**RULES ON THE OBLIGATIONS OF THE PERSON CARRYING OUT A RADIATION PRACTICE AND PERSON POSSESSING AN IONISING RADIATION SOURCE**

**(SV8)**

**UNOFFICIAL TRANSLATION**

*Prepared by the Slovenian Nuclear Safety Administration in January 2019.*

*The official text of these Rules is located on the pages of* [***the Legal Information System***](http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV13404)*.*

***WARNING:*** *The unofficial text of this Act is just an informative work tool, for which the Slovenian Nuclear Safety Administration does not guarantee.*

Based on the second paragraph of Article 30, the fourth paragraph of Article 51 and the sixth paragraph of Article 53 of the Act on Ionising Radiation Protection and Nuclear Safety (Official Gazette of the Republic of Slovenia, No. 76/17) the Minister of Health in agreement with the Minister for the Environment hereby issue the

## RULES

**on the obligations of the person carrying out a radiation practice and person possessing an ionising radiation source**

1. **GENERAL PROVISIONS**

**Article 1** **(Purpose and content)**

These Rules, in accordance with Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for the protection against the dangers arising from ionising radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom (OJ L 13, 17. 1. 2014, p. 1), last corrected (OJ L 72, 17. 3. 2016, p. 69) provides:

* the obligations of employers relating to special radiation protection for apprentices and students;
* the organisational framework of a radiation protection unit in nuclear and radiation facilities and the scope and content of its work;
* the education required for those responsible for radiation protection, the education programme itself, the programme and the method of examination for performing radiation protection tasks, and the record of examinations taken;
* the scope, content and conditions of training, learning and verifying qualifications of persons who are involved in carrying out radiation practice and the form, manner and deadlines for reporting training.

## Article 2 (Definitions)

The terms used in these Rules have the following meaning:

1. A supervised worker is a worker who is exposed to radiation but does not manage radiation sources or otherwise influences the condition of the source or device or object in which he works and does not affect the safety and exposure of other persons and is in terms of radiation protection under the supervision of suitably qualified persons.
2. A worker who manages radiation sources is a worker other than providers of radiological procedures who independently manages radiation sources or otherwise independently accepts decisions related to the state of the source or the device or object in which he works, or decisions with which he can significantly influence his own safety and potential exposure or safety and potential exposure of other persons.
3. Persons involved in radiation activity are persons involved in the carrying out of a radiation practice or are subject to radiation exposure and must, therefore, be trained in radiation protection. Persons involved in radiation activity may be workers in organisational units of radiation protection, radiation protection personnel, exposed workers, workers working under the supervision and workers who manage radiation sources.
4. The competent authority means the administrative body responsible for issuing licences to carry out radiation practice or the registration of radiation practice in accordance with the Act on Ionising Radiation Protection and Nuclear Safety (Official Gazette of the Republic of Slovenia, No. 76/17, hereinafter: ZVISJV-1).

# SPECIFIC RADIATION PROTECTION MEASURES OF APPRENTICES AND STUDENTS

## Article 3 (Protection of exposed apprentices and students)

1. Apprentices and students who, within the framework of their education, enter the controlled area for which the provider of a radiation practice is responsible and who, under the supervision of persons trained in accordance with these Rules, shall be treated as persons involved in the implementation of radiation activities.
2. The provider of training himself or indirectly through a contract with a provider of a radiation practice ensures that the exposure for practitioners and students is assessed in the same way as for the exposed workers in the rules which lay down the conditions, method, scope and frequency of assessment of personal exposure to workers.
3. The provider of education, himself or, indirectly through a contract with a provider of a radiation practice, provides health surveillance for apprentices and students assigned to category A or B, in the same way as is specified for exposed workers in a regulation determining the extent of health surveillance of exposed workers.
4. The provider of education, himself or, indirectly through a contract with a provider of a radiation practice, provides training for apprentices and students assigned to category A or B as defined in Articles 9 to 18 of these Rules.

