for nuclear technicians	(YEB) NO N/A
Up-to-date 10 CFR 19 and 20	(Yes) NO N/A
Sam Krinsky, M.D., Ph. D. Louise Stur	npo, R.N.

Radiation Safety Offices MD, PhD Gala Writes 346/89 Page 3

(Yes) No N/A

(Yes) No N/A

N/A

N/A

Yes) No

(Yes) No

1 4 14 1

RADI	LATION SAFETY OFFICEK Sam Krinsy, MD. Ph.D.STATE LICENSE #			
ADM)	INTERPATOR OF ONLINE LASS	PA 31/92	- 8	
	(Title)			
1.	Floor plan for the Nuclear Medicine Department available	(Yes)	No	N '4
	Floor plan for the Nuclear Cardiology Dept. available	(Yes)	No	N. A
2.	Are the following areas marked on the floor plan?			
*	a. Where isotopes are stored	(Yes)	No	N/A
	b. Where radiopharmaceuticals are prepared (radiopharmacy)		No	N/A
	 c. Where patients are injected with radionuclides d. Areas surveyed with a GM counter or with wipes 	(Yes)	No	N/A
	d. Areas surveyed with a GM counter or with wipes	(Yes)	No	N/A
	D DWAD FC.	(Yes)	No	N/A
		(Yes)	No	N/A
	D DWAD FC.	(Yes)	N0	N/A
3.	D DWAD FC.	Yes	N0	N/A
3.	Area Surveys a. Are the areas surveyed regularly (weekly)?	Yes	No	N/A
3.	Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date 3/3/89	Yes	*****	
3.	Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica	Yes Yes	No	N/# N/#
з.	<pre>REMARKS: Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing</pre>	Yes	No	N/A
з.	<pre>REMARKS: Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date 3/3/89 c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing before lunch and before they leave the department?</pre>	Yes Yes	No	N/# N/#
3.	<pre>REMARKS: Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing before lunch and before they leave the department? e. Any unusual survey results in the controlled and</pre>	Yes Yes Yes Yes Yes	No No No	N/# N/# N/# N/#
3.	<pre>REMARKS: Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing before lunch and before they leave the department? e. Any unusual survey results in the controlled and uncontrolled areas?</pre>	Yes Yes Yes	No No No	N/A N/A N/A
3.	<pre>REMARKS: Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date <u>3/3/89</u> c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing before lunch and before they leave the department? e. Any unusual survey results in the controlled and uncontrolled areas? f. Is the charcoal surveyed for saturation with Xenon weekly?</pre>	Yes Yes Yes Yes Yes Yes Yes	No No No No No	N/A N/A N/A N/A N/A
3.	<pre>Area Surveys a. Are the areas surveyed regularly (weekly)? b. When was the last survey performed? Date 3/3/89 c. Are the areas for generator elution, radiopharmaceutica preparation, and patient injection surveyed daily? d. Do the technicians survey their hands and clothing before lunch and before they leave the department? e. Any unusual survey results in the controlled and uncontrolled areas? f. Is the charcoal surveyed for saturation with Xenon</pre>	Yes Yes Yes Yes Yes Yes Yes	No No No No	N/A N/A N/A N/A N/A

Date		Mercy Hospital of Johnston 3/6/89	×0			Pa	ge 2	
	0.1	(hand an at surdament						
4.	6.	ibration of equipment Dose calibrator (date o Is it calibrated daily Calibrated weekly again Voltage of the dose cal	against st CS-1	t Co-57 star .37-Ba-133-C	odard sources	rce <u>Ye</u> ? Ye	100	
	b.	Survey meters						
		Mini-Monitor -G.M. Cour	ter	7/6/88		2 K - 1	Count	s/sec.
		(type)	and the set of the second set of the	calibrated	on)	(maximum s (full	ensit	tivity)
		Victoreen G.M. Counter Model #491		5/11/88		1 MR/H	r.or	150 CPM.
		(type)	(last	calibrated	on)	(maximum s (full		
		Victoreen Ionization Ch Model #273	amber	3/1/89		25 MR	/HR.	
		(type)	(last	calibrated	on)	(maximum s (full		
		(type)	(lest	calibrated	on)	(maximum s (ful)		
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NOTE	81	Can one of the survey m radiation level? Is there an audio attac				Cre	B N	o n/a
		meters? Is the survey meter che			ne burvey	CYE	B N	
	c.	Flood pictures of the g Bar pattern of the gamm Calibration of other eq	a came	ra taken we t As per p	ekly? hysicist'	Te		o N/A
5.	Sig	1.8						
	8.	Are the areas properly Material" signs?				(Ye	B) N	o N/A
	b.	Are the areas properly Area" signs Are the areas properly				Ye	ев N	o N/A
	c. d.	Material" signs? Are there "Notice to En	Casher				R N	o N/A o N/A
		Do the employees know w available?				C	ea) N	

REMARKS:

Hospital Mercy Hospital of Johnstown Date 3/6/89	Page 3	
6. Is the technician who orders radiopharmaceuticals aware of maximum possession limits?	Yes No	N/A
If isotopes are disposed of through the sewage system, has anybody checked the safe limit?	Yes No	N/A
Inventory of radiopharmaceuticals done regularly? (Obtained from the radiopharmacy on a daily basis)	Yeb No	N/A
Waste disposal of radiopharmaceuticals done regularly?	(Yes) No	N/A

REMARKS :

7. Miscellaneous

Is there a sign prohibiting eating, drinking, and smoking in the Nuclear Medicine Department?	YEB NO N/A
Is there a procedure book available for all the procedures done in the department?	(Yeb) NO N/A
Is the prescribed dose mentioned in the procedure book?	(Yeb) No N/A
Are the technicians familiar with the new diagnostic mis- administration rules? They are also familiar with the 10% misadministration variation for therapeutic doses.	Yeb No N/A
Is the decay of the standard sources done at regular intervals?	Yes No N/A
Are the sealed sources wipe tested every 6 months?	(Yes) No N/A
Are the personnel being monitored with film badges and ring badges?	Yeb No N/A
De the technicians use syringe shields while handling radiouuclides?	(Yeb) No N/A
Do the personnel wear lab coats?	YED NO N/A
Continuing Education for nuclear technicians	YEB NO N/A
Up-to-date 10 CFR 19 and 20	(Tes) NO N/A
Sam Krinsky, M.D., Ph. D. Louise Stumpo	, R.N.

Radiation Safety Offices MD, PhD Glue Willister 36/89