

PROCEDURE

V.3 AUG. 2020

INTERNAL TRANSPORTATION OF LABORATORY ANIMALS THAT HAVE BEEN ADMINISTERED RADIOACTIVE SUBSTANCES

INTRODUCTION

This procedure applies to employees of the institutions that are affiliated within the Complex License Randwyck, who are involved in transportation of laboratory animals to which radioactive substances have been administered. Transportation of these animals within the premises of the complex license is defined as internal transportation. The conditions that apply to internal transportation are established in this procedure.

The following aspects are outside the scope of this procedure:

Transportation of laboratory animals to which radioactive substances have been administered:

- within a radiological room;
- between adjacent rooms within an radiological area or department;
- outside the borders as defined in the Randwyck license;
- via public roads.

The supervisory Radiation Protection Officer (RPO; Dutch: 'Toezichthoudend Medewerker Stralingsbescherming' or TMS) oversees that transportations are carried out in compliance with the conditions stated in this procedure.

The written internal permit (Dutch: 'schriftelijke interne toestemming' or SIT), department-specific local permit (Dutch: 'lokale interne toestemming' or LIT) and/or written internal approval for biomedical studies (Dutch: 'schriftelijke interne goedkeuring' or SIG), which has been issued to the researcher or a manager in charge, may hold additional conditions and regulations.

GENERAL CONDITIONS

1. The TMS of the department that is the starting point of the transportation, is responsible for:
 - overseeing the transportation of animals; meaning that it is carried out correctly;
 - the proper documents needed for transportation;
 - instructing the person that carries out the transportation;
 - drawing up a risk analysis due to exposure as a consequence of the transportation and possible unwanted events, for the employee(s) involved.
2. Those that carry out the internal transportation, have received the conditions and possible extra (department-related) instructions and regulations, and comply with them.
3. During transportation there must be (a) transporter(s) present with the required expertise on radiation protection (at least level TMS-VRS D or similar qualification), as well as sufficient knowledge about the wellbeing and care of laboratory animals.
4. A transport document needs to be made up in duplicate for every transportation (see addendum). One copy of the completed transportation document stays with the TMS of the sending department. The second copy stays with the transporter, who will hand it over to the TMS of the receiving party. These documents must be filed in the administration of the supervisory TMS.

BEFORE TRANSPORTATION

1. The TMS ensures before the transportation, that the receiving party has a valid SIT at its disposal, which allows them to receive the radioactive substance that is to be transported.
2. The employee carrying out the transportation must inform the TMS of the receiving department of this planned occurrence well in advance.
3. The transporter consults with the TMS about means, radiation measurement equipment and possible extra (organisational) measures that may be necessary for ensuring a safely conducted transportation. This also includes materials that are necessary in case of a possible contamination incident.
4. Animals must be transported in a rolling cart that meets the following requirements:
 - the cart can be properly locked;
 - under normal conditions, there will either be no leakage of radioactive substances possible, or measures have been taken to prevent leakage; in the case of large animals the cart should preferably be equipped with a tray that holds absorbing agents;
 - small animals should be transported in cages fitted with a filter top,
 - on the exterior of the transport cart, the text 'radioactive substances' and/or the symbol for radioactivity must be applied. This indication may be hand written (with permanent marker), printed or in the form of a sticker.
5. The route of transportation should be chosen with the least possible risk in mind. Places where many people are present should possibly be avoided.
6. In case of the use of spaces that are also used for patient health care, the department of hospital hygiene must be consulted and informed in advance: additional conditions and precautions may apply.

DURING TRANSPORTATION

1. During transportation, a completed transport document must be present (see *addendum*).
2. During transportations, measures must be taken to prevent breakouts of animals.
3. The transportation must be conducted without interruptions or pauses.
4. The transport cart with the laboratory animals is under no circumstances to be left without supervision.
5. In case of incidents or accidents during transportations, the transporter should contact the supervisory TMS immediately, or, in the absence of this TMS, the on-call Radiation Protection Expert (RPE; Dutch: 'Stralingsbeschermingsdeskundige' or SBD) of the Radiation Protection Unit (RPU; Dutch: 'Stralingsbeschermingseenheid' or SBE). This last person can be reached through the internal calamity phone number (numbers are stated in the *addendum*).

AFTER TRANSPORTATION

After the transportation, the cart is checked for contamination. Contaminated areas need to be cleaned, unless it is possible to wait for physical decay, which may be preferred to avoid unnecessary exposure (ALARA). Consult the supervisory TMS if necessary. Radioactive waste that originates from the transportation, like contaminated bedding material, is either placed in the cart for purposes of physical decay, or correctly put away in the dedicated waste room of the department in question.

ROUTES OF TRANSPORTATION

The most suitable route of transportation is decided on by the transporter in close consultation with the TMS involved. In general, the shortest route with the least obstacles is to be preferred, and high-traffic places should be avoided.

REPORTING CALAMITIES

In case of a calamity and/or incident, the on-call TMS must be contacted immediately. In case this TMS cannot be reached, one should report the incident by calling the internal calamity phone number, while reporting the location, the fact that radioactive substances are involved, and a phone number where the person reporting the incident can be reached at. From here, the on-call SBD of the SBE will be alarmed.

Phone numbers for reporting calamities:

- For azM and Maastricht: **1000**
- For UM: **1333**

LIST OF ABBREVIATIONS

Dutch		English	
ALARA	as low as reasonably achievable	ALARA	as low as reasonably achievable
azM	Academisch Ziekenhuis Maastricht	-	Academic Hospital Maastricht
LIT	lokale interne toestemming	-	local internal permit
SBD	stralingsbeschermingsdeskundige	RPE	radiation protection expert
SBE	stralingsbeschermingseenheid	RPU	radiation protection unit
SIG	schriftelijke interne goedkeuring	-	written internal approval
SIT	schriftelijke interne toestemming	-	written internal permit
TMS	toezichthoudend medewerker stralingsbescherming	RPO	radiation protection officer
TMS-VRS D	toezichthoudend medewerker stralingsbescherming – verspreidbare radioactieve stoffen niveau D	-	radiation protection officer – dispersible radioactive materials level D
UM	Universiteit Maastricht	-	Maastricht University

REFERENCES

- Complex License Randwyck

