**RULES ON SPECIAL RADIATION PROTECTION REQUIREMENTS AND METHOD OF DOSE ASSESSMENT**

**(SV5)**

**UNOFFICIAL TRANSLATION**

*Prepared by the Slovenian Nuclear Safety Administration in December 2018.*

*The official text of the Act is located on the pages of* [*the Legal Information System*](http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV13403)*.*

***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 fourth paragraph of Article 39, the sixth paragraph of Article 40, the seventh paragraph of Article 41, the third paragraph of Article 45, the twelfth paragraph of Article 49, the fifth paragraph of Article 50 and the fourth paragraph of Article 84 of the Ionising Radiation Protection and Nuclear Safety Act (Official Gazette of the Republic of Slovenia, No. 76/17) the Minister of Health issues the

**RULES**

**on special radiation protection requirements and method of dose assessment**

# 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 ionizing radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/4/Euratom and 2003/122/Euratom (OJ L 13, 17. 1. 2014, p. 1), last amended by Corrigendum (OJ L 72, 17. 3. 2016, p. 69) provides:

* more detailed content and scope of the assessment of radiation protection;
* the conditions and the time limits for the review of a radiation protection assessment, mandatory contents of reviews of a radiation protection assessment and other conditions concerning the obligation on the review of a radiation protection assessments;
* the conditions, method of implementation, extent and frequency of determining the personal exposure of workers;
* the format and the content of a personal radiation card, the method for its issue and the entry of data, and the obligations of the employer to report on this data to the authority competent for radiation protection;
* obligations and method of sending data from the central records of personal doses to the authority competent for nuclear safety, the providers of a radiation practice, outside providers, exposed workers, authorised medical practitioners and the authorised radiation protection expert;
* the conditions for granting the approval for exceeding the dose limits in the case of carrying out exceptional tasks and the mandatory measures to be taken to reduce the consequences of the excessive exposure of the worker;
* the method for data collection and the storage of documentation on measuring doses, the methodology for assessing the intake of radionuclides and radioactive contamination, as well as the methodology for evaluating doses received by reference individuals of the population and the population as a whole, regarding the preparation of a report on dose assessment for the population.

# Article 2

# (Definitions)

The terms used in these Rules have the following meaning:

1. Operational dosimetry is a system of measurements of personal doses carried out by the operator of the facility or by a practitioner of radiation practice and is intended for the continuous monitoring of exposure.
2. The passive dosimeter is a dose measurement device, in which the detector and the measuring part are separated. Only the detector is exposed to radiation, but the dose is evaluated only after reading in the measuring system.
3. Official dosimetry is a personal dosage measurement system (usually with passive dosimeters) carried out by an authorized dosimetry provider and is intended for exposure control and comparison with the limit doses.

