

May 28. 2004 12:01PM

Alpha-Omega Services 5628040610

No. 3109 P. 1



Alpha-Omega Services, Inc.

Where Quality Means Exceeding Expectations

J-9

May 28, 2004

US Nuclear Regulatory Commission Region IV
DNMS/NMLB
611 Ryan Plaza Drive, Suit 400
Arlington, TX 76011-8064
Attn: Judith Walker
Health Physicist
SUBJECT: Reciprocity for Source Exchanges on Leksell Gamma Knife.

fax: (817) 860-8263

37-30485-01
03034872

Please accept this letter as Request for Reciprocity to perform work within your jurisdiction.

Scope: To perform Source Exchange on Leksell Gamma Knife Elekta Model # 23004 Type B/C
With General Electric Model # 43047 or MDS Nordio Model # 43865 Cobalt-60 sources.

RTS#
825

<u>SITE NAME</u>	<u>ADDRESS</u>	<u>LICENSE NO.</u>	<u>DATE OF LOADING</u>
Merit Health System MCP d.b.a. Medical College of Pennsylvania Hospital	3300 Henry Avenue Philadelphia, PA 19129	37-30485-01	Unloading Only June 23, 2004

Alpha-Omega Services, Inc. California Radioactive Material License #3925-19, Amendment 24,
Expiration date October 1, 2007. Alpha-Omega Services, Inc. source exchange personnel:

Cary Hedger, R.S.O.	Jim Wilson	Ulf Pettersson	Ryan Grome
Chris Duhon	Rolf Lundstrom	Martin Knotts	

24 Hour Emergency Contact: Alpha-Omega Services, Inc. (800) 346-7894
Cary Hedger, R.S.O. ext 42 cell (310) 712-2078
Troy Hedger, V. President ext 24 cell (909) 908-0899

If you need additional information, please contact us at (800) 346-7894

Thank you.
Alpha-Omega Services, Inc.

Cary Hedger
R.S.O./ President

Rachel S. Browder
Health Physicist

R. Browder
6/2/04

136693

**STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE**

PAGE 1
SHIPMENT ID NUMBER
R67473

CARRIER NAME **KRISKA TRANSPORT**

CARRIER ADDRESS

SCAC

DUNS

FREIGHT BILL PRO NO.
CARRIER USE

On Collect on Delivery shipments the letters

TRAILER / CAR NUMBER

KF4803

TO: MDS NORDION
Consignee 447 MARCH ROAD
Street OTTAWA, ONTARIO K2K 1X8
CANADA
Destination (Code) SECURITY #36905

ROUTE

FROM: MEDICAL COLLEGE OF PENNSYLVANIA
Shipper 3300 HENRY AVENUE
Street PHILADELPHIA, PA 19129
USA
ZIP TAX ID #75-2784867
Origin

SPECIAL INSTRUCTIONS

24 HOUR EMERGENCY CONTACT #
MDS NORDION 613-592-2790

FOR PAYMENT SEND BILL TO:

SHIPPER'S INTERNAL DATA

Name
Street
City

SID NO.

#SHIPPING UNITS	H/M	KIND OF PACKAGING, DESCRIPTION OF ARTICLES SPECIAL MARKS AND EXCEPTIONS	WEIGHT	RATE	CHARGES
1		<p>CASE SO 67473</p> <p align="center">GROSS WEIGHT: 4500 KGS</p> <p align="center">HEAT FLUX: 2773A #7 <u>92</u> W/M2</p> <p>"RQ" RADIOACTIVE MATERIAL, TYPE B(U) PACKAGE, 7, UN2916</p> <p>COBALT 60, SPECIAL FORM, <u>201.4</u> TBQ. CHEMICAL FORM: ELEMENT PHYSICAL FORM: SOLID 2773A #7 <u>201.4</u> TBQ, TRANSPORT INDEX: <u>0.9</u> RADIOACTIVE YELLOW <u>II</u> COMPETANT AUTHORITY CERT. GB/2773A/B(U)-96, ISSUE 1 CDN ENDORSEMENT CDN/E213/-96, REV. 0 US ENDORSEMENT USA/0337/B(U)-96, REV. 12 SPECIAL FORM CERT. USA/0245/S, REV. 9 4, CLASS 7 PLACARDS REQUIRED</p>	0 KG		

ORIGINAL

REMIT C.O.D.