## Article 4

**(Responsibility for radiation protection of apprentices and students)**

1. The operator carrying out a radiation practice provides a written programme for introducing apprentices and students into safe work with radiation sources in individual areas.
2. The operator carrying out a radiation practice shall determine one or more mentors for each field that will ensure that the apprentice or student is introduced into safe work with radiation sources in accordance with the programme referred to in the preceding paragraph.
3. In areas that involve working with radiation sources, an apprentice or a student should not be given more responsibility than his mentor in a particular field.
4. The tasks and duties of the person responsible for radiation protection must not be assigned to the apprentice and the student.
5. Notwithstanding the provisions of the preceding and this Article, the principles of radiation protection apply to exposed workers, workers working under supervision and workers who manage radiation sources, including to apprentices and students.

# RADIATION PROTECTION ORGANISATIONAL UNIT AND A PERSON RESPONSIBLE FOR RADIATION PROTECTION

## Article 5

**(Radiation protection organisational unit)**

1. The radiation protection organisational unit, as stipulated by the ZVISJV-1 (hereinafter: radiation protection organisational unit) is responsible for:
	1. planning, optimisation and implementation of radiation protection measures;
	2. drawing-up the radiation protection assessments;
	3. classification of working environments in controlled and supervised areas;
	4. preparation of written instructions for safe work with radiation sources in the controlled and supervised areas;
	5. performing control measurements in controlled and supervised areas;
	6. classification of exposed workers in categories A and B;
	7. the preparation of written programmes and radiation monitoring reports;
	8. selection of appropriate measuring and personal protective equipment;
	9. maintenance and regular checking of measuring and personal protective equipment;
	10. organisation and implementation of measures in emergencies
2. Notwithstanding the provisions of the preceding paragraph, the operator of a nuclear or radiation facility shall consult with independent authorised radiation protection expert as required by the ZVISJV-1.

## Article 6

**(The independence of radiation protection organisational unit)**

The radiation protection organisational unit operates separately from production and work units, and the operator of the nuclear or radiation facility shall ensure its independent operation, the adequate working conditions of the workers working therein and their training in accordance with these Rules.

## Article 7

**(Person responsible for radiation protection)**

1. An operator carrying out a radiation practice who does not operate radiation or nuclear facility must appoint a person responsible for radiation protection, who fulfils the conditions referred to in the first paragraph of Article 9 of these Rules.
2. The person responsible for radiation protection shall ensure a high safety culture and a good status of protection against radiation, in particular for:
	1. planning and implementation of radiation protection measures in accordance with the ZVISJV-1;
	2. planning works for which radiation protection measures must be followed;
	3. the preparation of written instructions and procedures and the informing of workers with them;
	4. that works in which radiation protection measures must be followed shall be carried out in accordance with the instructions and procedures referred to in the previous indent and other requirements and restrictions based on the ZVISJV-1;
	5. periodic verification of safety and warning systems relevant to radiation protection;
	6. the introduction of new workers into work, which should consider radiation protection measures;
	7. maintenance of the records of radiation sources and other documentation related to radiation protection;
	8. the inclusion of workers in the personal dosimetry system and for its smooth implementation;
	9. performing control measurements in controlled and supervised areas;
	10. timely posting of exposed workers to a medical examination in accordance with a regulation determining the extent of health control of exposed workers working in controlled and supervised area;
	11. timely posting of workers to radiation protection training and knowledge renewal in accordance with the provisions of these Rules;
	12. emergency preparedness;
	13. informing the employer and workers of all matters relating to radiation protection;
	14. working with an authorised radiation protection expert, including informing about any changes that might affect the condition of radiation protection;
	15. cooperation with administrative authorities and inspection services in the field of radiation protection.
3. The provider of a radiation practice referred to in the first paragraph of this Article may also appoint an external contractor as the person responsible for radiation protection, if, based on the radiation protection assessment, the risk in carrying out this radiation activity is assessed as low.
4. Notwithstanding the provisions of the second paragraph of this Article, the operator carrying out a radiation practice, who does not operate a nuclear or radiation facility, shall consult with independent authorized radiation protection expert as defined in the ZVISJV-1.

