

DECREE

No. 361/2016 Coll.

of 17th October 2016

on security of nuclear installation and nuclear material

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 159(2), Section 160(6), Section 161(4) and Section 163(2) a) and b):

PART ONE

INTRODUCTORY PROVISIONS

Section 1

This Decree regulates

- a) The method of categorisation of nuclear material for the purposes of its security;
- b) The requirements for delineation, physical delimitation and detection of any violation of the guarded area, protected area, inner area or vital area, and the scope of restrictions on access and entry into such areas;
- c) The organisational and technical measures to assurance security of a nuclear installation and nuclear material;
- d) The requirements for the range and method of physical security of a nuclear installation and nuclear material;
- e) The range and method of physical protection of a nuclear installation and nuclear material classified as Category I to III during its shipment with regard to design basis threat; and
- f) Requirements for the content of documentation for the practice to be licensed in the field of the security of a nuclear installation and nuclear material.

Section 2

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

- a) Technical system of the physical protection shall mean an integrated system designed to detect any violation of the delineated areas, delay the action of a violator, control access and entry of physical persons and vehicles, and transmit alarm information and evaluate it in the control centre;
- b) Mechanical barrier shall mean a fence, wall, block, grill and other means delaying unauthorised entry of physical persons or preventing unauthorised access of vehicles into the guarded, protected, inner or vital areas of a nuclear installation;
- c) Preparedness protection shall mean concentration of forces and means of the Czech Republic Police (hereinafter referred to as the "Police") for an intervention to prevent any attack directed against a nuclear installation;
- d) Object endangering nuclear safety shall mean a weapon, explosive, alcoholic beverage or any other drug, and any other objects that are included in the design basis threat.

PART TWO

CATEGORISATION OF NUCLEAR MATERIAL AND DELINEATION OF AREAS IN A NUCLEAR INSTALLATION, REQUIREMENTS FOR PHYSICAL PROTECTION ASSURANCE OF NUCLEAR MATERIAL AND NUCLEAR INSTALLATION

Section 3

Categories of nuclear material

Nuclear material shall be classified as Category I, II or III according to Annex to this Decree, provided its mass is greater than the lowest mass limit for Category III specified in Annex to this Decree.

Section 4

Areas in nuclear installation

(1) The following areas shall be delineated in a nuclear power installation with the use of a defence in depth

- a) The vital area, if any intentional damage to the systems and components relevant to nuclear safety located within this area can directly or indirectly result in a radiation accident; in particular, this involves the areas, in which there are main control rooms and auxiliary shutdown rooms, nuclear reactor control systems, backup power sources, safety systems for residual heat removal from the core, reactor hall and spent nuclear fuel storage pool;
- b) The inner area, if nuclear material classified as Category I is used or stored in a nuclear installation;
- c) The protected area, if the vital or inner area is delineated in a nuclear installation, or if nuclear material classified as Category II is used or stored in a nuclear installation, or if any damage to the technology located within this area can directly or indirectly result in a radiological incident, which is not a radiation accident; and
- d) The guarded area, if the vital, inner or protected area is delineated in a nuclear installation, or if nuclear material classified as Category III is used or stored in a nuclear installation.

(2) The protected area shall be delineated in a nuclear research installation.

(3) For nuclear installation or parts of a nuclear installation, which contain nuclear material, the areas shall be delineated according to the category of nuclear material when the nuclear material classified as

- a) Category I shall be placed inside the inner area;
- b) Category II shall be placed inside the protected area;
- c) Category III shall be placed inside the guarded area.

(4) Where the parts of a nuclear installation required to be placed within different areas cannot be physically separated, such parts shall be placed as a whole within the area to comply with the highest requirements applicable to that area.

(5) The part of a nuclear installation, which contains radioactive waste, shall be located within the guarded area.

Section 5

Physical protection measures

(1) The measures of physical protection of a nuclear installation shall be implemented to comply with the highest category of nuclear material handled in a nuclear installation or according to the delineated area of a nuclear installation.

(2) The category with the highest requirements for the level of physical protection assurance for nuclear materials is Category I and the area with the highest requirements for the level of physical protection is the inner or vital area.

