

## BUX-MONT RADIOLOGY GROUP

295 EAST STREET ROAD  
WARMINSTER, PA 18974

DIAGNOSTIC RADIOLOGY  
NORMAN HAUSER, M. D.  
FRANK A. PIRO, M. D.

TELEPHONE: 672-4372

Nuclear Material Safety Branch  
Division of Nuclear Material  
Docket No. 030-12658  
License No. 37-17377-01

September 4, 1996

Dear Mr. Shanbaky:

In review of your letter I hope the information I have enclosed is all you need.

In regard, to our calibrator, we are doing a check of the doses we use, which involves measurements of CO-57 and CS-137. Also, we are doing the measurements of our commonly used radionuclides TC-99m and I-123. I-131 even though we are not going to use this anymore is also being calibrated; the sources are being checked against CS-137, I have enclosed the check source on this.

I have taken the proper actions on the use of I-131 (used once) when we had to order it, since you were last here. The quality management for this dosage has the patient's name, the date and the dosage used for each patient. I also check this dosage when it is delivered from Syncor. After consulting Carmen Pierno, a Nuclear Physicist we have now changed over from I-131 to I-123, which has a half life of 13 hours thus reducing the patient's dosage. Mr Pierno discussed this and went over the proper procedure for this to me and Linda Kindermann.

This Linearity test is being done quarterly and is being taken down to the required measurements of below 0.03mCi or 30 uCi. This will be followed this way now.

As for the survey meter we have received a dedicated check source from Syncor, Inc. The check source has been placed on our survey meter and the proper reading is indicated on the side of the meter. This is being checked everytime Linda uses the meter and I keep a check on this.

Our quarterly inventory check on our sources is being checked by me and signed by me.

We have reviewed our department and check things with Carmen Pierno, M.S. a certified Radiologic Physicist. I will continue to consult Mr. Pierno during the year and review things with him.

Sincerely,

*Norman Hauser M.D.*

Norman Hauser, M.D.  
Chief Radiation Officer

BUX MOUNT RADIOLOGY GROUP  
295 E. STREET ROAD  
WARMINSTER, PA. 18974

QUARTERLY DOSE CALIBRATOR LINEARITY

Assay Time (Hours)	Measured Activity (mCi)	Correction Factor	Predicated Activity (mCi)	- 5% Predicated Activity	+ 5% Predicated Activity
0	49.4	32	49.1	46.6	51.6
6	24.2	16	24.5	22.9	25.4
24	3.22	2	3.07	2.92	3.22
30	1.534	1	1.534	1.457	1.611
48	0.196	0.125	0.192	.186	.206
54	.096	0.063	.097	.091	.101
72	.011	0.008	.012	.010	.012

Performed By: AK

Date: 9/3/96

*M. Hansen MD*  
*9/4/96*

Aug 26, 27, 28, 29

Synor International Corp  
650 Elmwood Avenue  
Sharon Hill PA 19079  
Brimont Radiology

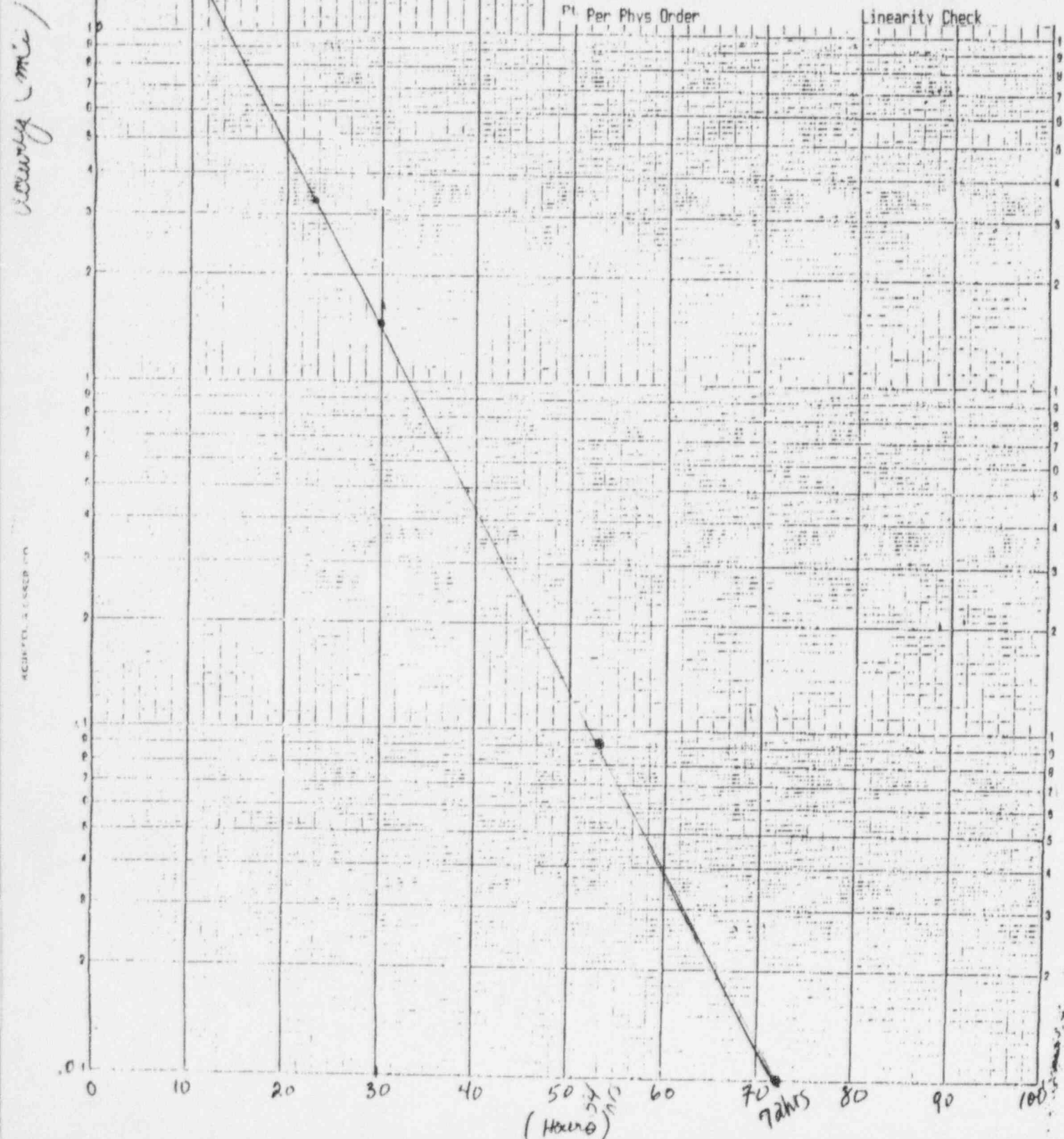
*M. Hauser MD*  
800/804-0419  
Dr. HAUSER

Tc99m Sodium Pertechnetate 26 AUG 96 #970573  
Lot TCD408-23903 Expires 08/26/96 14:00  
Qty. Ordered 50.00 mCi  
Assay 35.419 mCi/ml As Of 09:00  
Volume 1.41 ml  
Qty. Dispensed 50.00 mCi +/- 10%  
Qty. Admin. 49.4 mCi As Of 9:00 By *JK*

CUSTOMER COPY

Pt. Per Phys Order

Linearity Check



Counts (mCi)

RECEIVED

(Hours)

