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D E C R E E
of the Ministry of Health of the Slovak Republic
of 13 December 2000
concerning Radiation Protection Requirements

The Ministry of Health of the Slovak Republic, in conformity with Art. 17y of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic on Health Protection and the amendments introduced by Law No 470/2000 Laws Coll. (hereinafter referred to as the „Law“), makes hereby the following provisions:

PART ONE
GENERAL PROVISIONS
Article 1
Scope of the Amendment

The present Decree fixes -

- (a) the maximum content of radionuclides beyond which a radioactive substance turns into a source of radiation¹;
- (b) the technical and organisational requirements, indicative values and procedures for determining the reasonably achievable levels of radiation protection;
- (c) the maximum permissible levels of exposure to radiation, the permissible values of exceptional exposure to radiation² and the principles for assessing exposure to radiation;
- (d) the indicative levels of radiation exposure for persons undergoing treatment³ (hereinafter referred to as „medical exposure to radiation“);
- (e) the classification of sources of ionising radiation;
- (f) the secondary emergency levels requiring intervention to limit the exposure of the public to sources of natural ionising radiation;

¹ Art. 2, Para 13, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic on Health Protection and the amendments introduced by Law No 470/2000 Laws Coll.

² Art.17a, Para 4©, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

³ Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic on Health Protection and subsequent amendments.

- (g) the requirements for measuring the content of natural radionuclides in building materials⁴ and water supplies and the scope and contents of the records of measurement results;
- (h) the maximum permissible levels of Radium equivalent activity in building materials⁴ and the volume of activity of certain natural radionuclides in water supplies;
- (i) the procedure for establishing Radon volume activity in subsoil air and its permissible levels in the soil of the foundations of non-residential buildings⁵, designed to accommodate people for more than 1,000 hours per calendar year, and for residential buildings⁶ (hereinafter referred to as „buildings containing living areas“);
- (j) the emergency levels and secondary emergency levels requiring intervention to restrict the exposure of employees to sources of natural ionising radiation;
- (k) the requirements for assessing the exposure to ionising radiation of employees in workplaces with high levels of natural ionising radiation⁷;
- (l) the safety requirements for workplaces containing sources of ionising radiation;
- (m) the maximum permissible levels of surface radioactive contamination in workplaces containing sources of ionising radiation and of release of radioactive substances into the environment⁸;
- (n) the requirements concerning specialised training to conduct activities involving radiation exposure⁹ and activities related to radiation protection¹⁰;
- (o) the requirements for the labelling of sources of ionising radiation, the scope and contents of the documentation to be registered and maintained, as well as the scope and contents of documents and notifications of recorded data to be forwarded to the licensing health protection body¹¹, to the Central Register of Sources of Ionising Radiation and the Central Dose Register¹²;
- (p) the requirements for treatment of institutional radioactive waste¹³ (hereinafter referred to as „radioactive waste“) and the scope and contents of documentation on radioactive waste;
- (q) the requirements for the transport of sources of ionising radiation, Belonging to Classes 4-6, considered as radioactive emitters (hereinafter referred to as „transport of radioactive emitters“);

⁴ Law No 90/1998 Laws Coll. on Building Materials and subsequent amendments.

⁵ Art.43c of Law No 50/1976 Laws Coll. on Territorial Planning and Construction Procedures (Law on Construction) and the amendment introduced in Law No 237/2000 Laws Coll.

⁶ Art.43c of Law No 50/1976 Laws Coll. and the amendment introduced in Law No 237/2000 Laws Coll.

⁷ Art.17e, Para 2, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

⁸ Art.17s of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

⁹ Art.17f, Para. 2 and 4, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

¹⁰ Art.17f, Para. 3, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

¹¹ Art.18, Para. 1 (a) and (b), of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 222/1996 Laws Coll. of the National assembly of the Slovak Republic.

¹² Art.22, Para. 3, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

¹³ Art.17r, Para.1, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

- (r) the level of radionuclide content in radioactive substances which sets the boundary between those substances that may be released into the environment⁸ without a special permission and the ones for whose release a permission by the health protection body is required;
- (s) the requirements for the monitoring, measurement, evaluation, verification and registration of major quantities, parameters and facts related to radiation protection;
- (t) the requirements for monitoring and the monitoring plan;
- (u) the requirements for conducting tests on sources of ionising radiation and tests on personal dosimetric services;
- (v) the requirements for radiation protection during intervention in radiation emergency situations¹⁴;
- (x) the emergency levels and secondary emergency levels requiring immediate or sustained anti-radiation measures;
- (y) the requirements for the elaboration of an emergency response plan for a workplace containing sources of ionising radiation (hereinafter referred to as the „emergency response plan“;
- (z) the particulars of the requirements for establishing effective radiation protection.

Article 2

Definition of Concepts

For the purposes of this Decree, the concepts below shall be understood as follows:

- (a) „radionuclides“ are a type of atoms which have an equal number of protons, an equal number of neutrons, equal levels of energy and whose compositions and nuclei are subject to spontaneous change;
- (b) „a natural radionuclide“ means a radionuclide which has occurred or occurs spontaneously in nature, without human intervention;
- (c) „exposure to internal radiation“ means exposure of individuals to radiation coming from their own bodies after an intake of radionuclides;
- (d) „exposure to external radiation“ means exposure of individuals to ionising radiation from sources outside their bodies;
- (e) „workplace“ means the part of the place of employment which contains sources of ionising radiation and which has specific protective characteristics (insulation, ventilation and shielding) and is spatially delimited or technologically equipped (e.g. containing a working desk, an application or analyses tool kit, a digester and an airtight vacuum case);
- (f) „personal doses“ means the values characterising the degree of internal or external irradiation of the individual, which, in particular, can be effective doses and equivalent doses, and effective dose loads and equivalent dose loads in the separate organs and tissues of the body;
- (g) „critical group of the public“ means a group of members of the public which is fairly homogenous and representative of the part of the population that has suffered the highest degree of exposure to a source of ionising radiation;

¹⁴ Art.2, Para. 24, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

- (h) „routine operation“ means activities related to sources of ionising radiation which are carried out in compliance with the conditions fixed in the licence to carry out activities involving radiation exposure⁹, including planned inspections and servicing of sources of ionising radiation and technological equipment at workplaces containing sources of ionising radiation;
- (i) „limit dose “ means the effective dose or the equivalent dose fixed for a single source of ionising radiation or for a single activity involving exposure to radiation⁹ as the upper limit of optimisation of radiation protection;
- (j) „man-sievert“ (hereinafter referred to as „man Sv“) is the unit for measuring the collective effective dose.

Article 3

Maximum Content of Radionuclides beyond Which a Radioactive Substance Turns into a Source of Radiation

A radioactive substance becomes a radioactive emitter¹ if it contains –

- (a) one radionuclide whose activity and, at the same time, mass activity have higher values than the activity and mass activity values indicated in Annex 1, or if -
- (b) several radionuclides, for which the sum of the ratios of their activities and the values of the activities indicated in Annex 1 and, at the same time, the sum of the ratios of their mass activities and the values of the mass activities indicated in Annex 1 is higher than one.

Article 4

Technical and Organisational Requirements, Indicative Values and Procedures for Establishing the Reasonably Achievable Levels of Radiation Protection

- (1) The technical and organisational requirements for establishing the reasonably achievable levels of radiation protection shall comprise the following activities –
 - (a) before the start of an activity involving exposure to radiation⁹, different variants of possible radiation protection solutions for the activity at hand shall be assessed and compared, and, taking into consideration the distribution of personal doses, collective doses and doses absorbed by the respective critical groups of the population, shall be evaluated against the costs of the protection measures considered; as a general rule, the procedures indicated in Para. 4 shall be followed in such cases;
 - (b) in the course of an activity involving radiation exposure⁹, the absorbed doses shall be monitored and evaluated against the tasks accomplished, other possible radiation protection measures shall be considered and a comparison shall be made with similar measures taken in the past which have yielded results judged acceptable by the public;

- (c) before and during an intervention¹⁵, possible variant solutions shall be considered in order to select the measure whose performance, scope and duration, in accordance with the procedures specified in Para.4, shall yield the best possible result.
- (2) The indicative values of radiation exposure intended to establish the reasonably achievable levels of radiation protection in the course of activities involving radiation exposure⁹ shall be as follows –
- (a) the collective effective dose for employees working with sources of ionising radiation shall be 20 man mSv for each separate activity or 100 man mSv per calendar year, while the collective effective dose for members of the public, when radioactive substances are released into the environment⁸, shall be 1 man mSv per calendar year;
- (b) the effective dose for an employee working with sources of ionising radiation shall be 1 mSv per calendar year;
- (c) the effective dose for any individual, other than those indicated in Item (b), shall be 10 µSv per calendar year.
- (3) The reasonably achievable level of radiation protection shall be considered as sufficiently ensured if, in the event of unforeseen departures from routine practices [Art. 2 (h)], the indicative values specified in Para. 2 are not exceeded in even a single case.
- (4) The reasonably achievable level of radiation protection shall be established by means of a special procedure of evaluating the costs of variant measures intended to improve radiation protection against the costs of the expected reduction in radiation exposure (hereinafter referred to as the „contributory factor of the measure“). The reasonably achievable level of radiation protection shall be considered as established and the measure need not be carried out if costs are higher than the measure’s contributory factor. Under this procedure, the contributory factor shall be calculated by means of multiplying the reduction in the collective effective dose for workers exposed to sources of ionising radiation or for members of the public by a coefficient not lower than –
- (a) 2 mil.Sk x man.Sv¹ for activities involving radiation exposure⁹ where the worker effective dose from sources of ionising radiation does not exceed an average of 2 mSv per calendar year;
- (b) 5 mil.Sk x man.Sv¹ for activities involving radiation exposure⁹ where the worker effective dose from sources of ionising radiation amounts to an average of 2 to 5 mSv per calendar year;
- (c) 15 mil.Sk x man.Sv¹ for activities involving radiation exposure⁹ where the worker effective dose from sources of ionising radiation amounts to an average of 5 to 15 mSv per calendar year;