COD AMT:\$

PREPAID

COLLECT

TOTAL CHARGES \$

FREIGHT CHARGES ALL PREPAID UNLESS MARKED COLLECT

CHECK BOX IF COLLECT

TO ADDRESS

NOTE - Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by shipper to be not exceeding

\$ PER KG

Subject to Section 7 of conditions. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Signature of Consignor

RECEIVED, SUBJECT TO THE CLASSIFICATION AND TARIFF IF OFFERED ON THE DATE OF THE ISSUE OF THIS BILL OF LADING, THE PROPERTY DESCRIBED ABOVE IN APPARENT GOOD ORDER, EXCEPT AS NOTED (CONTENTS AND CONDITION OF CONTENTS OF PACKAGES UNKNOWN), MARKED, CONSIGNED AND DESTINED AS INDICATED ABOVE WHICH SAID CARRIER (THE WORD CARRIER BEING UNDERSTOOD THROUGHOUT THIS CONTRACT AS MEANING ANY PERSON OR CORPORATION IN POSSESSION OF THE PROPERTY UNDER THE CONTRACT), AGREES TO CARRY TO ITS USUAL PLACE OF DELIVERY OR SAID DESTINATION; IN ON ITS ROUTE; OTHERWISE TO DELIVER TO ANOTHER CARRIER ON THE ROUTE TO SAID DESTINATION. IT IS MUTUALLY AGREED AS TO EACH CARRIER OF ALL OR ANY OF SAID PROPERTY OVER ALL OR ANY PORTION OF SAID ROUTE TO DESTINATION AND AS TO EACH PARTY AT ANY TIME INTERESTED IN ALL OR SAID PROPERTY, THAT EVERY SERVICE IN THE PERFORMANCE HEREUNDER SHALL BE SUBJECT TO ALL THE BILL OF LADING TERMS AND CONDITIONS IN THE GOVERNING CLASSIFICATION ON THE DATE OF SHIPMENT SHIPPER HEREBY CERTIFIES THAT HE IS FAMILIAR WITH ALL THE BILL OF LADING TERMS AND CONDITIONS IN THE GOVERNING CLASSIFICATION AND SAID TERMS AND CONDITIONS ARE HEREBY AGREED BY THE SHIPPER AND ACCEPTED BY HIMSELF AND ASSIGNS.

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 of the Department of Transportation.

PER MEDICAL COLLEGE OF PENNSYLVANIA	CARRIER KRISKA TRANSPORT
PER <i>Craig Hedger</i> 6-24-2004	DATE 06/24/04

* MARK WITH X OR RO IF APPROPRIATE TO DESIGNATE HAZARDOUS MATERIALS OR HAZARDOUS SUBSTANCES AS DEFINED IN THE DEPARTMENT OF TRANSPORTATION REGULATIONS GOVERNING THE TRANSPORTATION OF HAZARDOUS MATERIALS. THE USE OF THIS COLUMN IS AN OPTIONAL METHOD FOR IDENTIFYING HAZARDOUS MATERIALS ON BILLS OF LADING PER SECTION 172.201 (A) (1) (ii) OF TITLE 49, CODE OF FEDERAL REGULATIONS. ALSO, WHEN SHIPPING HAZARDOUS MATERIALS, THE SHIPPER'S CERTIFICATION STATEMENT PRESCRIBED IN SECTION 172.204(A) OF THE FEDERAL REGULATIONS MUST BE INDICATED ON THE BILL OF LADING, UNLESS A SPECIFIC EXCEPTION FROM THIS REQUIREMENT IS PROVIDED IN THE REGULATIONS FOR A PARTICULAR MATERIAL.