70 hrs

Prod Id : C5137D Cs-137					Prod Id : C5137D Cs-137					Prod Id : C5137D Cs-137				
Reference Standard					Reference Standard					Reference Standard				
Mfg. Model					Mfg. Model					Mfg. Model				
Assay : 240,000 uCi					Assay : 240,000 uCi					Assay : 219,000 uCi				
Is. Of : 12000 02/04/96					Is. Of : 12000 02/04/96					Is. Of : 12000 02/05/96				
Half Life: 30.174 Years					Half Life: 30.174 Years					Half Life: 30.174 Years				
Serial # : 1-131 Setting					Serial # : 1-131 Setting					Serial # : 1-123 Setting				
Date	Elig Assay(-5%)	Assay	Assay(+5%)		Date	Elig Assay(-5%)	Assay	Assay(+5%)		Date	Elig Assay(-5%)	Assay	Assay(+5%)	In
02/01/96	242,000	364	uCi	242,000	02/01/96	222,000	240	uCi	252,000	02/01/96	208,500	219	uCi	230,457
02/02/96	241,570	-	uCi	241,570	02/02/96	227,930	-	uCi	251,904	02/02/96	208,420	-	uCi	230,442
02/03/96	241,957	-	uCi	241,957	02/03/96	227,971	-	uCi	251,968	02/03/96	208,402	-	uCi	230,428
02/04/96	241,920	-	uCi	241,920	02/04/96	227,957	-	uCi	251,952	02/04/96	208,469	-	uCi	230,413
02/05/96	241,914	359	uCi	241,905	02/05/96	227,942	240	uCi	251,937	02/05/96	208,456	219	uCi	230,399
02/06/96	241,892	359	uCi	241,891	02/06/96	227,928	240	uCi	251,921	02/06/96	208,442	218	uCi	230,384
02/07/96	241,871	-	uCi	241,857	02/07/96	227,914	-	uCi	251,905	02/07/96	208,430	-	uCi	230,370
02/08/96	241,849	-	uCi	241,824	02/08/96	227,900	-	uCi	251,889	02/08/96	208,417	-	uCi	230,355
02/09/96	241,829	-	uCi	241,810	02/09/96	227,885	-	uCi	251,873	02/09/96	208,404	-	uCi	230,341
02/10/96	241,806	-	uCi	241,786	02/10/96	227,871	-	uCi	251,857	02/10/96	208,390	-	uCi	230,326
02/11/96	241,785	-	uCi	241,762	02/11/96	227,857	-	uCi	251,842	02/11/96	208,377	-	uCi	230,312
02/12/96	241,763	358	uCi	241,735	02/12/96	227,842	240	uCi	251,826	02/12/96	208,364	218	uCi	230,297
02/13/96	241,742	-	uCi	241,715	02/13/96	227,826	-	uCi	251,810	02/13/96	208,351	-	uCi	230,283
02/14/96	241,720	-	uCi	241,694	02/14/96	227,814	-	uCi	251,794	02/14/96	208,338	-	uCi	230,268
02/15/96	241,699	356	uCi	241,677	02/15/96	227,799	239	uCi	251,778	02/15/96	208,325	218	uCi	230,254
02/16/96	241,677	356	uCi	241,654	02/16/96	227,785	238	uCi	251,762	02/16/96	208,312	218	uCi	230,239
02/17/96	241,655	-	uCi	241,629	02/17/96	227,771	-	uCi	251,747	02/17/96	208,299	-	uCi	230,225
02/18/96	241,633	-	uCi	241,608	02/18/96	227,756	-	uCi	251,731	02/18/96	208,287	-	uCi	230,210
02/19/96	241,612	354	uCi	241,582	02/19/96	227,742	238	uCi	251,715	02/19/96	208,273	217	uCi	230,196