Delineation of guarded, protected, inner and vital areas

Section 6

For nuclear material classified as Category I and a nuclear installation with the inner or vital area delineated, the areas shall be delineated so that

- a) The boundary of the guarded area shall be the isolation zone with a minimum width of 6 m, fenced in with two fences in which case
 1. The outer fence shall be at least 2.5 m high and shall be equipped with additional mechanical barrier built on the fence crown so that the total height of the fence shall be at least 3 m;
 2. The inner fence shall be at least 2.5 m high and shall be equipped with additional mechanical barrier on the fence crown so that the total height of the fence shall be at least 3 m;
 3. Additional mechanical impeding devices at least 1.2 m high shall be installed within the isolation zone;
 4. The perimeter itself consists of mechanical barriers which prevent unauthorised entry of a vehicle with a weight and speed according to the design basis threat;
 5. The isolation zone shall be equipped with at least two detection systems working on different physical principles, one of which at least is detecting in volume, and shall be equipped with a CCTV system and with an illumination sufficient for its use;
 6. Both sides of the isolation zone shall be surrounded with a free area at least 6 m wide; and
 7. Where the boundary of the guarded area involves a building, it shall be protected from the outside with the intrusion detection system and the CCTV system;
- b) The boundary of the protected area shall be the additional fence at least 2.5 m high, which shall be equipped with mechanical impeding devices on the fence crown so that the total height of the fence shall be at least 3 m and the fence shall be equipped with the intrusion detection system, CCTV system and with an illumination; and
- c) The boundary of the inner or vital area shall be the walls of the buildings or rooms inside the protected area equipped with the intrusion detection system, CCTV system and with an illumination to evaluate any intrusion and activity within the inner and vital area.

Section 7

(1) For nuclear material classified as Category II and a nuclear installation with the protected area delineated, the areas shall be delineated so that

- a) The boundary of the guarded area shall be the fence at least 2.5 m high, which shall be equipped with additional mechanical barrier on the fence crown so that the total height of the fence shall be at least 3 m; and
- b) The boundary of the protected area shall consist of an additional fence at least 2.5 m high, which shall be equipped with additional mechanical barrier on the fence crown so that the total height of the fence shall be at least 3 m and the fence shall be equipped with the intrusion detection system, CCTV system and with an illumination.

(2) If the walls of buildings with nuclear material classified as Category II or with parts of the nuclear installation required to be placed within the protected area are of sufficiently solid construction, and the results of efficiency evaluation pursuant to Section 28(2) h) prove that the physical protection is efficient, such walls can be used as the boundary of the protected area; in this case, the area shall be equipped with the intrusion detection system, CCTV system and with an illumination.

Section 8

(1) For nuclear material classified as Category III and a nuclear installation with the guarded area delineated, the areas shall be delineated so that

- a) The boundary of the guarded area shall be the fence at least 2.5 m high, which shall be equipped with additional mechanical impediment on the fence crown so that the total height of the fence shall be at least 3 m; and
- b) The structure containing nuclear material or the parts of a nuclear installation required to be placed within the guarded area shall be equipped with the intrusion detection system.

(2) If the walls of buildings with nuclear material classified as Category III or with parts of the nuclear installation required to be placed within the guarded area are of sufficiently solid construction, and the results of efficiency evaluation pursuant to Section 28(2) h) prove that the physical protection is efficient, such walls can be used as the boundary of the guarded area; in this case, the area shall be equipped with the intrusion detection system.

Section 9

(1) In exceptional and justified cases, the individual areas can be combined, or it is possible to derogate from the requirements for the boundaries set out Sections 6 to 8, but at the same time, the efficiency of mechanical impeding devices and intrusion detection systems should be strengthened accordingly and the results of efficiency assessment pursuant to Section 28(2) h) should show comparable assurance of physical protection.

(2) Emergency exit and underground channel under the boundary of guarded, protected, inner and vital areas shall be secured against unauthorised entry from the outside and shall be equipped with the intrusion detection system.

Section 10

Access of physical persons and entry of vehicles

- (1) The guarded, protected, inner or vital area may be accessed unaccompanied by
 - a) A physical person whose trustworthiness and compliance with the requirements pursuant to the Act on Classified Information Protection in case of performance of sensitive activities, has been verified;
 - b) A policeman who provides emergency protection of a nuclear installation.

(2) The number of entries to the inner and vital areas should be limited to the necessary extent.

(3) The number of entries of vehicles to the protected, inner and vital areas should be limited to the necessary extent. Any vehicles may enter the guarded area only for reasons relating to the performance of work activities therein.