## Article 8

**(The independence of the authorised radiation protection expert)**

* 1. The work and tasks of an authorised radiation protection expert referred to in the third and fourth paragraph of Article 42 of the ZVISJV-1 may for the operator of the nuclear or radiation facility or the operator carrying out a radiation practice only be performed by a person, who is independent of them.
	2. If the radiation protection organisational unit is part of several nuclear or radiation facilities, the work and tasks of an authorised radiation protection expert may only be performed by an independent person.
	3. If a provider of a radiation practice appoints an outside worker as the responsible person for radiation protection, he cannot perform for him the work and tasks of an authorised radiation protection expert.

# THE QUALIFICATIONS IN THE FIELD OF RADIATION PROTECTION

## Article 9

**(Knowledge of radiation protection)**

1. Persons, involved in radiation practice must have the qualifications stipulated in Article 10 of these Rules, knowledge of radiation protection, acquired by the training referred to in Article 11 of these Rules and have passed the radiation protection examination referred to in Article 12 of these Rules. They must also undertake additional training, which relates to a specific radiation source if so determined in the radiation protection assessment. The content and scope of training must be indicated in the radiation protection assessment.
2. Exposed workers, workers working under supervision and workers who manage radiation sources must pass the examination referred to in Article 12 of these Rules within six months of starting work in the context of radiation practice. If these workers do not pass the exam, they cannot independently perform the work and tasks in the field of radiation practice.
3. Workers in organisational units of radiation protection shall pass the examination referred to in Article 12 of these Rules within one year after starting work in the organisational unit of radiation protection. If these workers do not pass the exam, they cannot independently perform the work and tasks of the worker of the radiation protection organisational unit.
4. Notwithstanding the provisions of the second and third paragraphs of this Article, the operator carrying out a radiation practice shall ensure that for the implementation of each key element of the radiation practice, there are as many qualified workers who fulfil the conditions referred to in the first paragraph of this Article as needed to ensure the safe performance of radiation practice.

## Article 10 (Education)

1. Workers working in organisational units of radiation protection in nuclear or radiation facilities must have at least a level I education or university study in science or technical field or have an equivalent level of education which, in accordance with the law governing the Slovenian Qualifications Framework, ranked at level 7 or at least the education acquired by study programs for obtaining a higher education, adopted before 1. 1. 1994 and in accordance with the law governing the Slovenian Qualifications Framework ranked at level 6 (hereinafter: first instance).
2. Persons responsible for radiation protection in health care must have at least a level I education or university study in science, technical or medical field.
3. Responsible persons for the protection against radiation in veterinary must have at least a level I education or university study in veterinary, science, technical or medical field.
4. Responsible persons for radiation protection in industry, research, science and other activities involving work with open radiation sources of Class II and Class I or high-activity sealed radiation sources, must have at least a level I education or university study in science, technical, medical or veterinary field.
5. Responsible persons for radiation protection in industrial radiography must have at least a level I education or university study in science or technical field.
6. Responsible persons for radiation protection in other activities must have at least education acquired through educational programs for acquiring secondary education or professional secondary education, which is in accordance with the law governing the Slovenian Qualifications Framework, ranked at level 5 (hereinafter: secondary education).
7. Workers carrying out procedures involving radiation sources in veterinary must have at least technical secondary education in the veterinary, radiological or medical field.
8. Workers carrying out industrial radiography practice or using high-activity sealed radiation sources must have at least technical secondary education in science or technical field.
9. Workers in other activities must have at least primary education.

