

NRCPTBG

December 7, 1990

Mohamed M. Shanbaky, Chief  
Nuclear Material Safety Section A  
Division of Radiation Safety and Safeguards  
U. S. Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, Pennsylvania 19406

Re: Docket No. 030-15134  
License No. 37-18467-01MD

Following is our response to the apparent violations identified as a result of routine inspection No. 030-15134-001 performed on August 29, 1990.

VIOLATION A1

1. Corrective steps taken and results achieved.

All employees were given an instructional program over the items specified in 10 CFR 19.12. Attendance for the program was documented on Syncor's RS-59 form for documenting inservice training. This training session will establish a baseline date for entry into a reminder program in the computer which will be used to indicate when annual training must be given again.

2. Corrective action to prevent a further violation.

The dates of the above program have been entered into each employee's file in the computer. These files as well as the reminder program mentioned above will be used to alert the facility RSO when annual refresher training should be held.

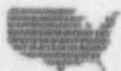
Full compliance was achieved August 30, 1990.

VIOLATION 2

1. Corrective steps taken and results achieved.

An inservice was held instructing all individuals who perform package opening procedures that the one meter radiation level reading has to be obtained before obtaining the surface radiation level reading when performing these procedures.

9102270079 910211  
REG1 LIC30  
37-18467-01MD PDR



*Innovators in high-tech pharmacy services*

2. Corrective action to prevent a further violation.

The facility RSO will monitor package opening procedures to insure that they are being performed in accordance with those commitments made in the August 15, 1984 application.

Full Compliance was achieved December 1, 1990.

VIOLATION B

This violation is denied. Your notice of violation states that "no results of test and engineering evaluation of comparative data was maintained which addressed Type A containers packed with excess weight, (i.e additional unit dose containers placed into containers that were originally tested.)"

The reason for this denial is as follows:

1. There was specification testing on hand for the packaging in question at this facility which was not asked for nor given to the inspector.
2. This testing was for multiple loadings of various types of shielding used up to a gross weight of 28.5 pounds.
3. As per my conversation with the inspector there were 10 white unit dose shields placed in the package in question, however he did not identify whether the shields were 1 and 1/2 pound shields or 3 pound shields. If the combination of shields and package did not exceed a weight of 28.5 pounds then no violation was committed.
4. Different shield sizes are used for transporting different quantities of Tc-99m products. The 1 and 1/2 pound shield is used for Tc-99m activities up to 20 millicuries and the 3 pound shield is used for Tc-99m activities over 20 millicuries.

To support our argument I have enclosed portions of our specification testing documentation which demonstrate the various types of lead shielding that could be loaded into this Type A packaging and the information as to the authorized gross weight of this packaging.

In addition this location generates a packing list which identifies what has been loaded into each brief case. While I cannot supply the packing list for the package observed by the inspector I can send you examples of various loadings taken at random which demonstrates what may have been observed by the inspector.

With all due respect, if the inspector had looked at the packing list and the specification testing he would have been able to factually identify whether a violation had occurred. He apparently felt because he saw ten unit dose shields in the brief case that the case was overloaded.

As you can see from the attached data a mechanism was and is in place to identify what is placed into the packaging to insure that over loading is prevented.

VIOLATION C

1. Corrective steps taken and results achieved.

A directive has been given to all individuals responsible for completing radioactive waste disposal records specifying that all records entries must be completed when surveys are done. All records generated since the August 29th inspection are complete with no entry omissions.

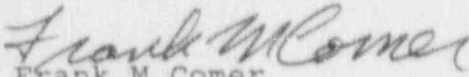
2. Corrective actions to prevent a further violation.

The facility RSO or his designate will monitor these records to insure compliance.

Full compliance was achieved August 30, 1990.

If further information is necessary concerning these violations do not hesitate to contact me.

Sincerely,

  
Frank M. Comer  
Manager, Regulatory Compliance

cc: Dan Littlefield, RSO  
Rodney Prosser  
License file

DOT SPEC. 7A CERTIFICATION

1. Common Name of Container

Samsonite Briefcase Model No. 040345 or equivalent modified with internal packing as shown in Figures 1 & 2.