(4) The licensee

- a) Shall permit access to members of the authorised surveillance body, which performs the surveillance on the basis of any other legislation, in which case, for the whole period of stay, they shall be accompanied by a physical person authorised under paragraph 1 letter a), designated by the licensee; or
- b) Can permit access of any other physical person, for as long as needed, to the guarded and protected areas and in exceptional cases, also to the inner and vital areas, in which case, for the whole period of sojourn, he/she shall be accompanied by a physical person authorised under paragraph 1 letter a), designated by the licensee.

(5) When intervention by any emergency worker other than the worker designated in advance by the licensee is necessary, the licensee shall permit access of that person to the guarded, protected, inner or vital area. In such cases, the licensee shall prepare, not later than within 3 days from the end of intervention, a list of the personal data of all persons who intervened and a list of the vehicles which have been used in such intervention.

Organisational and technical measures for nuclear installations with the inner or vital area delineated

Section 11

(1) Nuclear material classified as Category I and nuclear installation with the inner or vital area delineated shall be secured by a technical system of physical protection, the control system of which shall allow its control from the central or back up alarm station. The whole system should have a redundant power supply to allow its continuous function. The central and back up alarm station shall be located in the area pursuant to Section 4(1) and shall be secured so as to ensure their continuous function even in the course of a jeopardy arising from the design basis threat.

(2) Any person authorised to access the guarded, protected, inner or vital area shall be provided with an identification card which permits an automatic access control. A biometric identification shall be used for control of access of physical persons at least on entry to the inner or vital area. Up-to-day access database shall be available at least 1 month and shall be permanently archived.

(3) The technical system of physical protection shall allow the retention of the facts important from physical protection viewpoint, in particular data concerning the issuance of access identification cards, data on passage of physical persons and vehicles from the dedicated automatic control device, and data on alarm signals from the alarm systems.

(4) The licensee shall ensure the constant supervision of the designated employee of the licensee in the control centre with regard to operation of the technical system of physical protection. Voice communication among the shift workers of the control centre of the technical system of physical protection via communication links shall be recorded; such record shall be available for 7 days.

(5) In case of radiological emergency, the technical system of physical protection shall allow the monitoring of movement of physical persons within the delineated areas and in shelters for physical persons.

Section 12

(1) The ratio of the number of accompanied physical persons in the inner and vital areas to the number of accompanying physical persons pursuant to Section 10(1) a) should not exceed 3:1, and the ratio of the number of accompanied physical persons in the guarded and protected areas to the number of accompanying physical persons pursuant to Section 10(1) a) should not exceed 8:1.

(2) All persons, luggage and vehicles shall be subject to control on entry to the guarded area to prevent the introduction of articles which jeopardise nuclear safety, and on exit from the guarded area to prevent any removal of nuclear material.

(3) All physical persons, who move within the inner or vital area, shall be provided with an identification card, which shall be worn visibly already on entry to the guarded area, and which permits an automatic access control to this area and retention of data on passage through the automatic control device.

(4) If physical persons enter the inner or vital area, the simultaneous presence of at least two physical persons authorised to access unaccompanied and with comparable knowledge of the technology in the area visited shall be ensured.

(5) Organisational measures shall be taken by the licensee to ensure permanent archiving of the records critical for granting access and for recording the issuance of the keys to the selected rooms in the protected, inner or vital area.

(6) Any physical person authorised to enter unaccompanied the guarded, protected, inner or vital area pursuant to Section 10(1) shall be trained in the rules for physical protection before first authorisation to enter the delineated areas unaccompanied and then at least once a year.

Section 13

(1) For the inner area, nuclear material shall be stored in a room with reinforced concrete walls and one entrance only, with the door constructed to prevent unauthorised access. The boundary of the inner area shall be equipped with the intrusion detection system, CCTV system for monitoring the situation on entrance and within the inner area, and the biometric identification of physical persons on entry.

(2) The roof of the building, where the inner or vital areas are located, shall be secured with the intrusion detection system, CCTV system with recording and mechanical barriers devices to prevent landing of any means for air transport of physical persons, objects and material according to the parameters, which are included in the design basis threat.

(3) For the vital area, the building openings shall be fitted with the door and mechanical impeding devices to prevent unauthorised access.

(4) The boundary of the vital area shall be equipped with the intrusion detection system, CCTV system for monitoring the situation on entrance and within the vital area, and the biometric identification of physical persons on entry. Where the walls of buildings and rooms in the vital area are fitted with building openings, in particular windows or registers for ventilation systems, the openings shall be secured by mechanical impeding devices and intrusion detection system.