## Article 11 (Training)

1. Training of persons involved in radiation activity is carried out by authorised radiation protection experts who are legal persons and have been authorised to conduct training in radiation protection.
2. Concerning the specific contents of radiation protection in a nuclear or radiation facility, the training provider prepares and conducts training in cooperation with the operator of the facility.
3. If the implementation of a radiation activity involves the use of high-activity sealed radiation sources, the training should include specific contents related to the safe handling of these radiation sources.
4. Notwithstanding the provisions of the first paragraph of this Article, the training of workers working under the supervision may be carried out by the operators of nuclear and radiation facilities themselves, but in cooperation with the authorised experts referred to in the first paragraph of this Article.
5. The competent authority may, at the proposal of an authorised radiation protection expert, in the procedure for issuing an authorisation to carry out a radiation practice or registration of a radiation practice, also determine training for workers who are not classified as exposed workers but who manage radiation sources. An authorised radiation protection expert may submit a proposal:
	* based on the results of the control measurements as stipulated in a regulation laying down measures for radiation protection in controlled and observed areas;
	* based on the results of the radiation source inspection as stipulated in the regulation laying down the code of conduct and conditions for the use of individual radiation sources and radiation safety measures to be undertaken by users of radiation sources, or
	* in the context of the elaboration or review of the radiation protection assessment.
6. The training program shall be prepared by a training provider or, in the case of training on specific radiation protection issues in a nuclear or radiation facility, a training provider in cooperation with the operator of the facility. The training program must be in line with the andragogical guidelines and the indicative list of radiation protection training programs in Annex 1, which forms an integral part of these Rules. The training program must define the content and scope of training, the specific content and scope of training in radiation protection in a nuclear or radiation facility and the specific content and scope for any events affecting the radiation protection. The information and training shall place particular emphasis on the necessary safety requirements and shall contain specific information on the possible consequences of the loss of adequate control of high-activity sealed sources of training regarding the use of high-activity sealed radiation sources. The appropriate training set out in the Annex to these Rules must be indicated in the radiation protection assessment.
7. The authority responsible for radiation protection approves the training program. In doing so, the authority responsible for radiation protection shall assess the scope and content of the programme and the suitability of the lecturers.
8. In the case of an individual who does not understand Slovene language, the training provider may individually adjust the program and conduct training so that the person reaches the same knowledge as training by the approved training program.

## Article 12(The examination)

1. After completing the training referred to in the preceding Article, workers working in organisational units of radiation protection must pass an examination consisting of a written and oral part, and every five years they demonstrate the knowledge by passing the examination, which includes a written part. For successful completion of the exam, at least 80% of all points must be achieved. The trainer prepares the written part of the examination, and the results are reviewed by a commission with two members, of which at least one is a certified radiation protection expert and appointed by the training provider.
2. After completing the training referred to in the preceding Article, and then every five years, the persons responsible for radiation protection, exposed workers, workers working under the supervision and workers who operate radiation sources shall pass a written examination prepared by the training provider. For successful completion of the exam, at least 70% of all points must be achieved.

## Article 13 (Training abroad)

When persons involved in radiation practice have undergone radiation protection training abroad, the competent authority may take such training as equivalent to the training referred to in Article 11 of these Rules, if it considers that it guarantees an appropriate level of knowledge. Responsible persons for radiation protection who have been trained abroad must additionally undergo training in knowledge of Slovenian legislation in the field of radiation protection at the training provider referred to in the first paragraph of Article 11 of these Rules.

## Article 14 (Refreshing of knowledge)

## Persons involved in the implementation of the radiation practice shall undergo radiation protection training every five years, if so defined in the assessment of radiation protection.

## Article 15

## (Dissemination of knowledge)

1. Persons involved in radiation activity must demonstrate their knowledge of radiation protection every five years by re-examining the written examination referred to in Article 12 of these Rules.The same applies to those who have taken the training abroad.
2. A natural person with a valid approval from a radiation protection expert does not need to re- demonstrate knowledge in the field defined in the approval, by passing the examination referred to in Article 12 of these Rules.

