



Universidad de Puerto Rico  
Departamento de Biología

PO Box 23360  
San Juan PR 00931-3360

January 26, 2007

Ms. Lissette Roldán  
Commercial and R&D Branch  
Division of Materials Safety  
Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406-1415

Fax: 610-337-5269

Re: Control number ~~139703~~ *139703*

Dear Ms. Roldán:

Enclosed you will find the following documents related to your request for additional information about the aerosol neutralizers containing strontium-90 and krypton-85 sealed sources, that were used in temporary sites in December, 2004 by research groups from Germany, England and the University of Puerto Rico, Río Piedras Campus:

1. Copies of the Pro Forma invoice and of the Lufthansa Cargo waybill, evidencing that the krypton neutraliser was shipped to Germany, and is no longer in Puerto Rico. Also a document stamped by the Frankfurt Hauptzollamt stating that it was received in Deutschland.
2. A copy of the leak test that was performed in Germany, indicating that there was no detectable leak of radioactivity, and a letter by Dr. Johannes Schneider stating that in Germany the leak test on these instruments does not have to be performed every six months.
3. A letter by Carl Percival, Radiation Protection Supervisor, of the University of Manchester certifying that the Strontium-90 aerosol neutralizer has been returned to the Centre for Atmospheric Science, and a copy of the leak test that was performed on this instrument in England.

Sincerely,

*F. L. Renaud*  
Fernando L. Renaud  
Radiation Safety Officer

*139703*  
RECEIVED MATERIALS-002

**University of Puerto Rico  
Institute for Tropical Ecosystem Studies (ITES)**

Prof. Olga L. Mayol-Bracero  
Anexo Facundo Bueso  
Office # 208  
Río Piedras, Puerto Rico  
PR 00931, USA

Tel. office: +1 787 764-0000 Ext. 3430  
Tel. secr.: +1 787 764-0000 Ext. 2867  
Fax: +1 787 772-1481  
E-mail: omayol@adam.uprr.pr

**PRO FORMA INVOICE**

**Consignes:**

Max Planck Institute for Chemistry  
Dept. of Cloud Physics and Chemistry  
Dr. Johannes Schneider  
Joh.-J.-Becherweg 27  
D-55128 Mainz  
Germany

**AWB-No.:**

Number of pieces: 1  
Total value: 8 000 Euro  
Total Net Weight: 2.0 kg  
Total Gross Weight: 2.0 kg

Pos.	Identification	Pieces	Weight kg	Size cm	Value €	Country of Origin
1	Fibreboard box with content below:	1	1.0	11x21x31	8000	Germany
1 a)	Radioactive material, excepted package, limited quantity of material	1	1.0			Germany

**Reason for export:**

Research during the RICO-PRACS field experiment.  
Goods are not for sale or resale.

I declare that the above information is true and correct to the best of my knowledge.

Rio Piedras, 2005-02-17

  
Olga Mayol-Bracero



020 2413 6131

Shipper's Name and Address <b>INSTITUTE FOR TROPICAL ECOSYSTEM STUDIES (ITEB)-UNIVERSITY OF PUERTO RICO MRS. OLGA L. MAYOL BRACERO P.O. BOX 23341 SAN JUAN, PR 00931-3341</b>		Shipper's Account Number		Not Negotiable <b>Air Waybill</b>	
Consignee's Name and Address <b>LOI CHEN COS BUILDING 343-ROOM 2 Q217 TEL: 089 68 40 26 83 60549 FRANKFURT-AIRPORT</b>		Consignee's Account Number		Issued by <b>INFINANSA CARGO AG LAUREN KERNBERG 341 D-43451 KESSELFRONCH</b>	
Billing Carrier's Agent Name and City <b>E.E. DELCADO, INC. MIRANAR, PR</b>		Agent's IATA Code <b>01-1-9835-016</b>		Accounting Information	
Airport of Departure (Addr. of First Carrier) and Requested Routing <b>LUIS MUÑOZ MARIN INTL AIRPORT</b>		Airport of Destination <b>FRANKFURT</b>		Amount of Insurance <b>FIL</b>	
To <b>MIA</b>		By First Carrier <b>ME</b>		Declared Value for Carriage <b>NVD</b>	
To <b>FRA</b>		By <b>LR</b>		Declared Value for Customs <b>\$20,832</b>	
Flight/Date <b>ME 824/16</b>		Flight/Date <b>LM 463/17</b>		INSURANCE - If carrier offers insurance, and such insurance is requested in accordance with the conditions thereof, indicate amount to be insured in figures in box marked "Amount of insurance".	
Handling Information <b>QIMS: (2) 12"X12"X12"</b>					
These commodities, technology, or software were exported from the United States in accordance with the Export Administration Regulations Division contrary to U.S. law prohibited.					
No. of Pieces RCP	Gross Weight	Rate Class Commodity Item No.	Chargeable Weight	Rate Charge	Total
2	4 k		10 k	MIN	75.00
2	4 k				75.00
Prepaid			Weight Charge		
75.00			Collect		
Valuation Charge			Other Charges		
			E/s 1.20		
Tax			SEC 0.52		
Total Other Charges Due Agent			Shipper certifies that the particulars on the face hereof are correct and that insofar as the contents of the consignment contain dangerous goods, each part is properly described by name and is in proper condition for carriage by air according to the applicable Dangerous Goods Regulations.		
Total Other Charges Due Carrier			Signature of Shipper or its Agent		
1.72			E.E. DELCADO, INC. POA UNIVERSITY OF P.R.		
Total Prepaid			Signature of Billing Carrier or its Agent		
76.72			Signature of Billing Carrier or its Agent		
Commodity Name			Commodity Name		
FEBRUARY 16, 2003			SAN JUAN, PR		
Executed on (date)			at (place)		
House Air Waybill Number			020 2413 6131		

ORIGINAL 2 -- FOR CONSIGNEE

**Vor dem Ausfüllen Rückseite beachten.** Füllen Sie den Vorbericht bitte vollständig und deutlich (mit Schreibmaschine, 10 Zeichen pro Zeile) und elektronisch in deutscher Sprache aus. Das Formular wird maschinell gelesen, daher bitte nicht kürzen, leeren, abheften oder sonstige Bearbeitungen anbringen.

**A. Einfuhranzeige (12 Abs. 3 der Stromschärfverordnung)**

**DURCHSCHRIFT FÜR DEN EINFÜHRER**

**1. Name des Einführers**  
 Johannes-Gutenberg-Universität Mainz

**2. Name des Importeurs**  
 Florian Fochler

**3. Name des Herstellers**  
 LSI GmbH

**4. Adresse des Importeurs**  
 Dieselstr. 22  
 85551 Kirchheim

**5. Adresse des Herstellers**  
 089-96015933

**6. Telefonnummer des Importeurs**  
 089-96015975

**7. Produktname**  
 Aeronol-Neutralizer

**8. Wert der Ware in DM (eigentliches Unterbrot)**  
 EUR 8.000

**9. Ursprungsland**  
 USA (Puerto Rico)

**10. Ausfuhrland**  
 USA

**11. Name des Ausfuhrers**  
 Olga Mayol-Bracero

**12. Name des Ausfuhrers**  
 Universität von Puerto Rico

**13. Adresse des Ausfuhrers**  
 P.O. Box 23341  
 San Juan PR 00931-3341, USA

**14. Telefonnummer des Ausfuhrers**  
 +1 7877643430

**15. Telefonnummer des Ausfuhrers**  
 +1 7877721481

**16. Zweck der Einfuhr**  
 Wiedereinfuhr von vorübergehend ausgefuhrten wissenschaftlichen Instrumenten (Ausfuhranzeige von 15.11.04)

**17. Ort der Einfuhr**  
 Mainz

**18. Datum der Einfuhr**  
 21.12.04

**19. Unterschrift des Einführers**  
 Johannes Gutenberg-Universität Mainz  
 Becherweg 21  
 Institut für Physik der Atmosphäre  
 55099 Mainz

**20. Unterschrift des Ausfuhrers**  
 Olga Mayol-Bracero

**21. Hauptzollamt**  
 Frankfurt am Main-Flughafen  
 Zollamt Fracht - LCC

**22. Datum der Einfuhr**  
 24. FEB. 2005

**23. Zollnummer**  
 3302

**24. Bemerkungen**

Qualitätskontrolle für TSI-Aerosolneutralisator Modell 3077  
gemäß Bauartzulassung Nr. NW.823/98 nach § 23 Abs. 1 StrSchV

**TSI GmbH**  
Neuköllner Str. 4  
52058 Aachen  
Telefon 02471 53555-0

Serien-Nummer: 77-0035  
Herstellungsdatum: 1 6 01  
Lieferdatum: 5 12 01

Kundenschrift:

Universität Mainz  
Inst. f. Physik der  
Atmosphäre/Raum: 4341/513  
z. Hd. Dr. rer. nat. Bornmann  
Joh.-Joachim-Becher-Weg 21  
55128 Mainz

Sichtkontrolle:

Radioaktivitätsaufkleber:

Typenschild:

Deutsches Handbuch:

Prüfprotokoll

Bauartzulassungsaufkleber:

Bauartzulassungsurkunde:

☒ unbeschädigt  
☒ vorhanden  
☒ vorhanden  
☒ beigelegt  
☒ vorhanden  
☒ angebracht  
☒ beigelegt

☐ beschädigt  
☐ nicht vorhanden  
☐ nicht vorhanden  
☐ nicht beigelegt  
☐ nicht vorhanden  
☐ nicht angebracht  
☐ nicht beigelegt

Ortsdosisleistungsmessung in 10 cm Abstand:

2.20  $\mu\text{Sv/h}$

geprüft durch: Siegfried Duda

S Duda

Unterschrift

Aachen, den 6 12 01

# Max Planck Institute for Chemistry

Otto Hahn Institute



Max Planck Institute for Chemistry · Particle Chemistry Department  
P.O. Box 3060 · D-55020 Mainz · Germany

To:

Fernando Renaud  
University of Puerto Rico  
Fax: 001 -787-764-3875

Dr. Johannes Schneider  
Particle Chemistry Department  
J.-J.-Becherweg 27  
D-55128 Mainz  
Tel.: +49 8131 305-586 / -598  
Fax: +49 8131 305-597  
email: [schneider@mpch-mainz.mpg.de](mailto:schneider@mpch-mainz.mpg.de)

Date: 19.01.2007

No. of pages: 5

Dear Fernando,

The leak test doesn't have to be performed regularly in Germany. The only confirmation of the leak test I have is the one that was issued when we purchased the radioactive material in 2001.

I enclose it in the fax.

Best regards,

Johannes Schneider

MANCHESTER

The University  
of Manchester

School of Earth, Atmospheric  
and Environmental Sciences  
The University of Manchester  
Sackville Street Building  
PO Box 88  
Manchester  
M60 1QD

Tel: +44(0)161 200 3945

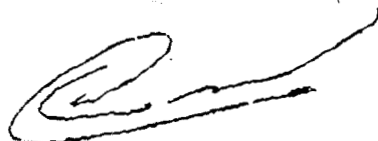
Fax: +44(0)161 200 3951

[carl.percival@manchester.ac.uk](mailto:carl.percival@manchester.ac.uk)

22<sup>nd</sup> January 2007

To whom it may concern,

This is to certify that the Strontium-90 (10mCi) aerosol neutraliser ID530, which contains Sr source in a sealed capsule, model number SIF33, SN#TD9408 has been returned to the Centre for Atmospheric Science, at Manchester.



Carl Percival

Radiological Protection Supervisor  
Centre for Atmospheric Science

North Western Medical Physics  
Christie Hospital NHS Trust

Report on leak testing of sealed sources

Site: UMIST

Date: 25th November 2003

Department: Physics

Method

The sealed sources were wiped with alcohol impregnated swabs. The swabs from the  $^{90}\text{Sr}$  sources were counted on a Mini-Instrument Geiger monitor, which was calibrated with a  $^{90}\text{Sr}/^{90}\text{Y}$  standard source of known activity. The swabs from the  $^{241}\text{Am}$ ,  $^{226}\text{Ra}$  and  $^{60}\text{Co}$  sources were counted on a well type scintillation detector. The system was calibrated with standard sources of known activity. The background and the counts from the swabs were acquired for 200 seconds



Results

Radionuclide	Ref number/id	Result	Pass/fail
Sr-90	ID527	Bkg count: 1-3cps Swab count: 1-3cps	Pass
Sr-90	ID530	Bkg count: 2-5cps Swab count: 2-5cps	Pass
Co-60	"green spot"	Bkg count: 68 Swab count: 53	Pass
Sr-90	20378	Bkg count: 1-3cps Swab count: 1-3cps	Pass
Am-241	11544	Bkg count: 48 Swab count: 43	Pass
Am-241	D	Bkg count: 48 Swab count: 43	Pass
Am-241	E	Bkg count: 48 Swab count: 43	Pass
Ra-226	3371	Bkg count: 524 Swab count: 502	Pass

Comments

No significant leakage was detected on any of the sources.

Signed:

*Percival*

(On behalf of the RPA)

Report to: Dr C. Percival

Dr C. Percival