

IMPLEMENTING DECREE

No. 21

of 23rd January 2017

On Assuring Nuclear Safety of a Nuclear Installation

The State Office for Nuclear Safety sets, pursuant to Section 236 of Act No. 263/2016 Coll., the Atomic Act, to implement Section 24(7), Section 25(2) a) to c), Section 44(4) c), Section 49(2), Section 50(4), Section 51(6) a) and b), Section 52(2), Section 53(2) and Section 54(4) a), c) and d):

Section 1

Scope

This Decree incorporates the relevant Euratom legislation¹⁾⁾ and establishes

- a) Periods for the notification of operational event to the Office;
- b) Range of the information used by the feedback system;
- c) Investigation procedure for an operational event;
- d) Criteria for categorisation of an operational event;
- e) Requirements for the content of Limits and Conditions;
- f) A list of the quantities and facts relevant to the nuclear safety of a nuclear installation;
- g) The scope, method and period of monitoring, measuring, evaluation, verification and recording of the quantities and facts relevant to nuclear safety of a nuclear installation and the period of storage of information thereon;
- h) The scope, method and deadlines for transmitting information on the quantities and facts relevant to the nuclear safety of a nuclear installation to the Office;
- i) A list of other modifications in nuclear energy utilisation;
- j) The scope and method of documentation of other modifications in nuclear energy utilisation and notification thereof to the Office;
- k) Procedures for ageing management process;
- l) Requirements for the Ageing Management Programme;
- m) Rules for preventing fission reaction and release to the environment in handling of a nuclear material and radioactive waste, and method of documentation of that handling;
- n) Method for inactive testing of a nuclear installation;
- o) Method for the first physical start-up of a nuclear installation with a nuclear reactor;
- p) Scope and method of documentation of the facts pursuant to Section 51(1) b) points 1 to 3 of the Atomic Act;
- q) Method for the first power start-up of a nuclear installation with a nuclear reactor;
- r) Scope and method of documentation of the facts pursuant to Section 52(1) a) and b) and c) points 1 to 3 of the Atomic Act;
- s) Rules for assurance of nuclear safety during commissioning of a nuclear installation without a nuclear reactor;
- t) Scope and method of documentation for the review of the readiness of a nuclear installation to start active testing;

¹⁾ Council Directive 2009/71/Euratom of 25 June 2009, establishing a Community framework for the nuclear safety of nuclear installations.

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.

- u) Rules for the continuous assurance, verification and documentation of the ability to ensure a stable and safe operation of a nuclear installation;
- v) Deadlines for the submission of documentation for the bringing of a nuclear reactor to criticality following a nuclear refuelling to the Office and requirements for its content;
- w) Method of long-term shutdown of a nuclear reactor in case of a research nuclear installation; and
- x) Procedures for implementing the processes and activities pursuant to Section 49(1) u) of the Atomic Act and their documentation and continuous update.

Section 2

Terms

For the purposes of this Decree, the following definitions apply:

- a) Limiting condition means the requirement laid down by the Limits and Conditions, the fulfilment of which is a prerequisite for assuring nuclear safety;
- b) Entry into Limits and Conditions means a failure to fulfil the limiting condition, in which the corrective measure defined in the Limits and Conditions is implemented, for a period set out under the Limits and Conditions;
- c) Root cause means a cause of a specific operational event, which is a prerequisite for the existence of such operational event;
- d) Breach of the Limits and Conditions means a non-compliance with the requirement laid down in the Limits and Conditions, including failure to fulfil the limiting condition, in which the corrective measure defined in the Limits and Conditions is not implemented or the period set out under the Limits and Conditions for implementing it is exceeded; and
- e) Direct cause means a circumstance, which directly initiated or directly led to an operational event.

Section 3

Periods for the notification of operational event

[To Section 49(2) a) of the Atomic Act]

The Office shall be notified of an operational event

- a) Immediately, where a radiological emergency is concerned;
- b) Within 4 hours following the occurrence, where a radiation accident is concerned;
- c) Within 8 hours following the occurrence, where the following is concerned
 1. Breach of the Limits and Conditions;
 2. Unplanned nuclear reactor shutdown;
 3. Unplanned activation of safety systems;
 4. Event preliminarily rated with at least INES Level 2;
 5. Loss of heat sink in a reactor core (hereinafter referred to as the “core”) with a nuclear reactor in shutdown condition and failure to restore it within 30 minutes;
 6. Unplanned exceeding of the intervention level of the quantities determined in the Monitoring Programme for Discharges;
 7. Uncontrolled presence of radioactive substance, except for natural radionuclides, outside the controlled area to the extent causing the dose equivalent rate to be higher than 0.25 $\mu\text{Sv/h}$ at a distance of 0.1 m from the surface of the object;
 8. Fire in the guarded area of a nuclear installation under legislation governing fire prevention;

9. Fatal injury to an individual;
 10. Violation of the conditions to ensure the function of the equipment installed in a nuclear installation by the International Atomic Energy Agency;
 11. Event reducing the effectiveness of the Physical Protection System of a nuclear installation;
 12. Exceeding of the effective dose of 20 mSv as a result of unplanned single external exposure;
 13. Exceeding of the committed effective dose of 6 mSv as a result of internal contamination; or
 14. Uncontrolled coolant leakage from the primary circuit of a nuclear reactor or any other process liquids contaminated with radionuclides outside the controlled area having a volume greater than 1 m³;
- d) Within 24 hours following the occurrence, where the following is concerned
1. Radiological emergency of first degree;
 2. Event preliminarily rated with INES Level 1;
 3. Loss or theft of a radionuclide source;
 4. Uncontrolled coolant leakage from the primary circuit of a nuclear reactor or any other process liquids contaminated with radionuclides within the controlled area having a volume greater than 1 m³;
 5. Unplanned drop in nuclear installation capacity by more than 50% of nominal power of a nuclear reactor with the expected duration of more than 72 hours; or
 6. Loss of ability to control a ionising radiation source; and
- e) Next business day, where the following is concerned
1. Entry into the Limits and Conditions;
 2. Actuation of the nuclear reactor power limitation system;
 3. Fall of foreign object into the primary circuit of a nuclear reactor; or
 4. Unplanned failure of the dose rate monitor of the teledosimetric system.

Section 4

Range of the information used by the feedback system

[To Section 49(2) c) of the Atomic Act]

The feedback system shall use information on

- a) Operational event;
- b) Experience from other nuclear installations including foreign installations; and
- c) Experience from other technical and technological fields.

