EXAM REGULATIONS V.4 JAN 2023

for the accredited courses in radiation protection (accreditation: ANVS-PP-2022/0091279-48)

- **Radiation protection for Medical Specialists who use X-ray devices (SMSR)**
- **Radiation Protection Officer – Dispersible Radioactive Materials level D (TMS-VRS D)**

ARTICLE 1. GENERAL

1. These regulations apply to the exams of the accredited radiation protection courses '*Radiation protection for Medical Specialists who use X-ray devices' (Dutch: 'Stralingsbescherming voor Medisch Specialisten die gebruik maken van Röntgenapparatuur', unofficially abbreviated to 'SMSR')* and '*Radiation Protection Officer – Dispersible Radioactive Materials – level D' (Dutch: 'Toezichthoudend Medewerker Stralingsbescherming – Verspreidbare Radioactieve Stoffen – niveau D' or 'TMS-VRS D')*. The regulations have been decreed by the supervising officer for the educational programs in radiation safety, on behalf of the boards of the institutions participating in the complex license Randwyck. The courses are coordinated by the Radiation Protection Unit (Dutch: 'Stralingsbeschermingseenheid') Randwyck.

2. The purpose of these regulations is to establish the criteria for the practical courses and examinations, of the courses stated in *Article 1.1,* as well as the duties, responsibilities and authorizations of the examination committee and other parties involved.

ARTICLE 2. EXAMINATION COMMITTEE

1. The examination committee has at least representatives of:

    - at least one of each of the institutions listed below, that participate in the complex license Randwyck:
        - Maastricht University Medical Center + (MUMC+)
        - Maastricht University (UM)
        - Maastro
        - Maastro Protonentherapie BV
    - a coordinator education and training of the Radiation Protection Unit
    - the supervising officer for the educational programs in radiation safety Randwyck, in the role of advisor.

2. The committee elects a chair and secretary to the chair from its members.

3. Members of the examination committee have expertise in the field of radiation protection and have successfully passed a course in radiation protection at the level of coordinating expert (Dutch: 'coördinerend deskundige' or CD) or equivalent to this. Members also have teaching experience. At least one member has a registration in basic qualification in education (Dutch: 'Basiskwalificatie Onderwijs' or BKO).

4. The examination committee is responsible for determining the practical courses and examinations, the assessment of the final requirements for the examinations, the scoring of the examinations, the awarding of diplomas and for anything else that there regulations further prescribe.

5. The examination committee meets at least 4 times a year. A report is made of each meeting.

ARTICLE 3. OFFICIAL LANGUAGE

1. The official language in the course '*Radiation protection for medical specialists who use X-ray devices*' is Dutch. All teaching material related to this course will be offered in Dutch. An exception will possibly occur in the form of a presentation of teachers; these may be (partially) in English when the occasion arises.

2. The official language in the course '*Radiation Protection Officer – Dispersible Radioactive Materials – level D (TMS-VRS D)*' is English. All teaching material related to this course will be offered in English.

ARTICLE 4. THEORETICAL EXAMINATION

1. The theoretical examination is taken individually in writing, and consists of a combination of multiple choice questions and open (calculation) questions.

2. The duration of the SMSR examination is
   - Multiple choice questions: one hour at maximum
   - Open questions: 1,5 hours at maximum

   The duration of the TMS-VRS D examination is
   - Multiple choice questions: one hour at maximum
   - Open questions: two hours at maximum

3. In case there are candidates taking the exam, that have an employment disability (for instance dyslexia), the examination committee may decide on adapting the conditions that apply to the exam, as to be in keeping with the abilities of the candidate in question. In order to have a claim on extra facilities, the candidate needs to submit an expert certificate. This certificate states a diagnosis and any advice one necessary facilities. When diagnosed as dyslectic, a candidate can always claim an extension of the time allowed for writing the exam, of 30 minutes per part at maximum.