## Article 16

**(Certificate and record of completed examinations)**

1. The training provider shall issue a certificate of completed examination as referred to in Article 12 of these Rules, showing personal data (personal name, date and place of birth and education), job information (employer, post, type of facility, if applicable), training details (set of training in Annex 1 of these Rules, scope and duration of training, training area, date of examination, validity date of the certificate) and the number and date of the training provider's authorization.
2. The training provider shall keep a record of completed examination and the data of completed examination in the electronic format, prescribed in Annex 2 to these Rules and shall transmit this data to the authority responsible for radiation protection once a year, by 31 January for the previous year.
3. The authority responsible for radiation protection shall keep a record of the exams passed in a manner that gives access to data to the authority responsible for nuclear safety.

## Article 17

**(Training and examination costs)**

All training costs for persons involved in radiation practice and the costs of the examination referred to in Article 12 of this Regulation shall be borne by the employer.

## Article 18(Additional training)

1. The operator of the nuclear facility regularly conducts training of workers working in organisational units of radiation protection on the subject of additional practical contents and operational experience related to radiation protection in a nuclear facility (hereinafter: additional training).
2. Additional training may be carried out by the operator of the nuclear facility on its own.
3. The operator of the nuclear facility shall prepare an indicative plan of additional training for each year.
4. The operator of the nuclear installation shall inform the radiation protection authority and the authority responsible for nuclear safety at least 15 working days before the planned additional training, indicating the content and scope of the additional training.
5. The operator of the nuclear facility documents the contents and scope of the additional training and keeps records of the completed additional training.

# QUALIFICATIONS OF PROVIDERS OF RADIOLOGICAL PROCEDURES

## Article 19

**(Knowledge of patient protection in radiological procedures)**

Providers of radiological procedure shall perform training on the protection of patients in radiological procedures (hereinafter: training of providers of radiological practice) referred to in Article 20 of these Rules and the examination referred to in Article 21 of these Rules.

## Article 20(Training)

1. Training of providers of radiological procedures is carried out by legal persons who have the authorisation of a radiation protection expert to carry out training of providers of radiological procedures in cooperation with an authorised medical physics expert.
2. A training provider shall prepare the training program in cooperation with an authorised medical physics expert.
3. The training program must be in accordance with the indicative list of training programs set out in Annex 1 to these Rules (parts marked c). The training programme must define the content and scope of training. The appropriate training set out in the Annex 1 to these Rules must be indicated in the program of radiological procedures.
4. The authority responsible for radiation protection approves the training program. In doing so, the authority responsible for radiation protection shall assess the scope and content of the program and the suitability of the lecturers.

## Article 21 (Examination)

1. Operators carrying out a radiation practice shall complete the training with a written examination prepared by a training provider.
2. For successful completion of the exam, at least 70% of all points must be achieved.

## Article 22 (Refreshing of knowledge)

Operators carrying out a radiation practice must every five years repeat the training and the exam referred to in the preceding Article.

## Article 23

**(Certificate and record of completed examinations)**

1. The training provider shall issue a certificate of completed examination showing personal data (personal name, date and place of birth and education), data on the type of radiological procedures and training data (part of training in Annex 1 of these Rules, scope and duration of training, training area, date of examination, validity date of the certificate) and the number and date of the training provider's approval.
2. The training provider shall keep a record of completed examination and the data of completed examination in the electronic format, prescribed in Annex 2 to these Rules and shall transmit this data to the authority responsible for radiation protection once a year, by 31 January for the previous year.