¹⁵ Art.2, Para. 10, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

- (d) 20 mil.Sk x man.Sv¹ for activities involving radiation exposure⁹ where the worker effective dose from sources of ionising radiation amounts to an average of 15 to 30 mSv per calendar year;
 - (e) 25 mil.Sk x man.Sv¹ for activities involving radiation exposure⁹ where the worker effective dose from sources of ionising radiation amounts to an average of 30 to 50 mSv per calendar year;
 - (f) 20 mil.Sk x man.Sv¹ for activities involving radiation exposure⁹ where the effective dose for a critical group of the population for a given activity amounts to an average of 0.02 to 0.1 mSv per calendar year;
 - (g) 25 mil.Sk x man.Sv¹ for activities involving radiation exposure⁹ where the effective dose for a critical group of the population for a given activity amounts to an average of 0.1 to 0,3 mSv per calendar year;
 - (h) 30 mil.Sk x man.Sv¹ for activities involving radiation exposure⁹ where the effective dose for a critical group of the population for a given activity amounts to an average of 0.3 to 1 mSv per calendar year;
 - (i) 2 mil.Sk x man.Sv¹ for medical exposure to radiation;
 - (j) 2 mil.Sk x man.Sv¹ for exposure to natural ionising radiation¹⁶;
 - (k) 10 mil.Sk x man.Sv¹ for exposure during radiation accidents¹⁷.
- (5) The coefficients specified in Para. 4 shall be applied in the year 2001; in the years to follow, these coefficients shall be multiplied by the current consumer price index indicating the general inflation rate. Consumer price indexes are published by the Office of Statistics of the Slovak Republic in the Consumer Price Index of the Slovak Republic.

Article 5

Limits of Radiation Exposure for Employees Working with Sources of Ionising Radiation

- (1) The limits of radiation exposure for employees working with sources of ionising radiation shall be –
- (a) an effective dose of 100 mSv absorbed in the course of five consecutive years; the effective dose absorbed in a single calendar year may not exceed 50 mSv;
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¹⁶ Art.17a and 17e of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

¹⁷ of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

- (b) an effective dose of 150 mSv per calendar year for the eyeball;
- (c) an effective dose of 500 mSv per calendar year for the skin which is defined as the average dose per 1 cm² of the worst affected part of the skin, irrespectively of the overall surface of the skin affected;
- (d) an effective dose of 500 mSv per calendar year for the extremities (arms below the elbows and legs below the knees);
- (2) The limit of radiation exposure for pregnant women whose workplace contains a source of ionising radiation shall be established in such a way that the sum of the effective doses from exterior radiation exposure and the effective dose load from the interior exposure of the foetus shall not exceed 1 mSv, counting from the day in which the pregnant woman informs the employer of her pregnancy to the end of the pregnancy.
- (3) The limits of radiation exposure under Para.1 and 2 shall apply to the sum of the doses resulting from all kinds of exposure and all kinds of tasks which an employee working with sources of ionising radiation accomplishes for one or more holders of licences to carry out activities involving radiation exposure⁹ or which he accomplishes as holder of such a licence himself.

Article 6

Limits of Radiation Exposure for Members of the Public

- (1) The limits of radiation exposure for members of the public shall be:
 - (a) an effective dose of 1 mSv per calendar year;
 - (e) an effective dose of 15 mSv per calendar year for the lens of the eyes;
 - (f) an effective dose of 50 mSv per calendar year for the skin which is defined as the average dose per 1 cm² of the worst affected part of the skin, irrespectively of the overall surface of the affected skin;
- (2) The limits of radiation exposure indicated in Para.1, when applied to individuals living in proximity to a workplace containing sources of ionising radiataion, concern the average radiation exposure of a critical group of people, account taken of all kinds of exposure to all sources of ionising radiation and all possible activities involving radiation exposure⁹.

Article 7

Limits of Radiation Exposure for School Children and Students

- (1) The limits of radiation exposure for school children and students, counting from the beginning of the calendar year in which they accomplish 16 years of age to the end of the calendar year in which they reach the age of 18 years, shall be:
 - (a) an effective dose of 6 mSv per calendar year;
 - (b) an effective dose of 150 mSv per calendar year for the eyeball;
 - (c) an effective dose of 150 mSv per calendar year for the skin, which is defined as the average dose per 1 cm² of the worst affected part of the skin, irrespectively of the overall surface of the skin affected;
 - (d) an effective dose of 150 mSv per calendar year for the extremities.
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- (2) Until the year in which school children or students accomplish 16 years of age, the applicable limits of radiation exposure shall be equivalent to the limits of radiation exposure for members of the public (Art.6, Para. 1).
- (3) The limits of radiation exposure for school children and students starting with the calendar year in which they attain 18 years of age shall be equivalent to the limits of radiation exposure for employees working with sources of ionising radiation (Art. 5, Para.1).

Article 8

Radiation Exposure of Specific Groups of People

- (1) The limits of radiation exposure for individuals who, of their own free will and alongside with the duties deriving from the pursuit of their profession or from the labour law relation to which they are a party, take care of patients exposed to medical radiation, or pay visits to such patients, or live in the same household with patients who have been discharged from a healthcare institution after application of radionuclides, shall be 1 mSv for persons younger than 18 years of age and 5 mSv for other individuals for the whole period of examination or treatment of the patient.
- (2) The limits of radiation exposure for individuals who accomplish protection and localisation tasks during radiation accidents¹⁴ shall amount to a cumulative effective dose of 100 mSv and a cumulative equivalent dose of 500 mSv in the skin for the whole period of work with the equipment where the radiation accident has occurred¹⁴.
- (3) Radiation exposure limits for individuals who, for the purposes of reconstruction, carry out dismantling activities in an installation or in the vicinity of an installation where an accident has occurred, shall be equivalent to the radiation exposure limits laid down for employees working with sources of ionising radiation (Art. 5, Para.1).
- (4) The limits of radiation exposure under Para 2 and 3 shall not apply to cases where human life is rescued or the development of a radiation accident with possibly serious social and economic consequences is prevented.
- (5) The limits of radiation exposure for employees in workplaces with enhanced natural ionising radiation⁷ shall be equivalent to the limits of radiation exposure for employees working with sources of ionising radiation (Art.5).
- (6) Exceptional radiation exposure² may not exceed the effective dose of 250 mSv.

Article 9

Principles for Assessing Radiation Exposure

The assessment of the radiation exposure of individuals shall be carried out in accordance with the principles specified in Annex 2.

Article 10

Indicative Values for Medical Radiation Exposure

The indicative values for medical radiation exposure are specified in Annex 3.

Article 11

Classification of Sources of Ionising Radiation

- (1) Class 1 shall comprise:
 - (a) apparatus and equipment containing closed radioactive emitters, whose design is such that the dose equivalent rate does not exceed $1 \mu\text{Sv}\cdot\text{h}^{-1}$ at 0.1 metre from any accessible surface of the apparatus or equipment;
 - (b) screens and electrical appliances during whose operation the accelerating potential does not exceed 30 kV and generators of ionising radiation, so designed that, in the course of routine operation, the dose equivalent rate does not exceed $1 \mu\text{Sv}\cdot\text{h}^{-1}$ at 0.1 metre from any accessible surface of the generator;
 - (c) radioactive substances containing a radionuclide for which the ratio between its activity and the activity values indicated in Annex 1 and, at the same time, the ratio between its mass activity and the mass activity values indicated in Annex 1 is less than 1;
 - (d) radioactive substances containing radionuclides for which the sum of the ratios between their activities and the activity values indicated in Annex 1 and, at the same time, the sum of the ratios between their mass activities and the mass activity values indicated in Annex 1 is less than 1;
 - (e) standard closed radioactive sources used for calibration which meet the conditions specified in Items (c) or (d).
- (2) Class 2 shall comprise:
 - (a) radioactive substances containing a radionuclide for which the ratio between its activity and the activity values indicated in Annex 1, as well as the ratio between its mass activity and the mass activity values indicated in Annex 1 is higher than 1 but does not exceed 10;
 - (b) radioactive substances containing radionuclides for which the sum of the ratios between their activity and the activity values indicated in Annex 1 and, at the same time, the sum of the ratios between their mass activity and the mass activity values indicated in Annex 1 is higher than 1 but does not exceed 10;
 - (c) generators of ionising radiation not included in Category 1, so designed that in the course of routine operation the dose equivalent rate does not exceed $1 \mu\text{Sv}\cdot\text{h}^{-1}$ at 0.1 metre from any accessible surface of the generator, with the exception of places requiring exclusively manual handling and servicing during routine operation, for which the dose equivalent rate shall not exceed $250 \mu\text{Sv}\cdot\text{h}^{-1}$;
 - (d) standard closed radioactive emitters used for calibration which meet the conditions specified in Items (a) or (b);
 - (e) ionising fire alarms.
- (3) Class 3 shall comprise:
 - (a) apparatus and equipment containing closed radioactive emitters not included in Class 1, so designed that the dose equivalent rate shall be less than $1 \mu\text{Sv}\cdot\text{h}^{-1}$ at 0.1 metre from any accessible surface of the apparatus or the equipment, with the exception of places