Section 5

Investigation procedure for an operational event

[To Section 49(2) b) of the Atomic Act]

- (1) An operational event shall be investigated in order to identify the following
 - a) Causes and circumstances of an operational event;
 - b) Development of the deterioration in nuclear safety during operation of a nuclear installation; and
 - c) The extent of reduction of safety margins and influence of the level of defence in depth.
- (2) In the context of the investigation of an operational event, a licensee shall

- a) Evaluate the relevance of an operational event to nuclear safety, radiation protection, technical safety, radiation situation monitoring, radiological emergency management and security of a nuclear installation, and its consequences;
- b) Determine the course of an operational event, including establishment of any deterioration or failure;
- c) Evaluate the activities of the staff, using the methods for the impact assessment of human and organisational factors;
- d) Evaluate the impact of the safety culture on an operational event;
- e) Analyse direct causes and root causes of an operational event;
- f) Identify any negative trend relevant to nuclear safety, radiation protection, technical safety, radiation situation monitoring, radiological emergency management and security; and
- g) Identify any reduction of the level of safety margins and increase of the risk of a related operational event.

(3) The investigation of an operational event shall be carried out immediately. The investigation of a significant operational event shall be given priority.

Section 6

Criteria for categorisation of an operational event

[To Section 44(4) c) of the Atomic Act]

- (1) Significant operational event is an operational event, which
 - a) Results in the activation or failure of the following
 1. Safety system;
 2. System of essential power supply;
 3. Nuclear reactor power limitation system; or
 4. Pressure relief system, which is the selected equipment;
 - b) Results in the breach of the Limits and Conditions;
 - c) Results in the unplanned modification of nuclear reactor power by more than 10%;
 - d) Consists in a defect on selected equipment
 1. Resulting in the entry into the Limits and Conditions; or
 2. Related to the fulfilment of safety function;
 - e) Includes unsuccessful test or inspection of selected equipment under the Limits and conditions;
 - f) Includes a defect of the equipment necessary for the safe nuclear fuel reload during the refuelling;
 - g) Results in the unplanned loss or disruption of residual heat removal from the core;
 - h) Results in the failure on the system intended for the storage of irradiated nuclear fuel;
 - i) Affects the reactivity control in the core;
 - j) Consists in a failure of physical safety barrier against release of fission products or radioactive substances;
 - k) Includes a falling control rod or its unplanned drop by more than 50 cm;
 - l) Includes forced interruption of physical start-up or power start-up tests of a nuclear installation; or
 - m) Is caused by weaknesses in the safety assessment or in the documentation of control system and results in the exceeding of the parameter relevant to nuclear safety.
- (2) Significant operational event is further an operational event, which

- a) Is due to an error by a worker, which results in non-compliance with the design documentation or in the exceeding of the parameter relevant to nuclear safety of selected equipment;
- b) Results in the unplanned exceeding of the intervention level for the quantity determined in the monitoring programme;
- c) Causes an unplanned malfunction of the equipment of the teledosimetric system;
- d) Results in an error in handling of
 - 1. Irradiated nuclear fuel, fresh nuclear fuel or nuclear material; or
 - 2. Container containing fresh nuclear fuel or irradiated nuclear fuel;
- e) Includes a loss, theft or unauthorised relocation of radionuclide source, nuclear material or radioactive waste;
- f) Involves damage to nuclear material or cask containing nuclear material;
- g) Breaches the conditions for ensuring the function of the equipment of the International Atomic Energy Agency installed in a nuclear installation;
- h) Reduces the effectiveness of the Physical Protection System of a nuclear installation;
- i) Includes an unauthorised transition of the barrier of the Physical Protection System or an attempt to disrupt it;
- j) Includes the declaration of a radiological emergency and convocation of the emergency staff;
- k) Includes a multiple failure of human factor;
- l) Includes a deliberate misrepresentation of data in the documentation;
- m) Includes the presence of foreign object in the technology of the primary circuit of a nuclear reactor; or
- n) Meets the condition pursuant to paragraph 1 or points a) to k), occurred on any other nuclear installation and is selected as applicable to a nuclear installation by the feedback system.

(3) Less significant operational event is an operational event, which is not the significant operational event.

Section 7

Limits & Conditions

[To Section 24(7) of the Atomic Act]

(1) The Limits and Conditions shall contain

- a) Safety limits,
- b) Protection systems setting,
- c) Limiting conditions,
- d) Control requirements,
- e) Organisational measures, and
- f) Reasons for the Limits and Conditions.

(2) The safety limits shall determine the limit values for physical and process parameters directly affecting the condition of physical safety barriers, which may not be exceeded. The safety limits shall be determined taking a conservative approach.

(3) The setting of protection systems shall determine the values of the physical and process parameters relevant to nuclear safety and radiation protection, the achievement of which causes the protection and safety systems to be automatically activated. These values must be determined to prevent the physical and process parameters from being exceeded during the next transient process.

- (4) The limiting conditions shall set
- a) Requirements for maintaining safety-relevant physical and process parameters in line with the design of a nuclear installation; and
 - b) Functional requirements for the availability of safety systems.
- (5) The control requirements shall set
- a) The scope of the regular controls of the setting of and compliance with the parameters of the availability of systems, structures and components; and
 - b) The frequency of the controls under point a) taking into account
 1. The reliability of systems, structures and components;
 2. The requirements of legislation and technical standards; and
 3. Operating experience.
- (6) The organisational measure shall provide for
- a) Measures in cases where
 1. The Limits and Conditions are entered or the Limits and Conditions are breached;
 2. The requirements for the availability of systems, structures and components are not met;
 3. Any of the conditions for the setting of systems, structures and components is not met; or
 4. The condition for the activation of protection systems is not met;
 - b) Time limits for implementing a measure under point a);
 - c) Obligations of managers;
 - d) Requirements for special professional qualification of selected workers;
 - e) Requirements for the minimum shifts staffing;
 - f) Requirements for internal and external control of compliance with the Limits and Conditions; and
 - g) The scope and methods of transmission of information to the Office.
- (7) The content of the Limits and Conditions shall be in compliance with the results of safety analyses.

