

# Radioactive shipping





The [Radiation Protection Group](#) assists the [Logistic Services](#) in organising the shipping of all radioactive material from CERN to other institutes or external organisations



The [Radiation Protection Group](#) also assists the [Logistic Services](#) to check on reception all radioactive materials that arrive on CERN's sites from external organisations. Any person wishing to ship or import radioactive materials must contact the [Radiation Protection Service RP](#) beforehand, as well as the [Logistic Services](#) for urgent requests.



## OUR MAIN CLIENTS:

- MEDICIS : CERN's [MEDICIS](#) facility contributes to medical research by producing novel radioisotopes. These radioisotopes not only help diagnose cancers and other diseases but can also deliver precise radiation doses to treat diseased cells without destroying the surrounding healthy tissue.
- RWM : Radioactive Waste Management
- [https://indico.cern.ch/event/1460737/contributions/6166145/attachments/2949621/5184439/20241017\\_ARRAD-GT1-RW-Management.pdf](https://indico.cern.ch/event/1460737/contributions/6166145/attachments/2949621/5184439/20241017_ARRAD-GT1-RW-Management.pdf)
- Export formalities for ANDRA shipments
- OTHER INSTITUTES : irradiated equipment at/to CERN for analysis

# Shipping

Statistics on 31/10/2024

| Package classification                 | 2024       |            |
|--|------------|------------|
|  | Export     | Import     |
| Exempted                               | 108        | 172        |
| Excepted Package (UN 2908-09-10-11)    | 4          | 24         |
| Low Specific Activity LSA-I (UN 2912)  | 11         | -          |
| Low Specific Activity LSA-II (UN 3321) | -          | -          |
| Surface Contaminated Object (UN2913)   | 17         | -          |
| Type A package (UN 2915)               | 25         | 11         |
| Type A package, Special Form (UN 3332) | 1          | 1          |
| <b>Total packages</b>                  | <b>166</b> | <b>208</b> |

Export destinations 2024



Statistics on 28/10/2023

| Shipping Type         | 2024       |        |
|-----------------------|------------|--------|
|                       | Export     | Import |
| Exempted              | 38         | 35     |
| Radioactive           | 47         | 37     |
| <b>Total shipping</b> | <b>157</b> |        |

- MEDICIS and RWM are the main clients for RP shipping service (48% of the exports).
- Shipping of 2 irradiated AD targets to Sweden for PIE (Post Irradiation Examination).



**For all shipping of radioactive material, the addressee institute or organisation must be authorised to receive and handle radioactive materials.** The applicant must make sure that the [Radioprotection Group](#) is in possession of the "licence to use radioactive substances". This document must be up-to-date. The details of a contact person who is responsible for radiation protection matters (Officer for Radiation Protection Safety: RSO) must also be known.

Check that the institute is listed in the database.

Then create shipping request in EDH selecting “radioactive” danger

**Demande d'expédition (Expédition)**  
Confidentiel

Créé par: **Stephanie KRATTINGER (SCE-SSC-SC)** Tel: 74002 | 20.02.2025 08:44  
A créé par TREC: N

**Information général**

Type d'expédition \*: Demande d'expédition (Expédition) [v]

Une copie du shipping request doit obligatoirement être apposée sur les colis avant enlèvement, les colis doivent être regroupés tous au même endroit.