02/20/96	241,591	356	uCi	241,562	02/20/96	227,728	239	uCi	251,699	02/20/96	208,259	218	uCi	230,181
02/21/96	241,570	-	uCi	241,545	02/21/96	227,713	-	uCi	251,683	02/21/96	208,246	-	uCi	230,167
02/22/96	241,549	352	uCi	241,521	02/22/96	227,699	238	uCi	251,667	02/22/96	208,233	217	uCi	230,153
02/23/96	241,527	351	uCi	241,497	02/23/96	227,685	238	uCi	251,652	02/23/96	208,220	217	uCi	230,139
02/24/96	241,506	-	uCi	241,474	02/24/96	227,670	-	uCi	251,636	02/24/96	208,207	-	uCi	230,124
02/25/96	241,484	-	uCi	241,450	02/25/96	227,656	-	uCi	251,620	02/25/96	208,194	-	uCi	230,109
02/26/96	241,463	349	uCi	241,435	02/26/96	227,642	239	uCi	251,604	02/26/96	208,181	217	uCi	230,095
02/27/96	241,441	349	uCi	241,412	02/27/96	227,627	238	uCi	251,588	02/27/96	208,168	217	uCi	230,080
02/28/96	241,420	348	uCi	241,389	02/28/96	227,613	237	uCi	251,572	02/28/96	208,155	216	uCi	230,066
02/29/96	241,399	348	uCi	241,365	02/29/96	227,599	238	uCi	251,557	02/29/96	208,142	216	uCi	230,051
02/30/96	241,377	349	uCi	241,341	02/30/96	227,584	238	uCi	251,541	02/30/96	208,129	216	uCi	230,037
03/01/96	241,355	-	uCi	241,327	03/01/96	227,570	-	uCi	251,525	03/01/96	208,115	-	uCi	230,022
03/02/96	241,333	-	uCi	241,304	03/02/96	227,556	-	uCi	251,509	03/02/96	208,102	-	uCi	230,008
03/03/96	241,311	-	uCi	241,280	03/03/96	227,542	-	uCi	251,493	03/03/96	208,089	-	uCi	229,993
03/04/96	241,290	348	uCi	241,256	03/04/96	227,527	238	uCi	251,477	03/04/96	208,076	216	uCi	229,979
03/05/96	241,268	348	uCi	241,232	03/05/96	227,513	237	uCi	251,462	03/05/96	208,063	215	uCi	229,964
03/06/96	241,246	342	uCi	241,207	03/06/96	227,499	237	uCi	251,446	03/06/96	208,050	215	uCi	229,950
03/07/96	241,224	-	uCi	241,185	03/07/96	227,484	-	uCi	251,430	03/07/96	208,037	-	uCi	229,935
03/08/96	241,203	-	uCi	241,164	03/08/96	227,470	-	uCi	251,414	03/08/96	208,024	-	uCi	229,921
03/09/96	241,181	-	uCi	241,142	03/09/96	227,456	-	uCi	251,398	03/09/96	208,011	-	uCi	229,907
03/10/96	241,160	-	uCi	241,121	03/10/96	227,441	-	uCi	251,383	03/10/96	207,998	-	uCi	229,892
03/11/96	241,138	-	uCi	241,100	03/11/96	227,427	-	uCi	251,367	03/11/96	207,984	-	uCi	229,878
03/12/96	241,116	-	uCi	241,078	03/12/96	227,413	-	uCi	251,351	03/12/96	207,971	-	uCi	229,863
03/13/96	241,095	-	uCi	241,057	03/13/96	227,398	-	uCi	251,335	03/13/96	207,958	-	uCi	229,849
03/14/96	241,073	-	uCi	241,035	03/14/96	227,384	-	uCi	251,319	03/14/96	207,945	-	uCi	229,834
03/15/96	241,051	-	uCi	241,013	03/15/96	227,370	-	uCi	251,303	03/15/96	207,932	-	uCi	229,820

we are not  
using I131  
but still am keeping  
a check source



Run Date: 04/05/96

## DOSE CALIBRATOR QUALITY CONTROL WORK SHEET

Run Time 14:58

Product Id : CS137D Co-137  
 Reference Standard  
 Manufacturer Name :  
 Calibrator Serial#:

Calibration Assay : 269.500 uCi  
 As Of : 12:00 03/17/86  
 Half Life : 30.174 Y  
 Worksheet Period : 364.000 Days

Worksheet Beginning Time : 12:00  
 Date : 04/01/96  
 Worksheet Ending Time : 12:00  
 Date : 03/31/97

Date	(-5%)	Calc Assay	(+5%)	Meas Assay Background	Date	(-5%)	Calc Assay	(+5%)	Meas Assay Background
07/06/96	1	202.056	212.691	223.325	08/23/96	1	201.447	212.049	222.652
07/07/96	1	202.043	212.677	223.311	08/24/96	1	201.434	212.036	222.638
07/08/96	1	202.031	212.664	223.297	08/25/96	1	201.422	212.023	222.624
07/09/96	1	202.018	212.650	223.283	08/26/96	1	201.409	212.009	222.610
07/10/96	1	202.005	212.637	223.269	08/27/96	1	201.396	211.996	222.596
07/11/96	1	201.992	212.624	223.255	08/28/96	1	201.384	211.983	222.582
07/12/96	1	201.980	212.610	223.241	08/29/96	1	201.371	211.969	222.568
07/13/96	1	201.967	212.597	223.227	08/30/96	1	201.358	211.956	222.554
07/14/96	1	201.954	212.584	223.213	08/31/96	1	201.346	211.943	222.540
07/15/96	1	201.942	212.570	223.199	09/01/96	1	201.333	211.929	222.526
07/16/96	1	201.929	212.557	223.185	09/02/96	1	201.320	211.916	222.512
07/17/96	1	201.916	212.543	223.171	09/03/96	1	201.308	211.903	222.498
07/18/96	1	201.904	212.530	223.157	09/04/96	1	201.295	211.889	222.484
07/19/96	1	201.891	212.517	223.143	09/05/96	1	201.282	211.876	222.470
07/20/96	1	201.878	212.503	223.128	09/06/96	1	201.270	211.863	222.456
07/21/96	1	201.865	212.490	223.114	09/07/96	1	201.257	211.849	222.442
07/22/96	1	201.853	212.477	223.100	09/08/96	1	201.244	211.836	222.428
07/23/96	1	201.840	212.463	223.086	09/09/96	1	201.232	211.823	222.414
07/24/96	1	201.827	212.450	223.072	09/10/96	1	201.219	211.809	222.400
07/25/96	1	201.815	212.436	223.058	09/11/96	1	201.206	211.796	222.386
07/26/96	1	201.802	212.423	223.044	09/12/96	1	201.194	211.783	222.372
07/27/96	1	201.789	212.410	223.030	09/13/96	1	201.181	211.769	222.358
07/28/96	1	201.777	212.396	223.016	09/14/96	1	201.168	211.756	222.344
07/29/96	1	201.764	212.383	223.002	09/15/96	1	201.156	211.743	222.330
07/30/96	1	201.751	212.370	222.988	09/16/96	1	201.143	211.729	222.316
07/31/96	1	201.739	212.356	222.974	09/17/96	1	201.130	211.716	222.302
08/01/96	1	201.726	212.343	222.960	09/18/96	1	201.118	211.703	222.288
08/02/96	1	201.713	212.330	222.946	09/19/96	1	201.105	211.689	222.274
08/03/96	1	201.700	212.316	222.932	09/20/96	1	201.092	211.676	222.260
08/04/96	1	201.688	212.303	222.918	09/21/96	1	201.080	211.663	222.246
08/05/96	1	201.675	212.290	222.904	09/22/96	1	201.067	211.650	222.232
08/06/96	1	201.662	212.276	222.890	09/23/96	1	201.054	211.636	222.218
08/07/96	1	201.650	212.263	222.876	09/24/96	1	201.042	211.623	222.204
08/08/96	1	201.637	212.250	222.862	09/25/96	1	201.029	211.610	222.190
08/09/96	1	201.624	212.236	222.848	09/26/96	1	201.016	211.596	222.176
08/10/96	1	201.612	212.223	222.834	09/27/96	1	201.004	211.583	222.162
08/11/96	1	201.599	212.209	222.820	09/28/96	1	200.991	211.570	222.148
08/12/96	1	201.586	212.196	222.806	09/29/96	1	200.979	211.556	222.134
08/13/96	1	201.574	212.183	222.792	09/30/96	1	200.966	211.543	222.120
08/14/96	1	201.561	212.169	222.778	10/01/96	1	200.953	211.530	222.106
08/15/96	1	201.548	212.156	222.764	10/02/96	1	200.941	211.516	222.092
08/16/96	1	201.536	212.143	222.750	10/03/96	1	200.928	211.503	222.078
08/17/96	1	201.523	212.129	222.736	10/04/96	1	200.915	211.490	222.064
08/18/96	1	201.510	212.116	222.722	10/05/96	1	200.903	211.477	222.050
08/19/96	1	201.498	212.103	222.708	10/06/96	1	200.890	211.463	222.036
08/20/96	1	201.485	212.089	222.694	10/07/96	1	200.877	211.450	222.022
08/21/96	1	201.472	212.076	222.680	10/08/96	1	200.865	211.437	222.008
08/22/96	1	201.460	212.063	222.666	10/09/96	1	200.852	211.423	221.995