2. Authorized Contents

Type A quantities of radiopharmaceuticals including solid, liquid, and gaseous material packaged in several types of internal packagings. There are no restrictions with regard to isotope and form as long as there is adherence to the general material forms and specific inner containers and packaging techniques as described in Section 3 and other sections of this certification document.

3. Description of Containers and Inner Packaging

The container tested was a Samsonite Diplomat attache case, Model 040345. The dimensions are as follows:

18.25" x 13" x 5"

The inner containers tested were as follows:

- a. A lead pipe containing (5) sealed glass vials designed to hold XE-133 gas. The lead pipe is sealed with slip-on plastic end caps. See Figures 1 & 2.
- b. An inner containment system consisting of a plastic, lead-lined jar with a screw-on, plastic lid. This pig contains a plastic vial with a snap-on lid that would hold approximately 15 capsules of Sodium Iodide 131 or other solid radiopharmaceuticals. See Figures 1 & 2.
- c. An inner containment system consisting of a sealed glass vial containing 10cc of a liquid radiopharmaceutical. This glass vial with its sealed rubber/metal cap is placed inside of a lead pig with a drop-on lid. This lid is taped on with black electrical tape or equivalent. This pig is then inserted inside of a plastic container with a metal screw on lid. See Figures 1 & 2.
- d. An inner containment system consisting of a sealed glass vial containing 10cc of a liquid radiopharmaceutical. This glass vial with its sealed rubber/metal cap is placed inside of a lead pig with a slip-on, lead lid. This lid is taped on. See Figures 1 & 2.

- e. An inner containment system consisting of a lead pig with a drop-on, lead lid. This pig contains a glass vial with a snap-on, plastic lid that would hold approximately 15 capsules of Sodium Iodide 131 or other solid radiopharmaceuticals. The lid is taped on. See Figures 1 & 2.
- f. An inner containment system consisting of 1cc-5cc syringes with end caps, containing liquid radiopharmaceutical and placed inside of plastic, lead-lined pigs with screw-on lids. See Figures 1 & 2.

4. Test Results

For the tests required for Type A packaging as noted in 49 CFR 173.398(b), the case was loaded as shown in Figures 1 & 2. The case was then closed and secured with a strap as shown in Figures 3 & 4. The case was weighed and had a gross weight of 28.5 lbs. This is the authorized gross weight. The results of the tests are as follows:

- a. Heat - Direct sunlight at an ambient temperature of 130°F. in still air.

The case passed. There was no loss of contents or decrease in package effectiveness. The cushioning material acts as a thermal barrier. See Figures 1-5.

- b. Cold - An ambient temperature of -40°F. in still air and shade.

The case passed. There was no loss of contents or decrease in package effectiveness. See Figures 1-4, 6.

- c. Reduced Pressure - Ambient atmospheric pressure of 0.5 atmospheres.

Not applicable since the package breathes. Even a small differential cannot be maintained.

- d. Vibration - Vibration normally incident to transport.

Case passed. The case and contents were subjected to normal transport and handling vibration. There was no loss of contents or indication of reduction of integrity, i.e., loosening of lids, etc.

- e. Water Spray - Not applicable.