Section 8

Quantities and facts relevant to the nuclear safety of a nuclear installation

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

- (1) For a nuclear installation with a nuclear reactor, quantities and facts relevant to the nuclear safety are as follows
- a) Values of the physical quantities and parameters, which provide comprehensive information on the core and other related systems, structures and components relevant to nuclear safety or on nuclear material or radioactive waste present in a nuclear installation;
 - b) Non-conformity with the impact on nuclear safety, technical safety, radiation protection, radiation situation monitoring, radiological emergency management and security, and its consequence, analysis and measures taken in relation to this non-conformity;
 - c) Availability of the systems, structures and components relevant to nuclear safety and handling thereof and work orders relating to them;
 - d) Information on the entry into the Limits and Conditions and the breach of the Limits and Conditions;

- e) Results of the tests, inspections, maintenance and repairs of selected equipment and systems, structures and components with the effect on nuclear safety, which are not the selected equipment, and records thereof;
- f) Data relevant to the monitoring and evaluation of ageing of the systems, structures and components relevant to nuclear safety;
- g) Parameters of the systems, structures and components relevant to nuclear safety, which are not the selected equipment, selected equipment, which provide an overview of the condition of a nuclear installation, information on their development and records thereof;
- h) Values of the surface contamination of systems, structures and components;
- i) Notification of an operational event, its description and other documents relating to it;
- j) Result of the verification of medical fitness of a worker of a nuclear installation;
- k) Result of the verification of personal fitness of a selected worker;
- l) Information included in the record of the fulfilment of the qualification requirements laid down for a worker of a nuclear installation;
- m) Information on the form and quantity of radioactive discharges;
- n) Information on the dose rate in the monitored area of a nuclear installation;
- o) Information on the modification made on selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment;
- p) Information on the quantity of nuclear material and selected items and handling thereof;
- q) Information on the production and management of radioactive waste;
- r) Information on the inspection carried out pursuant to the Limits and Conditions and the In-service Inspection Programme;
- s) Information on the modification in the field of physical protection assurance, which is not other modification in nuclear energy utilisation;
- t) Report of the test of systems, structures and components during construction, physical start-up and power start-up of a nuclear installation;
- u) Information included in the voice recording of the telephone call made from the workplace, where the activity specifically relevant to nuclear safety is carried out, and the workplace of the Technical Support Centre and the Emergency Control Centre;
- v) Information obtained from the voice communication system installed in a nuclear installation;
- w) Information included in the internal regulation; and
- x) Information included in the operations logbook.

(2) For a nuclear installation without a nuclear reactor, quantities and facts relevant to the nuclear safety are as follows

- a) Information included in the internal regulation;
- b) Information included in the P&I diagram;
- c) Information included in the handling card;
- d) Information included in the operational programme;
- e) Information included in the emergency regulation;
- f) Result of the evaluation of
 1. Inspection and test under the stage programme of quality assurance;
 2. Quality requirements for a nuclear installation; and
 3. Quality requirements for selected equipment, including data in a list of defects and outstanding items;
- g) Information on the technical modification of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected selected equipment, which is not other modification in nuclear energy utilisation;

- h) Information on the modification in the field of physical protection assurance, which is not other modification in nuclear energy utilisation;
- i) Information included in the record of personnel training of a nuclear installation;
- j) Information included in the voice recording of the telephone call made from the workplace, where the activity relevant to nuclear safety and the activity specifically relevant to nuclear safety are carried out; and
- k) Information obtained from the voice communication system installed in a nuclear installation.

(3) A licensee shall record the quantities and facts relevant to nuclear safety of a nuclear installation throughout the life cycle of a nuclear installation and information thereon shall be retained for a period of 10 years after closure of a nuclear installation. A licensee shall keep a voice record for a period of 12 months after the record was made.

(4) The quantities and facts relevant to nuclear safety of a nuclear installation pursuant to paragraph 1 points o) and s) and paragraph 2 points g) and h) shall be notified to the Office for the previous calendar year as to 31 January of the following calendar year in the summary report. The summary report shall contain

- a) Name of the modification;
- b) Date of the modification; and
- c) Description of the modification.

Other modifications in nuclear energy utilisation

Section 9

[To Section 49(2) d) and e) of the Atomic Act]

(1) Other modification in nuclear energy utilisation, which is the modification of the selected equipment not affecting nuclear safety, technical safety and physical protection of a nuclear installation, is

- a) Technical modification of the selected equipment included in safety class 1 or 2, which involves replacement or change of the type of selected equipment or any part thereof, not changing its design function, configuration or the result of safety analysis;
- b) Modification, which results in the removal of the non-conformity identified on selected equipment, which shall ensure the fulfilment of design function of that equipment;
- c) Change in the manufacturer or type of selected equipment;
- d) Change in the algorithm and setting of protection system, which changes the safety function in a way that it works in line with the original design function;
- e) Change in the parameter of selected equipment, during which the original design function is maintained and the configuration of that equipment remains unchanged;
- f) Change in the setting of protection system, during which the safety analyses remain valid and the Limits and Conditions remain unchanged;
- g) Intervention in the part of "selected equipment, which is the carrier of safety function, which does not change this safety function; or
- h) Modification in the documentation for licensed activity, which is not subject to approval by the Office.

(2) Other modification in nuclear energy utilisation, which is the organisational change of a holder of a license for activities associated with nuclear energy utilisation, is the modification of an organisational nature improving the functionality of the control system.

(3) Other modification in nuclear energy utilisation, which is the modification of a holder of a license for activities associated with nuclear energy utilisation in the field of physical protection assurance, is

- a) Replacement of the component of the system of detection, access control and CCTV with the component working with the same physical principle, if the new component is placed in the same position, its installation does not cause change in the power supply of the technical physical protection system or in its communication protocol, and its deployment does not reduce the efficiency of physical protection assurance;
- b) Partial updating or improvement of hardware or software of the technical physical protection system, which does not change the functional properties of the control system and the process of operation evaluation of the system of detection, access control and CCTV;
- c) Replacement of the supply switchboard of the technical physical protection system due to its excessive wear or prevention of fault condition in the framework of preventive maintenance;
- d) Change in the configuration or deployment of the component of the subsystems of detection, access control and CCTV provided that the efficiency of physical protection assurance is not reduced;
- e) Temporary change in the configuration or deployment of the component of the system of detection, access control and CCTV to be made in response to failure of a physical protection system or failure of an operating technology of a nuclear installation; or
- f) Other modification of the technical physical protection system, which has no significant effect on its existing functionality.

Section 10

[To Section 49(2) d) and e) of the Atomic Act]

(1) The Office shall be notified of other modification in nuclear energy utilisation in writing

- a) At least 30 days prior to start of the modification;
- b) In case of modification pursuant to Section 9(1) b), where there is a risk of breach or where there is a breach of the Limits and Conditions or any non-conformity is identified in the course of planned maintenance, prior to start of the modification; and
- c) Following the modification by 31 January of the next calendar year.