# TRANSITIONAL AND FINAL PROVISIONS

## Article 24 (Transitional provisions)

1. Notwithstanding the provisions of these Rules, it shall be considered that:
	* persons who have been designated as responsible persons for radiation protection before these Rules enter into force and which fulfilled the conditions laid down in the Rules on the obligations of the person carrying out a radiation practice and person possessing an ionising radiation source (Official Gazette of the Republic of Slovenia, No. 3/17 and 76/17 – ZVISJV-1), they fulfil the conditions laid down in the third paragraph of Article 7 and Article 10 of these Rules;
	* workers who performed work in organizational units of radiation protection at the date of entry into force of these Rules and who fulfilled the conditions laid down in the Rules on the obligations of the person carrying out a radiation practice and person possessing an ionising radiation source (Official Gazette of the Republic of Slovenia, No. 3/17 and 76/17 – ZVISJV-1), they fulfil the conditions laid down in the first paragraph of Article 10 of these Rules;
	* workers who performed work at the workplace of an exposed worker at the date of entry into force of these Rules and who fulfilled the conditions laid down in the Rules on the obligations of the person carrying out a radiation practice and person possessing an ionising radiation source (Official Gazette of the Republic of Slovenia, No. 3/17 and 76/17 – ZVISJV-1), they fulfil the conditions laid down in the first paragraph of Article 10 of these Rules;
	* training programs approved based on the seventh paragraph of Article 31 and the third paragraph of Article 39 of the Rules on the obligations of the person carrying out a radiation practice and person possessing an ionising radiation source (Official Gazette of the Republic of Slovenia, No. 3/17 and 76/17 – ZVISJV-1) shall be valid until the date indicated on the certificate of the training program.
2. The operator carrying out a radiation practice must ensure that the provisions of Article 14 of these Rules are fulfilled if the radiation protection assessment was designed or viewed after the entry into force of these Rules.
3. The time limits, referred to in Articles 15 and 22 of these Rules for persons who have completed the training prior to the entry into force of these Rules, shall be counted from the date of the examination for radiation protection.

## Article 25 (End of validity)

Upon entry into force of these Rules shall cease to apply the Article 1 and 2 and Article 21 to Article 49 of Rules on the obligations of the person carrying out an activity involving radiation and person possessing an ionising radiation source (Official Gazette of the Republic of Slovenia, No. 13/04 and 76/17 – ZVISJV-1).

## Article 26 (Entry into force)

These Rules shall enter into force on the 15th day after its publication in the Official Gazette of the Republic of Slovenia.

No. 0070-36/2018
Ljubljana, 24th May 2018

EVA 2018-2711-0012

## Milojka Kolar Celarc l.r.

Minister of Health

 I agree!

**Irena Majcen** l.r.

Minister

of the Environment and Spatial Planning

**ANNEX 1**[**The indicative list of training programs on radiation protection**](http://www.pisrs.si/Pis.web/npb/2017-01-0098-p1.pdf)

Workers in radiation protection organizational units in nuclear power plants and nuclear reactors undergo radiation training for at least 200 hours. Workers in radiation protection organizational units in other radiation or nuclear facilities undergo radiation training for at least 80 hours. The training must provide the in-depth knowledge required for quality implementation of radiation protection, including specific contents related to individual object.

Responsible persons for radiation protection, workers and performers of radiological procedures shall do the training in radiation protection for the duration, which is evident from the table. Individual areas (a, b and c) are roughly equivalent in weight and duration by weight.