Figure 2

Case showing inner containers packaged for testing

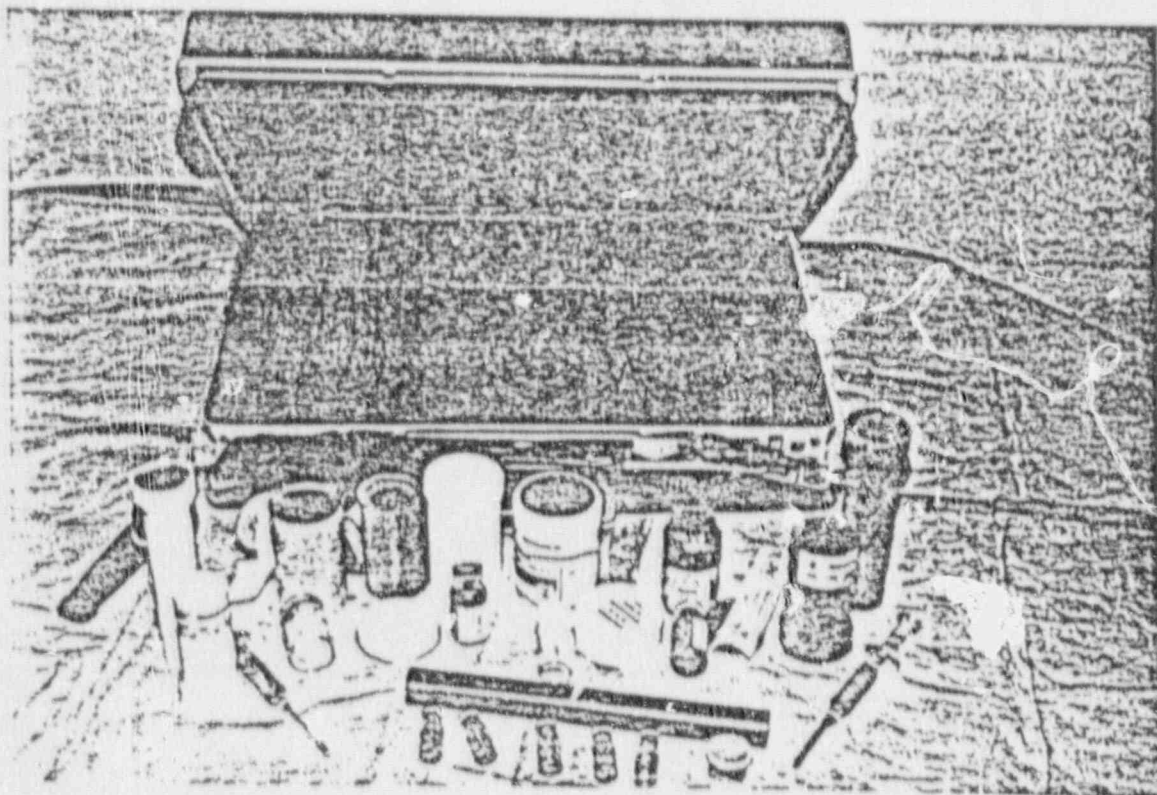


Figure 12

Case showing inner contents after 4' Free Drop Test

No damage or loss of contents

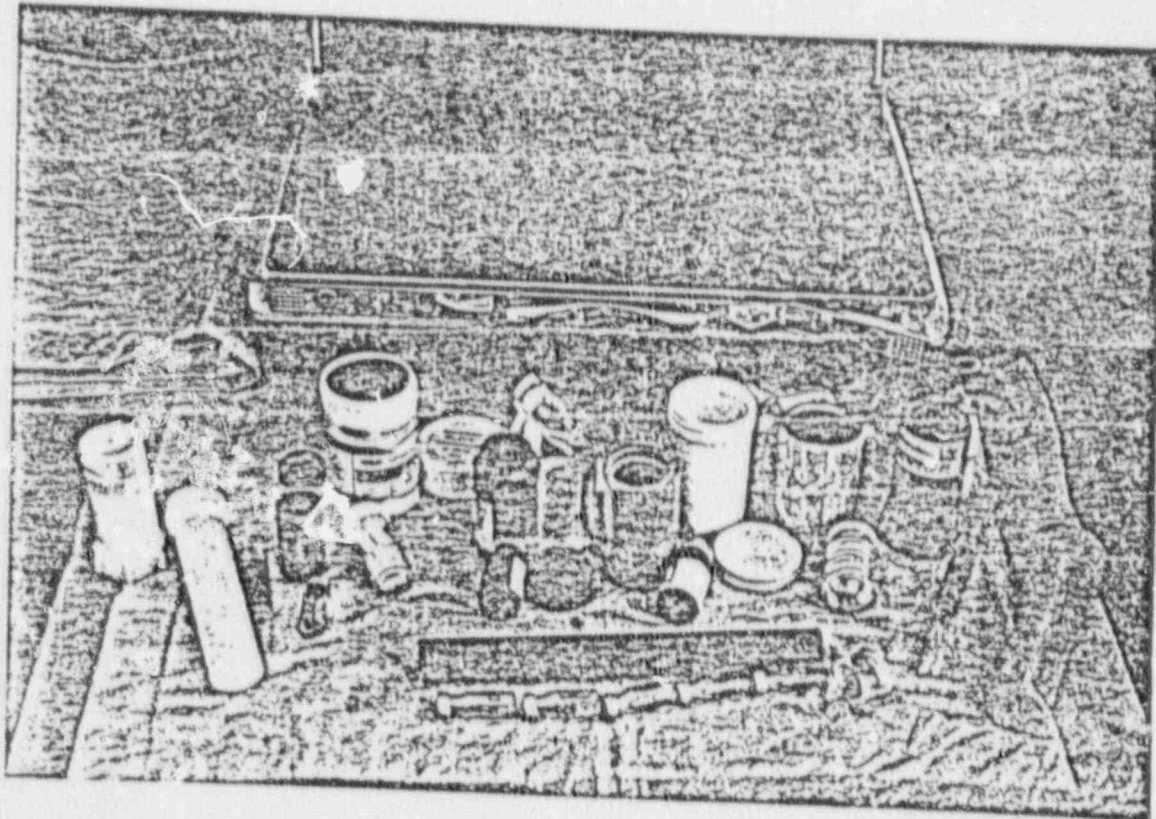


Figure 27

Case showing contents after 30' Drop Test

No damage or loss of contents



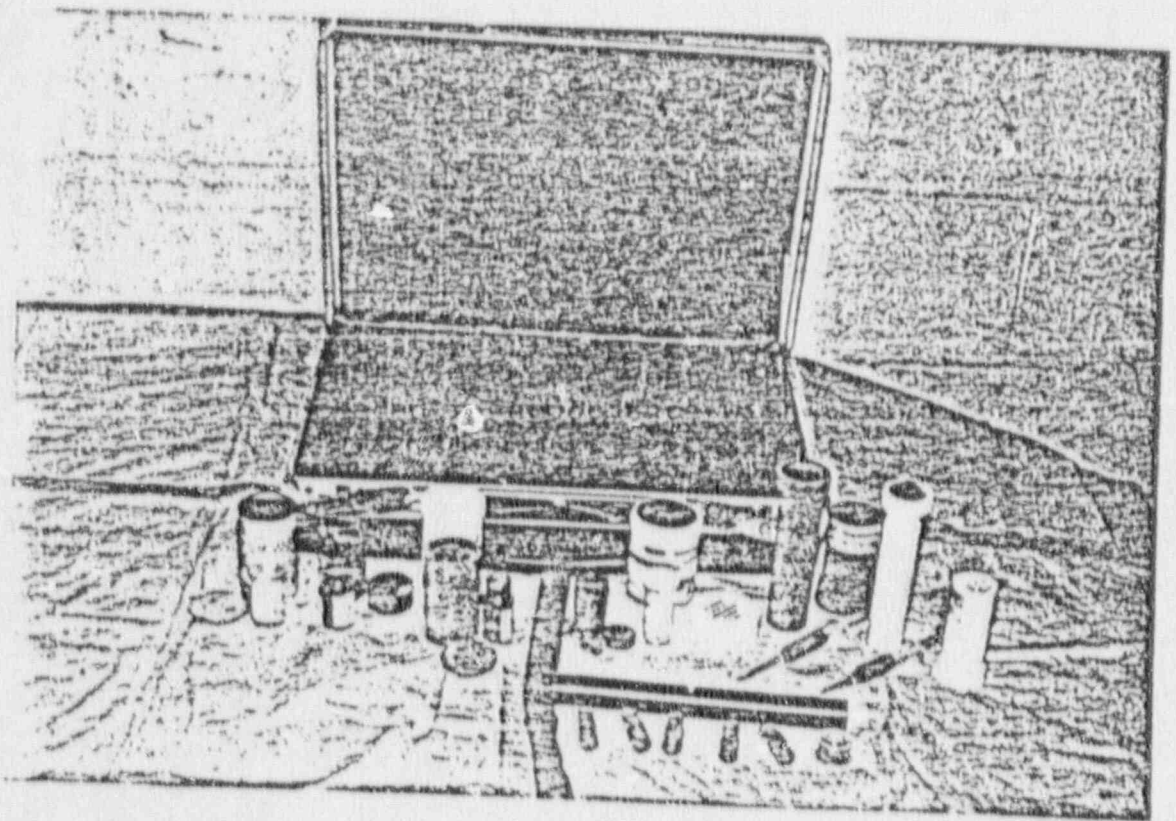


Figure 1

Case showing contents of inner containers

Synco Corp #029  
Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

BILL No: 4945



PACKING LIST

SHIP TO: WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224

CUST #: 0006  
CASE #: 150  
ROUTE #: 06

\*\*\*\*\*  
RX DATE/TIME PROD # DESCRIPTION QUANTITY VOLUME P.O. NUMBER RX/ORD# PATIENT NAME AGE RETN  
EX DATE/TIME UDM ID# ACTIVITY  
\*\*\*\*\*