(2) The notification of other modification in nuclear energy utilisation pursuant to paragraph 1 points a) and b) shall include

- a) Description of and reasons for the modification;
- b) Impact assessment of the modification on nuclear safety, radiation protection, technical safety, radiation situation monitoring, radiological emergency management and security, including this impact assessment reasoning;
- c) Information on the updating of related documentation;
- d) The timetable envisaged to make the modification; and
- e) Impact assessment of the modification on human factor.

(3) The notification of other modification in nuclear energy utilisation pursuant to paragraph 1 point c) shall include

- a) Name of the modification;
- b) Actual date of the modification; and
- c) Actual extent of the modification.

Section 11

Procedures for ageing management process

[To Section 49(2) f) of the Atomic Act]

The ageing management process shall involve

- a) Definition of the rules and criteria for the selection of systems, structures and components subject to ageing management process;
- b) In the selection of systems, structures and components pursuant to point a), inclusion of
 1. Selected equipment; and
 2. Systems, structures and components relevant to nuclear safety, which are not the selected equipment;
- c) Identification of the degradation mechanisms of systems, structures and components pursuant to point a) and the impacts of their ageing;
- d) Implementation of measures to monitor and minimise the degradation mechanisms and the impacts of ageing pursuant to point c);
- e) Ensuring of the early detection and monitoring of degradation mechanisms and impacts of ageing pursuant to point c);
- f) Adoption of methods of monitoring and testing for the early detection of degradation mechanisms and impacts of ageing pursuant to point c);
- g) Determination of the parameters of systems, structures and components pursuant to point a) monitored in the ageing management process (hereinafter referred to as the “monitoring parameter”) and the condition indicators of these systems, structures and components;
- h) Definition of the acceptance criteria for monitoring parameters;
- i) Monitoring and determination of the development of the impacts of ageing and the effects of degradation mechanisms on systems, structures and components pursuant to point a) based on the monitoring parameters, condition indicators of these systems, structures and components, and acceptance criteria for monitoring parameters;
- j) Periodic evaluation of the monitoring parameters and the current state of systems, structures and components pursuant to point a);
- k) Implementation of measures in operation and maintenance of systems, structures and components pursuant to point a) to mitigate or eliminate the impacts of ageing and the effects of degradation mechanisms; and
- l) Implementation of corrective measures where the acceptance criteria for monitoring parameters are not met so as to ensure the availability and reliability of systems, structures and components pursuant to point a).

Section 12

Requirements for the Ageing Management Programme

[To Section 24(7) of the Atomic Act]

The Ageing Management Programme shall be unambiguously identified, determine input data for ageing management process, define the rights and obligations of workers performing activities in the framework of the ageing management process and include

- a) A list of systems, structures and components pursuant to Section 11 a);
- b) A list of degradation mechanisms and impacts of ageing;
- c) A list of monitoring parameters and condition indicators that are used for the monitoring and determination of the development of the impacts of ageing;
- d) Rules for the monitoring and determination of the development of the impacts of ageing;

- e) A list of the acceptance criteria for monitoring parameters;
- f) Rules for assessing the monitoring parameters, assessing the current state of systems, structures and components pursuant to Section 11 a) and predicting the future state of these systems, structures and components provided that the monitoring parameter has the value of cumulative nature;
- g) A list of corrective measures in respect of a failure to meet the acceptance criteria for monitoring parameters;
- h) Rules for the monitoring of the efficiency of measures in operation and maintenance of systems, structures and components pursuant to Section 11 a) to mitigate or eliminate the impacts of ageing and the effects of degradation mechanisms on these systems, structures and components;
- i) Description of the provision of feedback in order to measure the efficiency of the ageing management process;
- j) Rules for assessing the efficiency of the ageing management process; and
- k) Rules for documenting the activity in the framework of the ageing management process.

Handling of nuclear material and radioactive waste and method of documentation

Section 13

[To Section 49(2) g) of the Atomic Act]

(1) During storage of fresh nuclear fuel or irradiated nuclear fuel and handling thereof, compliance with the requirements shall be ensured for maintenance of subcriticality laid down by the Decree on Basic Design Criteria for a Nuclear Installation. This maintenance of subcriticality shall be controlled. Maintenance of subcriticality and its control shall be documented.

(2) During the nuclear refuelling in a nuclear reactor, the concentration of soluble neutron absorber in coolant shall be of such a value so as to continuously ensure the minimum subcriticality of nuclear fuel of 0.02 taking into account the possible errors.

(3) In handling

- a) Of nuclear material, it shall be avoided the possibility
 1. Of the development of fission chain reaction; and
 2. Of release of nuclear material to the environment; and
- b) Of radioactive waste, it shall be avoided the possibility of its release to the environment.

Section 14

[To Section 49(2) g) of the Atomic Act]

(1) In handling of spent nuclear fuel, the following shall be virtually avoided

- a) Damage to the leak-tightness of fuel element; and
- b) Damage to that fuel due to residual heat.

(2) The nuclear safety and radiation protection in handling of nuclear material or radioactive waste shall be assured

- a) By using the equipment provided for under the design of a nuclear installation, which was successfully tested;
- b) By handling carried out in accordance with the internal regulations;
- c) By constant supervision of the handling and condition of a nuclear installation; and
- d) In case of handling of nuclear fuel in a nuclear reactor, by constant monitoring
 1. Of the core;

2. Of thermal neutron flux density;
3. Of coolant level and temperature; and
4. Of boric acid concentration with the frequency ensuring maintenance of subcriticality.

(3) Handling of nuclear material or radioactive waste in a nuclear installation, including related activities, shall be carried out by reference to the documentation, which shall include

- a) Description of the procedure for individual operations;
- b) Requirements for the readiness of systems, structures and components for handling;
- c) Information on the storage of nuclear material or radioactive waste;
- d) In case of nuclear material, its identification data and flow diagram of its disposal;
- e) In case of handling of nuclear fuel in a nuclear reactor or in an irradiated nuclear fuel storage pool, data on boric acid concentration in primary coolant of a nuclear reactor or an irradiated nuclear fuel storage pool;
- f) Information on organisational measures to assure nuclear safety and radiation protection; and
- g) Information on necessary additional measures, which are not referred to in the internal regulations.

(4) Technological operation associated with the transfer of nuclear material shall be recorded in the document specifying its original and final destination and the measures taken to assure nuclear safety, radiation protection, technical safety, radiation situation monitoring, radiological emergency management and security, which are not referred to in the operational documentation.