Content and duration of training by activities:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Exposed workers and operator carrying out a radiation practice that are classified among exposed workers | Workers who are not classified among exposed workers and however manage sources of radiation, and operators carrying out a radiation practice that are not classified among exposed workers | Exposed workers who work under control |
| I | II | III |
| **A** | **Nuclear and radiation facility\*** | a1, a2, b1, b2, p(40 hours) | / | a1, b1 (8 hours) |
|  | **Health care and veterinary** |  |  |  |
| C | Dentistry and densitometry | a1, b1, c1, c2 (10 hours) | a1, c1, c2 (8 hours) | / |
| Č | Diagnostic radiology | a1, b1, c1, c2 (16 hours) | / | a1, b1 (8 hours) |
| D | Inverventions and other diascopic guided procedures | a1, b1, b2, c1, c2 (20 hours) | / | a1, b1 (8 hours) |
| E | Nuclear medicine | a1, a2, b1, b2, c1, c2 (24 hours) | / | a1, b1 (8 hours) |
| F | Teleradiotherapy | a1, b1, b2, c1, c2 (20 hours) | / | a1, b1 (8 hours) |
| G | Brahitherapy | a1, a2, b1, b2, c1, c2 (24 hours) | / | a1, b1 (8 hours) |
| H | Other activities in health care and veterinary | Content and duration of the training, as determined in the radiation protection assessment or in the program of radiological procedures | Content and duration of the training, as determined in the radiation protection assessment or in the program of radiological procedures | Content and duration of the training, as determined in the radiation protection assessment or in the program of radiological procedures |
|  | **Exposure due to natural sources of radiation** |  |  |  |
| J | Radon exposure | a1 (4 hours) | / | / |
| K | Air transport | a1 (4 hours) | / | / |
|  | **Industry and other activities** |  |  |  |
| M | Industrial radiography | a1, a2, b1, b2, p (36 hours) | / | / |
| N | Use of open radiation sources Class I and II | a1, a2, b1, b2, p (36 hours) | / | a1, b1 (8 hours) |
| O | Control of luggage and consignments | a1, b1 (8 hours) | / | / |
| P | Field density and moisture measurements (surface or cartography boreholes), portable XRF spectroscopy, use highly active sealed radiation sources | a1, a2, b1, b2, p (20 hours) | / | / |
| R | Use of open sources of radiation Class III | a1, a2, b1 (12 hours) | / | / |
| S | Other activities | Content and duration of the training, as determined in the radiation protection assessment, minimum a1, b1 (8 hours) | a1, b1 (8 hours) | / |
|  | Additional training for responsible person if it is required in the radiation protection assessment | o (2 hours) | o (2 hours) |  |

\* Workers at landfills with mining or hydrometallurgical runoff resulting from the extraction of nuclear mineral resources shall be trained in accordance with the program from the part of radon exposure.

Contents:

a1) the basis of radiation protection (basic physical phenomena related to radiation, radioactivity, braking radiation, biological effects of radiation, radiation detection and dosimetry, basic principles of radiation protection, general properties of radiation sources and devices according to activity, safety culture, legislation fields of radiation protection)

a2) knowledge of radiation protection associated with the use of radioactive substances (specific content related to radioactive substances, radio-chemical properties of radioactive substances, contamination, protection of radiation sources)

b1) the basis for the protection of exposed workers (radiation risks, basic principles of radiation protection, measures for the protection of exposed workers, controlled and supervised areas, obligations regarding the implementation of personal dosimetry, medical examinations and radiation protection training, parameters affecting the dose of workers)

b2) specific knowledge of the protection of exposed workers related to the selected activity (characteristics of radiation sources, protective measures, administrative measures, rules of conduct in controlled and supervised areas, prevention of emergencies and action)

c1) the basis of patient care (characteristics of radiological procedures, devices and systems for performing radiological procedures in health, justification and optimization of radiological procedures, tasks performed by radiologists and doctors responsible for radiological procedures)

c2) specific knowledge from the care of patients related to the chosen activity (basics of quality assurance, basics of good radiological practice, practical aspects of optimization, referral criteria, basics of technical quality check, basics of patient dosimetry, diagnostic reference levels or recommended therapeutic levels)

p) practical exercises (practical exercises according to an individual activity e.g. use of radiation meters, display of configuration of industrial radiography, work with blind sources of radiation, extraordinary events, protection, emergency response, storage of radiation sources, preparation for transport)

o) additional training for responsible persons (tasks of the responsible person, informing the employer and workers regarding radiation protection, necessary permissions in accordance with the applicable legislation, the powers of the state authorities and the procedures for obtaining licenses)

**ANNEX 2
Information on passed exams**

The information about passed exams is sent by the training provider in the table or in the text file where individual fields are separated by one of the standard punctuation and are followed by:

- Last name

- Name

- EMŠO

- Date of birth

- Place of birth

- Education

- An individual's identification key, composed of his data

- Date of data entry

- The date of the exam

- The date by which the exam is valid

- The content and scope of training set out in Annex 1 of these Rules

- The type of work for which the worker is qualified

- Training provider

- Remarks

- The organization that entered the data