# ASSESSMENT OF RADIATION PROTECTION

**Article** **3
(Radiation risks)**

1. Radiation risk is defined by the amount of effective dose for individuals in particular radiation practice and with the probability and level of potential exposure in the emergency situation.
2. Exposures are:
3. very high if the effective doses are higher than 50 mSv or if the equivalent doses for the skin and extremities are above 1 Sv or the doses for the eyes are above 50 mSv per year;
4. high if the effective doses are higher than 20 mSv or if the equivalent doses for the skin and extremities are above 500 mSv or the doses for the eyes are above 20 mSv per year;
5. increased if the effective doses for natural radiation are above 6 mSv, if the effective radiation doses from artificial sources are above 1 mSv, or if the equivalent doses for the skin and extremities exceed 50 mSv or the equivalent doses for the eyes are above 15 mSv per year;
6. low if the effective doses for natural radiation are up to 6 mSv, the effective doses of radiation from artificial sources are up to 1 mSv, or equivalent doses for the skin and extremities are up to 50 mSv, or equivalent doses for the eyes do not exceed 15 mSv per year;
7. very low if the effective doses for natural radiation are up to 2 mSv or the effective radiation doses from artificial sources are up to 0.3 mSv or if the equivalent doses for the skin and extremities up to 2 mSv or the equivalent doses for the eyes do not exceed 0.2 mSv per year;
8. negligible if the effective doses are lower than 0.01 mSv or if the equivalent doses for the skin and extremities are below 0.1 mSv, or for the eyes below 0.01 mSv per year.
9. The likelihood is expressed by the frequency of occurrence of an emergency in the individual provider of a radiation practice, considering data on the emergency on a global level. The event is:
* probable, if it is expected that such an event is to happen every few years, the scenario for such an event includes normal circumstances;
* unlikely, if it is expected that such an event is to happen every few decades, and the scenario for such an event requires a combination of multiple circumstances;
* very unlikely, if it is expected that such an event is to happen less often than every few decades, and the scenario for such an event requires a combination of multiple unusual circumstances.
1. The risk is:
* high, if there is a likelihood of extraordinary events involving very high or high exposure;
* moderate, if exposure at regular work is increased or when only extraordinary events involving increased or low exposure are likely, while extraordinary events involving very high or high exposures are unlikely;
* low, if exposure at regular work is low or very low, or when only extraordinary events involving very low or negligible exposures are likely, while extraordinary events involving increased or low exposures are unlikely and extraordinary events that involve very high or high exposure are very unlikely;
* negligible, if the exposure at regular work is negligible, or when only extraordinary events involving very low or negligible exposure are unlikely, while extraordinary events involving low exposure are highly unlikely.

# Article 4

**(Drawing up an assessment of radiation protection)**

1. The radiation protection assessment for radiation practice shall at least comprise the contents of Annex 1 of these Rules that are relevant to this activity. Where appropriate, the assessment of the protection of individual content may refer to other relevant documents of the practitioner of the radiation practice.
2. If the radiation protection assessment relates to the use of consumer products, the exemption of activities under supervision under the Act governing protection against ionizing radiation and nuclear safety, or the abandonment of the control of a radioactive substance or if it is a generic assessment, the assessment is made to the extent that is reasonably based on Annex 1 to these Rules.

# Article 5

**(Review of the radiation protection assessment)**

1. The review of the radiation protection assessment involves a reassessment of all the essential elements of radiation protection referred to in Annex 1 of these Rules and an analysis of the doses received in the period from the last review of the assessment and the determination of potential indicators, the comparison of dose constraints for certain works or sources with actual doses received and the assessment of other measures, relevant for the evaluation of radiation risk.
2. If the review of the radiation protection assessment is carried out at the request of the competent inspector, the review shall include, in addition to the contents referred to in the preceding paragraph, an assessment of the measures taken based on the inspector's findings and requirements.
3. If the review of the radiation protection assessment is carried out immediately after an emergency, the review, in addition to the contents referred to in the first paragraph of this Article, shall include a description of the causes of the emergency, an assessment of the received doses in the event of an emergency and a re-evaluation of the radiation risk.
4. If the review of the radiation protection assessment is carried out after the completion of rehabilitation works to eliminate the consequences of an emergency, the review, in addition to the contents referred to in the first paragraph of this Article, shall include the assessment of the effectiveness of the rehabilitation works, the assessment of the received doses and the evaluation of radiation risk.

# Article 6

**(Changes of the radiation protection assessment)**

1. If based on the review of the radiation protection assessment referred to in the preceding Article, it is established that the radiation practice has changed significantly since the drawing up of the reviewed assessment or that carrying out radiation practice and radiation protection measures significantly deviate from the description in the review of the assessment, a revised assessment of radiation protection shall be prepared.
2. The draw up of a revised assessment of radiation protection should also be prepared if, based on the review referred to in the previous Article, it is established that the radiation protection must be improved and that radiation protection measures must be amended or supplemented.