11/20/90 11:00 TC9930 MAA Tc99m 4.00 mCi .71 ml C123 674229  
11/20/90 14:00 0111-001 4.000 mCi



11/20/90 09:30 TC9943 SN-DTPA Tc99m 30.00 mCi .90 ml C123 674230  
11/20/90 15:00 0109-001 30.000 mCi

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

Carrier: SAME AS SHIPPER

Origin: 04:15

Date: 11/20/90

Bill No: 4945

Shipper:

Syncor Corp  
Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

Consignee Name And Address:

WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224  
412/578-5155

Proper Shipping Name/Classification:

X RADIOACTIVE MATERIALS N.O.S. UN 2982

CASE NO. 150

ROUTE NO. 06

674229 674230

RADIONUCLIDE	CHEMICAL FORM/PHYSICAL STATE	ACTIVITY (mCi)	(GBq)
Tc99m	Protein/Liquid	8.702	0.322
Tc99m	Organic Compound/Liquid	54.911	2.032
	Total	63.613	2.354

LABEL CATEGORY: Radioactive WHITE/YELLOW \_\_\_\_\_

TRANSPORTATION INDEX : \_\_\_\_\_

Bg \_\_\_\_\_cpm Wipe Test \_\_\_\_\_Net cpm

Action Level ( 6600dpm per 300sq.cm x EF of 0.905 ) = 5973 Net cpm/300sq.cm

Surface Reading \_\_\_\_\_mr/hr Wipe Test, Inner Source Container \_\_\_\_\_Net cpm

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations for the Department of Transportation.

Signature \_\_\_\_\_ Date \_\_\_/\_\_\_/\_\_\_ Time \_\_\_:\_\_\_

The radioactive contents of each package is within the limits indicated for A2 classification according to 49CFR 173.435.

BILL No: 4944



PACKING LIST

SHIP TO: WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4900 Friendship Avenue  
PITTSBURGH PA 15224

CUST #: 0006  
CASE #: 140  
ROUTE #: 06

241125

RX D/TE/TIME	PROD #	DESCRIPTION	QUANTITY	VOLUME	P.O. NUMBER	RX/ORD#	PATIENT NAME	AGE	RETN
EX DATE/TIME	UDM ID#		ACTIVITY						

11/20/90 12:00	TL2011	T1201	mCi DUP	1.00 mCi	.71 ml	C123			
11/27/90 12:00	0301-001			1.000 mCi					

Large

11/20/90 12:00	TL2011	T1201	1mCi DUP	1.00 mCi	.71 ml	C123			
11/27/90 12:00	0301-001			1.000 mCi					

Large

11/20/90 12:00	TL2011	T1201	1mCi DUP	1.00 mCi	.71 ml	C123			
11/27/90 12:00	0301-001			1.000 mCi					

Large

11/20/90 12:00	TL2011	T1201	1mCi DUP	1.00 mCi	.71 ml	C123			
11/27/90 12:00	0301-001			1.000 mCi					

Large

11/20/90 12:00	TL2011	T1201	1mCi DUP	1.00 mCi	.71 ml	C123			
11/27/90 12:00	0301-001			1.000 mCi					

Large

11/20/90 12:00	TL2011	T1201	1mCi DUP	1.00 mCi	.71 ml	C123			
11/27/90 12:00	0301-001			1.000 mCi					

Large

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

PACKING LIST CONTAINS ADDITIONAL PAGES

Syncon Corp #029  
Pharmacy Service Center  
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Pittsburgh PA 15201  
412/261-6200

BILL No: 4944



PACKING LIST

SHIP TO: WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224

CUST #: 0006  
CASE #: 140  
ROUTE #: 06

\*\*\*\*\*  
RX DATE/TIME PROD # DESCRIPTION QUANTITY VOLUME P.O. NUMBER RX/ORD# PATIENT NAME AGE RETN  
EX DATE/TIME UDM ID# ACTIVITY  
\*\*\*\*\*



