

**I. Measures to be taken by the user/visitor well before the visit:**

These access regulations for users or visitors of N-REX<sup>+</sup> have to be **strictly obeyed** due to German radiation protection regulations and in particular their strict interpretation at FRM II. **In case of any failure of compliance with any of the provisions stated here, access to FRM II and/or N-REX<sup>+</sup> will be denied by the radiation protection department!**

**Ia. Registration of a visit/experiment**

Visits at FRM II – after prior consultation of the N-REX<sup>+</sup> personnel – must be registered well in advance before the visit via the FRM II user portal <http://user.frm2.tum.de> in module „Arrival\_Departure“. This requires the generation of a user account via the FRM II user portal, in case it does not yet exist. If the visit is related to a beamtime proposal, the proposal number must be specified when registering the visit.. If you need a bicycle for the duration of the visit, e.g. for commuting between FRM II and a hotel or our guest apartment (see Section III), this has to be specified in the field "Do you need further support for your stay?".

If you wish to carry out experiments at the instrument N-REX<sup>+</sup>, these should also be registered well before the visit via the FRM II user portal <http://user.frm2.tum.de> in the module „Proposal“. Here, in the case of regular proposals, the answer "no" has to be selected under "internal beam time". The relevant proposal deadlines are specified in the user portal. At any rate, potential users of N-REX<sup>+</sup> have to provide the instrument personnel in due time with the following information in written form: A short description of the experiment (measurement mode) and a listing of samples (materials, amount, form), chemicals, equipment (sample chambers, pressure vessels) and experiment parameters (ranges of temperature, pressure, magnetic field etc.) to be used at the instrument, so that an examination of possible hazards that can emanate from these materials and facilities can be carried out by FRM II in advance.

**Ib. Facility badge („Anlagenausweis“)**

Users/visitors of FRM II need a facility badge („Anlagenausweis“) for admission to the FRM II. For this purpose, a valid identity card or passport must be presented. Please check the expiration date before your travel. **Without a valid identification document access to FRM II will be denied!**

Users/visitors who want to work more frequently at the FRM II should request a personal photo identification card / facility badge (“Lichtbild-Anlagenausweis”). Appropriate forms can be obtained on site at the gate (“Ausweisbüro”). Among others, a police certificate of good conduct is needed.

## Ic. Dosimeter

### Official dosimeter („Amtliches Dosimeter“)

In order to get access to N-REX<sup>+</sup> for an experiment or other activities, each user/visitor must carry an official dosimeter („amtliches Dosimeter“), which has to be suited for use at FRM II (TLD albedo dosimeter for neutrons and photons). In contrast to many other research reactors worldwide, such an official dosimeter will NOT be provided by FRM II, if the employer of the user/visitor is able to equip its employees with such a dosimeter. (This responsibility is regulated in a contract called „Abgrenzungsvertrag“ which will be closed on the initiative of FRM II.) Therefore a dosimeter has to be ordered from the Helmholtz-Zentrum München by the responsible radiation protection agent of the user's/visitor's employer, in due time before the visit at FRM II, and it has to be brought to FRM II by the user/visitor.

Homepage:

<http://www.helmholtz-muenchen.de/awst/awst-hamburg/anmeldungerstbestellung/index.html>

### Non-official dosimeter („Nicht-amtliches Dosimeter“)

Each user/visitor must in addition carry an immediately readable (non-official) dosimeter (“nicht-amtliches Dosimeter”) at FRM II. Such dosimeters are provided by the FRM II.

## Id. Radiation protection documents

### German or foreign users/visitors with German employer

In order to be allowed to delegate employees for work or other activities at an external facility such as the FRM II, the (German) employer of the user/visitor (**regardless of his/her nationality!**) must:

1. possess an approval according to §15 StrSchV (Strahlenschutzverordnung).
2. equip the user/visitor with a radiation passport (“Strahlenpaß”) which is officially registered at the responsible public authority, and duly fill in all required information before the first visit at FRM II. For work at FRM II a classification as "beruflich strahlenexponierte Personen der Kategorie B nach §54 StrlSchV" is sufficient.
3. ensure that all entries in the radiation passport of the user/visitor are up-to-date at each single visit at FRM II.

If any of the required entries in the radiation passport (“Strahlenpaß”) are NOT up-to-date, access to N-REX<sup>+</sup> will be denied by the radiation protection department! Each user/visitor is therefore urgently requested to make sure, in collaboration with the responsible radiation protection agent of his/her employer, that the following requirements are fulfilled:

- The last entries of the monthly dose values for all past months of the current calendar year must be younger than 3 months. Furthermore the last entries of the sum dose (“Bilanzierung”) in the current calendar year as well as the work life dose must be younger than 3 months. All these entries are **absolutely inevitable, even if the dose values are all „0“!**
- In addition, in case of „Category A“ persons, the last entry of a radiation medical examination must be younger than 1 year.

Users/visitors who have ordered, but not yet received a radiation passport („Strahlenpaß“) can also be granted access. As a prerequisite, however, the following documents must be presented as a substitute at the first visit at FRM II (If these documents are NOT presented in case of a missing radiation passport, or if they are NOT up-to-date, access to N-REX<sup>+</sup> will be denied by the radiation protection department!):

- a) A copy of the application for registration of a radiation passport („Strahlenpaß“) for the person in question.
- b) A recent certificate (younger than 3 months) of the responsible radiation protection agent in which he/she confirms that the person in question has not yet exceeded the following threshold values of radiation exposure:
  - The maximum work life dose („Berufslebensdosis“).
  - The maximum annual does in the current calendar year.
  - The maximum monthly dose in each single month of the current calendar year.
- c) In addition, in case of „Category A“ persons: A certificate about a recent radiation medical examination (younger than 1 year), in which the doctor confirms that no medical concerns exist against a stay in radiation controlled areas (“Kontrollbereich”).

### **German or foreign users/visitors with foreign employer**

Users/visitors with foreign employer can also be granted access if the following documents are presented at the first visit at FRM II II (If these documents are NOT presented or if they are NOT up-to-date, access to N-REX<sup>+</sup> will be denied by the radiation protection department!):

- a) A recent certificate (younger than 3 months) of the responsible radiation protection agent in which he/she confirms that the person in question has not yet exceeded the following threshold values of radiation exposure:
  - The maximum work life dose („Berufslebensdosis“).
  - The maximum annual does in the current calendar year.
  - The maximum monthly does in each single month of the current calendar year.
- b) The person in question has to confirm in writing on the day of arrival, that no medical concerns exist against a stay in radiation controlled areas (“Kontrollbereich”).

## **II. Registration of experiments and visits**

In order to be granted admission to FRM II, users/visitors have to present their personal photo identification card / facility badge (“Lichtbild-Anlagenausweis”) (if applicable, see Section Ib) as well as a valid identity card or passport. Please check the expiration date of your identity card or passport. Without a valid identification document access to FRM II will be denied!

To gain access to the instrument N-REX<sup>+</sup> the following items must be presented in addition:

- Official dosimeter ("Amtliches TLD-Albedo-Dosimeter") (see Section Ic)
- Radiation passport ("Strahlenpass") or, if applicable, suitable replacement documents (see Section Id).

Without dosimeter and valid radiation protection documents, access to N-REX<sup>+</sup> will be denied by the radiation protection department!

## **VI. Guest apartment**

For guests of N-REX<sup>+</sup> in principle a guest apartment (1 1/2 rooms with kitchen for 1-2 persons) is available in Garching, which can be reached more or less comfortably by bicycle (available at the FRM II), by public transportation or also by foot. We ask you to clarify with the N-REX<sup>+</sup> personnel in advance, if the apartment is available for the duration of the planned visit and whether it should be reserved for you. You can then also get further information about the location and usage of the apartment.

## **VII. Contact**

For further questions, please contact:

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## **VIII. Links**

N-REX <sup>+</sup> homepage:	<a href="http://www.mf.mpg.de/en/abteilungen/dosch/frmII/frmIIintro_en.shtml">www.mf.mpg.de/en/abteilungen/dosch/frmII/frmIIintro_en.shtml</a>
FRM II homepage:	<a href="http://www.frm2.tum.de">www.frm2.tum.de</a>
FRM II user portal:	<a href="http://user.frm2.tum.de">user.frm2.tum.de</a>