# Article 7

**(The review report for the radiation protection assessment)**

1. If based on the radiation protection assessment referred to in the Article 5 of these Rules, it is determined that carrying out radiation practice has not changed significantly since the drawing up of the reviewed assessment and is carried out in accordance with the reviewed assessment, a report on the review of the radiation protection assessment should be prepared.
2. The review report shall include a summary of the findings of the review of the radiation protection assessment referred to in the Article 5 of these Rules.
3. The report of the assessment review shall include any minor changes in carrying out radiation practice since the drawing up of the reviewed assessment, possible minor and non-significant deviations in carrying out radiation practice and radiation protection measures, according to the description in the reviewed assessment, and any minor occurrences related to the implementation of the protection against radiation, but which do not require changes or amendments to radiation protection measures. The review report shall also describe minor and non-essential deviations from the prescribed content in Annex 1 to these Rules.

**Article 8**

**(acquaintance with the radiation protection assessment)**

The radiation practitioner shall ensure that exposed workers and other persons involved in the radiation practice are familiar with the content of the assessment and the review report for the radiation protection assessment.

# PERSONAL EXPOSURE CONTROL

# Article 9(Control of personal exposure)

1. The radiation practitioner shall ensure regular measurements of the radiation dose received by each exposed worker in categories A and B. The radiation practitioner shall provide an individual assessment of doses due to external or internal irradiation, depending on the type and characteristics of the exposure.
2. The competent authority may, at the proposal of an authorized radiation protection expert, determine the measurement of individual doses as well as the method and frequency of determining individual doses for workers who are not classified as exposed workers in the procedure for issuing an authorization for carrying out a radiation practice or for the registration of a radiation practice. An authorized radiation protection expert may make the proposal:
* based on the results of the surveillance measurements laid down in the regulation laying down measures for radiation protection in the controlled and observed areas,
* based on the results of the examination and measurements of the radiation source referred to in a regulation laying down the rules 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 making or reviewing the assessment.
1. If the workers are likely to be exposed to internal contamination, the radiation practitioner shall, in cooperation with an authorized radiation protection expert, provide an individual assessment of the dose due to internal irradiation. The program of determining the internal irradiation of workers must be included in the assessment. The program shall determine the appropriate method, the frequency of establishing personal exposure and other measures for the appropriate determination of doses due to internal irradiation.
2. If the external irradiation of workers is uneven, the radiation practitioner shall ensure regular measurements of equivalent doses to the most exposed organs. The method of determining equivalent doses due to external irradiation must be included in the assessment.
3. The competent authority may authorize, in the process of issuing an authorization to carry out a radiation practice or radiation registration, based on the assessment for individual groups of workers to replace the exposure measurements of individual workers with supervisory measurements of working environment or with the exposure based on calculation models.
4. For workers performing exceptional tasks for which the authority competent for radiation protection has approved the exceeding of dose limits, the radiation practitioner shall provide an additional assessment of the individual exposure, which relates to each exceptional task separately.
5. If a worker performs work with various radiation practice practitioners, each employer shall separately provide an individual exposure assessment for the works, which the exposed worker carries out for him.
6. The exposure assessment referred to in this Article is carried out by an authorized dosimetry provider.
7. If an individual dose measurement for an individual is impracticable or inadequate, the data regarding the doses of other workers, monitoring surveillance data in controlled and observed areas or the estimates based on calculation models approved by the authority competent for radiation protection, is used for the individual dose assessment of the worker.

# Article 10

# (Dosimetry)

1. Measurements of individual exposure dur to external irradiation are carried out with passive dosimeters. The effective dose is measured with dosimeters, which are worn as specified in the radiation protection assessment or attached to the upper part of the body at the height of the sternum. The equivalent dose due to external irradiation is determined for the most exposed organs by dosimeters on bracelets, rings, glasses and other places. The equivalent dose to the skin due to contamination is determined by calculation models based on measurements of the specific surface activity of individual radionuclides on the skin, mucous membranes and clothing.
2. The exposure due to the introduction of radionuclides into the body, depending on the type and the nature of radionuclides and the method of intake, is determined by calculation models based on measurements of the concentration of individual radionuclides in the air, measurements of total radioactivity in the body or critical organs, or calculation models based on measurements of the concentration of individual radionuclides in biological samples. In case of superficial radioactive contamination of persons, the exposure due to the introduction of radionuclides into the body through skin, mucous membranes or open wounds with calculation models based on measurements of the specific surface activity of individual radionuclides on the skin, mucous membranes and clothing is determined.

**Article 11**

**(Frequency of control of personal exposure)**

1. The determination of the exposure of individual exposed workers to external radiation is carried out monthly.
2. Notwithstanding the provisions of the preceding paragraph, the competent authority may approve, in the procedure for issuing an authorization to carry out radiation practice of a radiation registration, based on the assessment for individual groups of workers, that the determination of the exposure of workers is also carried out in longer periodic periods, but not less than once a year. If an activity is carried out on an occasional basis, the exposure detection can only be granted for the duration of the activity.
3. The frequency of control of personal exposure due to internal irradiation shall be determined by the program referred to in the third paragraph of Article 9 of these Rules.
4. The exposure of workers in mines, caves or other environments with increased concentrations of radon progeny shall be determined at least twice a year.

**Article 12**

**(Operational dosimetry)**

1. Workers in nuclear facilities and industrial radiography must also carry electronic alarm dosimeters (operational dosimetry) in addition to passive dosimeters.
2. Workers in other activities shall, in addition to passive dosimeters, be equipped with electronic alarm dosimeters, if so specified in the assessment.
3. The radiation practitioner records the results of the operational dosimetry daily or after each work order completed.
4. The method of performing operational dosimetry must be described in the assessment.

**Article 13**

**(Assessment of personal exposure in case of emergency**)

1. In the event of emergency, the radiation practitioner shall as soon as possible ensure an assessment of the effectiveness in equivalent doses of all persons who have been exposed to radiation.
2. If an emergency has occurred or if there is a suspicion that an unexpected external irradiation has occurred, the passive dosimeters shall be recorded immediately after the event and determined immediately. The person must not start to work if he has not received a new dosimeter.
3. If there is a suspicious that the unintended internal contamination has occurred, the dose due to internal irradiation should be determined based on the measurements of total radioactivity in the body or critical organs of exposed persons or base on the measurements of the concentration of radionuclides in biological samples.
4. If surface contamination of persons has occurred, the equivalent dose of the skin due to external irradiation of radionuclides into the body through the skin, mucous membranes or open wounds should be assessed.
5. The doses referred to in this Article shall be assessed by an authorized dosimetry provider or an authorized radiation protection expert. The radiation protection provider shall communicate all known information in circumstances that may be relevant for the assessment of doses in the event of emergency and, if necessary, allow for additional control of the radiation situation for the purposes of dose assessment. An authorized dosimetry provider or an authorized radiation protection expert receives data received from a radiation practitioner or obtained by additional supervision of radiation conditions, without delay informing the body responsible for radiation protection for the central record of personal doses. He shall immediately report the results to the practitioner of the radiation activity.

**Article 14**

**(Control of personal exposure of protective measures)**

1. In the event of an emergency, for emergency protection operators, appropriate identification of the exposure according to the type of work they perform and the size of the risks to which it is exposed, including, where necessary, personal dosimeters, must be ensured.
2. The doses referred to in this Article shall be assessed by an authorized dosimetry or an authorized radiation protection expert.
3. The operator of a radiation or nuclear facility, a radiation practitioner, an intervention manager, or other person responsible for the protection of protective measures providers, shall communicate to him the authorized dosimetry or an authorized radiation protection expert all the known data and circumstances of the emergency that might have been important for assessing doses.
4. The authorized dosimetry or an authorized radiation protection expert shall communicate the results and data referred to in the preceding paragraph to the body responsible for radiation protection for the central record of personal doses. It shall also communicate the results to the protection provider and to the person responsible for its protection, who shall inform the operator of the protective measures with the results.

# INFORMATION ON PERSONAL DOSES OF WORKERS Article 15

**(Issuing the personal radiation card)**

1. A personal radiation card is issued by the authority competent for radiation protection based on an application given by the worker or his employer. The application must include information about the worker (personal name, personal identification number (EMŠO) or date of birth, place of birth and gender, occupation and education) and employer information (company name, address and registration number).
2. The personal radiation card shall be issued in the format specified in Annex 2 to these Rules.
3. At the time of issuing the personal radiation card the authority competent for radiation protection shall enter the worker identification data and the radiation dose data received by a worker, the data on completed trainings in radiation protection and the data on the assessment of the medical performance from the Central Records of Personal doses on the day of issuing the card.
4. A worker may have only one valid personal radiation card. In the event of a change of the employer, the worker transfers the personal radiation card to the new employer. In case of loss or destruction of a personal radiation card, a new one is issued based on a written application from the first paragraph of this article, and the validity of the lost or destroyed card is revoked.

# Article 16

**(Entering and reporting data)**

1. The personal radiation card must be kept up to date with the following data:
* operational dosimetry data - a provider of a radiation practice abroad,
* data on an official dosimetry - the employer who sent the worker abroad,
* information on the medical assessment of fitness to work - the occupational medicine practitioner,
* the information on completed training on radiation protection - training provider.
1. The employer must report the doses the worker received abroad to the Central Records of Personal Doses in accordance with the fourth paragraph of Article 50 of the Ionising Radiation Protection and Nuclear Safety Act (Official Gazette of the Republic of Slovenia, No. 76/17, hereinafter: ZVISJV-1). By 31 January of each year at the latest, the employer must send a copy of the personal radiation card to the authority responsible for radiation protection.
2. Obligations regarding the entry and reporting of the data in this Article also apply to self- employed persons.

# Article 17

**(Accessing personal doses data in the Central Records of Personal Doses)**

1. The data from the Central Record of Personal Doses shall be forwarded to the persons referred to in the paragraph 6 of Article 49 of ZVISJV-1 based on a written application. The application must clearly indicate the person to whom the request relates (personal name, personal identification number (EMŠO) and place of birth or birth date, place of birth and gender) and the period during which the worker received the dose.
2. The authority, competent for radiation protection, issues a certificate of dosage which contains data on annual doses for the required period and the cumulative dose from the Central Records of Personal Doses. The certificate is issued for each person separately.
3. Notwithstanding the provisions of the preceding paragraph, the authority competent for radiation protection shall send data on personal doses to accredited laboratories once a year. Persons for whom the authority competent for radiation protection transfers data to accredited laboratories of occupational medicine shall be determined based on reports on performed medical examinations, as stipulated in the regulation governing the exercise of health surveillance of exposed workers.

# CARRYING OUT SPECIAL TASKSArticle 18

**(The issue of the approval for exceeding the dose limits)**

1. The approval for exceeding the dose limits shall be issued by the authority competent for radiation protection if the conditions laid down in the first paragraph of Article 39 of the ZVISJV-1 are fulfilled. The authority competent for radiation protection shall consult the authority competent for nuclear safety in cases concerning an activity for which the latter has issued an approval for carrying out radiation practice.
2. Exceeding the dose limits shall be determined in the approval referred to in the preceding paragraph, where for each worker and each work assignment the highest values of equivalent and effective doses shall be determined.
3. The approval for exceeding the dose limits does not include the implementation of protective measures due to an emergency.

# Article 19

**(Application for the approval for exceeding the dose limits)**

The provider of a radiation practice shall submit an application for the approval referred to in the preceding Article to the authority competent for radiation protection, which shall contain:

* 1. the mark, date and validity of the issued approval for carrying out radiation practice;
	2. a description of the exceptions with an indication of their essential characteristics, working areas and duration;
	3. the justification for eligibility, information on individual and group effective doses of certain workers for exceptional tasks, their received doses over the past five years and the planned dose in the next five years. In cases of possible internal contamination and uneven external irradiation, the assessed equivalent doses should also be indicated;
	4. the conditions for the use of additional personal protective equipment, personal dosimeters, radiation level meters and radioactive contamination of surfaces or air;
	5. information on workers determinable to perform exceptional tasks, their category and the maximum planned exceedance of the thresholds;
	6. the opinion of an authorised medical practitioner on the medical fitness of workers determinable to perform exceptional tasks;
	7. the opinion of an approved radiation protection expert in the exercise of exceptional tasks;
	8. employee signatures statements to consent to the performance of exceptional tasks where the dose limits can be exceeded, and to be informed in advance of the risks and precautions that must be taken during each task;
	9. other mandatory measures to be implemented to minimise the effects of excessive worker exposure, such as providing additional healthcare and control, decontamination and limiting the frequency of exceptional tasks over a period of five consecutive years.

# Article 20

**(The approval for exceeding the dose limits)**

The approval for exceeding the dose limits contains:

1. basic information on the licence holder;
2. a description of the exceptions with an indication of their essential characteristics, working areas and duration and the justification for eligibility;
3. data on workers designated to perform exceptional tasks and the maximum planned exceedance of their limit doses;
4. basic information about the authorised practitioner of occupational medicine and an authorised radiation protection expert who gave an opinion on the implementation of exceptional tasks;
5. conditions for the use of additional protective and measuring equipment for radiation protection;
6. other obligations to be met by the licence holder in accordance with the regulations in force;
7. the period of validity of the licence.

# REPORT ON THE ASSESSMENT OF DOSES RECEIVED BY THE POPULATION

**Article 21**

**(The method of data collection)**

1. The authorised radiation protection experts shall prepare the reports on the assessment of doses for the entire population of the Republic of Slovenia for the previous year and transmit it to the authority responsible for radiation protection by 31 March. When drawing up the report, the data on radioactivity monitoring in the environment shall be considered.
2. Reports on dose assessment for reference persons from individual population groups that are produced by authorized radiation protection experts based on the data of extraordinary monitoring in case of increased radioactive contamination of air, drinking water, water, soil, foodstuffs, fodder and individual products or materials shall be transmitted to the authority responsible for radiation protection in accordance with the monitoring programme and the manner of reporting adopted pursuant to the eleventh paragraph of Article 159 of the ZVISJV-1. The first report on the assessment of doses shall be transmitted no later than 60 days after the start of extraordinary monitoring, and the latest report shall be no later than 90 days after the end of the extraordinary monitoring.
3. Reports on the assessment of doses for reference persons from individual population groups based on exposure assessment of the Article 62 of ZVISJV-1 shall be made by authorised radiation protection experts or authorised providers for measuring radon and shall be transmitted to the authority responsible for radiation protection and to the authority responsible for nuclear security.
4. Operators of radiation or nuclear facilities to carry out their radiation practice after the end of the calendar year, shall ensure the production of reports on dose assessment for reference persons from individual characteristic groups of the population for the previous year and shall transmit them by 31 March to the body responsible for radiation protection. Reports are produced by authorised radiation protection experts. In this context, data on operational monitoring of radioactivity, which are carried out based on the Article 158 of ZVISJV-1, shall be considered.
5. Providers of a radiation practice carrying out radiation procedures, as often as defined in the programme of radiological procedures, or at least once in five years, shall ensure the production of a report on the assessment of doses for individual population groups and forward them to the body responsible for radiation protection. Reports are produced by authorised radiation protection experts or by authorised medical physics experts. In doing so, they consider data from programmes of radiological procedures.
6. If an individual report does not contain realistic assessment of effective doses, typical reference groups of the population, types of external radiation, the actual paths of transferring radioactive substances to the human environment and human intakes, the chemical and physical properties of radionuclides at intake and evaluating the uncertainty or variability of dose assessment, the authority competent for radiation protection or the authority competent for nuclear safety may require that an individual report be corrected or updated accordingly.

# Article 22(Storage of documentation)

The authority competent for radiation protection and the authority competent for nuclear safety shall permanently store all the reports referred to in the preceding Article in their archives. If summary reports are drawn up for several consecutive years, and if it is ensured that all relevant information from the sixth paragraph of the preceding article is retained in the summary reports, no separate annual reports need to be stored.

# Article 23

**(Assessment of intake and contamination)**

The methodology for assessing the intake of radionuclides and radioactive contamination for the purpose carrying out radiation practice shall consider the most realistic data on:

* type and activity of radionuclides which, due to the carrying out radiation practice, are released into the environment, their chemical and physical form, as well as the data on the places and methods of discharge;
* the transfer pathways of these radionuclides to the reference population groups, where it is necessary to separate the dominant pathways contributing the majority of the dose from the minor pathways that contribute less than 1/10 of the dominant dose;
* radioactive contamination of air, soil, water, foodstuff and other products, dosage coefficients for individual radionuclides and models for the calculation of doses;
* reference groups of the population divided into three age groups (infants under one year, children aged 7 to 12, adults over 17 years of age), their normal and special lifestyle or dietary habits;
* the possible deviations of the actual doses from the assessed doses and their distribution due to the unreliability or variability of the measured or calculated data.

# Article 24

**(The assessment of doses received by reference groups of the population)**

1. The methodology of dose assessment received by reference groups of the population is adjusted to the radiation risks in carrying out radiation practice. It considers contributions from external and internal irradiation. If assessed doses, uncertainties or variability are comparable to authorised dose constraints, detailed and comprehensive monitoring programmes should be carried out, and realistic calculation models should be used.
2. If the assessed doses of reference individuals from the population is estimated to be less than 10 μSv per year or less than 10 % of the authorized dose constraints due to the carrying out radiation practice, simple and general models may be used instead of complex calculation models, which, after calculating, give a higher value of the assessed dose and consider the hypothetical reference population group.
3. Reports on dose assessment for the reference groups of the population, due to carrying out radiation practice, also include a comparison of dose assessment with operational dose constraints and a quality assurance programme. When calculating the effective dose due to the intake, the dosage coefficients, determined in the regulation setting the dose limits, are used. The report shall also consider contributions to the doses resulting from the formation and accumulation of radioactive decay products if they are comparable with the doses of predominant transfer pathways.
4. For carrying out radiation practice, group doses should also be determined for reference groups of the population. In the composition of the reference group, only individuals who receive a dose above 1 % of the authorised dose constraint can be considered. The uncertainty or variability of the values of individual doses should be considered.

# Article 25

**(The assessment of doses for the general population)**

The methodology of dose assessment for the entire population is defined in a way to ensure an equivalent and high-quality comparison of the doses for the entire population with those doses received by individual reference groups of the population for carrying out radiation practice. Individual doses are fully and regularly evaluated to implement measures to optimise the protection against ionising radiation.

# TRANSITIONAL AND FINAL PROVISIONS

# Article 26(Validity of certificates of radiation protection assessment)

# The certificates of radiation protection assessment, that have been issued as an independent administrative act prior to the entry into force of these Rules shall be valid until the date indicated on the certificate.

# Article 27

**(Transitional provision)**

A certificate of radiation protection assessment that has been issued as an independent administrative Act prior to the entry into force of these Rules shall be valid until the date indicated on the certificate.

# Article 28(End of validity)

The Rules on the requirements and methodology of dose assessment for the radiation protection of the population and exposed workers (Official Gazette of the Republic of Slovenia, No. 83/16 and 76/17 – ZVISJV-1) and the Rules on the Manner of Keeping Records of Personal Doses for the Exposure to Ionizing Radiation (Official Gazette of the Republic of Slovenia, No. 81/16 and 76/17 – ZVISJV-1).

# Article 29(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. 0070-34/2018

Ljubljana, 14th May 2018

EVA 2018-2711-0011

Milojka Kolar Celarc l.r.

Minister of Health

**ANNEX 1**

**THE CONTENT, SCOPE AND FORM OF RADIATION PROTECTION ASSESSMENT**

1. GENERAL INFORMATION REGARDING RADIATION PRACTICE AND PROVIDER

1.a Legal person and its representative (name, address, personal name, title, function)

1.b Person responsible for radiation protection (personal name, education, experience)

1.c Organizational unit, where radiation practice is carried out (name, address)

1.č Description of the radiation practice (essential characteristics and hazards, workplaces, species and the number of radiation sources that the assessment describes)

1. DATA ON SOURCES OF NATURE AND SPACES WHERE APPLICABLE

2.a Description of sources and devices (types, labels, capabilities), conditions of use, including maintenance, description of planes new resources and devices, planned changes to existing resources (acquisition of resources, devices and equipment and acceptance tests and related reviews, design features of the source or device, safety details and warning systems)

2.b Indication of data in the maximum dosing speed at sources and on the possibility of contamination

2.c Description of the premises where the resources are used and stored, including the storage capacity resources, and a description of neighbouring areas

2.č Classification of premises in controlled and observed areas, ventilation and filters

2.d Handling of radioactive waste and releases to the environment and description of environmental monitoring

2.e Recommended lifetime of resources and method of handling after discontinuing use

2.f A summary of the description of radiation protection measures

1. MEASURES OF THE PROTECTION OF WORKERS AND POPULATION BEFORE RADIATION

3.a Protection of resources and premises (substances, thickness, distribution of shields or fences)

3.b Security systems (warning, automatic shut-off or closing)

3.c Administrative measures (determination of responsibilities, organization of work, keeping of records)

3.č Instructions or recommendations for safe work

3.d Program for implementation of control measurements I the controlled and observed areas (radiation meters, description of modes, place, duration and frequency of measurements, calibration)

3.e Program and implementation of control of external and internal irradiation (use of personal dosimeters, method and frequency of detection of irradiation, dosimetry of the workplace)

3.f Personal protective equipment

3.g The content and scope of the radiation protection training provided in the regulation defining obligations of the radiation practitioner and the holder of the ionizing radiation source

1. THE EXPOSURE RELTING TO THE IMPLEMENTATION OF THE PRACTICE

4.a Description of radiation most hazardous work (times, speeds of effective and equivalent doses, inputs)

4.b Classification of workers in category A or B regarding radiation risk and the workplace

4.c Estimation of effective and equivalent doses of workers in normal work (data on dosimetry)

4.č Estimated effective dose for residents

4.d Special working conditions for pregnant women and nursing mothers

1. POTENCIAL EXPOSURE

5.a Identification of extraordinary events and assessment of probability of their occurrence

5.b Assessment of the spatial and temporal distribution of radioactive substances after possible contamination

5.c Estimation of potential effective and equivalent doses for workers in these events

5.č Evaluation of the potential effective doses for residents in these events

5.d Assessment of the group effective dose and assessment of radiation risk for radiation practice

1. PLAN OF OPTIMIZATION OF PROTECTION

6.a Creation of reports on the implementation of radiation protection measures and on the received doses of workers

6.b Monitoring of radiation risk indicators (dosed, emergencies, other measures, comparison of received doses with dosing fences and estimated doses)

6.c Determinining, optimizing and checking operational dosing enclosures, including reporting criteria at exceeding

6.č Plan to reduce radiation risk (human, administrative and technical factors)

6.d Needed number of skilled workers for safe work in the area of radiation sources

6.e A contingency plan

6.f Instructions for action in the event of emergency and a plan to eliminate its consequences

1. QUALITY ASSURANCE AND CHECKING
2. PREVIOUS EXPERIENCE WITH EXTRAORDINARY EVENTS
3. PROFESSIONAL OPINION OF THE AUTHORIZED RADIATION PROTECTION EXPERT REGARDING THE ASSESSMENT AND PROPOSED MEASURES
4. ORIGINAL TECHNICL DOCUMENTATION OF THE MANUFACTURER AND OTHER EXPLANATIONS NECESSARY TO DETERMINE THE STATE OF RADIATION PROTECTION

**ANNEX 2**

**PERSONAL RADIATION CARD**





