(5) For continuously manned vital area, it shall be ensured that the HVAC system used is efficient in case of endangering by intentional use of the substances included in the design basis threat.

Section 14

(1) For vital area, the check for presence of foreign objects shall be performed following each technological shut-down prior to the restart of the nuclear reactor to criticality.

(2) The detection elements at the boundaries of the areas delineated shall be subject to functional testing at least once a calendar month.

(3) The detection elements of the technical system of physical protection used shall be examined by an accredited testing laboratory.

(4) A comprehensive exercise of all components ensuring physical protection shall be organised at least twice a calendar year to verify the actual parameters of the technical system of physical protection and a comprehensive exercise of all components ensuring protection of non-military structures relevant to state defence shall be organised at least once every two years.

Organisational and technical measures for nuclear installations with the protected area delineated

Section 15

(1) Nuclear material classified as Category II and a nuclear installation with the protected area delineated shall be secured with an alarm system. Alarms should be signalled on the central protection panel or the permanent supervisory service of the police station, and all data on alarm signals shall be archived.

(2) All physical persons entering the protected area shall be provided with an identification card which permits an automatic access control to this area and retention of data on passage through the automatic control device. Up-to-day access database shall be available at least 1 month and shall be permanently archived.

(3) Any physical person authorised to enter unaccompanied the guarded or protected area pursuant to Section 10(1) shall be trained in the rules for physical protection before first authorisation to enter the delineated area unaccompanied and then at least once a year.

(4) The ratio of the number of accompanied physical persons in the protected area to the number of accompanying physical persons pursuant to Section 10(1) a) should not exceed 8:1, and for physical persons being trained to exercise their profession, it should not exceed 10:1.

(5) Spot-check of physical persons and luggage shall be performed upon entry to the guarded area.

(6) All luggage which is carried in and physical persons who enter the protected area shall be subject to control to prevent the introduction of articles that jeopardise nuclear safety.

Section 16

(1) Vehicles and all packages coming to the guarded area shall be subject to control to prevent unauthorised access of physical persons and delivery of articles which jeopardise nuclear safety.

(2) Organisational measures shall be taken by the licensee to ensure permanent archiving of the records critical for granting access, for recording the issuance of the keys to the selected rooms in the protected area, and for permanent retention of such records.

(3) The detection elements at the boundaries of the areas delineated shall be subject to functional testing at least once a calendar month.

(4) The detection elements of the alarm system used shall be examined by an accredited testing laboratory.

(5) Exercise of all components ensuring physical protection shall be organised at least once a calendar year to verify its actual parameters.

Section 17

Organisational and technical requirements for nuclear installation with the guarded area delineated

(1) Nuclear material classified as Category III and a nuclear installation with the guarded area delineated shall be placed in a fenced area with controlled access and entry.

(2) Any building with nuclear material of Category III or with radioactive waste shall be equipped with alarm systems, which shall ensure permanent retention of data on alarm signals, and signals shall be indicated on the central protection panel or the permanent supervisory service of the police station.

(3) Any physical person authorised to enter unaccompanied the guarded area pursuant to Section 10(1) shall be trained in the rules for physical protection before first authorisation to enter the delineated area unaccompanied and then at least once a year.

(4) Organisational measures shall be taken by the licensee to ensure permanent archiving of the records critical for granting access, for recording the issuance of the keys to the selected rooms in the guarded area, and for retention of such records for a period of 1 year.

(5) The detection elements shall be subject to functional testing at least once a calendar month.

(6) The detection elements of the alarm system used shall be examined by an accredited testing laboratory.

(7) Exercise of all components ensuring physical protection shall be organised at least once a calendar year to verify its actual parameters.

Section 18

Protection of the technical system of physical protection and its data

(1) The technical system of physical protection shall not be interconnected by any communication lines with other computer systems which are not dedicated to the assurance of physical protection and no part of this system shall be located outside the outer boundary of the guarded area, except the selected detection, communication and camera systems and points of the issuance of identification cards.

(2) The technical system of physical protection may be connected with a computer system for its administration and maintenance.

(3) Paragraph 1 applies accordingly to the operation of computer system for administration and maintenance control of the technical system of physical protection.

(4) Data from the technical system of physical protection shall be used solely for the purposes of physical protection assurance, and shall be accessible only to the persons designated by a licensee and to inspectors of the Office.