*Small*

11/20/90 13:00 TC0404 Tc04 Thyroid 10.00 mCi .45 ml C123 674083  
11/20/90 14:00 0102-001 10.000 mCi



*Small*

11/20/90 13:45 TC0404 Tc04 Thyroid 10.00 mCi .49 ml C123 674084  
11/20/90 14:00 0102-001 10.000 mCi



*Small*

11/20/90 14:30 TC0404 Tc04 Thyroid 10.00 mCi .27 ml C123 674085  
11/20/90 16:00 0102-001 10.000 mCi



*Small*

11/20/90 09:00 TC9918 Choletec Tc99m 5.00 mCi .47 ml C123 674087  
11/20/90 20:00 0116-001 5.000 mCi

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Mark 'X' in RETN column for Returned Doses.

Shipper:  
Syncon Corp  
Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

Consignee Name And Address:  
WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224  
412/576-5155

Proper Shipping Name/Classification:  
 X  RADIOACTIVE MATERIALS N.O.S. UN 2982

CASE NO. 140      ROUTE NO. 06

674070 674071 674072 674073 674074 674075 674083 674084 674085 674087

RADIONUCLIDE	CHEMICAL FORM/PHYSICAL STATE	ACTIVITY (mCi)	(Bq)
Tl-201	Inorganic Salt/Liquid	6.456	0.239
Tc99m	Inorganic Salt/Liquid	98.437	3.642
Total		104.893	3.881

LABEL CATEGORY: Radioactive WHITE/YELLOW \_\_\_\_\_  
TRANSPORTATION INDEX : \_\_\_\_\_

Eg \_\_\_\_\_cpm      Wipe Test \_\_\_\_\_Net cpm  
Action Level ( 6600dpm per 300sq.cm x EF of 0.905 ) = 5973 Net cpm/300sq.cm  
Surface Reading \_\_\_\_\_mr/hr      Wipe Test, Inner Source Container \_\_\_\_\_Net cpm

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations for the Department of Transportation.

Signature \_\_\_\_\_      Date \_\_\_/\_\_\_/\_\_\_      Time \_\_\_:\_\_\_

The radioactive contents of each package is within the limits indicated for A2 classification according to 49CFR 173.435.

Syndor Corp #029  
Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

BILL No: 4943



PACKING LIST

SHIP TO: WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224

CUST #: 0006  
CAGE #: 103  
ROUTE #: 06

22.5 105

RX DATE/TIME	PROD #	DESCRIPTION	QUANTITY	VOLUME	P.O. NUMBER	RX/ORD#	PATIENT NAME	AGE	RETN
EX DATE/TIME	UDM ID#		ACTIVITY						



11/20/90 07:00	TC0401	Tc99m mCi. Brce	.50 mCi	.09 ml		673358			
11/20/90 24:00	0102-001		.500 mCi						

Small



11/20/90 12:00	TL2011	Tl201 1mCi DUP	2.80 mCi	1.99 ml	C123	674064			
11/25/90 24:00	0301-001		2.800 mCi						

Large



11/20/90 12:00	TL2011	Tl201 1mCi DUP	2.80 mCi	1.99 ml	C123	674065			
11/25/90 24:00	0301-001		2.800 mCi						

Large



11/20/90 12:00	TL2011	Tl201 1mCi DUP	2.80 mCi	1.99 ml	C123	674066			
11/25/90 24:00	0301-001		2.800 mCi						

Large



11/20/90 12:00	TL2011	Tl201 1mCi DUP	2.80 mCi	1.99 ml	C123	674067			
11/27/90 12:00	0301-001		2.800 mCi						

Large



11/20/90 12:00	TL2011	Tl201 1mCi DUP	2.80 mCi	1.99 ml	C123	674068			
11/27/90 12:00	0301-001		2.800 mCi						

Large

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Mark 'X' in RETN column for Returned Doses.