211 .601  
 210 .00  
 210 .00

209 .60

209 .601

209 .60

208 .00  
 208 .00

208 .001

NO SCANS

208 .60

209 .00

209 .60

Run Date 04/05/96

## DOSE CALIBRATOR QUALITY CONTROL WORK SHEET

Run Time 14:40

Product Id : CD57DC Co-57  
Reference Standard  
Manufacturer Name :  
Calibrator Serial# :

Calibration Assay : 5.500 mCi  
As Of : 12:00 04/27/93  
Half Life : 271.700 D  
Worksheet Period : 364.000 Days

Worksheet Beginning Time : 12:00  
Date : 04/01/96  
Worksheet Ending Time : 12:00  
Date : 03/31/97

Date	(-5%)	Calc Assay	(+5%)	Meas Assay	Background	Date	(-5%)	Calc Assay	(+5%)	Meas Assay	Background
07/05/96	1	0.267	0.281	0.295		08/23/96	1	0.236	0.249	0.261	
07/07/96	1	0.266	0.280	0.294		08/24/96	1	0.235	0.248	0.260	
07/09/96	1	0.265	0.279	0.293	294	08/25/96	1	0.235	0.247	0.260	
07/10/96	1	0.265	0.279	0.293	290	08/26/96	1	0.234	0.247	0.259	248
07/11/96	1	0.264	0.278	0.292	290	08/27/96	1	0.234	0.246	0.258	246
07/12/96	1	0.263	0.277	0.291		08/28/96	1	0.233	0.245	0.258	246
07/13/96	1	0.263	0.277	0.290		08/29/96	1	0.232	0.245	0.257	246
07/14/96	1	0.261	0.275	0.289		08/30/96	1	0.232	0.244	0.256	246
07/15/96	1	0.261	0.275	0.288		08/31/96	1	0.231	0.243	0.256	246
07/16/96	1	0.260	0.274	0.287	284	09/01/96	1	0.231	0.243	0.255	
07/17/96	1	0.259	0.273	0.287	284	09/02/96	1	0.230	0.242	0.254	
07/18/96	1	0.259	0.272	0.286		09/03/96	1	0.230	0.242	0.254	245
07/19/96	1	0.258	0.272	0.285		09/04/96	1	0.229	0.241	0.253	245
07/20/96	1	0.257	0.271	0.285		09/05/96	1	0.228	0.240	0.252	245
07/21/96	1	0.257	0.270	0.284		09/06/96	1	0.228	0.240	0.252	245
07/22/96	1	0.256	0.270	0.283	278	09/07/96	1	0.227	0.239	0.251	
07/23/96	1	0.255	0.269	0.282	276	09/08/96	1	0.227	0.239	0.250	
07/24/96	1	0.255	0.268	0.282	276	09/09/96	1	0.226	0.238	0.250	
07/25/96	1	0.254	0.268	0.281		09/10/96	1	0.225	0.237	0.249	
07/26/96	1	0.254	0.267	0.280		09/11/96	1	0.225	0.237	0.249	
07/27/96	1	0.253	0.266	0.280		09/12/96	1	0.224	0.236	0.248	
07/28/96	1	0.252	0.266	0.279		09/13/96	1	0.224	0.236	0.247	
07/29/96	1	0.252	0.265	0.278	269	09/14/96	1	0.223	0.235	0.247	
07/30/96	1	0.251	0.264	0.277	268	09/15/96	1	0.223	0.234	0.246	
07/31/96	1	0.250	0.264	0.277	268	09/16/96	1	0.222	0.234	0.245	
08/01/96	1	0.250	0.263	0.276		09/17/96	1	0.221	0.233	0.245	
08/02/96	1	0.249	0.262	0.275		09/18/96	1	0.221	0.233	0.244	
08/03/96	1	0.248	0.262	0.275		09/19/96	1	0.220	0.232	0.244	
08/04/96	1	0.248	0.261	0.274		09/20/96	1	0.220	0.231	0.243	
08/05/96	1	0.247	0.260	0.273	265	09/21/96	1	0.219	0.231	0.242	
08/06/96	1	0.247	0.260	0.272		09/22/96	1	0.219	0.230	0.242	
08/07/96	1	0.246	0.259	0.272		09/23/96	1	0.218	0.230	0.241	
08/08/96	1	0.245	0.258	0.271		09/24/96	1	0.218	0.229	0.240	
08/09/96	1	0.245	0.258	0.270		09/25/96	1	0.217	0.228	0.240	
08/10/96	1	0.244	0.257	0.270		09/26/96	1	0.216	0.228	0.239	
08/11/96	1	0.243	0.256	0.269		09/27/96	1	0.216	0.227	0.239	
08/12/96	1	0.243	0.256	0.268		09/28/96	1	0.215	0.227	0.238	
08/13/96	1	0.242	0.255	0.268		09/29/96	1	0.215	0.226	0.237	
08/14/96	1	0.242	0.254	0.267		09/30/96	1	0.214	0.226	0.237	
08/15/96	1	0.241	0.254	0.266		10/01/96	1	0.214	0.225	0.236	
08/16/96	1	0.240	0.253	0.266	260	10/02/96	1	0.213	0.224	0.236	
08/17/96	1	0.240	0.252	0.265		10/03/96	1	0.213	0.224	0.235	
08/18/96	1	0.239	0.252	0.264		10/04/96	1	0.212	0.223	0.234	
08/19/96	1	0.239	0.251	0.264		10/05/96	1	0.212	0.223	0.234	
08/20/96	1	0.238	0.250	0.263		10/06/96	1	0.211	0.222	0.233	
08/21/96	1	0.237	0.250	0.262		10/07/96	1	0.210	0.222	0.233	
08/22/96	1	0.237	0.249	0.262	248	10/08/96	1	0.210	0.221	0.232	
					248	10/09/96	1	0.209	0.220	0.231	

011 No. 0828

Pharmacy Service Center  
200 Rittenhouse Circle  
Bristol PA 19007  
215/781-2980

PACKING LIST

SHIP TO: Buimont Radiology  
295 East Street Road

Warminster PA 18974

CUST #: 0138  
CASE #: 1  
ROUTE #: CT

\*\*\*\*\*  
DATE/TIME PRD # DESCRIPTION QUANTITY VOLUME P.O. NUMBER RX/ORD# PATIENT NAME AGE RETN  
\*\*\*\*\*

8/29/96 00:00 121351 CHECK SOURCE 1 1.00 Ea 1.00 Ea 091306 Not A Prescrip.

Syncor International Corp  
200 Rittenhouse Circle  
Bristol PA 19007  
Buimont Radiology 215/781-2980  
Dr. Hauser  
CHECK SOURCE 1.0 UCI 29 AUG 96 # 091306  
Lot 121351-24101 Expires 11/23/99  
Qty. Ordered 1.00 Ea  
Assay As Of N/A  
Volume 1.00 Ea  
Qty. Dispensed  
Qty. Admin. Ea As Of By

C  
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C  
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P  
Y

Pl. Not A Prescrip.

*N. Hauser MD*  
*8/29/96*

THIS IS A PACKING LIST, NOT AN INVOICE.  
Mark 'X' in RETN column for Returned Doses.

Carmine A. Pierno, M.S.  
Certified Diagnostic Radiological Physicist  
Certified Medical Nuclear Physicist  
Specializing in the Calibration of Radiological Units  
1410 Thomas Drive  
Coplay, PA 16037  
(610) 402-8385

August 19, 1996

Bux Mont Radiology  
295 E. Street Road  
Warminster, PA. 18974

RE: Review of NRC Findings with Linda Kinnerman

A review of the NRC inspection findings were carried out on August 19, 1996, so that Linda can have an understanding of the violations and how to address the problems. The following was discussed:

Daily checks of the dose calibrator only involved the measurements of Co-57 and Cs-137. The measurements of commonly used radionuclides must be established. For your lab Tc-99m and I-131 need to be added for daily constancy. Either Co-57 or Cs-137 can be read for the Tc-99m and I-131 settings to establish the daily constancy readings. Cs-137 is recommended due to its long half life. Syncor can print you out the constancy sheets once the readings have been established.

Linearity was being measured down to approximately 1.6 mCi of activity. The NRC requires that the activity be measured to below 0.03 mCi (30 uCi). Therefore, the linearity sample should be counted longer until the sample activity falls to below 30 uCi of activity.

The NRC quality management program (QM) requires a written directive for I-131 activity greater than 30 uCi given to a patient. Since 100 uCi of I-131 are used for uptake and scans at your facility, the authorized user must give a written directive for each patient having I-131 uptake and scan. The written directive must have the patient's name, the date, the radionuclide, the prescribed activity and the authorized user's signature. In order to avoid a quality management program and to reduce the radiation dose to the patient and improve on scan quality, I suggest the use of I-123 for uptake and scans. The use of I-123 would be under your State of Pennsylvania Radioactive Material License and does not qualify under the QM program. The half life of I-123 is short (13 hours) and reduces patient dose. The energy of I-123 (159 keV) is well suited for imaging. The average patient dose is 200 to 400 uCi and 6 and 24 hour uptakes with a 6 hour scan are usually performed.

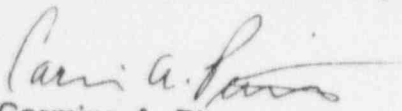


The NRC requires that the survey meter be checked with a dedicated check source for each day of use. A Cs-137 check source needs to be purchased and a reading from this check source must be established. This reading should be indicated on the side of the survey meter and the daily reading should be within 20% of this reading for the meter to be used.

Quarterly inventory check of sources need to be reviewed and signed by the RSO or the authorized user of the facility.

The NRC requires that the radiation safety program be reviewed annually. A review of your facilities program was not conducted for 1995. You may want to hire an outside consultant to review your program, or you may want to follow the guidance in Regulatory Guide 10.2.

The above was a brief review of the NRC inspection finding so that you have an understanding of what needs to be established to satisfy NRC requirements. If you have any questions or need any additional information, please give me a call at (601) 402-8385.



Carmine A. Pierno, M.S.  
Certified Radiologic Physicist

RECEIVED-10-10-11