CONTAINER SURVEY

Section III

Lloyd Hillier
Lloyd.Hillier@
mcsinc.com
613-592-
3400 x 2030

Container Identification:

DOT: USA/5979/B() #

-USA/58007B

Configuration: Elekta

Jobsite Surveys:

Customer: MCP

Lic.# 37-30485-01

Location: Philadelphia

RSO: _____

Presurvey

EMPTY

Date: 6/22/04

Contents: _____ source(s), _____ curies

Exposure Rate: Surface _____ mR/hr at _____

1 m. _____ mR/hr at _____

Postsurvey

Date: _____

Contents: _____ source(s), _____ curies

Exposure Rate: Surface _____ mR/hr at _____

1 m. _____ mR/hr at _____

DATE: _____

Shipping Survey:

Contents: 201 source(s), 5,444 curies

Date: 6/24/2004

Exposure Rate: Surface 10.0 mR/hr at 2:00 p.m

1 m. 0.9 mR/hr at 2:00 p.m

Index No. Assigned: 0.9

Label: yellow 11

Carrier: Kriska Transport

Waybill #: _____

Excl. Use? _____

Consignee: MCS Radiation

Lic.# _____

Address: 447 March Rd, Ottawa

Canada

ETA: 6:30 2004

by: Cory Hedge

Utfärdare/Issuer Billy Andersson	Datum/Date 001026	Utgåva/Edition 2	Sida(sidantal)/Page 1(1)
Godkänd/Approved	Datum/Date	Ref nr/Dok nr/Ref no/Doc no IN 1424	
Avser/Rø Leakage around the Loading Machine during Loading		Directory E:\DOC_STYR	

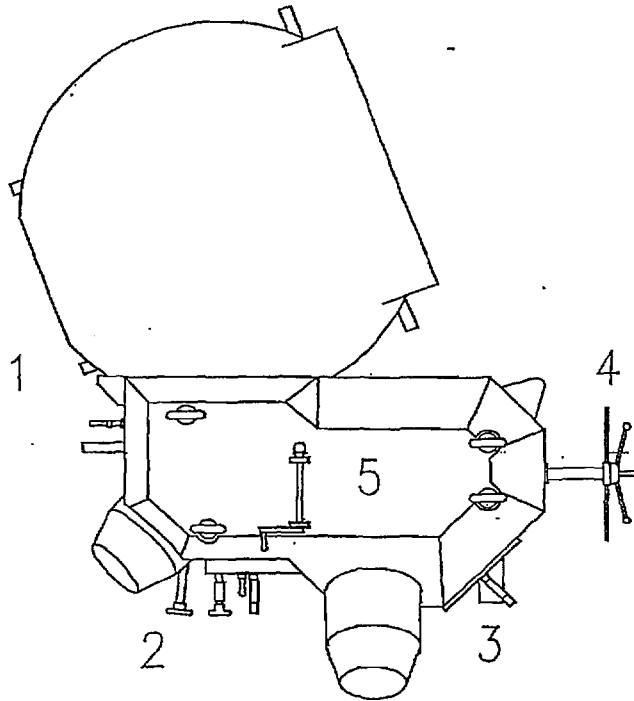
This test has to be performed during each loading

The reason for this measurement are to verify that there are no leakage around the LM during loading.

The measurement should be done before loading and with the sourcerack in loading position.