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Syncor Corp #029  
Pharmacy Service Center  
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Pittsburgh PA 15201  
412/261-6200

BILL No: 4943



PACKING LIST

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Nuclear Medicine Dept. ✓  
4800 Friendship Avenue  
PITTSBURGH PA 15224

DIST #: 0006  
CASE #: 103  
ROUTE #: 06

\*\*\*\*\*  
RX DATE/TIME PROD # DESCRIPTION QUANTITY VOLUME P.O. NUMBER RX/ORD# PATIENT NAME AGE RETN  
EX DATE/TIME UDM ID# ACTIVITY  
\*\*\*\*\*



11/20/90 12:00 TL2011 T1201 1mCi DUP 2.80 mCi 1.99 ml C123 674069  
11/27/90 12:00 0301-001 2.800 mCi

*Large*



11/20/90 12:00 I13114 I131Cap 7uCi 2.00 Cap 2.00 Cap C123 674036  
11/22/90 12:00 0420-001 16.224 uCi

*Large*

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Shipper:

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Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

Consignee Name And Address:  
WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224  
412/578-5155

Proper Shipping Name/Classification:

X RADIOACTIVE MATERIALS N.O.S. UN 2982

CASE NO. 103

ROUTE NO. 06

673358 674064 674065 674066 674067 674068 674069 674086

RADIONUCLIDE	CHEMICAL FORM/PHYSICAL STATE	ACTIVITY (mCi)	(GBq)
Tc99m	Inorganic Salt/Liquid	0.686	0.025
Tl-201	Inorganic Salt/Liquid	18.072	0.669
I-131	Inorganic Salt/Solid	0.017	0.001
Total		18.775	0.695

LABEL CATEGORY: Radioactive WHITE/YELLOW \_\_\_\_\_

TRANSPORTATION INDEX : \_\_\_\_\_

Bg \_\_\_\_\_ cpm      Wipe Test \_\_\_\_\_ Net cpm

Action Level ( 6600dpm per 300sq.cm x EF of 0.905 ) = 5973 Net cpm/300sq.cm

Surface Reading \_\_\_\_\_ m/hr      Wipe Test, Inner Source Container \_\_\_\_\_ Net cpm

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations for the Department of Transportation.

Signature \_\_\_\_\_ Date \_\_\_/\_\_\_/\_\_\_ Time \_\_\_:\_\_\_

The radioactive contents of each package is within the limits indicated for A2 classification according to 49CFR 173.435.

SHIPC(3,4)

Syncor Corp #029  
Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

PAGE: 1

BILL No: 4942



PACKING LIST

SHIP TO: WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224

CLST #: 0006  
CASE #: 63  
ROUTE #: 06

RX DATE/TIME	PROD #	DESCRIPTION	QUANTITY	VOLUME	P.O. NUMBER	RX/ORD#	PATIENT NAME	AGE	RETN
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EX DATE/TIME	UDM ID#	ACTIVITY							
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11/20/90 10:45	TC9918	Choletec Tc99m	5.00	mCi	.58	ml	C123		674246
11/20/90 24:00	0116-001		5.000	mCi					

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Mark 'X' in RETN column for Returned Doses.

Shipper:  
Syncon Corp  
Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

Consignee Name And Address:  
WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224  
412/578-5155

Proper Shipping Name/Classification:  
 X  RADIOACTIVE MATERIALS N.O.S. UN 2982

CASE NO.      63      ROUTE NO. 06

674246

RADIONUCLIDE	CHEMICAL FORM/PHYSICAL STATE	ACTIVITY (mCi)	(GBq)
Tc99m	Inorganic Salt/Liquid	10.568	0.391
	Total	10.568	0.391

LABEL CATEGORY: Radioactive WHITE/YELLOW \_\_\_\_\_  
TRANSPORTATION INDEX : \_\_\_\_\_

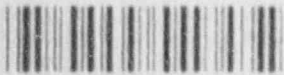
Bg \_\_\_\_\_cpm      Wipe Test \_\_\_\_\_Net cpm  
Action Level ( 6600dpm per 300sq.cm x EF of 0.905 ) = 5973 Net cpm/300sq.cm  
Surface Reading \_\_\_\_\_µr/hr      Wipe Test, Inner Source Container \_\_\_\_\_Net cpm

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations for the Department of Transportation.

Signature \_\_\_\_\_      Date \_\_\_/\_\_\_/\_\_\_      Time \_\_\_:\_\_\_

The radioactive contents of each package is within the limits indicated for A2 classification according to 49CFR 173.435.