General conditions for commissioning of a nuclear installation and operation of a nuclear installation

Section 15

[To Section 50(4), Section 51(6) a) and b), Section 52(2), Section 53(2) and Section 54(4) a) of the Atomic Act]

(1) A nuclear installation shall be commissioned and operated only in the modes specified by the design of a nuclear installation.

(2) Where there is a deviation from the prescribed course with a negative impact on nuclear safety or an event with a negative impact on nuclear safety in the course of testing during commissioning of a nuclear installation or during operation of a nuclear installation, a nuclear installation shall be immediately put into a safe, stabilised and controlled condition.

(3) In case of the situation pursuant to paragraph 2, commissioning or operation of a nuclear installation can only be resumed after

- a) The analysis of the causes of such situation;
- b) The clarification and removal of the causes of such situation;
- c) The verification of the fulfilment of safety functions and functional integrity of all systems, structures and components that could be affected; and
- d) The implementation of corrective measures to avoid recurrence of such situation.

(4) The part of a nuclear installation that is being put into operation or operated shall be separated from these parts under construction or inactive testing so as to ensure that assembly works or failures and accidents on the part under construction do not affect the nuclear safety of the part being put into operation or the part already operated. This condition shall be also met for independent nuclear installations.

(5) A licensee shall be informed of the current state of a nuclear installation throughout the commissioning and operation of a nuclear installation.

(6) Processes and activities associated with commissioning of a nuclear installation or operation of a nuclear installation shall be carried out under work orders, internal regulations and commissioning programmes of a nuclear installation.

(7) Before the commencement of activities relevant to nuclear safety or activities specifically relevant to nuclear safety, it shall be verified and evidence shall be provided to the Office that these activities do not compromise nuclear safety.

Section 16

[To Section 50(4), Section 51(6) a) and b), Section 52(2), Section 53(2) and Section 54(4) a) of the Atomic Act]

(1) Before implementation of the modification affecting nuclear safety or radiation protection, it shall be

- a) Demonstrated that it does not reduce the level of nuclear safety and radiation protection; and
- b) Assessed the degree of compliance with the evidence of safety presented in
 1. The Initial Safety Analysis Report;
 2. The Preliminary Safety Analysis Report;
 3. The Operational Safety Analysis Report for first physical start-up of a nuclear installation with a nuclear reactor; and
 4. The Operational Safety Analysis Report.

(2) After implementation of the modification affecting nuclear safety or radiation protection, at the time of commissioning of the nuclear installation affected by modification

- a) The internal regulations shall be brought into conformity with the current state of a nuclear installation; and
- b) The workers, whose activities are affected by this modification, shall be informed about the modification.

(3) After operational event, which could adversely affect the safety function or functional integrity of systems, structures and components, it shall be

- a) Determined whether the safety function of systems, structures and components is potentially affected; and
- b) Verified the functionality of other systems, structures and components ensuring fulfilment of the same safety function.

(4) In case of nuclear installation with a nuclear reactor, the nuclear reactor shall be immediately shut down if the safety limit is exceeded.

(5) A nuclear reactor can be put into criticality following shutdown pursuant to paragraph 4 only after

- a) Detection and elimination of the causes, which resulted in the exceeding of safety limit;
- b) Elimination of the consequences of the exceeding of safety limit; and
- c) Analyses to reveal the condition of a nuclear installation after the safety limit has been exceeded.

Section 17

[To Section 50(4), Section 51(6) a) and b), Section 52(2), Section 53(2) and Section 54(4) a) of the Atomic Act]

(1) Worker, who performs the activity relevant to nuclear safety or activity specifically relevant to nuclear safety on a nuclear installation during commissioning or operation of a nuclear installation, shall be, prior to performance of this activity

- a) Informed about the content of documentation related to the activity to be performed; and
- b) Trained.

(2) In case of implementation of the modification affecting nuclear safety or radiation protection during commissioning or operation of a nuclear installation, worker performing the activity related to or affected by this modification shall be, prior to commencement of the use of the results of this modification

- a) Informed about it and about the documentation affected by it; and
- b) Trained.

Section 18

[To Section 50(4), Section 51(6) a) and b), Section 52(2), Section 53(2) and Section 54(4) a) of the Atomic Act]

(1) For maintenance, tests and inspections of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment, during commissioning or operation of a nuclear installation, documented procedures shall be implemented so as to ensure their reliability and functionality in line with the design of a nuclear installation.

(2) Maintenance, tests and inspections under paragraph 1 shall be carried out at intervals ensuring identification of the damage of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment, before they can fail.

(3) Data on maintenance, tests and inspections pursuant to paragraph 1 shall be recorded, retained and assessed in order to obtain information about failure of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment. Where such failure is revealed

- a) Corrective maintenance shall be carried out; and
- b) The preventive maintenance programme shall be adjusted to avoid similar failure from now on.

(4) The scope and frequency of preventive maintenance, tests and inspections of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment, shall be determined based on their

- a) Relevance to nuclear safety;
- b) Reliability and recommendation of the supplier of these systems, structures and components; and
- c) Experience and results of the monitoring of operating conditions of these systems, structures and components.

(5) The scope and frequency of preventive maintenance, tests and inspections of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment, shall ensure their reliability and functionality.

(6) After maintenance, inspection or modification, the condition of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment, shall be assessed, documented and verified by functional test under a predetermined programme before being put back into operation.

(7) Repair of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment, shall be carried out so as to ensure a reasonably achievable level of nuclear safety of a nuclear installation in the course of repair.

Section 19

[To Section 50(4), Section 51(6) a) and b), Section 52(2), Section 53(2) and Section 54(4) a) of the Atomic Act]

(1) Physical start-up shall be carried out under a prepared physical start-up programme. Power start-up of a nuclear installation shall be carried out under a prepared power start-up programme.

(2) Before the start of physical start-up, it shall be verified compliance of the condition of a nuclear installation with the requirements of legislation and these documents:

- a) Physical start-up programme, including time schedule, and sub-programmes for individual tests, including fuel loading programme;
- b) Limits and Conditions;
- c) Internal regulations governing physical start-up, including regulation for assuring nuclear safety and radiation protection in handling of nuclear fuel, nuclear material and radioactive waste;
- d) Proof of the fulfilment of specific qualification of personnel, and proof of training and examination of personnel for the activities related to the fulfilment of the function, including shifts staffing;
- e) Proof of testing and readiness of the systems, structures and components relevant to nuclear safety, which are not the selected equipment, and selected equipment, which are involved in physical start-up;
- f) Proof of compliance with the conditions set out in the permits issued by the Office; and
- g) Management system programme.

(3) Before the start of power start-up of a nuclear installation, it shall be verified compliance of the condition of a nuclear installation with the requirements of legislation and these documents:

- a) In the case of the first power start-up of a nuclear installation, first power start-up programme of a nuclear installation with a nuclear reactor and trial operation programme, including time schedule, and power start-up sub-programmes;
- b) Limits and Conditions;
- c) Set of the internal regulations necessary for the implementation of power start-up of a nuclear installation corresponding to the as-built condition of a nuclear installation;
- d) Proof of the fulfilment of specific qualification of personnel, and proof of training and examination of personnel for the activities related to the fulfilment of the function, including shifts staffing;
- e) Proof of testing and readiness of the systems, structures and components relevant to nuclear safety, which are not the selected equipment, and selected equipment, which are involved in power start-up;
- f) Proof of compliance with the conditions set out in the permits issued by the Office;
- g) Management system programme;

- h) Reports of physical start-up and compliance with the success criteria for the physical start-up programme of a nuclear installation; and
- i) Summary document of the results of the review of readiness of a nuclear installation and its personnel for power start-up of a nuclear installation.

Requirements for commissioning of a nuclear installation without a nuclear reactor and inactive testing, first physical start-up and first power start-up of a nuclear installation with a nuclear reactor

Section 20

[To Section 50(4), Section 51(6) a) and b), Section 52(2) and Section 53(2) of the Atomic Act]

(1) Commissioning of a nuclear installation with a nuclear reactor and inactive testing, first physical start-up and first power start-up of a nuclear installation with a nuclear reactor (hereinafter referred to as “commissioning of a nuclear installation”) shall be carried out as follows

- a) A programme for commissioning of a nuclear installation shall be set up and commissioning of a nuclear installation shall be carried out in line therewith;
- b) Each stage forms an integrated set of tests;
- c) Tests shall demonstrate compliance with the safety criteria under the programme for commissioning of a nuclear installation;
- d) Test results shall be documented; and
- e) The following stage shall be started after successful tests of the previous stage.

(2) The transition to the next stage of commissioning of a nuclear installation is possible after

- a) Termination of all works and tests of the previous stage;
- b) Fulfilment of all success criteria of the previous stage in line with the documentation for licensed activity;
- c) The readiness of selected equipment to launch the stage has been ensured;
- d) The readiness of personnel to launch the stage has been ensured;
- e) The existence and accuracy of the documentation for licensed activity have been ensured;
- f) Successful complex functional testing of a nuclear installation; and
- g) Verification and documentation of compliance with the requirements under points a) to e).

(3) Disconnecting the elements of the nuclear reactor protection system during the commissioning tests of a nuclear installation is prohibited unless the remaining part of the elements of this system ensures reliable fulfilment of the requirements laid down by legislation and the Limits and Conditions.

(4) The results of the review of readiness of a nuclear installation for the individual stages of commissioning and operation of a nuclear installation shall be summarised in the summary document of verification.

Section 21

[To Section 50(4), Section 51(6) a) and b), Section 52(2) and Section 53(2) of the Atomic Act]

(1) The stage of commissioning of a nuclear installation shall be carried out under the prepared stage programme.

- (2) Under the stage of commissioning of a nuclear installation
- a) Tests shall gradually verify
 1. Compliance of the systems, structures and components with the requirements of legislation and the design of a nuclear installation; and
 2. Modes and characteristics of a nuclear installation provided for under the design of a nuclear installation; and
 - b) Tests under point a) shall be carried out so as to create the conditions for the tests of other sets and successful complex functional testing of a nuclear installation prior to the start of trial operation.
- (3) The stage programme shall contain
- a) Objective, description and method of execution of works for the stage;
 - b) Mutual time and logic interrelations of the activities in the stage;
 - c) Readiness requirements of the technology and resources for the activities in the stage;
 - d) Safety criteria and method of assessing their fulfilment;
 - e) Description of the initial and final state of the stage;
 - f) Description of the organisation and staffing of the stage;
 - g) Description of the method of transiting to the next stage; and
 - h) List of sub-programmes for individual activities.
- (4) The sub-programme for individual activities shall contain
- a) Objective, description and method of execution of activities;
 - b) Readiness requirements of the technology and resources for the activity;
 - c) Safety criteria and method of assessing their fulfilment;
 - d) Initial and final state of the activity; and
 - e) Description of the organisation and staffing of the activity.

Rules for the continuous assurance, verification and documentation of the ability to ensure a stable and safe operation of a nuclear installation

Section 22

[To Section 54(4) a) of the Atomic Act]

- (1) Before the start of operation of a nuclear installation, it shall be verified compliance of the condition of a nuclear installation with the requirements of legislation and these documents:
- a) Limits and Conditions;
 - b) Internal regulations corresponding to the as-built condition of a nuclear installation;
 - c) Proof of the fulfilment of specific qualification of personnel, and proof of training and examination of personnel qualification for the activities to be carried out;
 - d) Overview of shifts staffing;
 - e) Proof of testing and readiness of selected equipment for operation;
 - f) Proof of compliance with the conditions set out in the permits issued by the Office;
 - g) In-service Inspections Programme;
 - h) Management system programme;
 - i) Overview of the modifications of a nuclear installation, by which the nuclear installation differs from the design of a nuclear installation prior to the first physical start-up of a nuclear installation with a nuclear reactor;
 - j) Reports of power start-up of a nuclear installation and compliance with the success criteria for the first power start-up programme of a nuclear installation with a nuclear reactor and trial operation, including time schedule;

- k) Document of the results of the review of readiness of a nuclear installation and its personnel for trial operation;
- l) Annual time schedule of operation; and
- m) Document of the results of the review of readiness of a nuclear installation and its personnel for operation.

(2) The time schedule of operation forms a part of the programme of operation and shall set planned shutdowns of a nuclear reactor.

(3) The time schedule of operation shall be updated once every 12 months and submitted to the Office as to 31 March. Any change in the time schedule of operation shall be submitted to the Office within 10 days after implementation of such change.

Section 23

[To Section 54(4) a) of the Atomic Act]

(1) Internal regulations shall provide for the procedures for the conditions of a nuclear installation so as to ensure nuclear safety, radiation protection, technical safety, radiation situation monitoring, radiological emergency management and security during its operation.

(2) During operation, internal regulations and systems, structures and components shall be continuously verified and adjusted, taking account of the current level of science and technology and applying the lessons learned from practice and previous operation of a nuclear installation.