Description \*:

Propriétaire \*: Choisissez [v]

Unité Propriétaire \*: SCE-SSC-SC [v]

Contact CERN \*: Stephanie KRATTINGER (SCE-SSC-SC)

**Transport**

Matières dangereuses \*: **Matériel radioactif** [v]

Adresse d'enlèvement \*:

Site de Depart \*: Choisissez [v]

A l'Attention de \*:

Adresse connue

Adresse du Destinataire \*:

[Demander d'expédition](#)

CERN - Import/Export of Radioactive Goods (Class 7)

Institutes Exportations Importations Follow up

Approved Institutes for Importation/Exportation of Radioactive Material

Institute list Institutes to approve (or stand by) (36) Certificates to approve (or stand by) (38) Institutes to refresh (205)

Filter Status

402 record(s) Add

| #   | Country | City             | Name   | Institute status | Certificate status |
|-----|---------|------------------|--|------------------|--------------------|
| 302 | ARMENIA | Ashtarak         | Institute for Physical Research                | Inactive         | Expired            |
| 2   | AUSTRIA | Vienna           | Institut für Hoehenenergiephysik               | Active           | Expired            |
| 844 | AUSTRIA | Vienna           | Stefan Meyer Institute                         | Active           | Valid              |
| 488 | AUSTRIA | Vienna           | Technische Universität Wien - Atominstitut     | Active           | Valid              |
| 413 | BELGIUM | Andrimont        | Adam pumps                                     | Active           | To renew           |
| 119 | BELGIUM | Eisene           | Vrije Universiteit Brussel                     | Inactive         | Cancelled          |
| 222 | BELGIUM | Geel             | JRC Geel                                       | Active           | Expired            |
| 505 | BELGIUM | Gent             | Ghent University                               | Active           | To renew           |
| 200 | BELGIUM | Heverlee         | KU Leuven                                      | Active           | Valid              |
| 514 | BELGIUM | Leuven           | KU Leuven - Radiofarmaceutisch Onderzoek       | Active           | Valid              |
| 3   | BELGIUM | Louvain-la-neuve | Centre de Recherches du Cyclotron              | Active           | To renew           |
| 465 | BELGIUM | Mol              | SCK-CEN  | Active           | Valid              |
| 439 | BRAZIL  | Poços de Caldas  | Universidade Federal de Alfenas                | Active           | To approve         |
| 215 | CANADA  | Burnaby          | Simon Fraser University, Department of Physics | Inactive         | Expired            |



**Until a reply is received by CERN's Radiation Protection Service (Radioactive Shipping Service), the material cannot leave CERN.**



Once the results of the gamma spectrometry is known, an email is sent by our Service to the addressee institute's Radiation Protection Safety Officer (RSO), **who must give his/her approval for receiving the material.**



Once the reply is received, the parcel (according to the size of the material) is brought to goods reception, and shipping can be done



Shipping are done under CERN responsibility in agreement with ADR/IATA/IMDG regulations. For this reason, only entitled carrier and commissioned by CERN are authorised (no institute/private car allowed).

## List of Exportation Document

In progress

Finished

Filter

13 record(s)

| #    | Date       | Edh      | Contact (sender)            | Content   | Institute   | Country           | City                | Un  | Status                       |
|------|------------|----------|-----------------------------|---|---|-------------------|---------------------|---|------------------------------|
| 1541 | 18/11/2024 | 10653237 | CELCE CHRISTOPHE            | TFA Transport to CIRES - T2<br>11/2024 - ELFI 8x2m3   | Cires ANDRA   | FRANCE            | MORVILLIERS         | UN2913, UN2913  | In Preparation<br>18/11/2024 |
| 1540 | 15/11/2024 | 10638398 | LUCCHINI MARCO<br>TOLIMAN   |   | INFN/Uni Milano - Physics<br>Department "G. Occhialini" | ITALY             | Milano              | EXEMPTED, EXEMPTED, EXEMPTED, EXEMPTED  | In Preparation<br>15/11/2024 |
| 1539 | 15/11/2024 | 10638397 | LUCCHINI MARCO<br>TOLIMAN   |   | INFN/Uni Milano - Physics<br>Department "G. Occhialini" | ITALY             | Milano              | EXEMPTED, EXEMPTED, EXEMPTED, EXEMPTED  | In Preparation<br>15/11/2024 |
| 1538 | 15/11/2024 | 10655419 | GOILLOT ALICE MARIE         | Experimental target                                   | ChipIR-Neutron Irradiation                              | UNITED<br>KINGDOM | Didcot              |   | In Preparation<br>15/11/2024 |
| 1537 | 12/11/2024 | 10653058 | GIORDANO<br>FERDINANDO      | Electronic boards                                     | CAEN SpA  | ITALY             | Viareggio           |   | In Preparation<br>12/11/2024 |
| 1536 | 07/11/2024 | 10652625 | CELCE CHRISTOPHE            | TFA Transport to CIRES - T1<br>11/2024 - ELFI 60 fûts | Cires ANDRA   | FRANCE            | MORVILLIERS         | UN2913, UN2913  | Sent<br>19/11/2024           |
| 1535 | 05/11/2024 | 10648460 | DUCHEMIN<br>CHARLOTTE       | Tb-155 MEDICIS Radioisotope<br>Novembre NPL           | National Physical Laboratory<br>Management Ltd          | UNITED<br>KINGDOM | London              | UN2915  | Sent<br>20/11/2024           |
| 1534 | 05/11/2024 | 10637166 | LUCCHINI MARCO<br>TOLIMAN   | Shippment of LYSO scintillators<br>(10 boxes to UVA)  | University of Virginia                                  | UNITED STATES     | Charlottesville     | EXEMPTED, EXEMPTED, EXEMPTED, EXEMPTED, EXEMPTED,<br>EXEMPTED, EXEMPTED, EXEMPTED, EXEMPTED, EXEMPTED | Ready to send<br>12/11/2024  |
| 1531 | 29/10/2024 | 10622358 | MENDOZA<br>CEMBRANOS EMILIO | UO2 samples   | CIEMAT  | SPAIN             | Madrid              | EXEMPTED  | In Preparation<br>29/10/2024 |
| 1528 | 18/10/2024 | 10604787 | BACAK MICHAEL               | Zr88 big sample                                       | Paul Scherrer Institut                                  | SWITZERLAND       | Villigen PSI        | UN2915  | In Preparation<br>12/11/2024 |
| 1524 | 09/10/2024 | 10587409 | WROE LAURENCE<br>MATTHEW    | Return of Uranium-based<br>Neutron Detector           | Institut Laue Langevin                                  | FRANCE            | Grenoble Cedex<br>9 | EXEMPTED  | Sent<br>04/11/2024           |
| 1517 | 11/09/2024 | 10530916 | MENDOZA<br>CEMBRANOS EMILIO | Samples for JRC GEEL                                  | JRC Geel  | BELGIUM           | Geel                | UN2910  | Sent<br>19/11/2024           |
| 1436 | 14/12/2023 | 10480991 | TONG YANDONG                | Return shipment of ion source<br>from CLOUD           | NRD, LLC  | UNITED STATES     | GRAND ISLAND        | UN2911  | Ready to send<br>11/11/2024  |

[RADSHIP-EXPORT] ID#1535 APPROVAL REQUIRED / (CERN --> "National Physical Laboratory Management Ltd" - UNITED KINGDOM)



Radioactive-Shipping Service

To Stephanie Krattinger

Cc Radioactive-Shipping Service

Follow up. Start by 19 November 2024. Due by 19 November 2024.

Dear STEPHANIE KRATTINGER,

A parcel containing the following radioactive material must be dispatched from CERN to "National Physical Laboratory Management Ltd".