- designed exclusively for manual handling and servicing during routine operation, for which the dose equivalent rate shall not exceed $250\mu\text{Sv}\cdot\text{h}^{-1}$;
- (b) radioactive substances containing a radionuclide for which the ratio between its activity and the activity values indicated in Annex 1 and, at the same time, the ratio between its mass activity and the mass activity values indicated in Annex 1 is higher than 10 but does not exceed 100;
 - (c) radioactive substances containing radionuclides for which the sum of the ratios between their activity and the activity values indicated in Annex 1 and, at the same time, the sum of the ratios between their mass activity and the mass activity values indicated in Annex 1 is higher than 10 but does not exceed 100;
 - (d) standard closed radioactive emitters used for calibration which meet the conditions specified in Items (b) or (c);
 - (e) open radioactive emitters, containing a radionuclide for which the ratio between its activity and the activity values indicated in Annex 1 and, at the same time, the ratio between its mass activity and the mass activity values indicated in Annex 1 is higher than 1 but does not exceed 10;
 - (f) open radioactive emitters, containing radionuclides for which the sum of the ratios of their activities and the activity values indicated in Annex 1 and, at the same time the sum of the ratios of their mass activities and the mass activity values indicated in Annex 1 does not exceed 10.
- (4) Class 4 shall comprise:
- (a) sources of ionising radiation not included in Classes 1 – 3 or Classes 5 and 6, namely stationary X-ray office equipment, dental X-ray equipment, mammography X-ray equipment, X-ray computer tomography equipment, radiodiagnostic examination screens, mobile X-ray radiodiagnostic and defectoscopic equipment and portable extracorporeal blood irradiators with closed radioactive emitters;
 - (b) open radioactive emitters containing radionuclides for which the ratio between their activities and the activity values indicated in Annex 1 and, at the same time, the ratio between their mass activities and the mass activity values indicated in Annex 1 is higher than 10, while their activity does not exceed $600\text{ Sv}/h_{\text{inh}}$, where h_{inh} is the conversion factor used to evaluate the intake by inhalation of radionuclides by employees working with sources of ionising radiation;
 - (c) open radioactive emitters, containing radionuclides for which the sum of the ratios between their activities and the activity values indicated in Annex 1 and, at the same time, the sum of the ratios between their mass activities and the mass activity values indicated in Annex 1 is higher than 10, while their activity does not exceed $600\text{ Sv}/h_{\text{inh}}$.
- (5) Class 5 shall comprise:
- (a) X-ray apparatus and equipment, not included in Class 4;
 - (b) particle accelerators and sources of ionising radiation intended for proton, neutron and other heavy-particle radiotherapy;
 - (c) equipment containing closed radioactive emitters intended for radiotherapy, included brachytherapy;
 - (d) stationary emitters and other stationary equipment containing closed radioactive emitters, not included in Class 4;
 - (e) mobile defectoscopes containing closed radioactive emitters;
 - (f) mobile emitters containing closed radioactive emitters;

- (g) open radioactive emitters containing radionuclides for which the ratio between their activities and the activity values indicated in Annex 1 and, at the same time, the ratio between their mass activities and the mass activity values indicated in Annex 1 is higher than 10, while their activity is higher than 600 Sv/h_{inh} but does not exceed 8,000 Sv/h_{inh}.
 - (h) open radioactive emitters, containing radionuclides for which the sum of the ratios of their activities and the activity values indicated in Annex 1 and, at the same time, the sum of the ratios of their mass activities and mass activity values indicated in Annex 1 is higher than 10, while their activity is higher than 600 Sv/h_{inh}, but does not exceed 8,000 Sv/h_{inh}.
- (6) Class 6 shall comprise:
- (a) sources of ionising radiation not included in Classes 1 – 5;
 - (b) industrial emitters containing closed radioactive emitters intended for applying ionising radiataion treatment to consumables, objects of everyday use and other materials;
 - (c) open radioactive emitters containing radionuclides for which the ratio between their activities and the activity values indicated in Annex 1 and, at the same time, the ratios between their mass activities and the mass activity values indicated in Annex 1 is higher than 10, while their activity is higher than 8,000 Sv/h_{inh}.
 - (d) open radioactive emitters, containing radionuclides for which the sum of the ratios between their activities and the activity values indicated in Annex 1 and, at the same time, the sum of the ratios between their mass activities and the mass activity values indicated in Annex 1 is higher than 10, while their activity is higher than 8,000 Sv/h_{inh}.
 - (e) a nuclear reactor and radionuclides which are generated in the course of its operation.
- (7) The conversion factors employed in evaluating the intake by inhalation of radionuclides by employees working with sources of ionising radiation under Para.4 (b) and (c), and Para 6 (c) and (d) shall be indicated in Annex 4.

PART TWO

LIMITING EXPOSURE TO NATURAL IONISING RADIATION

Article 12

Limiting Exposure to Natural Radionuclides Contained in Building Materials

- (1) A systematic monitoring of the content of natural radionuclides in building materials⁴ shall consist of measuring the mass activities of natural radionuclides as indicated in Annex 5.
- (2) The records of the mesurement of natural radionuclides contained in building materials shall comprise –
 - (a) labelling and type of the building materials measured;
 - (b) date of production of the building material;
 - (c) source of the raw materials used in the production of building materials;
 - (d) annual volume of production or of imports of the building materials;
 - (e) data on the scope and the manner of use of the building materials in construction;

- (f) the results of the measurement of building material samples, including particulars such as the place, the date and the manner of the selection of the samples and of the measurement method;
- (g) data identifying the laboratory where the measurement has been carried out.
- (3) The intervention level necessitating measures to reduce the content of natural radionuclides in building materials shall be fixed at ^{226}Ra mass activity equal to 120 $\text{Bq}\cdot\text{kg}^{-1}$.
- (4) The maximum permissible value of Radium equivalent activity shall be –
 - (a) 370 $\text{Bq}\cdot\text{kg}^{-1}$ in building materials intended for the construction of residential buildings⁶;
 - (b) 3,700 $\text{Bq}\cdot\text{kg}^{-1}$ in building materials intended for the construction of non-residential buildings⁵ and designed to accommodate people for more than 1,000 hours per calendar year.

Article 13

Limiting Exposure to Natural Radionuclides Contained in Water Supplies

- (1) A systematic monitoring of the content of natural radionuclides in water supplies shall consist of measuring the mass activities of natural radionuclides as indicated in Annex 6.
- (2) The records of the measurement of natural radionuclides contained in water supplies shall comprise –
 - (a) type of water to monitor and trade name, in the case of bottled drinking water;
 - (b) date of bottling, in the case of bottled drinking water;
 - (c) indication of the water source;
 - (d) discharge of the water source;
 - (e) technological process of water treatment;
 - (f) annual volume of water supply;
 - (g) quantity of water supplied to the district and the number of inhabitants supplied with water, in the case of public water supply;
 - (h) results of the monitoring of water samples, including place, date and manner of selection of sample and of measurement method;
 - (i) data indicating the laboratory where the measurement has been carried out.
- (3) The intervention levels necessitating measures to reduce the content of natural radionuclides in water supplies are indicated in Annex 6.
- (4) The maximum permissible values for the volume activities of certain natural radionuclides occurring in water supplies are indicated in Annex 6.

Article 14

Limiting the Exposure to Radon in the Construction of Buildings Containing Living Areas

- (1) The intervention levels necessitating measures to prevent Radon penetration from the subsoil during the construction of buildings containing living areas shall be equal to the Radon activity volume in the subsoil air as follows –
 - (a) 10 k Bq.m³ for highly transmissible soils;
 - (b) 20 kBq. m³ for moderately transmissible soils;
 - (c) 30 kBq.m³ for mildly transmissible soils.
- (2) The procedure of establishing Radon volume activity in the subsoil air and the transmissibility of the soils of the foundations in building sites is indicated in Annex 7.
- (3) The intervention levels necessitating measures to limit radiation exposure in buildings containing living areas shall be equal to an average Radon volume activity of 500 Bq.m³ per calendar year. If the equivalent Radon volume activity is established through measurement, a balance factor $F = 0,4$ shall be used for the conversion to Radon volume activity. The Radon volume activity shall be established by means of short-term 7-day measurements under conditions giving an objective picture of Radon occurrence in living areas.
- (4) The intervention levels necessitating measures to limit the exposure of individuals to external gamma radiation from construction materials in buildings containing living areas shall be equal to a dose equivalent rate of $1\mu\text{Sv}\cdot\text{h}^{-1}$, established at a height of 1 metre from the floor and at a distance of 0.5 metres from the walls. The intervention level shall be compared with the highest measured value of the dose equivalent rate.

Article 15

Limiting the Exposure to Radon in the Air of the Workplace

- (1) The intervention level necessitating measures to limit employees' exposure to Radon in the air of the workplace shall equal an average annual Radon volume activity of 1,000 Bq.m³ at the workplace.
- (2) At workplaces intended for only occasional use or for use under a special arrangement, the secondary intervention level specified in Para.1 shall concern the average value of Radon volume activity during the time in which individuals stay there.
- (3) The evaluation of employees' exposure at a workplace where the intervention level indicated in Para.1 has been exceeded shall be ensured by a systematic monitoring of the workplace, including the surveillance and recording of the time spent by employees at the workplace, and if the intervention level is exceeded by more than one and a half times, the evaluation of the employees' exposure shall be carried out by means of personal monitoring.

Article 16

Limiting the Exposure at the Workplace to Materials and Stocks of Materials Containing Natural Radionuclides

- (1) The intervention level necessitating measures to limit employees' exposure to materials and stocks of materials containing natural radionuclides at the workplace shall be an effective annual dose of 1 mSv per employee.
- (2) The evaluation of employees' exposure at a workplace where the intervention level indicated in Para.1 has been exceeded shall be ensured by a systematic monitoring of the

workplace, including the surveyal and recording of the time spent by the employees at the workplace, and if the intervention level is exceeded by more than six times, the evaluation of the employees' exposure shall be carried out by means of personal monitoring.

Article 17

Limiting the Exposure to Cosmic Radiation

- (1) The intervention level necessitating measures to limit employees' exposure to cosmic radiation in aviation shall be an annual effective dose of 1 mSv per aircraft crewmember or an aircraft personnel member, absorbed in the course of flights.
- (2) Where flight levels do not exceed a height of 15 km, the evaluation of employees' exposure under Para.1 shall be ensured by means of computer programmes. The calculations shall take into account the height at which the aircraft is flying, the geographic latitude, the flight's duration and the current intensity of cosmic radiation at flight level. The calculations shall be verified at least once a year by means of direct measurement of the appropriate dosimetric values at each flight's skyway.
- (3) Where flight levels exceed the height of 15 km, the evaluation of employees' exposure under Para.1 shall be ensured by means of measuring the appropriate dosimetric values on board the aircraft in the course of the flight.

PART THREE

SAFETY REQUIREMENTS FOR OPERATION AT WORKPLACES CONTAINING SOURCES OF IONISING RADIATION

Section One

General Requirements

Article 18

General Provisions

- (1) The designing, construction and bringing into operation of workplaces containing sources of ionising radiation shall be so accomplished as to ensure the radiation protection of the employees working with sources of ionising radiation, of other employees and of the people living in the vicinity of the workplace.
- (2) The building materials used in the construction of the workplace, the design of the walls, the partitions within the workplace and the equipment, including shielding and protective casing for the sources of ionising radiation, must be so chosen as to ensure in the course of all activities involving radiation exposure⁹ and in the event of a radiation accident¹⁷ the radiation protection of employees working with sources of ionising radiation, of other employees and of the people living in the vicinity of the workplace.

- (3) The walls, ceilings and floors of the premises containing radioactive emitters¹ shall also have shielding properties in order to keep to a minimum the effective or equivalent doses for individuals spending time in the neighbouring premises and not to allow the radiation exposure limits set for the local inhabitants (Art, 6) to be exceeded. Premises containing radioactive emitters¹ shall be secured against the entry of unauthorised persons.
- (4) Before bringing into operation a place of employment in which work with sources of ionising radiation belonging to Classes 4 - 6, is carried out, the following measures shall be taken:
 - (a) a restricted area shall be delimited and designated;
 - (b) the workplace shall be provided with apparatus, equipment and labour devices in accordance with the monitoring plan (Art. 44), the emergency response plan (Art. 57), the protocol from the acceptance examination (Art.41) and conditions set in the licence to conduct activities involving radiation exposure⁹;
 - (c) employees working with sources of ionising radiation shall be equipped with personal means of protection at work which have a shielding effect (in particular, cloaks, aprons, glasses and gloves), as well as with tools assisting protection at work (in particular, pincers, tongs, shielding protection wrapping and containers);
 - (d) Category A¹⁸ workers shall be equipped with personal dosimeters;
 - (e) systematic surveillance of the observance of safety operation requirements at the workplace shall be ensured.
- (5) During the operation of a workplace containing sources of ionising radiation, the decontamination shall be conducted in such a way as to ensure a minimum level of surface radioactive contamination: the maximum permissible values of surface radioactive contamination are indicated in Annex 8.

Article 19 Restricted Area

- (1) A restricted area shall be delimited as an integral and unambiguously defined part of the workplace and shall, as a general rule, be structurally separated.
- (2) The instruction of Category A¹⁸ workers shall be conducted by the specialised agent at least once a year¹⁹.
- (3) Individuals leaving the restricted area of nuclear installations or workplaces containing sources of ionising radiation belonging to Classes 5 or 6 in which work with open radioactive emitters is carried out, shall undergo control for surface radioactive contamination. In the event of discovering surface radioactive contamination, decontamination of clothes and personal decontamination shall be carried out until the level of the surface radioactive contamination falls below the maximum permissible values indicated in Annex 8.

¹⁸ Art. 2, Para.21, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

¹⁹ Art. 17, Para.6, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

Article 20
Requirements for Specialised Instruction

- (1) Specialised instruction for activities involving radiation exposure⁹ or for major activities related to radiation protection¹⁰ shall consist of –
 - (a) basic specialised instruction;
 - (b) periodical specialised instruction.
- (2) Basic specialised instruction shall be aimed at the acquisition of knowledge of radiation protection principles and safety requirements for work with sources of ionising radiation at the workplace, including regulations concerning radiation accidents¹⁷ and radiation emergencies¹⁴.
- (3) Periodical specialised instruction shall consist of a revision of the knowledge indicated in Para. 2 and the acquisition of new knowledge in the area of radiation protection.
- (4) The duration of basic specialised instruction for work involving radiation exposure⁹ shall be:
 - (a) 24 hours if it concerns work with sources of ionising radiation belonging to Class 6;
 - (b) 16 hours if it concerns work with sources of ionising radiation belonging to Classes 5 and 4;
 - (c) 8 hours if it concerns work with sources of ionising radiation belonging to Classes 3 and 2.
- (5) The duration of basic specialised instruction for major activities related to radiation protection¹⁰ shall be 16 hours.
- (6) Periodical specialised instruction for activities involving radiation exposure shall be carried out every five years and shall last –
 - (a) 16 hours if it concerns work with sources of ionising radiation belonging to Class 6;
 - (b) 10 hours if it concerns work with sources of ionising radiation belonging to Classes 5 and 4;
 - (c) 8 hours if it concerns work with sources of ionising radiation belonging to Class 3.
- (7) Periodical specialised instruction for major activities related to radiation protection¹⁰ shall be carried out every five years and shall last 10 hours.

Article 21
Ensuring the Quality of Radiation Protection

- (1) Before carrying out work involving radiation exposure⁹, the following steps shall be taken:
 - (a) identification of products, activities, relations, systems, authorisations, responsibility, the manner of management and of security organisation;
-

- (b) establishing and making records of authorisations, attribution of responsibility and the mutual commitments undertaken by the persons managing, conducting, evaluating and controlling work activities on which the quality of radiation protection depends;
 - (c) establishing and recording the procedures for separate work activities on which the quality of radiation protection depends.
- (2) In the course of work involving radiation exposure⁹, the following steps shall be taken:
- (a) keeping and maintenance of the documentation of the workplace containing sources of ionising radiation in compliance with the provisions of Art. 22 so as to make it easily identifiable, complete and accessible to authorised persons and to prevent its loss or unauthorised treatment;
 - (b) ensuring the unambiguous identification of the sources of ionising radiation;
 - (c) establishing the procedures of control over sources of ionising radiation and over work carried out with sources of ionising radiation.

Article 22

Documentation of a Workplace Containing Sources of Ionising Radiation, Keeping and Reporting Recorded Events

- (1) The documentation of a workplace containing sources of ionising radiation shall comprise:
- (a) documents concerning the medical fitness of Category A workers¹⁸;
 - (b) documents concerning the professional competency examinations and the specialised training certification records of employees working with sources of ionising radiation;
 - (c) specialised training certification records of employees working with sources of ionising radiation and records of the instruction provided on the principles of safe conduct in the restricted area;
 - (d) a monitoring plan (Art. 44);
 - (e) results of the monitoring;
 - (f) records of the exposure levels of Category A employees¹⁸;
 - (g) documents concerning the certification of the measuring devices indicated in the monitoring plan;
 - (h) an emergency response plan (Art. 57);
 - (i) operation records of the workplace containing sources of ionising radiation;
 - (j) records concerning the investigation of cases of overexposure to radiation of employees working with sources of ionising radiation, as well as records concerning the evaluation of radiation accidents¹⁷ or radiation emergencies¹⁴;
 - (k) data on radiation accidents¹⁷;
 - (l) analyses of the security situation (Art.27, Para.1);
 - (m) a programme for ensuring the quality of radiation protection;
 - (n) maintenance and servicing records;
-

- (o) records of the visits made in the restricted area, which shall contain data about the persons not subject to the prohibition against entry into the restricted area²⁰, excepting data about individuals undergoing medical treatment³, and in particular –
 - 1. identification data, reason, date and duration of the stay in the restricted area;
 - 2. values of the personal doses absorbed;
 - 3. data about the instruction provided and about the individuals' awareness of the personal doses absorbed;
 - (p) generally applicable legal provisions regulating radiation protection;
 - (q) requirements and guidelines for ensuring radiation protection;
 - (r) operation procedures;
 - (s) blueprints of the workplace;
 - (t) licences to conduct activities involving radiation exposure⁹ and the decisions of health protection bodies issued within the framework of the implementation of state health surveillance.
- (2) Records under Para.1(f) shall contain –
- (a) name and surname, date of birth, identification number and work function of a Category A¹⁸ worker, as well as any change in these data;
 - (b) type of workplace;
 - (c) duration of the monitoring period;
 - (d) dates of beginning and termination of work with sources with ionising radiation;
 - (e) quantity of allotted dosimeters and their registration numbers;
 - (f) measurement results for each monitoring period;
 - (g) annual effective dose;
 - (h) annual effective dose from external exposure;
 - (i) annual effective dose load from internal exposure;
 - (j) effective dose received during the last five years;
 - (k) cumulative effective dose for the whole period of work with sources of ionising radiation;
 - (l) effective doses absorbed during a radiation accident¹⁷ or during a radiation emergency¹⁴;
 - (m) data on exceptional radiation exposure.
- (3) The holder of a licence to conduct activities involving radiation exposure⁹ shall –
- (a) keep the documentation of the workplace containing sources of ionising radiation in compliance with Para.1 and 2;
 - (b) maintain the records made in accordance with Para.2 until the time the Category A¹⁸ worker reaches or would have reached 75 years of age, or otherwise at least 30 years after ceasing work with sources of ionising radiation;
 - (c) forward to the health protection body¹¹, which has issued the licence, and to the Central Dose Register¹² data from the records in accordance with Para.2, and in particular –

²⁰ Art. 17n, Para. 6, of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

1. personal data in accordance with Para.2(a) and the employees' category, within one month from the entry into employment of the employee working with sources of ionising radiation, as well as any change of these data within one month of the occurrence thereof;
2. data in accordance with Para.2(f), within two months after the termination of the monitoring period, with the exception of effective doses exceeding 20 mSv or equivalent doses exceeding 150 mSv from external exposure and with the exception of effective doses exceeding 6 mSv or equivalent doses exceeding 15 mSv from internal exposure, which shall be announced immediately after they have been registered;
3. data in accordance with Para.2(g) for the preceding year, by the end of April of the following calendar year.

Section Two **Specific Requirements**

Article 23

Radiodiagnostic and Radiotherapeutic Workplaces

- (1) Workplaces with sources of ionising radiation in a medical institution where medical exposure to radiation takes place shall be equipped with personal protection devices and working tools which shall also be used for radiation protection by individuals undergoing treatment and by the persons taking care of them on a voluntary basis. The personal protection devices and working tools and their employment shall correspond to the nature of the examinations or treatment carried out.
- (2) Facts essential for the examination or treatment to be carried out shall be established before each use of a source of ionising radiation for medical purposes, and in particular, previous applications of radionuclides or ionising radiation, possible implantations of a cardio stimulator or of artificial joints, a possible pregnancy or actual breastfeeding. These facts shall be recorded in the medical documentation.²¹
- (3) Record shall be kept of each medical exposure to radiation so as to allow an estimation of the magnitude of radiation exposure of the person undergoing examination or treatment. During radiodiagnostic examinations, entry doses or the basis for their estimation shall be recorded, during radiotherapeutic exposure, the target volume dose, the surface dose and the time sequence of the exposure, and in nuclear medicine, the specification of the radionuclide employed, its application form and activity.
- (4) In medical establishments, therapeutic application of radionuclides, in the form of stationary or ambulatory healthcare, shall be conducted in places containing sources of ionising radiation which meet the requirements fixed in Art. 26. While receiving stationary or ambulatory healthcare, a patient may not use their own linen. Surface radioactive contamination shall be checked on the patient's leaving the stationary healthcare institution or the ambulatory ward where the therapeutic application of radionuclides has been carried out. In the event of discovering surface radioactive contamination, the procedure indicated in Art.19, Para.3, shall be followed. Radioactively

²¹ Art. 16 of Law No 277/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 80/2000 Laws Coll.

contaminated objects which cannot be decontaminated shall be treated as radioactive waste (Art 27-34).

Article 24

Workplaces Containing Generators of Ionising Radiation

- (1) A generator of ionising radiation shall be installed in special premises or in an examination room, equipped at the entrance with a device signalling when the generator is in operation.
- (2) A generator of ionising radiation shall be operated from a shielded room if its radiation protection properties or manner of exploitation are such as not to preclude the possibility of the operating personnel's receiving doses exceeding the set limits (Art.5, Para.1). An employee operating the generator of ionising radiation shall have a visual control of the special premises or the examination room.
- (3) Before entry into the special premises or the examination room and after work with the generator has been terminated, a check shall be carried out to make sure that the generator of ionising radiation is not in operation.
- (4) The apparatus or equipment, of which the generator of ionising radiation forms part, may be used only in case they ensure the generator's automatic termination of operation when the shielding has been opened and prevent it from automatically starting operation after the protection shielding has been closed.

Article 25

Workplaces Containing Closed Radioactive Emitters

- (1) A closed radioactive emitter may be kept outside the protection casing or the protection container, or in the working area only while in operation.
- (2) During (repeated) exposures to a closed radioactive emitter, before entry into the delimited radiation area and after termination of work, the shielding or the position of the closed radioactive emitter in the protective casing shall be checked by making measurements or by examining the signalisation. If, while operating a closed radioactive emitter, it is impossible to preclude uncontrollable emission from the radiation equipment or its loss, measurement shall be carried out by means of a device which would enable its localisation.
- (3) Closed radioactive emitters shall be so stored that the dose equivalent rate on the external walls of the storing space does not exceed $1\mu\text{Sv}\cdot\text{h}^{-1}$.
- (4) A closed radioactive emitter may not be used if no acceptance test has been conducted (Art.41), or if, after the last regular long-term stability test, the time limit for the next stability test has expired or if there are new reasons to perform such a test. Should any doubt arise about the tightness of the radioactive emitter casing, the closed radioactive emitter shall be removed immediately from operation and, if technically possible, its impermeability shall be tested.

Article 26

Workplaces Containing Open Radioactive Emitters

- (1) Workplaces containing open radioactive emitters belonging to Classes 3 - 6 shall be graded into Categories I, II or III in accordance with the basic requirements for the equipment of workplaces containing open radioactive emitters indicated in Annex 9.
- (2) The highest activity rate of open radioactive emitters, which can be simultaneously operated at separate locations at a workplace, shall be calculated by multiplying the highest activity rate at the workplace by the coefficient of the workplace's equipment. The highest activity rate at the workplace and the coefficient of workplace equipment are indicated in Annex 9.
- (3) When several radionuclides are processed simultaneously at the same workplace, the sum of the activity shares of the individual radionuclides and the highest activity calculated for individual radionuclides under Para.2 may not exceed 1.
- (4) When open radioactive emitters are not in use, they shall be placed in protective casings or in protective containers and shall be stored in such a way that the dose equivalent rate over the exterior wall of the storing premises shall not exceed $100 \mu\text{Sv}\cdot\text{h}^{-1}$, whereas the dose equivalent rate at 1 metre from the premises' surface shall not exceed $10 \mu\text{Sv}\cdot\text{h}^{-1}$. When open radioactive emitters are transported within the premises of the workplace, the dose equivalent rate at 1 metre from the surface of the protective transport casing shall not exceed $100 \mu\text{Sv}\cdot\text{h}^{-1}$.
- (5) The provision of Para. 4 does not apply to open radioactive emitters which form part of technological units or their surroundings.
- (6) Open radioactive emitters may not be taken with hands and liquids containing such emitters may not be touched with the lips. Activities which may lead to release of radioactive substances into the air shall be carried out in closed spaces (for instance, in a digester, a sealed box).
- (7) At workplaces containing open radioactive emitters belonging to Categories II and III, an independent sewage system shall be constructed, conducting radioactive waste waters from the workplace to a separate storage tank.

PART SIX
MONITORING, MEASUREMENT, EVALUATION, VERIFICATION AND
RECORDING OF SIGNIFICANT ELEMENTS, PARAMETRES AND FACTS
RELATED TO RADIATION PROTECTION

Article 38

Significant Elements, Parameters and Facts Related to Radiation Protection

- (1) The significant elements related to radiation protection are the elements that characterise the fields of ionising radiation, the occurrence of radionuclides at a workplace containing sources of ionising radiation or in its vicinity and release of radioactive substances into the environment.¹⁰
 - (2) The significant parameters related to radiation protection are –
 - (a) the nature and properties of sources of ionising radiation;
 - (b) the nature and properties of the casing of radioactive emitters;
 - (c) the nature and properties of radioactive waste;
-

- (d) the nature and protective (insulation, shielding and possibly ventilation) properties of personal protection labour devices designed for work with sources of ionising radiation, and protective devices and equipment (i.g. manipulators, screens, protection barriers);
 - (e) the nature and properties of other equipment intended for immediate work with sources of ionising radiation whose structure may influence the level of radiation protection (i.g. the quality of X-ray films and calling equipment).
- (3) The significant facts related to radiation protection are the records and other documents which form the documentation of a workplace containing sources of ionising radiation (Art.22, Para. 1) and the records and other documents which form part of the accounts of the sources of ionising radiation (Art. 52 and 53).