4. The multiple choice question part is taken under 'closed book' conditions, for which it is only allowed to use a calculator without programming features, blank writing paper and a pen.

5. When taking the part of the exam that consists of open (calculation) questions, candidates may make use of the syllabus of the course, excluding any other written course material, a non-programmable calculator and writing materials. The examination committee decides for each exam whether other sources of information are allowed for the open (calculation) questions. The use of mobile phones is not allowed during examinations.

6. At least two weeks prior to the exam, the examination committee definitively establishes the exam and the corresponding scoring thereof.

7. Exams are taken under the supervision of a supervisor who has been appointed and instructed by the examination committee. If irregularities or fraud are observed during the exam, the supervisor has the authority to end the exam(s) of the fraudster(s). The supervisor will report this to the examination committee immediately, both verbally and in writing, after which the examination committee will investigate the case and may declare the exam invalid.

8. The exams are drafted by or under the responsibility of the supervising officer for the educational programs on radiation protection, after which they are submitted to the examination committee for assessment. During this process, exams are at least digitally protected with a password. After approving of the exam, the exams are printed, put in a closed envelope and handed over to the supervisor. This envelope is only opened during the exam, in the presence of the candidates. After the exam, the supervisor ensures that all parts of the exam are taken in and are returned to the aforementioned supervising officer and/or a coordinator training and education of the Radiation Protection Unit.

9. The exams are taken under an exam number to guarantee anonymity. Candidates are assigned their exam number right before taking the exam.

10. The exam is considered passed if a 60% score is obtained for both the multiple choice and the open questions part. The part of the exam for which a score of 60% is obtained, does not have to be taken again in case of a possible re-exanimation, and is valid for three years starting from the date of examination.

11. In case the exam or part of the exam has not been passed, the candidate may take (part of) the exam again in the next offered course. For this exam, that is considered a re-examination, the conditions as stated in these exam regulations remain valid.

12. The exam is marked by at least two correctors, who are appointed by the supervising officer for the educational programs on radiation safety. To ensure anonymity, the person who supervised during the exam may not correct the exams. Members of the examination committee may also act as correctors. The results are announced to the candidates within 6 weeks after the date of the exam.

ARTICLE 5. PRACTICAL COURSES

1. Practical assignments need to be finished with good results. This means, that candidates partake actively in, and perform the tasks that are given during the practical course. The instructor signs a form that acts as proof of participation, to confirm that the practical course has been finished with good results. The validity of a practical course that has been finished with good results is three years.

2. Incidentally, the examination committee may grant exemption from the practical courses or decide on an adapted, tailored assignment, for instance, in case of a disability. If the exemption causes the candidate to not have fulfilled the legal requirements of the course, the examination committee may decide on an extra assignment to meet the deficiency.

ARTICLE 6. CERTIFICATION AND ACCURATE REGISTRATION

1. Conditions for granting a diploma are a signed form that proves that the practical courses (see *Article 5.1*) have been finished with good results, as well as a sufficient score for both parts of the exam (see *Article 4.10*). When a candidate meets these conditions and those that are stated in the regulations, a diploma with corresponding list of grades is granted. The diploma is signed by the chair of the examination committee, and the supervising officer for the educational programs on radiation protection, on behalf of the institution that is certified to offer the course. The list of grades is signed by the supervising officer for the educational programs on radiation protection, and only valid in combination with a signed diploma.

2. The layout of the diploma has been established by the examination committee before candidates can sign up for participation.

3. The institutes as listed in *Article 1.1* have an accurate registry that holds information on candidates, signed off scoring lists and granted diplomas of the courses.

ARTICLE 7. APPEAL PROCEDURE AND COMPLAINTS PROCEDURE

1. Certificates of practical courses as well as results of exams are saved by the Radiation Protection Unit as a hard copy for at least a year and after that in digital form for an additional period of five years. Course materials for theoretical sessions as well as practical assignments are kept for a period of five years as well, either as a hard copy or in digital form.

2. At their request, candidates may review their written exam within 30 days after the results have been announced. This happens under supervision of a coordinator education and training of the Radiation Protection Unit. All exam material stays in possession of the Radiation Protection Unit. Also within 30

days after announcement of the result, the candidate can lodge an appeal with the examination committee against exam-results. After expiration of this period of appeal, the written exams are stored for a year, and destroyed afterwards. The exam results of individual candidates will be stored digitally, for as long as technically possible.

3. Complaint procedure: in case of complaints with regards to the contents or scoring of the exam, as well as complaints regarding the course of events during the examination or any other part of the course, the candidate must file a reasoned complaint with the examination committee within a period of 30 days after announcement of final results. The examination committee will respond to this complaint in writing, within 60 days. If the candidate cannot agree with the outcome of the complaints procedure, a reasoned complaint must be filed to start an appeal procedure. This must be done within 30 days after the ruling of the examination committee, in accordance with *Article 7.4*.

4. Appeal procedure: in case a candidate does not agree with the ruling of the examination committee after filing a complaint, he may submit a reasoned appeal, exclusively in writing, to the supervising officer for the educational programs on radiation protection of the appeals commission of the National Centre for Radiation Protection Courses ('Nationaal Centrum voor StralingsVeiligheid' or NCSV, part of Delft University of Technology) in Utrecht within 30 days after the ruling of the examinations committee. The appeal must be addressed to the supervising officer for the education programs on radiation safety of the Radiation Protection Unit. The officer requests advice from the appeals committee, which will rule within 60 days after submission of the appeal. The ruling is binding for both parties: the candidate and the examination committee.

ARTICLE 8. FINAL CLAUSE

1. These regulations are provided to each course participant as a part of the course material.

2. In accordance with the 'General Data Protection Regulation' (GDPR; Dutch: 'Algemene Verordening Gegevensbescherming' or AVG), each candidate must be asked to give written consent for the storage of relevant data (personal data, dose levels, results, score lists and diplomas).

3. These regulations shall enter into force on January 1, 2023 and are valid as long as no alterations take place.

I. Pooters,

Supervising officer for the educational programs on radiation protection

LIST OF ABBREVIATIONS

Dutch		English	
AVG	Algemene Verordening Gegevensbescherming	GDPR	General Data Protection Regulation
BKO-registratie	registratie Basiskwalificatie Onderwijs	-	registration basic qualification in education
CD	coördinerend deskundige	-	coordinating expert
MUMC+	Maastricht Universitair Medisch Centrum +	-	Maastricht University Medical Center +
NCSV	Nationaal Centrum voor StralingsVeiligheid	-	National Centre for Radiation Protection
SMSR	stralingshygiëne voor medisch specialisten die gebruik maken van röntgentoestellen	-	radiation safety for medical specialists who use X-ray devices
TMS-VRS D	toezichthoudend medewerker stralingsbescherming – verspreidbare radioactieve stoffen niveau D	-	radiation protection officer – dispersible radioactive materials level D
TU Delft	Technische Universiteit Delft	-	Delft University of Technology
UM	Universiteit Maastricht	-	Maastricht University

REFERENCES

- Algemene Verordening Gegevensbescherming (General Data Protection Regulation): https://wetten.overheid.nl/BWBR0040940/2020-01-01
- Regeling basisveiligheidsnormen stralingsbescherming (legal basis): https://wetten.overheid.nl/BWBR0040509/2019-02-15

Revision table	
Version 1 – June 2017	Initial version
Version 2 – September 2018	Course TMS-VRS D name change; 1.1 responsible education officer added; 2.5 added; art. 3 added; 8.2 added.
Version 3 – July 2021	New layout. 4.2 changed.
Version 4 – January 2023	Correction of the institute names; Changed e-mail address; Addition of accreditation number; 7.4 general coordinating expert changed to supervising officer