(3) Where a nuclear reactor with fuel assemblies in the core is shut down during operation of a nuclear installation, it shall be continuously monitored, including periods of loading and reloading of fuel assemblies, in particular in terms of maintenance of subcriticality of the core and heat removal from the core.

(4) During operation of a nuclear installation with a nuclear reactor

- a) A holder of a license for operation of a nuclear installation shall know the efficiency of
 - 1. Protection system;
 - 2. Power elements of safety systems;
 - 3. Compensation elements; and
 - 4. Neutron absorbers;
- b) The efficiency of power elements of the safety system of a nuclear reactor with a sufficient reserve to provide for nuclear reactor shutdown and maintaining it in subcriticality and reactivity compensation of the core, for a period and to the extent as considered in safety analyses;
- c) A holder of a license for operation of a nuclear installation shall know the maximum excess reactivity of the core; and
- d) The channels of the protection system or the individual power elements of the protection or safety system may not be disconnected unless the remaining number of channels of the protection system or the power elements of the protection or safety system ensures nuclear safety.

(5) During operation of a nuclear installation

- a) Permanent presence and availability of the complete and updated set of internal regulations, including Limits and Conditions, shall be ensured in control rooms;
- b) This operation shall be regularly evaluated;
- c) An operational event shall be analysed and a measure shall be proposed to prevent the event from recurring; and

- d) A report of the analysis of an operational event shall be drawn up and submitted to the Office once a month; this report shall particularly contain
 - 1. Draft measure to avoid an operational event; and
 - 2. Information on compliance with the measures pursuant to point 1.

Section 24

Documentation for the bringing of a nuclear reactor to criticality following a refuelling [To Section 54(4) d) of the Atomic Act]

(1) The documentation for the bringing of a nuclear reactor to criticality following a refuelling shall contain in case of

- a) Information on the neutron-physical characteristics of the reactor core
 - 1. Results of the calculations of neutron-physical characteristics of the core of fuel charge for the following fuel campaign;
 - 2. Reactivity effects and coefficients;
 - 3. Power distribution in the core;
 - 4. Description of the change in reactivity caused by non-stationary poisoning;
 - 5. Integral and differential efficiency of the control rods and efficiency of the liquid absorber; and
 - 6. Operational limits of the core and fuel assemblies;
- b) Flow diagram of loading
 - 1. Description of fuel charge and fuel enrichment;
 - 2. Information on the type of fuel and the period of stay of individual fuel assemblies in the core, their characteristics and their number in the following fuel campaign;
 - 3. Layout of the fuel assemblies in the core; and
 - 4. Layout of the components of the reactor core;
- c) Proof and reports of the testing of readiness of the equipment relevant to nuclear safety; proof and reports of the testing of readiness of selected equipment and the systems, structures and components relevant to nuclear safety, which are not the selected equipment, in the fields of
 - 1. Operation management;
 - 2. Care of an installation;
 - 3. Reactor physics;
 - 4. Coordination of activities;
 - 5. Operating modes/regimes;
 - 6. Nuclear safety;
 - 7. Radiation protection;
 - 8. Physical protection; and
 - 9. Technical safety;
- d) Proof and reports of in-service inspections, information of
 - 1. In-service non-destructive testing (NDT);
 - 2. In-service special inspections;
 - 3. In-service engineering inspections;
 - 4. In-service revision inspections;
 - 5. Operational diagnostic inspections;
 - 6. In-service inspections in the field of compliance with operation chemistry of a nuclear installation;
 - 7. In-service inspections of electrical equipment; and
 - 8. In-service inspection of the instrumentation and control (I&C) system;

- e) Proof of compliance with the acceptance criteria; information on whether or not the acceptance criteria relating to the documentation under points c) and d) are met;
- f) Summary document of the results of the review of readiness of a nuclear installation and its personnel for further operation
 - 1. Proof of readiness of the workers ensuring and performing the control, operation and inspection of nuclear power installations, including necessary maintenance and repairs during operation of these installations, for further operation;
 - 2. A list of the changes implemented in the course of operation and under outage of the systems, structures and components with an impact on operational safety analysis report from the date of its last update;
 - 3. Updating of the Limits and Conditions following the modifications under point 2;
 - 4. A list of the changes to the Safety Analysis Report made during the past fuel cycle;
 - 5. Statement of the updating of the Limits and Conditions;
 - 6. Statement of the updating of internal regulations; and
 - 7. Proof of testing and readiness of selected equipment; and
- g) Time schedule of further operation of a nuclear installation, including programme for putting a nuclear installation back into operation, and physical and power start-up programmes of a nuclear installation;
 - 1. Physical start-up programmes of a nuclear reactor;
 - 2. Power start-up programmes of a nuclear reactor;
 - 3. Time schedule of further operation of a nuclear installation with timing and type of operation in a given period of time; and
 - 4. Date for bringing of a nuclear reactor to criticality following a refuelling.

(2) Documentation for the bringing of a nuclear reactor to criticality following a refuelling pursuant to paragraph 1 point f) shall be submitted to the Office at least 48 hours before bringing of a nuclear reactor to criticality.

(3) Documentation for the bringing of a nuclear reactor to criticality following a refuelling pursuant to paragraph 1 points a) and b) shall be submitted to the Office at least 7 days before bringing of a nuclear reactor to criticality.

Section 25

Long-term shutdown of a nuclear reactor in case of a research nuclear installation

[To Section 54(4) c) of the Atomic Act]

Long-term shutdown of a nuclear reactor in case of a research nuclear installation shall be carried out as follows:

- a) Nuclear fuel shall be relocated from the core to the nuclear fuel storage facility;
- b) The Limits and Conditions shall be changed in such a way as to correspond to the state of a nuclear installation in a long-term shutdown;
- c) Maintenance, supervision, testing, inspections and repairs of a nuclear installation shall be carried out pursuant to Section 18;
- d) Measures shall be implemented to reduce rapid ageing of systems, structures and components of a nuclear installation;
- e) Planned long-term shutdown shall be notified to the Office at least 30 days before the start of the activities towards long-term shutdown; and
- f) Unplanned long-term shutdown shall be notified to the Office immediately after its start.

Processes and activities to prevent the development of accident conditions in a nuclear installation and to mitigate their consequences

Section 26

[To Section 49(2) h) of the Atomic Act]

(1) In the processes and activities to prevent the development of accident conditions in a nuclear installation and to mitigate their consequences (hereinafter referred to as the “accident management system”)

- a) Objectives shall be set and strategies shall be implemented for accident conditions management, which are based on safety assessment and on design requirements for a nuclear installation;
- b) A set of measures shall be implemented for accident conditions management in line with the objectives and strategies for accident conditions management, which shall include
 1. Technical measures for accident conditions management, including means to obtain and transmit information on a nuclear installation; and
 2. Organisational measures for accident conditions management;
- c) The documentation package shall be created and maintained for accident conditions management;
- d) Staff ensuring accident conditions management shall be trained in accident conditions management; and
- e) Analyses shall be undertaken to develop the strategies for accident conditions management and the results of such analyses shall be used for this development.

(2) The accident management system shall

- a) Allow for management of accident conditions in a nuclear installation initiated in all conditions of a nuclear installation;
- b) Allow for management of accident conditions encountered in all nuclear installations situated in the same area for siting of a nuclear installation at once;
- c) Allow for management of accident conditions, during which a nuclear reactor and an irradiated nuclear fuel storage pool are affected at once;
- d) Include rules for the mutual support among nuclear installations with a nuclear reactor situated in the same area for siting of a nuclear installation for accident conditions in one of them in order not to compromise the nuclear safety of a nuclear facility fulfilling the supporting function;
- e) Include an effective link to radioactive waste management or remedy of the situation following a radiological emergency for the area affected by radiological emergency or for its part in order to mitigate the consequences of accident conditions; and
- f) Take account of
 1. Foreseen environmental conditions including extensive damage to internal or external infrastructure and expected degraded conditions, including radiation conditions, which can be encountered during accident conditions;
 2. Initiating events or phenomena, which can cause accident conditions; and
 3. Human resources and impact of human factor on accident conditions management.

Section 27

[To Section 49(2) h) of the Atomic Act]

(1) The documentation package for accident conditions management shall contain

- a) Emergency operating procedures;
- b) Severe accident management guidelines; and

- c) Other documentation for accident management; in particular
 1. Documentation for management of extensive damage to the area for siting of a nuclear installation; and
 2. Procedures for the use of alternative means for accident conditions management.

(2) The documentation package for accident conditions management shall enable the staff ensuring accident conditions management

- a) To set the priorities for the activities involved in accident conditions management; and
- b) To carry out activities in environmental conditions that can be encountered under accident conditions.

(3) The documentation package for accident conditions management shall

- a) Be created in a systematic manner, take account of a particular nuclear installation and correspond to the current design of a nuclear installation;
- b) Be internally and mutually coherent, and include links for transition among individual emergency operating procedures and severe accident management guidelines; and
- c) Take into account the uncertainties in the knowledge of the time course and severity of physical phenomena, which can be encountered in the course of accident conditions in order to carry out the activities during accident conditions management in a way to meet the required objectives.

(4) The documentation package for accident conditions management shall be verified in terms of efficiency and ability to ensure accident conditions management prior to the start of power start-up and operation of a nuclear installation.

(5) During operation of a nuclear installation, permanent presence and availability of the complete and updated documentation package for accident conditions management shall be ensured in control rooms.

Section 28

[To Section 49(2) h) of the Atomic Act]

(1) The emergency operating procedures shall

- a) Establish rules providing for management of design basis accidents and instructions for recovery of a nuclear installation;
- b) Establish rules providing for management of extended design basis conditions except for severe accidents and instructions for recovery of safety functions or replacement of their loss;
- c) Ensure prevention of severe accident;
- d) Enable the staff to respond to an event without its accurate identification only by the symptoms, which are the values of safety parameters and the status of basic safety functions;
- e) Be based on realistic and nuclear installation specific analyses conducted for this purpose;
- f) Enable the staff to immediately recognise the accident conditions for which they are intended; and
- g) Contain initial conditions for the application of the procedure corresponding to the event occurred and initial conditions for departure from that procedure.

(2) The severe accident management guidelines shall

- a) Enable to respond to an event without its accurate identification only by the symptoms, which are the values of safety parameters determining the condition of physical safety barriers;
- b) Ensure the limitation of development and the mitigation of the consequences of severe accident; and
- c) Set the strategies for emergency management and physically identifiable mechanisms endangering physical safety barriers that were identified during analyses of severe accidents, regardless of their probability.

(3) The following shall be examined in the verification and validation of emergency operating procedures and severe accident management guidelines

- a) Applicability in the foreseen environmental conditions and in terms of the human resources available; and
- b) Efficiency of taking account of the impact of human performance.

(4) A full-scope plant simulator shall be used for the validation of emergency operating procedures.

(5) The validation of emergency operating procedures shall be based on representative scenarios of accident conditions.

Section 29

[To Section 49(2) h) of the Atomic Act]

(1) The accident management system shall be regularly and following the special safety assessment in case of a radiological emergency in a nuclear installation or any other nuclear installation of similar type reviewed and, where appropriate, updated in order to ensure that

- a) It is consistent with the current level of science and technology, and operating experience; and
- b) The emergency operating procedures and severe accident management guidelines are consistent with the current state of a nuclear installation to the extent allowing for the application of the strategies for accident conditions management.

(2) The results of the verification and validation of emergency operating procedures and severe accident management guidelines prior to implementation of a new strategy for accident conditions management or a fundamental change to the existing strategy for accident conditions management shall be incorporated into the emergency operating procedures and severe accident management guidelines.

Section 30

[To Section 49(2) h) of the Atomic Act]

(1) Training and periodic exercises shall be ensured in the accident management system in the field of the application of emergency operating procedures and severe accident management guidelines by personnel involved in accident conditions management.

(2) A full-scope plant simulator shall be used for the training and periodic exercises in the field of the application of emergency operating procedures.

(3) A simulation tool shall be used for the training and periodic exercises in the field of the application of severe accident management guidelines, which enable modelling the courses of different scenarios of severe accidents.

(4) Periodic exercises shall be ensured in the accident management system in the field of the transition in the application of emergency operating procedures and severe accident management guidelines with the use of a full-scope plant simulator.

(5) Periodic exercises shall be ensured in the accident management system in the field of the interventions provided for by emergency operating procedures and severe accident management guidelines necessary for the recovery of safety functions, including those consisting in the application of alternative technical means or facility situated outside the premises of a nuclear installation. The potential unavailability of measuring devices, lighting and electrical energy, and the use of personal protective equipment shall be taken into account in the periodic exercise of these interventions.

Section 31

Entry into force

This Decree shall enter into force on 15 February 2017.

Chairperson:

MSc. Dana Drábová, Ph.D., m. p.