BILL No: 4941



PACKING LIST

SHIP TO: WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224

CUST #: 0006  
CASE #: 34  
ROUTE #: 06

22.5 lbs

RX DATE/TIME	PROD #	DESCRIPTION	QUANTITY	VOLUME	P.O. NUMBER	RX/ORD#	PATIENT NAME	AGE	RETN
EX DATE/TIME	UDM ID#		ACTIVITY						



Small

11/20/90 11:00	TC9918	Cholecsec Tc99m	5.00 mCi	.59 ml	C123	674088			
11/20/90 24:00	0116-001		5.000 mCi						



Large

11/20/90 12:00	TL2011	Tl201 1mCi DUP	2.80 mCi	1.99 ml	C123	674120			
11/27/90 12:00	0301-001		2.800 mCi						



Large

11/20/90 12:00	TL2011	Tl201 1mCi DUP	2.80 mCi	1.99 ml	C123	674121			
11/27/90 12:00	0301-001		2.800 mCi						



Large

11/20/90 12:00	TL2011	Tl201 1mCi DUP	1.00 mCi	.71 ml	C123	674122			
11/27/90 12:00	0301-001		1.000 mCi						



Large

11/20/90 12:00	TL2011	Tl201 1mCi DUP	1.00 mCi	.71 ml	C123	674123			
11/27/90 12:00	0301-001		1.000 mCi						



Large

11/20/90 11:00	TC0403	Tc04 Cardiac	27.00 mCi	.48 ml	C123	674124			
11/20/90 19:30	0102-001		27.000 mCi						

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Syncor Corp #029  
Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

BILL No: 4941



PACKING LIST

SHIP TO: WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224

CUST #: 0006  
CASE #: 34  
ROUTE #: 06

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*****
RX DATE/TIME  PROD #  DESCRIPTION      QUANTITY  VOLUME  P.O. NUMBER  RX/ORD#  PATIENT NAME  AGE  RETN
EX DATE/TIME  UDM ID#      ACTIVITY
*****

```



*Large*

```

11/20/90 12:00  TC0403  Tc04 Cardiac  27.00 mCi  .54 ml  C123  674125
11/20/90 19:30  0107-001      27.000 mCi

```



*Small*

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11/20/90 09:00  TC9920  Sulf Col Tc99m  6.00 mCi  .42 ml  C123  674126
11/20/90 10:00  0110-001      6.000 mCi

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*Small*

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11/20/90 10:00  TC9980  Pyro Tc99m  15.00 mCi  .95 ml  C123  674127
11/20/90 14:00  0104-001      15.000 mCi

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

Carrier: SAME AS SHIPPER      Origin: 04:15      Date: 11/20/90      Bill No: 4941

Shipper:  
Syncon Corp  
Pharmacy Service Center  
2911 Penn Avenue  
Pittsburgh PA 15201  
412/261-6200

Consignee Name And Address:  
WESTERN PENNSYLVANIA HOSP  
Nuclear Medicine Dept.  
4800 Friendship Avenue  
PITTSBURGH PA 15224  
412/578-5155

Proper Shipping Name/Classification:

X RADIOACTIVE MATERIALS N.O.S. UN 2982

CASE NO.      34      ROUTE NO. 06

674088   674120   674121   674122   674123   674124   674125   674126   674127

RADIONUCLIDE	CHEMICAL FORM/PHYSICAL STATE	ACTIVITY (mCi)	(GBq)
Tc99m	Inorganic Salt/Liquid	145.884	5.398
Tl-201	Inorganic Salt/Liquid	8.176	0.303
Tc99m	Organic Compound/Liquid	29.082	1.076
Total		183.142	6.776

LABEL CATEGORY: Radioactive WHITE/YELLOW \_\_\_\_\_

TRANSPORTATION INDEX : \_\_\_\_\_

Bg \_\_\_\_\_ cpm      Wipe Test \_\_\_\_\_ Net cpm

Action Level ( 6600dpm per 300sq.cm x EF of 0.905 ) = 5973 Net cpm/300sq.cm

Surface Reading \_\_\_\_\_ m/hr      Wipe Test, Inner Source Container \_\_\_\_\_ cpm

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations for the Department of Transportation.

Signature \_\_\_\_\_ Date \_\_\_/\_\_\_/\_\_\_ Time \_\_\_:\_\_\_

The radioactive contents of each package is within the limits indicated for A2 classification according to 49CFR 173.435.