Article 39

Scope and Contents of Monitoring, Measurement, Evaluation, Verification and Recording of Significant Elements, Parameters and Facts Related to Radiation Protection

- (1) The significant elements related to radiation protection (Art. 38, Para.1) shall be monitored, measured, verified and recorded within the overall framework of monitoring (Art. 44-50).
- (2) The significant parameters related to radiation protection under Art.38, Para.2 (a) and (b) shall form part of the records of sources of ionising radiation [Art.52, Para.1 (a)]; they shall be monitored, measured, evaluated and verified –
 - (a) during the production, transport and distribution of sources of ionising radiation to the extent necessary for judging their compliance with the type approved;
 - (b) during the removal of the sources of ionising radiation to the extent required by acceptance tests (Art.41);
 - (c) during the use of the sources of ionising radiation to the extent required by long-term stability tests (Art. 42) and by the reliability of operation tests (Art. 43).
- (3) The nature and properties of closed radioactive emitters and their casings shall be recorded in a certificate for closed radioactive emitters, following the requirements established in Art. 54. The nature and properties of open radioactive emitters shall be recorded in a safe-conduct document for open radioactive emitters, following the requirements established in Art. 55. The closed radioactive emitter certificate and the open radioactive emitter safe-conduct document shall form part of the documentation of sources of ionising radiation.
- (4) The significant parameters related to radiation protection under Art.38, Para.2 (c) shall form part of the documentation concerning radioactive waste (Aer.33); they shall be monitored, measured, verified and recorded throughout the whole process of treatment of radioactive waste. The nature and properties of open radioactive emitters shall be recorded in a safe-conduct document for radioactive waste, following the requirements indicated in Art. 34, and for the safety analyses, the requirements indicated in Art.27 shall be followed.
- (5) The significant parameters related to radiation protection under Art.38, Para.2 (d) and (e) shall form part of the operation procedures [Art. 22, Para.1 (s)]; they shall be monitored, measured, verified and recorded all through the period of their use.

Article 40

Conducting Tests of Sources of Ionising Radiation

- (1) Tests of sources of ionising radiation shall be conducted by the holder of a licence to carry out tests of sources of ionising radiation on the basis of methodologies and testing procedures developed in accordance with Annex 10.
- (2) Once a year, the holder of a licence under Para.1 shall forward to the Ministry of Health of the Slovak Republic the records of all tests carried out, which shall comprise –
 - (a) place and time of the tests;
 - (b) specifications of the equipment tested;
 - (c) results of the tests;
 - (d) identification data, and, in the case of a legal person, name and surname, identity number and permanent residence address of the person or of the persons who have carried out the tests.

Article 41

Acceptance Test

- (1) Acceptance tests shall be organised by a holder of a licence to conduct activities involving radiation exposure in accordance with Art. 17f, Para 2(h), when a source of ionising radiation is transferred to another licence holder.
- (2) The acceptance test shall be carried out by a holder of a licence to conduct tests of sources of ionising radiation (Art.40). A test of the impermeability of the closed radioactive emitter, which forms part of the acceptance test, shall be carried out by a holder of a licence to conduct tests of the impermeability of closed radioactive emitters. An acceptance test shall consist of –
 - (a) in the case of an open radioactive emitter, a verification, if technically possible, of the data indicated in its safe-conduct document;
 - (b) in the case of a closed radioactive emitter, a verification, if technically possible, of the data indicated in its certificate;
 - (c) in the case of an apparatus of which the closed radioactive emitter forms part –
 1. a verification, if technically possible, of the data indicated in its certificate; if the closed radioactive emitter forms an inseparable part of the apparatus, its production number shall not be verified;
 2. verification of its functioning and the quality of its control, management, safety, signalisation and indication systems;
 3. verification of its operation parameters and properties in accordance with the technical documentation with a view to the purposes of its use;
 - (d) a generator of ionising radiation and an apparatus whose operation gives rise to radionuclides –
 1. verification of their functioning and the quality of their control, management, safety, signalisation and indication systems;
 2. verification of their operation parameters and properties in accordance with the technical documentation with a view to the purposes they serve.
- (3) During the acceptance test, the holder of a licence to conduct tests of sources of ionising radiation shall determine the scope and the intervals between the long-term stability tests

(Art. 42) and the operation reliability tests (Art. 43). The intervals between the long-term stability tests (Art. 42) and the operation reliability tests of closed sources of radiation may not exceed the periods indicated in Annex 11.

- (4) The licence holder shall record the results of the acceptance test in accordance with Para.3 in a protocol issued in four copies. Two of the copies shall be kept by the licence holder who is taking over the operation of the source of ionising radiation and one copy shall go to the licence holder who is transmitting the source of ionising radiation.

Article 42

Long-term Stability Test

- (1) Long-term stability tests shall be organised by a holder of a licence to conduct activities involving radiation exposure under Art. 17f, Para 2 (d), (g) and (r-t) and Para.4(d) of the Law, in the intervals fixed during the acceptance test (Art.41, Para.3) and also in the cases indicated in Para. 2 and 3.
- (2) The long-term stability test of the sources of ionising radiation shall be conducted –
- (a) whenever there are reasons to doubt the proper functioning of the equipment, part of which is the source of ionising radiation;
 - (b) after maintenance or servicing work carried out on the equipment, part of which is the source of ionising radiation, or after maintenance or servicing work carried out on the source of ionising radiation, which are likely to have had an impact on the properties or parameters which the long-term stability test checks;
 - (c) in the cases in which the results of the operation reliability test indicate that the properties and the parameters of the source of ionising radiation do not correspond to its technical documentation.
- (3) The long-term stability test of sources of ionising radiation shall be conducted –
- (a) whenever there are reasons to doubt its impermeability;
 - (b) in the cases of transfer of the source of ionising radiation to a different licence holder.
- (4) The long-term stability test shall be conducted by a holder of a licence to conduct tests of sources of ionising radiation (Art.40) within the framework determined during the acceptance test (Art. 41, Para. 3).The impermeability test of the closed radioactive emitter, which forms part of the long-term stability test, shall be conducted by a holder of a licence to conduct impermeability tests of closed radioactive emitters.
- (5) The impermeability of a closed radioactive emitter shall be verified by means of a direct measurement of the radioactive contamination or by measurement of the testing medium. A radioactive emitter shall be considered closed if during the verification of its impermeability, it is ascertained that the radioactivity values of the testing medium have not been exceeded, which, in particular, shall be –
- (a) 200 Bq for tests conducted by scraping directly the radioactive emitter or by dipping it into a liquid;
 - (b) 20 Bq for tests conducted by scraping directly the examined substitute surface;
 - (c) 200 Bq for 12 hours during emanation tests.

- (6) When the values indicated in Para.5 are exceeded hundredfold or more, the licence holder under Para.1 shall so secure the radioactive emitter as to prevent the contamination from spreading further.
- (7) The results of the long-term stability test shall be recorded in a protocol by the holder of the licence to conduct tests of sources of ionising radiation. The protocol shall be prepared in three copies, two of which shall be kept by the licence holder under Para.1.

Article 43 Operation Reliability Test

- (1) Operation reliability tests shall be organised by a holder of a licence to conduct activities involving exposure to radiation under Art.17f, Para.2 (d) and (g) and (r-t) and Para.4 (d) of this law, within the framework and in the intervals fixed during the acceptance test (Art. 41, Para. 3), and always after maintenance or servicing work carried out on the source of ionising radiation, which may have impacted the properties or parameters examined.
- (2) The operation reliability test shall be conducted by a licence holder under Para.1 or a holder of a licence to conduct tests of sources of ionising radiation (Art. 40).
- (3) The operation reliability test of a closed radioactive emitter shall be conducted by scraping the surface of the parts of the equipment which come in contact with the closed radioactive emitter.
- (4) The results of the operation reliability test shall be recorded in a protocol by the licence holder indicated in Para.1. If the operation reliability test has been conducted by a holder of a licence to conduct tests of sources of ionising radiation (Art. 40), the protocol shall be made in two copies, one of which shall be kept by licence holder who has organised the operation reliability test.

Article 44 Monitoring and the Monitoring Plan

- (1) The monitoring of a given activity shall be carried out in accordance with a monitoring plan, on a continual, periodical, or operational basis, with a view to evaluating and ensuring the acceptability of the said activity in terms of radiation protection. Should there be changes and new arrangements at a workplace containing sources of ionising radiation, a replacement of the sources of ionising radiation, an alteration in the manner of their operation and conditions of work or a modification in the monitoring procedures, the monitoring plan shall be updated and shall be presented to the licensing health protection body¹¹.
- (2) A monitoring plan shall comprise routine operation monitoring [Art.2 (h)], monitoring in predictable departures from routine operation, in radiation accidents¹⁷ and radiation emergencies¹⁴. The monitoring plan shall be divided into sections regulating –
 - (a) the monitoring of a workplace containing sources of ionising radiation;

- (b) the monitoring of the surroundings of the workplace containing sources of ionising radiation;
- (c) personal monitoring;
- (d) the monitoring of the release of radioactive substances from the workplace containing sources of ionising radiation into the environment.
- (3) The monitoring plan shall contain –
 - (a) significant elements related to radiation protection (Art. 38, Para. 1) to be monitored, and the manner, scope and frequency of measurements;
 - (b) guidelines for the evaluation of measurement results;
 - (c) referential levels (Art. 46) and the measures to be taken if these are exceeded;
 - (d) a specification of measurement methods;
 - (e) a specification of the parameters of the types of measuring devices and instruments used.
- (4) The monitoring plan shall enable the observance of radiation exposure limits (Art, 5-8) and the timely discovery of deviations from routine operations [Art. 2(h)] and demonstrate an optimised radiation protection.