MEASUREMENTPOINTS

Number of loadingmachine	LM 3
1. Between loader and LGK	0.2 m ³ /h μ Sv/h
2. Check the leakage in the joint on the loadingcell side	0.1 m ³ /h μ Sv/h
3. Check the leakage in the joint on thecaskcellside	1.5 m ³ /h μ Sv/h
4. Check the leakage at the winch for the plug	3.0 m ³ /h μ Sv/h
5. Check the leakage on top of the loader	6.0 m ³ /h μ Sv/h



Protocol

Utfärdare/Issuer Billy Andersson	Datum/Date 2002-09-10	Utgåva/Edition 2	Sida(s)/Page 1(3)
Godkänd/Approved	Datum/Date	Ref nr/Dok nr/Ref no/Doc no BL 0147	
Avser/Re Loading Irradiation Protocol		Directory E:\DOC_STYR	

Project No 31223	Customer Terret MCP	Hospital MCP	City Philadelphia
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Responsible healthphysicist:

~~LOADING~~ TEAM:

- Unloading
1. Ryan Grome
 2. Cary Hedger
 - 3.
 - 4.
 - 5.
 - 6.

Unloading
DATE OF ~~LOADING~~: 6/24/2004

Readings of dosimeter PD-1

Before start		At end	
1.	μSv 0 mR	1.	μSv 1.5 mR
2.	μSv 0 mR	2.	μSv 2.0 mR
3.	μSv mR	3.	μSv mR
4.	μSv mR	4.	μSv mR
5.	μSv mR	5.	μSv mR
6.	μSv mR	6.	μSv mR

Container serial No :

Surface Dosrate : 10.0 ~~mSv/h~~ (mR/h); Ti= 0.9 Sign:

Project No
31223

μcounter		
Calibration Source No: 1046 IS ; Radionuclide: CO-60 ; Activity: $0.185 \text{ Bq} = 228 \text{ cps}$ $0.005 \mu\text{Ci}$		
Reference Date: 2003 July		
BG (Counts/50s) Date: 6.24.2004 Sign. <i>CH</i>	BG (counts/50s) Date: 6.24.2004 Sign. <i>CH</i>	Contamination limit : $0,4 \text{ Bq/cm}^2 = 10^5 \mu\text{Ci/cm}^2$: $A_1 \text{ max} = 4 \text{ Bq} = 4 \text{ kBq/m}^2$
1. 41	1. 41	(A_{11} = Approval counts/50s: counts)
2. 26	2. 26	Calibration Source : = c/50s
3. 23	3. 19	Calibration Source : (A_{01}) [Bq] = Bq
4. 33	4. 30	Calibration Source : (A_{01}) [cps] = cps
5. 17	5. 20	Back Ground : (BG) [cps] = cps
6.	6.	Smear test : (A_1) [Bq] = Bq
7.	7.	Approval c/50s : (A_{11})
8.	8.	$A_{11} = \left[\frac{4(A_{01} - \text{BG})}{A_0} + \text{BG} \right] \times 50 ; [\text{c}/50\text{s}]$
9.	9.	Sign
10.	10.	
----- Mean of Σ =	----- Mean of Σ =	

Smear test:
1. After Row E
2. After Row D
3. After Row C
4. After Row B
5. After Row A
6.
7.
8.
9.

10.

Project No

Remarks

All remarks shall also be written on an observation report by Elekta personnel.

Signature

Date

Utfärdare/Issuer Billy Andersson	Datum/Date 020911	Utgåva/Edition 1	Sida(sidantal)/Page 1(1)
Godkänd/Approved	Datum/Date	Ref nr/Dok nr/Ref no/Doc no BL 0544	
Avser/Re Contamination Clearance Certificate		Directory E:\DOC_STYR	

Contamination Clearance Certificate

Clearance requested by:

M C P Philadelphia

Description:

unloaded source from model C unit

The above items have been monitored for beta and gamma radiation, using a μ -counter and have been found to be free from detectable radioactive contamination.

The removable surface contamination is not greater than $0,4 \text{ Bq/cm}^2$ ($10^{-3} \text{ } \mu\text{Ci/cm}^2$) which is

Consistent with IAEA Safety Series No 6, 1985 § 408

Place:

Philadelphia.....

Date:

June 24, 2004

Print Name:

Cary Hedger

Signed:

