

DECREE

No. 359/2016 Coll.

of 17th October 2016

on details of ensuring radiation extraordinary event management

The State Office for Nuclear Safety sets, pursuant to § 236 of Act No. 263/2016 Coll., the Atomic Act, to implement § 9(2) c), § 24(7), § 25(2) a) to c), § 68(2) j), § 69(2) d) and e), § 149(6) d), § 153(3), § 154(3), § 155(3) a) and b), § 156(4) a) to e), § 157(3), § 158(3), § 211(2) and § 220(2):

PART ONE

INTRODUCTORY PROVISIONS

§ 1

Scope

This Decree incorporates the relevant Euratom legislation¹⁾ and regulates

- a) the classification rules of a nuclear installation, workplace with ionising radiation sources or activities in exposure situations into the threat category;
- b) the detailed rules for performing analysis and evaluation of radiation extraordinary event;
- c) the procedures and arrangements to ensure preparedness for response to radiation extraordinary event (hereinafter referred to as the “response”);
- d) the method and frequency of the verification of on-site emergency plan, National Radiation Emergency Plan, intervention instruction and emergency rules, and the functionality of technical means;
- e) the method and frequency of the verification of the efficiency and consistency of the on-site emergency plan, off-site emergency plan and the National Radiation Emergency Plan;
- f) the content of the annual report on ensuring response preparedness;
- g) the requirements for ensuring response preparedness in the emergency planning zone and the requirements for the establishment of emergency planning zone;
- h) the rules for providing the public with iodine prophylaxis antidotes;
- i) the rules for ensuring response;
- j) the scope and way for performing of the remedial action after a radiation accident;
- k) the requirements for the content of the National Radiation Emergency Plan and the scope and method of exercise under the National Radiation Emergency Plan;
- l) the detailed requirements for the content of the documentation relating to the ensuring of radiation extraordinary event management for the licensed activity and the content of intervention instruction;

¹⁾ Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom. Council Directive 2014/87/Euratom of 8 July 2014, amending Directive 2009/71/Euratom, establishing a Community framework for the nuclear safety of nuclear installations.

- m) the content of prior general information for radiation accident, the form of provision, scope and method of updating such information, and the way of determining changes influencing radiation extraordinary event management;
- n) a list of changes related to radiation extraordinary event management at workplace with ionising radiation source, the scope and way of documenting the change related to radiation extraordinary event management, and the procedure and period for notification of such change to the Office; and
- o) a list of quantities and facts important in terms of radiation extraordinary event management, their scope, method and period of monitoring, measurement, evaluation, verification and recording, the period of retention of information concerning them, the scope, method and period for transmission of information to the Office concerning the quantities and facts important in terms of radiation extraordinary event management.

PART TWO

ANALYSIS AND EVALUATION OF RADIATION EXTRAORDINARY EVENT

§ 2

Classification rules of a nuclear installation, workplace with ionising radiation sources or activities in exposure situations into the threat category

[To § 153(3) of the Atomic Act]

(1) Depending on the possible impacts of radiation incident or radiation accident on the territory of the Czech Republic, a nuclear installation, workplace with ionising radiation sources or activity in exposure situations shall be classified into threat categories A to D, specifically

- a) threat category A includes a power nuclear installation;
- b) threat category B includes a nuclear installation, which is not included in threat category A, and category IV workplace other than workplace with a nuclear facility where radiation accident may occur;
- c) threat category C includes a nuclear installation or workplace with ionising radiation sources where radiation accident cannot occur; or
- d) threat category D includes an activity in exposure situations, including finding, misuse or loss of a radionuclide source or transport of radioactive or fissile substance, which cannot cause a radiation incident or a radiation accident in an unpredictable location, and thus accidental exposure.

(2) Threat category E includes areas on the territory of the Czech Republic where protective measures for the public could be implemented as a result of a radiation accident occurred in a nuclear installation or at workplace with ionising radiation sources situated on the territory of the neighbouring state of the Czech Republic.

§ 3

Rules for performing analysis and evaluation of radiation extraordinary event

[To § 24(7) and § 154(3) of the Atomic Act]

- (1) When drawing up the analysis and evaluation of radiation extraordinary event

- a) to the application for a license pursuant to § 9(1) b) or g) of the Atomic Act, the possibility shall be taken into account of simultaneous occurrence of a radiation extraordinary event on two and more nuclear reactors located on the nuclear installation grounds and an extraordinary event pursuant to other legislation²⁾ and the possibility of simultaneous occurrence of a radiation extraordinary event and an extraordinary event pursuant to other legislation²⁾ at any neighbouring person;
- b) to the application for a license pursuant to § 9(2) b) and d) of the Atomic Act, the possibility shall be taken into account of the simultaneous occurrence of a radiation extraordinary event at two and more workplaces with ionising radiation sources or, where appropriate, nuclear facilities located at category IV workplace and an extraordinary event²⁾ pursuant to other legislation and the possibility of the simultaneous occurrence of a radiation extraordinary event and an extraordinary event pursuant to other legislation²⁾ at any neighbouring person;
- c) to the application for a license pursuant to § 9(3) b) of the Atomic Act, the possibility shall be taken into account of the simultaneous occurrence of a radiation extraordinary event and an extraordinary event pursuant to other legislation²⁾ at any neighbouring person; and
- d) to the application for a license pursuant to § 9(1) b) of the Atomic Act, the results shall be taken into account of the probabilistic safety assessment performed pursuant to the Decree on Requirements for Safety Assessment.

(2) For requirements for the content of the analysis and evaluation of radiation extraordinary event see Annex 1 hereto.

(3) The notification of the threat category identified shall be made within 10 days of the date on which the decision of the Office on the license became final. The producer of the off-site emergency plan shall be notified only of the threat category A or B.

§ 4

Requirements for establishment the emergency planning zone

[To § 24(7) and § 149(6) d) of the Atomic Act]

(1) The emergency planning zone shall be established as a circular area around a nuclear installation grounds or a category IV workplace pursuant to Annex 2 hereto or Annex 3 hereto.

(2) The area of the emergency planning zone under paragraph 1 shall be established as a circle, whose

- a) centre S corresponds to the centre of the smallest circle, which includes the projection of the floor plan of the building with nuclear reactor or, where appropriate, all buildings with nuclear reactors located on the nuclear installation grounds, or the floor plan of the building with category IV workplace or, where appropriate, buildings with category IV workplace at one site; for example of determining the centre S of the area of emergency planning zone see Fig. 1 in Annex 4 hereto; and
- b) the radius R equals to the distance at which the need for planning the introduction of urgent protective measures is not eliminated for a radiation accident with a frequency of occurrence higher than or equal to 1×10^{-7} /year.

²⁾ Act No. 239/2000 Coll., on Integrated Rescue System and on Amendment to Certain Related Acts, as amended.

(3) At the same time, 16 sectors of emergency planning zone shall be delineated inside the area under paragraph 1, which are parts of the § of a circular area of 22.5° covering the area of emergency planning zone so that the axes of such §s intersect in the centre S determined under paragraph 2 a) and that the axis of § 1 corresponds to wind direction 0°; for example of the geometric division of the area see Fig. 2 in Annex 4 hereto.

PART THREE RESPONSE PREPAREDNESS

§ 5

Procedures and arrangements to ensure education and training for response

[To § 24(7), § 68(2) j) and § 155(3) a) and b) of the Atomic Act]

Education and training for response of individuals designated by a licensee to perform activities according to the intervention instruction, the content of which is determined in Annex 5 hereto, by on-site emergency plan, the content of which is determined in Annex 6 hereto, or by emergency rules, the content of which is determined in Annex 7 hereto, shall be focused on information concerning

- a) ionising radiation and its properties;
- b) quantities and units of radiation protection;
- c) principles of ionising radiation detection;
- d) biological effects of ionising radiation;
- e) exposure pathways and exposure regulation;
- f) protective measures and protective equipment;
- g) misuse of ionising radiation sources;
- h) principles of crisis management and integrated rescue system pursuant to the Crisis Act and the related tasks of a licensee, the Office, the Fire Rescue Service of the Czech Republic and other units of the integrated rescue system, regional and local authorities, and other administrative authorities affected by off-site emergency plan or the National Radiation Emergency Plan, the content of which is determined in Annex 8 hereto; and
- i) responsibility of a licensee and the Office in radiation extraordinary event occurrence.

§ 6

Procedures and arrangements to ensure detection radiation extraordinary event

[To § 155(3) b) of the Atomic Act]

(1) The facts, which indicate a suspicion of occurrence or occurrence of a radiation extraordinary event outside the nuclear installation grounds or workplace with ionising radiation sources, are

- a) detection of the values of the measurement results of radiation situation monitoring on the territory of the Czech Republic exceeding the values of the intervention levels defined in the National Monitoring Programme or the values of the intervention levels defined in the Monitoring Programme for discharges and the workplace surroundings; and

- b) information on the detection of a radiation extraordinary event outside the territory of the Czech Republic provided by the European Commission or any neighbouring state.

(2) The emergency action levels, which are the facts or quantities indicating the suspicion of occurrence or the occurrence of a radiation extraordinary event in licensed practice, are

- a) quantities or facts relating to the immediate state of systems, structures and components of a nuclear installation or to the immediate state of workplace with ionising radiation sources or cask containing radioactive or fissile substance in transport, the failure or damage of which may result in damage to the barriers intended to prevent the leakage of radioactive substances or the spread of ionising radiation to the working environment or to the environment, or the occurrence of emergency exposure situation on the nuclear installation grounds or at workplace with ionising radiation sources or in the vicinity of the cask and the vehicle during transport; and
- b) detection of an operational event or extraordinary event pursuant to other legislation²⁾, which may endanger nuclear safety or radiation protection in the performance of activities in planned exposure situation, and the course of that event.

(3) The emergency action levels shall be determined as a set of predefined, site-specific initiating conditions, the achievement of which triggers the investigation of the suspicion of the occurrence or the confirmation of the occurrence of a radiation extraordinary event or, where appropriate, triggers the response. The emergency action levels shall be prepared for all activities performed under the licensed practice; they may consist of several monitoring levels and contain a description of the operational events, the development of which may endanger nuclear safety or radiation protection.

(4) Control and measuring instruments, devices and systems for monitoring of directly measurable quantities defined as part of the emergency action levels under paragraph 3 shall allow for indication of their exceeding.

(5) Information concerning the immediate state of quantities and facts under paragraph 2 letter a), excluding information concerning the cask containing radioactive or fissile substance in transport, necessary for timely identification of a radiation accident and its evaluation and development prognosis pursuant to § 157(2) g) of the Atomic Act shall be continuously transmitted to the Office by the licensee as data files in the form of remote transmission.

§ 7

Procedures and arrangements to ensure declaration of radiation extraordinary event and notification of the authorities concerned

[To § 155(3) b) of the Atomic Act]

(1) The declaration of a radiation extraordinary event, i.e. the activation to start response management and implementation, the activation of emergency workers, the preparation of technical means intended for response and, in case of the occurrence of a radiation incident or a radiation accident the preparation of the areas intended for response management and for sheltering or assembly of individuals, the start of accidental monitoring and warning, shall be performed immediately after the categorisation of a radiation extraordinary event.

(2) The system of technical means and organisational arrangements shall be prepared for all areas, in which any individual may be situated in the performance of activities in accordance with the relevant license, to warn any individuals in the premises of the nuclear installation or in the areas of the workplace with ionising radiation sources. The preparation of the system of technical means and organisational arrangements to notify the authorities concerned is under way. The technical means should be backed up.

(3) The licensee shall demonstrably notify the individuals affected by this system or arrangements of any change in the system of technical means and organisational arrangements prepared under paragraph 2.

§ 8

Procedures and arrangements to ensure response management and implementation

[To § 155(3) b) of the Atomic Act]

(1) Response management and implementation shall be performed according to the intervention instructions, on-site emergency plan or the emergency rules and taking into account the results of radiation situation monitoring performed according to the Monitoring Programme or the National Monitoring Programme and the radiation extraordinary event development .

(2) Response management and implementation may be performed only by individuals designated in advance by the licensee, who have the procedural roles defined pursuant to the Decree on Requirements for Management System and who may be divided in advance into standing substitutable groups (hereinafter referred to as the “response shifts”).

(3) The licensee shall prepare the response management and implementation so that the response can start immediately after the detection of a radiation extraordinary event of first degree, a radiation incident or a radiation accident so as not to influence any neighbouring individuals, safety of any other nuclear reactor or ionising radiation source on the nuclear installation grounds or at the workplace with ionising radiation source when performing response management and implementation. Response management and implementation in transport of radioactive or fissile substance shall be prepared so as not to influence any other individuals potentially affected by transport of radioactive or fissile substance.

(4) The shelter in the nuclear installation classified as threat category A or B, in which the workplace for response management shall be established, shall allow the separate performance of activities of the emergency control centre and the technical support centre, ensuring of the management of radiation situation monitoring in the emergency planning zone, and the notification and warning.

(5) The shelter in the nuclear installation classified as threat category A or B, in which individuals designated to perform the response are situated, shall allow the assembly of forces and means necessary for the intervention in the nuclear installation where the radiation incident or the radiation accident originated.

(6) In the course of response management and implementation until the causes of a radiation extraordinary event have been clarified, the licensee must not change the setting of the alarm levels for control and measuring instruments, devices and systems

for monitoring directly measurable quantities as part of the emergency action levels and other quantities used for obtaining information about the occurrence and the course of the radiation extraordinary event.

§ 9

Procedures and arrangements to restrict accidental exposure

[To § 155(3) b) of the Atomic Act]

(1) For the restriction on accidental exposure of individuals in the nuclear installation grounds or at category IV or III workplace, arrangements and procedures shall be prepared for

- a) the assembly, which shall be carried out in case of a radiation incident or a radiation incident suspected of leakage of radioactive substances or the spread of ionising radiation immediately after the individual has been warned; and
- b) the assembly, sheltering, use of iodine prophylaxis and evacuation, which shall be carried out in a radiation accident; the assembly and sheltering shall be carried out immediately after the individual has been warned.

(2) The following arrangements and procedures shall be defined and ensured for the assembly or sheltering under paragraph 1:

- a) sites of assembly (hereinafter referred to as the “site(s) of assembly”) or shelters, which shall be permanently maintained in operational condition;
- b) communication connection of the individuals controlling the response with the sites of assembly or shelters;
- c) escape route to the site of assembly or to the shelter; and
- d) system of organising an assembly or sheltering and exit or, where appropriate, evacuation of individuals from the site of assembly or shelter, which includes
 1. the way to keep records of individuals in the site of assembly or in the shelter, including the surname, name or, if appropriate, names of the individuals assembled or sheltered, and designation of an individual responsible for performing of keeping such records;
 2. dosimetric control and decontamination of individuals in the site of assembly or in the shelter; and
 3. providing first aid in the site of assembly or in the shelter.

(3) For iodine prophylaxis under point 1 letter b), a pack of antidotes shall be ensured for individuals located in the nuclear installation grounds, when one pack contains 2 doses with 130 mg of potassium iodide in each dose. The number of packs shall be equal to twice the capacity of shelters and sites of assembly increased by 10% of reserve.

(4) The following arrangements and procedures shall be defined and ensured for the evacuation under paragraph 1 letter b):

- a) place of removal of individuals from the site of assembly or shelter;
- b) the necessary number of vehicles;
- c) technical system of keeping records of individuals, who were not evacuated from the guarded area,
- d) evacuation routes in relation to the off-site emergency plan;
- e) means to determine individual doses in the course of controlled evacuation.
- f) communication connection details of the individuals controlling the response; and
- g) system of organising an evacuation, which includes

1. designation of an individual responsible for evacuation organisation and management;
2. the way to keep records of individuals, who were not evacuated from the guarded area, including their surname and name or, if appropriate, names;
3. designation of an individual responsible for performing of keeping such records in case of non-functioning of the system under letter c).

(5) For reducing accidental exposure of the public in a radiation accident, the values of the selected directly measurable quantities (hereinafter referred to as the “operational intervention levels”) are determined in Annex 9 hereto, above which the introduction of urgent protective measures shall be taken into account.

(6) For reducing accidental exposure of the public in the emergency planning zone and the units of the integrated rescue system in a radiation accident in the emergency planning zone, the antidotes for iodine prophylaxis shall be ensured in the quantity needed pursuant to § 15; included are always written instructions for their use in the Czech language.

(7) For reducing accidental exposure of individuals in a radiation extraordinary event in transport of radioactive or fissile substance, the procedures shall be prepared to be taken immediately after the transport has been stopped, for

- a) assembling the individuals involved in the transport and any other individuals concerned in an appropriate place upwind relative to the place of the occurrence of a radiation extraordinary event and at an adequate distance therefrom;
- b) keeping records of individuals under letter a);
- c) dosimetric control of individuals under letter a); and
- d) where contamination was detected, management of decontamination of individuals.

§ 10

Procedures and arrangements to ensure provision of health matters

[To § 155(3) b) of the Atomic Act]

(1) For the provision of health matters to individuals, who are situated in the nuclear installation grounds or at the workplace with ionising radiation source and are affected by the radiation extraordinary event occurred, individuals responsible for its management and coordination shall be designated, and arrangements and procedures shall be prepared for

- a) searching;
- b) providing first aid;
- c) providing urgent pre-hospital health care; and
- d) providing special or special medical assistance pursuant to § 214 a) of the Atomic Act.

(2) For the provision of health matters to the individuals affected by a radiation extraordinary event in transport of radioactive or fissile substance, arrangements and procedures shall be prepared under paragraph 1 to the extent appropriate to the licensed practice.

§ 11

Procedures and arrangements to provide preliminary information to the public

[To § 155(3) b) of the Atomic Act]

(1) Preliminary information to the public pursuant to § 209 e), § 220(1) c) and § 224(1) b) of the Atomic Act contains

- a) basic data on ionising radiation and its effects on human organism and the environment;
- b) description of potential radiation accidents and their consequences for the public and the environment;
- c) description of the mode of warning;
- d) description of protective measures prepared to be taken in a radiation accident occurrence; and
- e) instructions how the public shall act in a radiation accident occurrence.

(2) Information under paragraph 1 shall be published at least on the website of the Office, the Fire Rescue Service and regional authorities, and updated every time a significant change is made in the arrangements already published.

§ 12

Procedures and arrangements to ensure verification of response preparedness of individuals

[To § 155(3) b) of the Atomic Act]

(1) Response preparedness of the individual designated for response management and implementation shall be verified in drill or emergency exercise or tactical exercise³⁾ shall be carried out.

(2) While carrying out the drill the verification of the activity according to the intervention instruction or the partial activity according to the on-site emergency plan and the intervention instruction or the National Radiation Emergency Plan.

(3) While carrying out the emergency exercise the verification of the activity according to the on-site emergency plan or the emergency rules and the selected intervention instructions or the National Radiation Emergency Plan, including cooperation of those individuals designated for response management and implementation according to the intervention instructions shall be carried out.

(4) The emergency exercise is divided into

- a) the preliminary part, which involves the preparation of the emergency exercise scenario in relation to the emergency exercise plan, setting out
 1. the goal, scope and duration of the exercise;
 2. the occurrence and degree of a radiation extraordinary event and its development in the course of the exercise;
 3. the intervention instructions to be practised; the intervention instructions shall be specified to take account of the combination of all categories of potential radiation extraordinary events ; and
 4. evaluators or, where appropriate, observers in the place of exercise;

³⁾Section 17 of Act No. 239/2000 Coll.

- b) the implementation part, which means the implementation of the emergency exercise according to the predefined emergency exercise scenario with the participation of all individuals responsible for response management and implementation including exercise evaluators or, where appropriate, exercise observers and recording of individual actions; and
- c) the evaluation part, which involves drawing up of the final evaluation, which includes also an overview of any shortcomings identified, including the date for their removal and the person responsible for that removal.

(5) The final evaluation of the emergency exercise for a radiation accident shall be submitted to the Office within two months after the end of the exercise.

(6) Drills and emergency exercises shall be carried out according to the prepared annual plan for verifying the response preparedness, which sets out the specialisation, scope of drill or emergency exercise, and their implementation dates. The licensee shall prepare this plan on the basis of the frequencies of verification referred to in §§ 16 and 18.

(7) The summary evaluation of all the drills and emergency exercises implemented to verify the response preparedness shall include the evaluation of the drills and emergency exercises implemented under paragraphs 2 to 4 per calendar year. Where individuals designated for response implementation and management are divided into response shifts, the overview of drills and emergency exercises contains also information on what response shift implemented the drill or the emergency exercise.

§ 13

Procedures and arrangements to receive external assistance

[To § 155(3) b) of the Atomic Act]

In the on-site emergency plan, the holder of a license to perform activities in the nuclear installation included in threat category A or B shall

- a) designate an individual responsible for setting out the necessary scope, professional or material form and the convenient time for receiving the external assistance requested for the response to a radiation accident or for the remedial action in the nuclear installation grounds after a radiation accident; and
- b) define the conditions under which the individual under letter a) shall start its activity.

§ 14

Procedures and arrangements to document response preparedness

[To § 24(7), § 155(3) b) and § 156(4) d) and e) of the Atomic Act]

(1) The response preparedness shall be documented

- a) by intention to ensure radiation extraordinary event management, the content of which is determined in Annex 10 hereto; and
- b) by on-site emergency plan, emergency rules and intervention instruction and their updates at least once every 4 years.

(2) Any shortcomings identified in the update of the documents under paragraph 1 or referred to in the final evaluation of emergency exercises, experience gained or shortcomings identified in implementing the response implementation to a radiation

extraordinary event occurred or, where appropriate, any other findings that have an impact on ensuring radiation extraordinary event management shall be incorporated into the documents under paragraph 1 letter b), without undue delay.

(3) The emergency rules for transport of radioactive or fissile substance on the nuclear installation grounds or in the area of category IV workplace of the same licensee may form part of the on-site emergency plan.

(4) The National Radiation Emergency Plan shall be drawn up for threat category C, D and E, and for threat category A and B for case of the consequences of radiation accident outside the emergency planning zone.

(5) The response preparedness shall be further documented

- a) by records of becoming familiar with the approved on-site emergency plan, which shall be carried out for
 1. employees upon recruitment and external workers at the start of their tasks for the licensee and then at least once a year to the extent that corresponds to their job classification; the licensee shall verify this knowledge by examination and shall make a record of examination;
 2. individuals designated by the on-site emergency plan for response immediately after their designation and then at least once a year to the extent corresponding to their assignment to posts for response management or implementation; the licensee shall verify this knowledge by examination and shall make a record of examination;
 3. other individuals in the nuclear installation grounds or at workplace with ionising radiation sources before they enter the grounds or the workplace;
 4. any neighbouring individuals within one month of the decision issued by the Office approving the on-site emergency plan;
- b) by records of becoming familiar with the intervention instruction by an individual, which shall be carried out immediately after his/her designation to perform activities in the intervention according to that instruction;
- c) by records of becoming familiar with the approved emergency rules by all individuals designated to ensure the transport of radioactive or fissile substance, which shall be carried out before the start of the transport, to the extent corresponding to the type and nature of the activity in response management and implementation; if the emergency rules are part of the on-site emergency plan, the familiarisation is part of the familiarisation under letter a);
- d) by annual report on ensuring response preparedness, which contains an overview of drills, emergency exercises and verification of the functionality of technical means carried out in a calendar year, including any shortcomings identified for this functionality; where individuals designated for response implementation and management are divided into response shifts, the overview of drills and emergency exercises contains also information on what response shift implemented the drill or the emergency exercise; and
- e) by documents of other contract individuals necessary to implement the response to a radiation incident or a radiation accident.

§ 15

Rules for providing antidotes for iodine prophylaxis in the emergency planning zone

[To § 220(2) of the Atomic Act]

(1) The antidotes for iodine prophylaxis in the emergency planning zone shall be ensured

- a) for the public in the emergency planning zone, in a pack, which contains 2 doses with 130 mg of potassium iodide in each dose for each individual over 12 years of age and for each individual who reaches the age of 12 years in the course of the tablets usability, and 2 doses with 65 mg of potassium iodide in each dose for each individual under 12 years of age; and
- b) for the units of the integrated rescue system involved in the intervention in a radiation accident, in a pack, which contains 2 doses with 130 mg of potassium iodide in each dose for each individual.

(2) In order to ensure cooperation in providing the public with the antidotes in the emergency planning zone under paragraph 1

- a) the licensee shall submit, before the first loading of nuclear fuel into a nuclear reactor of a nuclear installation or before putting category IV workplace other than nuclear installation into operation, a request to the regional authority or the Fire Rescue Service of the Czech Republic for documents to determine the number of antidote doses for the public living, working or studying in the emergency planning zone and for the units of the integrated rescue system referred to in the relevant off-site emergency plan;
- b) the licensee shall purchase the antidotes within 2 months after the processing of the application under letter a) in the specified number of doses increased by at least 10% of reserve;
- c) the licensee shall ensure the specified number of antidote doses for the public in the emergency planning zone and the units of the integrated rescue system in the amount under letter b) and shall ensure their handover in the specified amount to the regional authority or the Fire Rescue Service of the Czech Republic and in the amount equal to 10% of reserve to the regional authority or the Fire Rescue Service of the Czech Republic at least three months before the first loading of nuclear fuel into a nuclear reactor of a nuclear installation or before putting category IV workplace other than nuclear installation into operation;
- d) the licensee shall ensure additional provision of antidotes of the regional authority or the Fire Rescue Service of the Czech Republic when this reserve drops below 5% and when requested by the regional authority, within three months of receipt of the request of the regional authority for the additional provision;
- e) the licensee shall update the specified number of antidote doses provided to the public in the emergency planning zone and the units of the integrated rescue system in order to exchange them if the licensee receives, at least 12 months before the expiration date of antidotes, a proposal from the regional authority or the Fire Rescue Service of the Czech Republic to update the number of antidote doses;
- f) the licensee shall ensure the exchange of antidotes for the public and the units of the integrated rescue system due to the expiration of their usability in the updated amount increased by 10% of reserve and shall hand over the updated specified number of antidotes to the regional authority or the Fire Rescue Service of the

- Czech Republic and 10% of reserve to the regional authority or the Fire Rescue Service of the Czech Republic at least three months before the expiration date;
- g) the licensee shall take over the antidotes withdrawn within three months after the expiration date by the regional authority or the Fire Rescue Service, and the antidotes from the reserve of the regional authority or the Fire Rescue Service of the Czech Republic, the usability date of which expired; and
 - h) the licensee shall ensure the destruction of the antidotes withdrawn pursuant to other legislation⁴⁾.

(3) In order to determine the number of individuals to be provided with antidotes pursuant to paragraph 2 letters b) and f), the following individuals shall be included using the existing results of statistical surveys

- a) individuals who live in dwellings or holiday houses in the emergency planning zone, including school and pre-school age children;
- b) individuals who work within the emergency planning zone, pupils, children attending pre-school facilities and persons attending school facilities, if the school or facility is situated within the emergency planning zone;
- c) beds in in-patient health facilities, lodging and social facilities situated within the emergency planning zone; and
- d) individuals in the units of the integrated rescue system, referred to in the off-site emergency plan;

(4) Other 10% of reserve shall be added to the number of individuals determined under paragraph 3.

§ 16

Method and frequency of the verification of emergency plans, intervention instruction and emergency rules

[To § 156(4) a) of the Atomic Act]

(1) The on-site emergency plan approved for the performance of the activities pursuant to § 9(1) b) and (2) b) of the Atomic Act for category IV workplace, pursuant to § 9(3) a) and b) of the Atomic Act, according to the National Radiation Emergency Plan, the intervention instruction and the emergency rules shall be verified

- a) in the form of drill for each intervention instruction, where a radiation extraordinary event of first degree can only occur, once a year;
- b) in the form of an emergency exercise, including the on-site emergency plan and the intervention instructions, where
 1. a radiation incident can occur, which shall practise all intervention instructions in a period of two consecutive calendar years;
 2. a radiation accident can occur, which shall practise all intervention instructions in a period of three consecutive calendar years; and
- c) in the form of an emergency exercise, including the emergency rules, unless they are part of the on-site emergency plan, and the selected intervention instructions, once every three years.

(2) Where individuals designated for response implementation and management are divided into response shifts, the verification under paragraph 1 letter b) points 1

⁴⁾ Section 88 of Act No. 378/2007 Coll., on Pharmaceuticals and Amending Certain Related Acts (the Act on Radiopharmaceuticals).

and 2 shall be carried out at least by one response shift and the other response shifts may carry out a drill for the intervention instructions practised in emergency exercise.

(3) The intervention instructions for performing the industrial radiography source containing sealed radionuclide source at temporary workplaces shall be verified in the form of drill at least once every four years.

(4) The National Radiation Emergency Plan shall be verified by verifying its efficiency pursuant to § 18(1) a).

§ 17

Method and frequency of the verification of the functionality of technical means

[To § 156(4) a) of the Atomic Act]

(1) The functionality of technical means according to the on-site emergency plan of a nuclear installation or a category IV workplace shall be verified

- a) once every three months by checking the functionality of technical means designated for the activation of individuals emergency workers for response management and implementation;
- b) once every six months by checking the functionality of technical means designated for the warning of individuals in the nuclear installation grounds or at the workplace; and
- c) once every three months by checking the functionality of technical means designated for the notification of aradiation extraordinary event.

(2) The functionality of technical means, systems and instruments needed for response management and implementation at workplace related to uranium industry and in use of ionising radiation sources at workplaces with the controlled area established shall be verified once every 12 months by checking the functionality of technical means

- a) designated for the activation of individuals emergency workers for management and implementation and for the warning of individuals at the workplace; and
- b) designated for the notification of aradiation extraordinary event.

(3) The functionality of technical means according to the emergency rules that are not part of the on-site emergency plan shall be verified once during the last 72 hours before the start of transport

- a) by checking the functionality of technical means designated for the activation of individuals emergency workers for management and implementation; and
- b) by checking the functionality of technical means designated for the notification of a radiation accident.

§ 18

Method and frequency of the checking of the efficiency and consistency of the emergency plans

[To § 156(4) b) and § 211(2) of the Atomic Act]

(1) The efficiency and consistency of the on-site emergency plan, off-site emergency plan and the National Radiation Emergency Plan shall be checked

- a) by joint practising the scenario for radiation accident in a nuclear installation or a category IV workplace, which has the emergency planning zone established and which is included in threat category A or B, once every four calendar years; and
- b) by evaluating the practising carried out under letter a).

(2) Any deficiencies identified under paragraph 1 letter b), which have an impact on the content of the on-site emergency plan or the National Radiation Emergency Plan, shall be remedied without delay by updating the plans.

§ 19

Requirements for ensuring response preparedness in the emergency planning zone

[To § 156(4) c) of the Atomic Act]

(1) The documents for drawing up the off-site emergency plan and the National Radiation Emergency Plan contain

- a) a description of the established or modified emergency planning zone, including its drawing on a digitalised map indicating the sectors;
- b) an overview of all potential radiation incidents involving the possibility of leakage of radioactive substances and the spread of ionising radiation and radiation accidents;
- c) a description of the system intended for detecting the radiation extraordinary event of first degree, radiation incident or radiation accident according to the on-site emergency plan; and
- d) a description of the system of radiation extraordinary event declaration according to the on-site emergency plan, including information on communication means available for notification and on communication connection in order to verify the information on radiation extraordinary event occurrence.

(2) The documents under paragraph 1 shall be handed over within one month of the decision issued by the Office establishing or modifying the emergency planning zone.

§ 20

Content of prior general information for radiation accident, the form and scope of such information, the way of updating such information

[To § 156(4) d) of the Atomic Act]

(1) Prior general information for a radiation accident (hereinafter referred to as “prior general information”) contains

- a) basic data on ionising radiation and its effects on human organism and the environment;
- b) a description of operation and nuclear safety and radiation protection of a nuclear installation or a category IV workplace, which has the emergency planning zone established;
- c) description of the emergency planning zone including its drawing on a digitalised map;
- d) description of the potential radiation accident and its consequences for the public and the environment;
- e) description of the mode of warning;
- f) description of protective measures to be taken in a radiation accident; and

g) instructions how the public shall act in a radiation accident occurrence.

(2) The documents for preparing prior general information under paragraph 1 letters e) and f) are based on the relevant off-site emergency plan.

(3) Prior general information for the public in the emergency planning zone shall be published in paper form and distributed to the regional authority and to the local authorities and in electronic form on the website of the licensee. Prior general information shall be published within six months of the decision issued by the Office approving the establishment of the emergency planning zone, or within one month of the decision issued by the Office approving the modification of the emergency planning zone.

(4) Prior general information shall reflect the current state of the proposed protective measures and shall be updated at least once every two calendar years. Updated background information shall be published without delay.

PART FOUR

RESPONSE AND REMEDIAL ACTION AFTER RADIATION ACCIDENT

§ 21

Rules for ensuring response

[To § 157(3) of the Atomic Act]

(1) The licensee in response management and implementation shall

- a) declare a radiation extraordinary event;
- b) notify the Office in accordance with § 157(2) c) of the Atomic Act as follows
 1. immediately after the detection of a radiation accident occurrence;
 2. not later than 4 hours following the detection of a radiation incident occurrence;
 3. not later than 24 hours following the detection of the first degree radiation extraordinary event occurrence;
- c) in accordance with § 157(2) c) of the Atomic Act, notify the competent local mayors of the municipalities with extended powers and the competent local president of the region through the competent regional Operations Centre of the Fire Rescue Service of the Czech Republic and any other authorities concerned as set out by the on-site emergency plan or the emergency rules, and the neighbouring person as follows
 1. immediately after the detection of a radiation accident occurrence;
 2. not later than 4 hours following the detection of a radiation incident occurrence connected with the suspicion of potential leakage of radioactive substances or the spread of ionising radiation from the nuclear installation grounds or workplace with sources;
- d) restrict accidental exposure;
- e) provide health matters;
- f) inform in writing pursuant to § 157(2) h) of the Atomic Act; the content of the information form is set out in Annex 11 hereto;
- g) process the course of response from the time of detection of a radiation extraordinary event occurrence, including the chronology of all orders given as regards response management in the form of written report on the occurrence and

course of a radiation extraordinary event, the content of which is set out in Annex 12 hereto; and

- h) in case of radiation accident
1. immediately inform the public affected by that radiation accident about the radiation accident and its expected development; the content of information is set out in Annex 13 hereto;
 2. set out the requirements for the receipt of external assistance;
 3. transmit, in the form of remote transmission of data files, data needed for evaluating the radiation accident, which means data concerning the immediate state of systems, structures and components of a nuclear installation or a category IV workplace and concerning the radiation situation in the nuclear installation grounds or category IV workplace, and for predicting its development, which are supplemented by additional data on the meteorological situation in the emergency planning zone; where the remote transmission in the course of response is impossible, the licensee shall provide an alternative way of their transmission.

(2) The notification under paragraph 1 shall be provided on the form, the content of which is set out in Annex 14 hereto.

(3) The notification in a radiation extraordinary event occurrence during transport may be provided orally according to the content, set out in Annex 14 hereto, followed by written notification as soon as the relevant technical means are available.

§ 22

Scope and way of the remedial action after radiation accident

[To § 158(3) of the Atomic Act]

(1) The Office shall propose the size of the delineation of the contaminated area outside the nuclear installation grounds or category IV workplace to remedy action after the radiation accident on the basis of the evaluation of monitoring results carried out pursuant to § 149(2) of the Atomic Act as part of the proposals to introduce, specify and repeal the protective measures applicable to the contaminated area and members of the public.

(2) In remedying action after the radiation accident in the nuclear installation grounds or at category IV workplace, the licensee shall

- a) set objectives for the remedial action;
- b) update the emergency action levels determined taking into account the existing radiation situation occurred;
- c) assess the need for and the scope of protective measures applicable to the workers involved in remediation;
- d) assess the need to prevent or control access to the delineated contaminated area;
- e) assess the distribution of individual doses under letter c), which is the result of remedial action carrying out; and
- f) consider further need for and the scope of protective measures to restrict all exposures, which are still above the reference level.

PART FIVE
**RADIATION EXTRAORDINARY EVENT MANAGEMENT
IN LICENSED PRACTICES**

§ 23

Changes influencing radiation extraordinary event management

[To § 9(2) c) of the Atomic Act]

Changes influencing radiation extraordinary event management at category III workplace or category IV workplace are

- a) changes to the data transmission system pursuant to § 6(5);
- b) changes in shelters pursuant to § 8(4);
- c) changes in the number of the sites of assembly or shelters pursuant to § 9(2) a);
- d) changes to the technical system of keeping records pursuant to § 9(4) c);
- e) changes to the communication connection details pursuant to § 9(2) b) and (4) f);
and
- f) commencement of the construction of another nuclear installation or category IV workplace in the emergency planning zone or in such a proximity to the category IV workplace in operation so that its influence by radiation accident potentially occurred in such installation or workplace would not be eliminated.

§ 24

Changes related to radiation extraordinary event management

[To § 69(2) d) and e) of the Atomic Act]

(1) Changes related to radiation extraordinary event management at a workplace with ionising radiation source are the changes made in the intervention instruction.

(2) Changes under paragraph 1 shall be documented by issuing an updated intervention instruction.

(3) The Office shall be notified of changes under paragraph 1 made at a category IV workplace within one month of their completion.

§ 25

Quantities and facts important in terms of radiation extraordinary event management

[To § 25(2) a) to c) of the Atomic Act]

(1) Quantities important in terms of radiation extraordinary event management are the quantities, which are part of the emergency action levels pursuant to § 6(2) a) and (3).

(2) Facts important in terms of radiation extraordinary event management are as follows

- a) change in the technical means or organisational arrangements pursuant to § 7(2);
- b) final evaluation of the emergency exercise, including an overview of any shortcomings identified, including the date for their removal and the person responsible for that removal pursuant to § 12(4) c);
- c) annual plan for checking the response preparedness pursuant to § 12(6);

- d) summary evaluation of all the drills and emergency exercises pursuant to § 12(7);
- e) familiarisation pursuant to § 14(5) a) to c); and
- f) verification of the functionality of technical means pursuant to § 17.

(3) Quantities under paragraph 1 shall be monitored, measured, evaluated and recorded, and their records from the course of radiation incident and from the course of radiation accident shall be kept for a period of 10 years and 30 years, respectively.

(4) Facts under paragraph 2 shall be recorded and records of the facts under paragraph 2 letters a) to c), e) and f) shall be kept for a period of 3 years and under paragraph 2 letter d) for a period of 3 years from the last date set out in the evaluation part on the removal of the shortcoming identified.

(5) Records on the facts under paragraph 2 letter c) shall be submitted to the Office at the latest at the end of the previous calendar year and records under paragraph 2 letter d) shall be submitted to the Office at the latest on 31 March of the following year.

§ 26

Entry into force

This Decree shall enter into force on 1 January 2017.

Chairperson:
Ing. Drábová, Ph.D., m. p.

Annex 1 to Decree No. 359/2016 Coll.

Requirements for the content of the analysis and evaluation of radiation extraordinary event

1. The analysis and evaluation of radiation extraordinary event * shall be carried out for
 - a) a period from the commencement of the construction of a nuclear installation to the commencement of the decommissioning of a nuclear installation for an application for a license pursuant to § 9(1) b) of the Atomic Act;
 - b) a period of the particular stage of decommissioning of a nuclear installation or a category III workplace or a category IV workplace for an application for a license pursuant to § 9(1) g) or (2) d) of the Atomic Act;
 - c) a period from the start of the operation of a category III or IV workplace other than a nuclear installation to the commencement of its decommissioning for an application for a license pursuant to § 9(2) b) of the Atomic Act;
 - d) the whole period of the relevant handling of ionising radiation sources pursuant to § 9(2) f) of the Atomic Act;
 - e) the whole period of radioactive waste management and closure of radioactive waste repository for an application for a license pursuant to § 9(3) a) and b) of the Atomic Act;
 - f) the particular transport or series of similar transports of radioactive or fissile substance for an application for a license pursuant to § 9(4) a) to c) of the Atomic Act.
2. The analysis and evaluation of radiation extraordinary event contain
 - a) a list of radiation extraordinary events of first degree, radiation incidents or radiation accidents, which are considered in the performance of activities in the period under point 1 letters a) to e), including their occurrence causes; or
 - b) a list of radiation extraordinary events of first degree, radiation incidents or radiation accidents, which are considered for the transport under point 1 letter f), including their occurrence causes, and the following facts:
 1. weight and physical state of the radioactive substance to be transported, radionuclides contained therein, their actual activity, maximum dose equivalent rate on cask surface and at a distance of 1 m from the surface;
 2. weight and physical state of the fissile substance to be transported, radionuclides contained therein, their actual activity, maximum dose equivalent rate on cask surface and at a distance of 1 m from the surface and safe subcriticality index;
 3. planned mode of transport, planned duration of transport, including the start and end times of transport, season, traffic speed, anticipated stops and parking, and transport regime; or
 4. the route chosen.
3. The analysis and evaluation of radiation extraordinary event further contain

- a) determination of the extent of the impacts of radiation extraordinary events taken into account under point 2 letter a) or b);
- b) identification of potential threats to individuals and the environment due to released radioactive substances and the spread of ionising radiation and classification of a nuclear installation, workplace with ionising radiation sources, practices in exposure situations, including transport of radioactive or fissile substances, in threat category;
- c) determination of the possible scenarios of the courses of radiation extraordinary events that may result in a radiation incident or a radiation accident;
- d) selection of the scenarios for radiation accidents taken into account under letter c) and leading to the largest leakage of radioactive substances or the spread of ionising radiation to the surrounding environment; where it is a nuclear installation, the selected scenarios shall contain
 1. meteorological characteristics of the area for siting of a nuclear installation or the location near the foreseen area for siting of a nuclear installation, which contain regional orographs;
 2. description of the used calculation model of the spread of released radioactive substances in the atmosphere taking account of all potential conditions of the spread in the atmosphere and all possible ways of accidental exposure of the public as a result of such releases;
- e) determination of the frequency of the occurrence of a radiation accident taken into account under letter c) with the course according to the scenario under letter d);
- f) assessment of the differences in comparison to the information referred to in the analysis and evaluation of a radiation extraordinary event prepared for the license for operation under § 9(1) b) or (2) b), for an application for a license under § 9(1) g) or (2) d) of the Atomic Act.

Explanatory note:

* Documentation in Annex 1, points 1. b), 1.g), 2.b), 2.d), 2.f), 3.a), 3.b) 4.d) of Act No. 263/2016 Coll., the Atomic Act.

Annex 2 to Decree No. 359/2016 Coll.

Requirements for the content of the establishment of emergency planning zone

The establishment of the emergency planning zone* contains:

- a) description of the radiation accident and its scenario considered in the analysis and evaluation of radiation extraordinary event pursuant to point 3. d) of Annex 1 hereto, including the relevant frequency pursuant to point 3. e) of Annex 1 hereto, if the frequency of the occurrence of a radiation accident is lower than 1×10^{-7} /year, letters b) to i) shall not be implemented and the emergency planning zone shall not be established;
- b) description of a nuclear installation or a category IV workplace, for which the emergency planning zone shall be established, including details of the place of the leakage of radioactive substances or the place of the spread of ionising radiation, and of its height above the ground for case of a radiation accident under letter a);
- c) description of the time course of the leakage of radioactive substances or the spread of ionising radiation taken into account under letter b);
- d) a list of released radionuclides under letter c) and the estimation of their activity in individual periods of time of the leakage;
- e) estimation of effective or equivalent doses with the use of a list and estimation of activity under letter d) by calculation model, in which case
 1. the estimation of doses shall be stated depending on the time and distance from the place of leakage;
 2. the estimation of doses shall be made alternatively for various meteorological conditions of the spread, but at least for atmospheric stability class D and class F, taking into account all possible wind directions;
 3. the estimation of doses in the period up to one week does not consider the exposure resulting from an intake of contaminated food or water;
- f) geographical coordinates of the centre S determined pursuant to § 4(2) a);
- g) size of the radius R taking into account the estimations of doses under letter e) and the values of effective or equivalent doses for the introduction of urgent protective measures defined in the Decree on radiation protection and safety of radionuclide source;
- h) description of the emergency planning zone with its centre S under letter f) and radius R under letter g);
- i) a list of municipalities** included in the emergency planning zone with centre S and radius R, including their inclusion in sectors pursuant to § 4(3);
- j) digitalised map showing the following
 1. projections of the floor plans of the nuclear installation or category IV workplace;
 2. centre S of the emergency planning zone;
 3. circular area with a radius R, showing its outer boundary and sectors under point i).

Explanatory notes:

*Documentation in Annex 1, points 1. b) and 2. g) of Act No. 263/2016 Coll., the Atomic Act.

**Where the outer boundary of the circular area extends across the municipality, the whole municipality shall be included in the emergency planning zone. Where the boundary between sectors extends across the municipality, the whole municipality shall be included in the sector in which its predominant part is situated.

Annex 3 to Decree No. 359/2016 Coll.

Requirements for the content of the modification of emergency planning zone

The modification of the emergency planning zone* contains:

- a) description of the established emergency planning zone, its centre S and radius R, including
 1. projection of the nuclear installation or category IV workplace to be decommissioned; or
 2. projections of the floor plans of the nuclear installations or category IV workplaces and indicating in the particular stage of the installation or workplace to be decommissioned;
- b) description of the radiation accident and its scenario considered in the analysis and evaluation of radiation extraordinary event pursuant to point 3. d) of Annex 1 hereto for the particular stage of decommissioning, including the relevant frequency pursuant to point 3. e) of Annex 1 hereto;
- c) for the emergency planning zone under letter a) point 1. and the frequency of the occurrence of a radiation accident under letter b) lower than 1×10^{-7} /year, the emergency planning zone shall be modified so that its radius equals to zero;
- d) for the emergency planning zone under letter a) point 1. and the frequency of the occurrence of a radiation accident under letter b) equal to or higher than 1×10^{-7} /year or for the emergency planning zone under letter a) point 2., further actions shall be taken;
- e) description of a nuclear installation or a category IV workplace, for which the emergency planning zone is established, and description of the nuclear installation or category IV workplace to be decommissioned, including details of the place of the leakage of radioactive substances or the place of the spread of ionising radiation, and of its height above the ground for a radiation accident under letter b);
- f) description of the time course of the leakage of radioactive substances or the spread of ionising radiation taken into account under letter e);
- g) a list of released radionuclides under letter f) and the estimation of their activity in individual periods of time of the leakage;
- h) estimation of effective or equivalent doses with the use of a list and estimation of activity under letter g) by calculation model, in which case
 1. the estimation of doses shall be stated depending on the time and distance from the place of leakage;
 2. the estimation of doses shall be made alternatively for various meteorological conditions of the spread, but at least for atmospheric stability class D and class F, taking into account all possible wind directions; the estimation of doses in the period up to one week does not consider the exposure resulting from an intake of contaminated food or water;
- i) geographical coordinates of the centre S determined pursuant to § 4(2) a);
- j) size of the radius R taking into account the estimations and values of effective or equivalent doses for the introduction of urgent protective measures under letter h);
- k) description of the emergency planning zone with its centre S under letter i) and radius R under letter j);
- l) a list of municipalities** included in the emergency planning zone with centre S and radius R, including their inclusion in sectors pursuant to § 4(3);
- m) digitalised map showing the following
 1. projections of the floor plans of the nuclear installation or category IV workplace;
 2. centre S of the emergency planning zone;
 3. circular area with a radius R, showing its outer boundary and sectors under point l).

Explanatory notes:

*Documentation in Annex 1, points 1. g), 2. d) and 3. b) of Act No. 263/2016 Coll., the Atomic Act.

**Where the outer boundary of the circular area extends across the municipality, the whole municipality shall be included in the emergency planning zone. Where the boundary between sectors extends across the municipality, the whole municipality shall be included in the sector in which its predominant part is situated.

Annex 4 to Decree No. 359/2016 Coll.

Example of the establishment of the area of emergency planning zone

Fig. 1 Example of the establishment of centre S

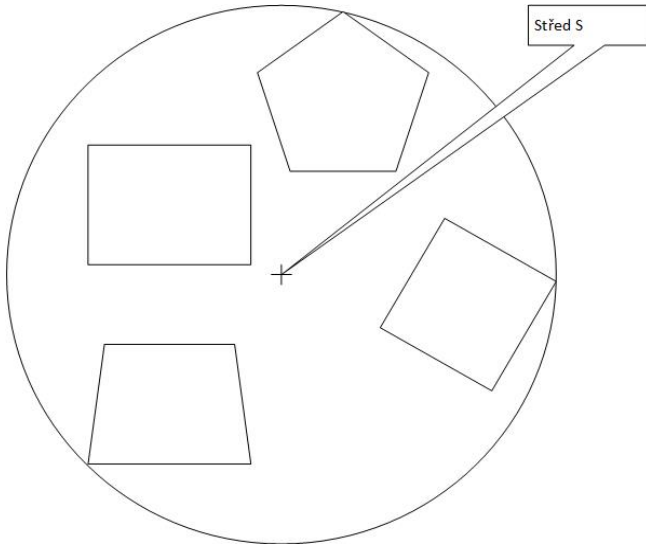
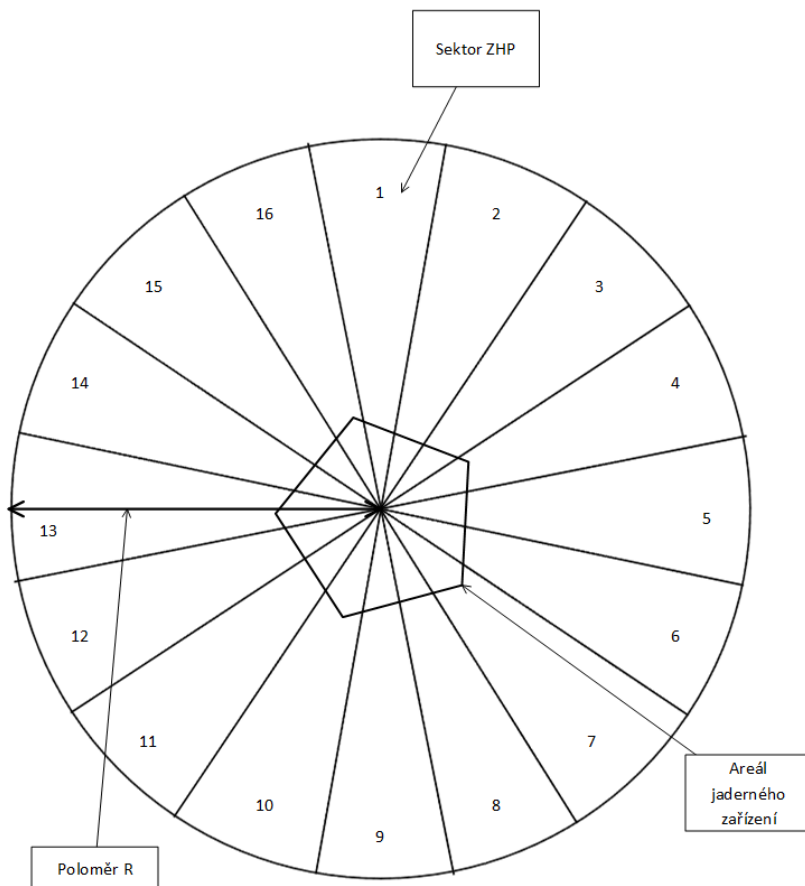


Fig. 2 Example of the geometric division of the area



Annex 5 to Decree No. 359/2016 Coll.

Requirements for the content of the intervention instruction

The intervention instruction contains

- a) purpose and objective of the particular activity in response management or implementation;
- b) designation of the person responsible for the implementation of activities under letter a);
- c) a list of emergency action levels pursuant to § 6;
- d) description of the particular activity including emergency action levels, which activate the particular activity or which are critical for next actions in this or any other activity carried out in response management or implementation;
- e) organisational ensuring of response management or implementation or, where appropriate, cooperation with other emergency workers, including contract emergency workers and the methods of their interconnection;
- f) a list of technical, instrumentation, medical and other material equipment needed for response management and implementation, and designation of the place of their storage;
- g) a list of protective equipment needed in response implementation or management, and designation of the place of their storage;
- h) the method and scope of documentation of activities performed under the intervention instruction.

Annex 6 to Decree No. 359/2016 Coll.

Requirements for the content of the on-site emergency plan

The on-site emergency plan contains*

- a) introductory part, which contains
 1. identification details of the applicant pursuant to § 16(1) a) to e) and g) of the Atomic Act;
 2. surname, name or, where appropriate, names and position of the person responsible for preparing the on-site emergency plan and communication details;
 3. communication connection details of the persons designated for response management;
 4. brief characteristics of ionising radiation sources, including fresh or spent nuclear fuel and radioactive waste, the management of which is considered as part of the licensed practice;
 5. description and address of the workplace for the licensed practise of sources under point 4, description of a nuclear installation if this is a category IV workplace with nuclear facility, and description of its grounds;
 6. a list of activities in the framework of exposure situations in management of ionising radiation sources taken into account pursuant to point 4 as part of the licensed practice at the workplace under point 5;
 7. classification of the workplace or nuclear installation under point 5 or activity in threat category pursuant to § 2;
 8. a list of neighbouring persons including their communication details;
- b) part concerning the performance of the licensed practice
 1. a list and description of radiation extraordinary events of first degree, radiation incidents and radiation accidents, which are considered in licensed practice, including ways of their detection;
 2. description of the possible influencing of any neighbouring person due to a radiation extraordinary event under point 1 in licensed practice;
- c) description of response preparedness ensuring
 1. description of technical and organisational arrangements intended to detect a radiation extraordinary event of first degree, radiation incident or radiation accident, including stipulation of the monitoring level indicating their occurrence;
 2. Description of technical and organisational arrangements intended to declare aradiation extraordinary event;
 3. description of technical and organisational arrangements intended for response management and implementation, including designation of persons carrying out response management and implementation and a list of potential emergency workers and the way of their activation;
 4. description of technical and organisational arrangements intended to restrict accidental exposure;
 5. description of material and organisational arrangements intended to provide health matters;

6. description of technical and organisational arrangements intended to check response preparedness, and designation of the person responsible for the checking;
 7. designation of the person pursuant to § 13 a);
 8. description of technical and organisational arrangements intended to verify the on-site emergency plan and the intervention instruction, and designation of the person responsible for the verification;
 9. description of technical and organisational arrangements intended to verify the functionality of technical means, and designation of the person responsible for the verification;
 10. description of technical and organisational arrangements intended to verify the efficiency and consistency of the on-site emergency plan, off-site emergency plan and the National Radiation Emergency Plan, and designation of the person responsible for the verification;
 11. designation of the person responsible for terminating the response to radiation accident and initiating the remedial action after the radiation accident;
 12. designation of the person responsible for delineating the area contaminated as a result of radiation accident in the nuclear installation grounds or at category IV workplace;
 13. a list of persons and authorities pursuant to § 157(2) h) of the Atomic Act, including their communication details;
 14. designation of the person responsible for familiarisation ensuring pursuant to § 156(1) a) and b) of the Atomic Act;
 15. designation of the person responsible for drawing up and updating prior general information for radiation accident pursuant to § 156(2) e) of the Atomic Act;
- d) principles of the strategy for optimised radiation protection for the existing exposure situation as a result of emergency exposure situation associated with the radiation accident in nuclear installation or category IV workplace operated by the licensee;
- e) principles for initiating the remedial action after the radiation accident in the nuclear installation grounds or at category IV workplace;
- f) annexes as listed
1. a list of intervention instructions;
 2. digitalised map with the indicated the nuclear installation grounds, including floor plan for all objects therein, indicating the category IV workplace situated therein and indicating the objects of neighbouring persons or with the floor plan for category III or IV workplace and with the indication of the objects of neighbouring persons;
 3. notification form;
 4. information form,
 5. a list of documents pursuant to § 14(5) e);
 6. descriptions of the Emergency Control Centre and the Technical Support Centre where the licensed practice may involve a radiation accident occurrence, including their indication in the map under point 2.

Explanatory note:

*Documentation in Annex 1, points 1. b), 1. g), 2. b), 2. d), 2. f), 3. a) and 3. b) of Act No. 263/2016 Coll., the Atomic Act.

Annex 7 to Decree No. 359/2016 Coll.

Requirements for the content of the emergency rules

- The emergency rules* contain
- a) introductory part, which contains
 - 1. details of the licence pursuant to § 16(1) a) to e) and g) of the Atomic Act;
 - 2. name and surname of the person responsible for drawing up the emergency rules;
 - 3. communication connection details of the persons designated for response management;
 - 4. description of the material to be transported, cask and the mode of transport;
 - b) part concerning the performance of the licensed practice, which contains
 - 1. a list/description of radiation extraordinary event of first degree, radiation incident or radiation accident, which are considered in licensed practice, including ways of their detection;
 - 2. an overview of persons, who could be influenced by the radiation extraordinary event;
 - c) description of response preparedness, which contains
 - 1. description of technical and organisational arrangements intended to detect a radiation extraordinary event of first degree, radiation incident or radiation accident;
 - 2. description of technical and organisational arrangements intended to declare a radiation extraordinary event;
 - 3. description of technical and organisational arrangements intended for response management and implementation, including designation of persons involved in response management and implementation and a list of potential emergency workers and the way of their activation;
 - 4. description of technical and organisational arrangements intended to restrict accidental exposure;
 - 5. description of material and organisational arrangements intended to provide health matters;
 - 6. description of technical and organisational arrangements intended for response preparedness, and designation of the person responsible for checking of such arrangements;
 - 7. description of technical and organisational arrangements intended to verify the emergency rules and the intervention instruction, and designation of the person responsible for the verification;
 - 8. description of technical and organisational arrangements intended to verify the functionality of technical means, and designation of the person responsible for the verification;
 - 9. designation of the person responsible for terminating the response to radiation accident and initiating the remedial action after the radiation accident;
 - 10. a list of persons and authorities pursuant to § 157(2) h) of the Atomic Act, including their communication details;
 - 11. designation of the person responsible for familiarisation pursuant to § 156(1) b) and c) of the Atomic Act;
 - d) annexes as listed below
 - 1. a list of intervention instructions;
 - 2. notification form;
 - 3. information form.

Explanatory note:

*Documentation in Annex 1, point 4. e) of Act No. 263/2016 Coll., the Atomic Act.

Annex 8 to Decree No. 359/2016 Coll.

Requirements for the content of the National Radiation Emergency Plan

The National Radiation Emergency Plan contains

A. introductory part, which contains

1. a list of the emergency planning zones of nuclear installations or category IV workplaces established in the Czech Republic;
2. a list of the areas taken into account where the threat category E has been identified;
3. description of the organisation of crisis management of the central state administration authorities for dealing with a radiation accident, when the state of emergency is declared by the Government of the Czech Republic or, where appropriate, the Prime Minister;
4. an overview of the state administration authorities, which participate in the system under point 3, including their contact details;
5. a list of the competences of the authorities taken into account under point 4 and description of their duties in dealing with a radiation accident under point 3;

B. arrangements to avoid or mitigate the impacts of radiation extraordinary event

1. strategy for optimised radiation protection for the administration of the contaminated area, the contamination of which is the result of emergency exposure situation, including arrangements to allow habitation and the resumption of social and economic activities;
2. symptoms for the transition from an emergency exposure situation to an existing exposure situation;
3. arrangements for prompt coordination between organisations having a role in emergency preparedness and dealing with radiation accident in the Czech Republic and with all other Member States of the European Union and with third countries which may be involved or are likely to be affected;

C. annexes as listed

1. communication plan;
2. digitalised map with the indicated emergency planning zones and areas under letter A. point 2.

Annex 9 to Decree No. 359/2016 Coll.

Operational intervention levels of urgent protective measures for the territory of the Czech Republic

The operational intervention level is the value of photon or ambient dose equivalent rate measured at a distance of 1 m above the contaminated ground and equal to

- a) for urgent protective measure for evacuation 1 mSv/h;
- b) for urgent protective measure for sheltering 0.1 mSv/h;
- c) for urgent protective measure for use of iodine prophylaxis in releases containing radioactive iodines 0.1 mSv/h.

Annex 10 to Decree No. 359/2016 Coll.

Requirements for the content of the intention for radiation extraordinary event management

The intention for radiation extraordinary event management* contains

- a) introductory part, which contains
 1. basic data concerning the applicant for a licence in accordance with the data referred to in the application for a licence pursuant to § 9(1) a) or (2) a) of the Atomic Act, including communication connection details of the applicant for a licence;
 2. anticipated determination of the place for siting of a nuclear installation or construction of a category IV workplace other than workplace with nuclear facility, including depiction of its planned floor plan in a digitalised map; for siting or construction that may affect or may be affected by any other nuclear installation or category IV workplace, the depiction shall include the other nuclear installation or category IV workplace and the relevant emergency planning zone, if applicable;
- b) brief characteristics of ionising radiation sources that are expected to be handled of in a nuclear installation or at a category IV workplace other than workplace with a nuclear facility;
- c) consideration given to radiation extraordinary events of first degree, radiation incidents or radiation accidents, which are considered in connection with the construction, commissioning, operation and decommissioning of a nuclear installation or in connection with the construction, operation and decommissioning of a category IV workplace;
- d) following the radiation extraordinary events, which are considered under letter c), consideration given to their potential impacts on the persons in the nuclear installation grounds or in the area of category IV workplace or on the neighbouring persons and on any measures to protect them;
- e) consideration given to potential impacts on the public in the vicinity, to any measures to protect the public and to the need, where appropriate, to establish the emergency planning zone where a radiation accident is considered under letter c);
- f) following the radiation extraordinary events, which are considered under letter c), consideration given to
 1. detection of radiation extraordinary event;
 2. declaration of radiation extraordinary event;
 3. response management and implementation, including consideration given to the commencement of the construction of shelters;
 4. restriction on accidental exposure, including planned number of persons who will be concerned by the restriction;
 5. provision of health matters.

Explanatory note:

*Documentation in Annex 1, points 1. a) and 2. a) of Act No. 263/2016 Coll., the Atomic Act.

Annex 11 to Decree No. 359/2016 Coll.

Content of the information form

The information form contains in particular

- a) identification details of the licensee including surname, name or, where appropriate, names, and position of the person carrying out notification and communication connection details for traceability;
- b) identification of a nuclear installation or a workplace with ionising radiation sources or transport where the radiation extraordinary event occurred;
- c) date, hour and minute of the detection of radiation extraordinary event;
- d) determination of the place of origin of radiation extraordinary event and its geographical coordinates;
- e) description of the development of radiation extraordinary event, including a description of the state of systems, structures and components of a nuclear installation or the state of workplace or the state of ionising radiation source or cask or the state of cask and vehicle for radiation extraordinary event occurred during transport;
- f) change identification in the category of radiation extraordinary event occurred;
- g) in case of radiation incident or radiation accident
 1. anticipated or existing time of the leakage of radioactive substances or the spread of ionising radiation to the environment, anticipated or existing pathways, duration of leakage or spread, number and severity of threats to persons in the grounds or at a workplace or in a vehicle during transport of radioactive and fissile substances or, where appropriate, persons outside such places;
 2. description of the meteorological situation, wind direction and velocity, precipitation occurrence;
- h) in case of radiation accident
 1. information on whether nuclear reactor shutdown and nuclear fuel damage have occurred and its time;
 2. information on the introduction of protective measures for persons in the nuclear installation grounds or at a category IV workplace;
 3. information on warning made of the public in the emergency planning zone and its time;
 4. information on the proposal issued for evacuation of the public from the emergency planning zone and time of its issuing, including all details regarding the proposal issued, which may serve as a basis for specifying that proposal;
 5. description of the meteorological situation, wind direction and velocity, precipitation occurrence, atmospheric stability class, and temperature;
 6. information on the issue of press release;
 7. information on the radiation situation occurred and the prediction for its development for next 48 hours at a distance of 5, 10 and 20 km from the place of occurrence.

Annex 12 to Decree No. 359/2016 Coll.

Content of the report on the occurrence and course of radiation extraordinary event

The report on the occurrence and course of radiation extraordinary event contains in particular

- a) description of the place of occurrence of radiation extraordinary event including its category;
- b) result of the investigation of causes of radiation extraordinary event occurrence;
- c) procedures used in response management and implementation, and evaluation of their purpose and efficiency taking into account the procedures defined in the on-site emergency plan or the emergency rules and the interventions instructions;
- d) evaluation of the effects of radiation extraordinary event on the technology and systems of a nuclear installation or a workplace with ionising radiation sources or, where appropriate, cask;
- e) evaluation of the effects on health of the persons in the grounds or at the workplace, including persons involved in response management and implementation;
- f) evaluation of the release of radioactive substances or the spread of ionising radiation into the environment including their monitoring results;
- g) proposal for further steps in response implementation, if not yet terminated;
- h) proposal for the remedial action after a radiation accident in the nuclear installation grounds or at category IV workplace and proposal for providing cooperation in remedial action after a radiation accident in the emergency planning zone, if the response has been terminated;
- i) the proposal for necessary arrangements to be implemented to prevent and reduce the recurrence of radiation extraordinary event;
- j) additional information on the occurrence and course of radiation extraordinary event not included in the communication under letters b) to i).

Annex 13 to Decree No. 359/2016 Coll.

Content of the information for the public on the occurrence and course of radiation accident

Information for the public on the occurrence and course of radiation accident contains at least

- a) information on the radiation accident and, if possible, on their characteristics (e.g. place of its occurrence, extent and probable development);
- b) information on the introduction, specification or repeal of protective measures, including explanation of the necessary links and details for ensuring the most efficient radiation protection of the public;
- c) any partial instructions related to information under letter b) on protection, which depending on the emergency exposure situation occurred shall
 1. include the restrictions on the consumption of certain foodstuffs and water likely to be contaminated, simple rules on hygiene and decontamination, use of individual protective substances, evacuation arrangements;
 2. be accompanied, where necessary, by special warnings for certain groups of public;
- d) recommendations for cooperation with state administration authorities ensuring provision of such information on their instructions and requests.

This information and advice shall be supplemented, if time permits, by a reminder of the basic facts about radioactivity and its effects on human beings and on the environment.

Annex 14 to Decree No. 359/2016 Coll.

Content of the notification form

The notification form contains in particular

- a) identification details of the licensee including surname, name or, where appropriate, names, and position of the person responsible for notification and communication details for traceability;
- b) identification of a nuclear installation or a workplace with ionising radiation sources or transport where the radiation extraordinary event occurred;
- c) date, hour and minute of the detection of radiation extraordinary event;
- d) determination of the place of occurrence of radiation extraordinary event and its geographical coordinates;
- e) description of the radiation extraordinary event, including a description of the state of systems, structures and components of a nuclear installation or the state of workplace or the state of ionising radiation source or cask or the state of cask and vehicle for radiation extraordinary event occurred during transport;
- f) identification of categorisation of radiation extraordinary event;
- g) in case of radiation incident or radiation accident occurrence
 1. anticipated or existing time of the leakage of radioactive substances or the spread of ionising radiation to the environment, anticipated or existing pathways, duration of leakage or spread, number and severity of threats to persons in the grounds or at a workplace or in a vehicle during transport of radioactive and fissile substances or, where appropriate, persons outside such places;
 2. description of the meteorological situation, wind direction and velocity, precipitation occurrence;
- h) in case of radiation accident occurrence
 1. information on whether nuclear reactor shutdown and nuclear fuel damage have occurred and its time;
 2. information on the introduction of protective measures for persons in the nuclear installation grounds or at a category IV workplace;
 3. information on warning made of the public in the emergency planning zone and its time;
 4. information on the proposal issued for evacuation of the public from the emergency planning zone and time of its issuing, including all details regarding the proposal issued, which may serve as a basis for specifying that proposal;
 5. information on the issue of press release;
 6. information on the radiation situation occurred and the prediction for its development, including prediction of the place of contamination and its size;
 7. description of the meteorological situation, wind direction and velocity, precipitation occurrence, atmospheric stability class, temperature.