Article 45

Evaluation within the Framework of Monitoring

- (1) In order to calculate the activity of the absorbed radionuclides of the effective dose load, the conversion factors indicated in Annex 4 shall be used. If it proves impossible to identify the radionuclides, their chemical form or the properties of inhaled aerosols, these radionuclides' activity, their chemical form or the inhaled aerosols' properties shall be evaluated using the highest conversion factor for radionuclide absorption by ingestion or by inhalation indicated in Annex 4.
- (2) Should the quantity of the consumed foodstuffs be unknown, the absorption of radionuclides by ingestion shall be calculated on the basis of statistical data on the consumption of foodstuffs by different age groups.
- (3) Should the quantity and quality of inhaled air and consumed water be unknown, the calculation of the absorbed radionuclides by inhalation and by ingestion shall be based on the assumption that -
 - (a) an employee working with sources of ionising radiation inhales 2,000 m³ of air and consumes 1 m³ of water, 0.7 m³ of which in the form of liquids, for an period of 2,000 working hours per year;
 - (b) individuals other than those indicated in (a) inhale annually –
 - 1. 1,000 m³, if they are 1 year old or younger;
 - 2. 2,000 m³, if aged between 1 and 2 years (2-year-olds included);
 - 3. 4,000 m³, if aged between 2 and 7 years (7-year-olds included);
 - 4. 6,000 m³, if aged between 7 and 12 years (12-year-olds included);
 - 5. 8,000 m³, if aged between 12 and 17 years (17-year-olds included);
 - 6. 8,500 m³, if aged over 17 years;
 - (c) individuals other than those indicated in (a) consume annually –
 - 1. 1 m³ of water, 0.7 m³ out of which in the form of liquids, in the case of a grown-up male;
 - 2. 0.7 m³ of water, 0.45 m³ out of which in the form of liquids, in the case of a grown-up woman or a child, aged 10 years and older.

(4) In the event of external radiation exposure to precious radiation gases dispersed in the air of a workplace containing sources of ionising radiation, the calculation of the average volume activity of these gases for the effective dose rate shall be done using the conversion factors indicated in Annex 4.

Article 46

Reference Levels

- (1) Reference level means a value or a criterion to be applied when deciding on the measures to be taken in order to reduce individuals' radiation exposure. When the reference level is exceeded so that the radiation exposure reaches one tenth of the exposure limits, the holder of a licence to conduct activities involving radiation exposure under Art.17f, Para. 2 and 4, of this law, shall record the value of the exposure (or the recorded level) and shall so select the monitoring methods that the smallest value of the measured quantity does not exceed the recorded level.
- (2) When the reference level is exceeded so that radiation exposure reaches three tenths of the exposure limits, the licence holder under Para.1 shall record the overexposure value and shall analyse the causes for it (this is called analysis level).

Article 47

Monitoring a Workplace Containing Sources of Ionising Radiation

- (1) On beginning work, on changing working procedures and at each change which may have an impact on radiation protection, measurements shall be conducted of the atmospheric and beam dose equivalent rates, of the volume activities and of other components related to sources of ionising radiation, at workplaces containing sources of ionising radiation and at such locations of the workplace containing sources of ionising radiation to which employees working with sources of ionising radiation have access.
- (2) The monitoring of the surface radioactive contamination at workplaces containing open radioactive emitters shall be so organised as to signal departures from routine operation [Art. 2 (h)], insufficient functioning or a failure of protection barriers. If the values of surface radioactive contamination at workplaces containing open radioactive emitters, belonging to Classes 4 and 5, approach the highest permissible levels indicated in Annex 8, monitoring shall be ensured, if technically possible, of volume activities in the air of the workplace, as well as personal monitoring. At workplaces containing open radioactive emitters belonging to Class 6, the monitoring of volume activities in the air of the workplace, as well as personal monitoring, shall be carried out on a permanent basis.

Article 48

Monitoring of the Surroundings of a Workplace Containing Sources of Ionising Radiation

- (1) The monitoring of the surroundings of a workplace containing sources of ionising radiation shall cover the surroundings of a workplace which releases radioactive substances into the environment or which poses a risk of release of radioactive substances into the environment in quantities which make it necessary to obtain a permission for this

by the health protection body (Art. 37). The monitoring of the surroundings of a workplace containing sources of ionising radiation shall ensure control over the observance of the permissible values for the release of radioactive substances into the environment and shall enable the timely discovery of leakage of radioactive substances into the living environment.

- (2) The monitoring of the surroundings shall be ensured by means of a net of measurement points and pathways, at which, on the basis of the measurement of the atmospheric dose equivalent and on the basis of sampling and determining the content of radionuclides in the air, in surface waters, in chosen components of the living environment and in foodstuffs, calculations shall be made of the quantity and distribution of the effective doses and effective dose loads of radionuclides in the surroundings of the workplace containing sources of ionising radiation.

Article 49

Personal Monitoring

- (1) Personal monitoring shall serve to determine personal doses. It shall be carried out by means of surveying, measuring and evaluating the external and internal irradiation of individuals by means of personal dosimeters, and if the dose equivalent rate is likely to exceed $1 \mu\text{Sv}\cdot\text{h}^{-1}$, by also using signal direct-reading personal field dosimeters.
- (2) A personal dosimeter shall be worn and used on the left-hand side of the chest or on the most exposed part of the body. When a protective shielding apron is used, the personal dosimeter shall be placed on the apron; the personal dose equivalent thus determined shall then be reduced by a quantity corresponding to the apron's protective influence. If the personal dosimeter placed on the left-hand side of the chest does not make it possible to evaluate the equivalent dose in the organ subject to radiation exposure limits [Art. 5, Para.1(b-d)] , another personal dosimeter shall be used whose properties or location shall enable the appraisal of the equivalent dose.
- (3) A personal dosimeter shall enable the measurement of all kinds of radiation forming part of the external exposure of an employee working with sources of ionising radiation in the course of activities involving irradiation. If a personal dosimeter does not enable such measurement, other personal dosimeters shall be used; the above shall not apply if it is technically impossible to use a personal dosimeter. In such a case the evaluation of the dose shall be ensured by the monitoring of the workplace containing sources of ionising radiation (Art. 47) or by calculations.
- (4) At workplaces containing sources of ionising radiation where a radiation accident may not be ruled out, personal monitoring shall also be ensured by means of field dosimeters which produce a signal whenever the set level is exceeded. If a source of ionising radiation, in a single instance of irradiation, is able to cause an intake exceeding fivefold the radiation exposure limits indicated in Art. 5, personal monitoring shall enable to ascertain the distribution of personal doses in the body.
- (5) At workplaces containing open radioactive emitters belonging to Class 5 and 6, where internal radiation exposure of employees working with sources of ionising radiation may occur, the absorption of radionuclides and the effective dose loads from internal exposure shall be determined by measuring the radionuclides' activity in the body of an employee working with sources of ionising radiation or in his secretions and the absorption shall be calculated by means of models of the respiratory and alimentary tracts.

Article 50
Monitoring of the Release of Radioactive Substances into the
Living Environment

- (1) Monitoring of the release of radioactive substances into the living environment shall be carried out at all workplaces containing sources of ionising radiation which release radioactive substances into the environment or at which leakage of radioactive substances into the living environment may occur and be of such magnitude as to require a release permission by the health protection body (Art. 37). Monitoring of the release of radioactive substances into the environment shall be carried out in such a way as to ensure control over the release of permissible quantities of radioactive substances into the environment and enable the timely discovery of any leakage of radioactive substances into the environment.
- (2) Monitoring of the release of radioactive substances from workplaces containing sources of ionising radiation into the air and surface waters shall comprise –
 - (a) measurement with a view to establish the quantity of all radionuclides which have a significant share in the radiation exposure of the population;
 - (b) continuous measurement of the radionuclides which enable a prompt discovery of any departure from routine operation [Art. 2(h)]

Article 51
Performing Personal Dosimetry Services

- (1) Personal dosimetry services shall be performed by a holder of a licence to carry out personal dosimetry services on the basis of methodologies and examination procedures elaborated in compliance with Annex 10.
 - (2) A licence holder under Para.1 shall record data as indicated in Art.22, Para.2, and shall keep them for at least three years. Personal doses absorbed during exceptional radiation exposures² and doses absorbed during radiation accidents¹⁷ shall be recorded separately and shall not be added to the personal doses absorbed during routine operation [Art.2(h)].
 - (3) The licence holder under Para.1 shall forward to the Ministry of Health of the Slovak Republic and the Central Dose Register¹² -
 - (a) the personal personal data indicated in Art.22, Para. 2(a);
 - (b) the data indicated in Art.22, Para.2(b), (d), (e) and (g-i) concerning the previous year; these shall be presented by the end of the month of April of the following year;
 - (c) the data indicated in Art.22, Para.2(f); these shall be presented within two months after the termination of the monitoring period, with the exception of effective doses exceeding 20 mSv or equivalent doses exceeding 150 mSv from external exposure and with the exception of effective doses exceeding 6 mSv or equivalent doses exceeding 15 mSv from interior exposure, which shall be announced immediately after they have been registered.
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Article 52