**Would you please be so kind to sign the Dangerous Goods Declaration, by clicking on the following URL:**

[Click to accept or refuse the dangerous goods declaration](#)

**Summary of the material being shipped:**

**Exportation ID #1535**

Submitted on (DD/MM/YYYY): 05/11/2024

**SENDER/CONSIGNOR (CERN)**

CERN - CHARLOTTE DUCHEMIN  
MailBox C24510  
1211 GENEVA 23  
SWITZERLAND  
Phone +41 75 411 1580

**CONSIGNEE/ADDRESSEE  
(Institute / Company)**

**National Physical Laboratory Management Ltd  
ATTN Lynsey Keightley  
Hampton Road, Teddington  
Middlesex,  
TW11 0LW London  
UNITED KINGDOM  
PHONE +442089436435**

**Global data**

Radioactive Material (selon ORaP) ? Yes

General description: Tb-155 MEDICIS Radioisotope Novembre NPL



Exportation #1436

Ready to send

BNM authorization not needed - 22/01/2024

Send parcel

Exportation document

IATA ADR ADR (french)

Submitted on 14/12/2023

EDH No 10480991

Cargo Aircraft Only  Radioactive (ORaP)

Carriage in accordance with 1.1.4.2.1  INB Material

Air  Sea  Road  Rail

Content description  
Return shipment of ion source from CLOUD

Experiment  
CERN ACCELERATOR

File RP  
Choose file

Emails to notify  
Yandong.Tong@cern.ch; Radioactive-Sources.Service@cern.ch

ID Importation  
796

Sender/Consignor

Contact (sender)\*  
TONG YANDONG

Enter name to find a registered person.

Sender/Consignor  
CERN - YANDONG TONG  
MailBox  
1211 GENEVA 23  
SWITZERLAND

Consignee/Addressee

Institute #  
380

Enter name to find an approved institute.

Institute name  
NRD, LLC

Institute contact  
ATTN Brendan Loughran

Institute Address  
2937 ALT BLVD  
GRAND ISLAND NY 14072  
14072 GRAND ISLAND  
UNITED STATES  
PHONE 716-773-7634

| SHIPPER'S DECLARATION FOR DANGEROUS GOODS   |  |
|---|--|
| <b>Shipper</b><br>CERN - YANDONG TONG<br>MailBox<br>1211 GENEVA 23<br>SWITZERLAND   | Air Waybill No.<br>Page 1 of 1 Pages<br>Shipper's Reference Number 10480991                                      |
| <b>Consignee</b><br>NRD, LLC<br>ATTN Brendan Loughran<br>2937 ALT BLVD<br>GRAND ISLAND NY 14072<br>14072 GRAND ISLAND<br>UNITED STATES<br>PHONE 716-773-7634  |  |
| Two completed and signed copies of this Declaration must be handed to the operator.   |  |
| <b>TRANSPORT DETAILS</b><br>The shipment is within the limitations prescribed for:  |  |
| PASSENGER AND CARGO (AIRCRAFT)  | AIRCRAFT ONLY  |
| Airport of Departure:   | Airport of Destination:  |
| Shipment type: (delete non-applicable)<br><input checked="" type="checkbox"/> NON-RADIOACTIVE <input type="checkbox"/> RADIOACTIVE  |  |
| <b>NATURE AND QUANTITY OF DANGEROUS GOODS</b><br>UN2011, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE - INSTRUMENTS, 7<br>Po-210, Metal, Solid, 1 EXCEPTED PACKAGE x 26.55 MBq<br>DIM (L) 30 cm X (W) 30 cm X (H) 30 cm   |  |
| <b>Additional Handling Information</b><br>EMERGENCY CONTACT outside USA +41 22 766 2717<br>EMERGENCY CONTACT inside USA 011 41 22 766 2717<br>Name: BERTREIX Philippe<br>FOR RESEARCH PURPOSE ONLY<br>Loading, stowage and carriage conform to ADR. No supplementary requirements necessary as per ADR 5.4.1.2.5.2a.  |  |
| I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled / placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met. | <b>Name/Title of Signatory</b><br>Place and Date<br>Geneva, 14 December 2023<br>Signature<br>(see warning above) |

## Pain points:

- few carriers in Switzerland : SAR, A7, Weggmuller, Indermuhle
- 2 Freight forwarders only at GVA Airport
  - CERN is no longer «shipper's known»