Documentation of a Licence Holder's Sources of Ionising Radiation

- (1) The documentation of the sources of ionising radiation shall comprise –
 - (a) characterisation and properties of the the sources of ionising radiation and their casings [Art.38, Para. 2 (a) and (b)];
 - (b) operation records;
 - (c) documents concerning the acquisition and transfer of sources of ionising radiation;
 - (d) certificates of closed radioactive sources (Art. 54);
 - (e) safe-conduct documents of open radioactive sources (Art.55);
 - (f) user's manual of the source of ionising radioation;
 - (g) protocols from the acceptance test (Art.41);
 - (h) protocols from long-term stability tests (Art. 42);
 - (i) protocols from reliability operation tests (Art. 43);
 - (2) Records under Para.1 (b) shall contain –
 - (a) the purposes for which the sources of ionising radiation are intended;
 - (b) scope and manner of use of the sources of ionising radiation;
 - (c) data on the transfer of the sources of ionising radiation to another owner;
 - (d) data on the usage of an open radioactive emitter and, in the event of its phased usage, the balance of the phased usage and the data on the introduction of the open radioactive emitter into the environment;
 - (e) records concerning the resulting radioactive waste;
 - (f) records concerning the persons carrying out state health surveillance.
 - (3) The user's manuel of the sources under Para.1 (f) shall contain information on the safe use of the sources of ionising radiation, including warnings of hazards caused by improper use. The user's manuel of an apparatus containing an open radiation emitter shall also contain information on the emitter's function in the equipment as a whole.
 - (4) A holder of a licence to use sources of ionising radiation belonging to Classes 4 to 6 shall keep a record of the sources of ionising radiation in compliance with Para.1 and shall maintain it for 30 years in the case of a record concerning sources of ionising radiation belonging to Class 6, and for 10 years in the case of records concerning sources of ionising radiation belonging to Classes 4 and 5, counting from day of the transfer of the sources of ionising radiation to another licence holder.
 - (5) A holder of a licence to produce, import, export, distribute, sell and rent sources of ionising radiation belonging to Classes 3 to 6 shall keep records concerning the sources of ionising radiation in compliance with Para.1 (a), (d) and (e) and shall maintain it for 10 years after the transfer of the sources of ionising radiation to another licence holder.
 - (6) Licence holders under Para. 4 and 5 shall announce the data indicated in Para.1(a) and shall forward copies of the documents under Para.1 (c-e) to the licensing health protection body¹¹ and to the Central Register of Sources of Ionising Radiation¹² within one month after the acquisition of the sources of ionising radiation; the loss of sources of ionising radiation, their theft or destruction shall be notified immediately.
 - (7) A holder of a licence to use sources of ionising radiation belonging to Classes 4 to 6 shall also forward copies of the protocols of the reliability operation tests (Art. 43) to the
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licensing health protection body¹¹ and to the Central Register of Sources of Ionising Radiation¹² within 15 days of date on which the test was carried out.

- (8) A holder of a licence to import sources of ionising radiation belonging to Classes 3 to 6 shall also notify the licensing health protection body¹¹ and the Central Register of Sources of Ionising Radiation¹² of imports of sources of ionising radiation belonging to Classes 3 to 6, within ten days from the date of the import.
- (9) A holder of a licence to carry out tests of sources of ionising radiation belonging to Classes 3 to 6 shall keep protocols under Para.1 (g) and shall maintain them for 5 years after the date on which the test was carried out. A copy of each protocol shall be forwarded to the Ministry of Health of the Slovak Republic within 15 days from the date on which the test was carried out.

Article 53

Documentation of a Notifier's Sources of Ionising Radiation

A natural or a legal person, who or which carries out activities involving radiation exposure on the basis of a notification²³, shall maintain records of the sources of ionising radiation in compliance with Art. 52 , Para.1 (a-g) and Para.2 and shall keep the documentation records for five years after the termination of the work with the source of ionising radiation to which the documentation records relate.

Article 54

Closed Radioactive Emitter Certificate

- (1) The closed radioactive emitter certificate shall indicate its durability category and other of its properties verified in the framework of type approval
- (2) Unless otherwise provided for in this law, the closed radioactive emitter certificate shall contain –
 - (a) identification number of the certificate;
 - (b) production number of the closed radioactive emitter;
 - (c) data on the type of radionuclide used;
 - (d) data on the closed radioactive emitter's activity and the date of its measurement, data on the basic radionuclide's highest content and, in the case of sources of ionising radioaction belonging to Class 5 and 6, also the value of the kerm discharge in the air measured in Gy.m⁻².s⁻¹, with an indication of the date to which it refers ;
 - (e) data on the radionuclide's chemical and physical form and on its carrier;
 - (f) data on the size of the closed radioactive emitter;
 - (g) data on the manner of ensuring the radioactive emitter's impermeability or data on its protective casing (material, thickness, etc);
 - (h) durability category of the given type of closed radioactive emitter;

²³ Art. 17g of Law No 272/1994 Laws Coll. of the National Assembly of the Slovak Republic and the amendments introduced by Law No 470/2000 Laws Coll.

- (i) summary of the results of the tests carried out;
 - (j) recommended time of use for the closed radioactive emitter and other data on the planned monitoring of its impermeability;
 - (k) time of validity of its certificate;
 - (l) issue date of its certificate;
 - (m) title (trade name) or name and surname of the person who issued the certificate, their identification number and name, and function and signature of the authorised person.
- (3) If, for technical reasons, the closed radioactive emitter cannot be labelled and have its production number inscribed, these data shall not be included in the certificate.

Article 55

Open Radioactive Emitter Safe-Conduct Document

- (1) The safe-conduct document of an open radioactive emitter shall indicate its values, parameters and properties.
- (2) The safe-conduct document of an open radioactive emitter shall contain –
 - (a) identification number of the safe-conduct document;
 - (b) data on the radionuclide's type;
 - (c) data on the radionuclide's chemical and physical form and on its carrier;
 - (d) issue date of the certificate;
 - (e) title (trade name) or name and surname of the person who issued the safe-conduct document, their identification number and name, and function and signature of the authorised person.

PART SEVEN

RADIATION PROTECTION DURING INTERVENTION IN RADIATION EMERGENCY SITUATIONS

Article 56

Radiation Protection of Persons Carrying out Protection, Localisation and Dismantling Activities and Anti-radiation Measures

- (1) Protection, localisation and dismantling activities and anti-radiation measures shall be carried out in such a way as to avoid unnecessary irradiation of individuals;
- (2) The activities under Para. 1, which are directly related to the protection of human life and to mitigating the spread of a radiation emergency with potentially serious social and economic consequences shall be so planned as to prevent the persons who carry out these activities from absorbing cumulative effective doses of 500 mSv and cumulative equivalent skin doses of 5,000 mSv in the process of accomplishing these tasks.
- (3) Intervention levels, as well as intervention levels necessitating immediate and consistent measures, are indicated in Annex 12.

Article 57

Emergency Response Plans

- (1) An emergency response plan to be applied in the event of a radiation accident¹⁷ at workplaces containing sources of ionising radiation belonging to Classes 3 to 6, with the exception of workplaces containing a nuclear reactor, shall contain –
 - (a) analysis of possible radiation accidents and radiation emergencies at the workplace;
 - (b) measures to mitigate the radiation exposure of employees and local inhabitants;
 - (c) the means of warning and keeping informed employees and local inhabitants;
 - (d) measures to localise and contain the spread of a radiation accident;
 - (e) procedures to be followed and a record of the materials and technical equipment to be used in order to ensure the localisation of the radiation accident or radiation emergency and limit their consequences;
 - (f) methodological procedures and technical equipment for evaluating the consequences of a radiation accident or a radiation emergency;
 - (g) the means of ensuring monitoring at the workplace and in its vicinity;
 - (h) the means of ensuring the monitoring of persons carrying out localisation and dismantling activities;
 - (i) frequency of planned emergency drills;
 - (j) list of bodies and organisations ensuring protection, localisation and dismantling activities, including the indication of their telephone numbers, as well as the telephone number of the state health control body, and the manner of their notification;
 - (k) plan for the employees' health protection.
- (2) The plan for the employees' health protection shall contain –
 - (a) the principles of provision of first-aid;
 - (b) a list of prophylactic means and antidotes and the manner of their application;
 - (c) the principles for decontamination of individuals and disposal of radioactive waste;
 - (d) a list of health institutions providing urgent health assistance, including the indication of their addresses and telephone numbers;
 - (e) the means of ensuring the transport of irradiated and radioactively contaminated persons to health institutions.
- (3) The plan of healthcare measures²⁴ shall contain –
 - (a) methodological procedures for first-aid and health-care provision and methodological procedures for sampling biological materials for the purposes of evaluating the degree of interior radioactive contamination;
 - (b) organisation and principles of providing healthcare, including the indication of addresses and telephone numbers of appropriate healthcare institutions;
 - (c) the procedure for setting up a healthcare centre at the workplace, including its material and technical equipment;
 - (d) a list of prophylactic means and antidotes and the manner of their application;
 - (e) principle of evaluation of the extent of radioactive contamination of the employees and of other individuals for the purposes of healthcare provision;
 - (f) the means of ensuring the transport of irradiated and radioactively contaminated persons;
 - (g) guidelines for cooperation between employees and healthcare workers;
 - (h) principles and methodological procedures for the decontamination of individuals, including the indication of places of decontamination;

²⁴ Art. 3, Para.4 (n) of Decree No 245/1999 Laws Coll. of the Nuclear Control Office of the Slovak Republic concerning Emergency Planning in the Event of an Accident or an Emergency.

- (i) the means of ensuring the protection against radioactive contamination of the healthcare institution employees, patients and other individuals in the healthcare institution.
- (j) the manner of monitoring healthcare workers.

**PART EIGHT
FINAL PROVISIONS**

**Article 58
Cancellation Provisions**

The following acts are hereby repealed:

1. Decree No 65/1972 Coll. of the Ministry of Health of the Slovak Republic concerning Health Protection from Ionising Radiation.
2. Decree No 406/1992 Coll. of the Ministry of Health of the Slovak Republic concerning the Requirements for Limiting Exposure to Radon and other natural radionuclides.

**Article 59
Entry into Force**

The present Decree shall enter into force on the day of its publication.

Roman Kováč