Section 19

Security of computer systems

(1) The computer system needed to control the nuclear safety and account for nuclear material, physical protection and radiological emergency management shall be secured against unauthorised use by defence in depth, taking into account any possible consequences in case of the design basis threat coming true.

(2) A professionally competent person shall be designated in a nuclear installation with the inner or vital area delineated to ensure the security of computer systems of a nuclear installation.

(3) The licensee shall take administrative and technical measures to prevent intentional misuse of computer systems, in which case any single failure to implement the administrative and technical measures shall not result in the jeopardy included in the design basis threat.

(4) The licensee shall regularly assess the level of security for computer systems including periodic testing.

Section 20

Organisational and technical measures for the physical protection and physical security during construction of nuclear installation

(1) The site of a nuclear installation shall be fenced and physically guarded; access of physical persons and entry of vehicles shall be controlled.

(2) Any building, in which any part of a nuclear installation with the protected, inner or vital area delineated will be located, shall be protected as required for the nuclear installation with the guarded area delineated from the moment the assembly of technology begins.

(3) The range of physical protection shall be consistent with the progress of construction of a nuclear installation, in which case the parts of a nuclear installation which are in operation should be isolated from those under construction.

PART THREE

REQUIREMENTS FOR RANGE AND METHOD OF PHYSICAL SECURITY

Section 21

Physical security

(1) Physical security of a nuclear installation and nuclear material occurring within the guarded area, protected area and the inner area or the vital area shall be ensured continuously by physical persons pursuant to Section 22.

(2) Physical security shall be ensured for movement of nuclear material within the guarded and protected areas, between those areas and the inner or vital area.

(3) For nuclear installation with the inner or vital area delineated, a walkdown activity shall be ensured in the guarded and protected areas by security guards, and telephone and radio communication shall be ensured between the physical security station, the control centre and the emergency protection centre of the Police. The station equipped with a call security device shall be used for voice communication via radio networks.

Section 22

Security guards in physical security

(1) The security guard who ensures physical security in the points of a nuclear installation with the inner or vital areas delineated shall be armed with a short hand weapon of a calibre not larger than 9 mm and shall be a holder of valid license for security of property and persons pursuant to the Trade Licensing Act or shall be an employee of that holder.

(2) The security guard who ensures physical security in the points of a nuclear installation with the guarded and protected areas delineated shall be a holder of valid license for security of property and persons pursuant to the Trade Licensing Act or shall be an employee of that holder.

PART FOUR

SCOPE OF REQUIREMENTS FOR PHYSICAL PROTECTION OF NUCLEAR MATERIAL IN TRANSPORT

Section 23

General provisions

(1) Physical protection of the nuclear material shipment shall be ensured at the level corresponding to the categorisation of nuclear material, when Category I and II nuclear material when transported outside the guarded area requires special police guards (hereinafter referred to as the "police escort").

(2) Shipment of Category III nuclear material requires the transport supervision by dispatching centre. Dispatching supervision in transport shall be ensured at least by telephone communication between the vehicles and the shipper, receiver and, in case of transport pursuant to paragraph 3, the Office and the Police. The shipper and the receiver shall enter into a written agreement stating that the shipment will be taken over with a take-over certificate upon its delivery.

(3) In case of transport of nuclear material in the form of fresh nuclear fuel for the nuclear reactor classified as Category III or natural uranium with a mass greater than 1,000 kg, the transport supervision by dispatching centre and police escort or any other police measure shall be ensured.

(4) If the holder of a license for shipment of nuclear material discovers a loss or unauthorised handling of the shipment of nuclear material or if there is a threat that such action may take place, the holder shall immediately implement the measures to assure nuclear safety and radiation protection. The licensee shall immediately inform thereof the Office and the competent police authorities.

(5) In transport of nuclear material

- a) The time of transport shall be as short as possible, while nuclear safety should remain unimpaired;
- b) The duration of reloading of nuclear material, i.e. reloading from one conveyance to another, reloading to temporary storage facilities and temporary storage while awaiting for arrival of vehicle shall be as short as possible, while nuclear safety should remain unimpaired;
- c) Physical protection during temporary storage shall be assured in a manner consistent with the category of the shipped nuclear material;
- d) Physical persons involved in that shipment shall be trained in the rules for physical protection at least once a year;
- e) For physical persons, trustworthiness and compliance with the requirements pursuant to the Act on Classified Information Protection in case of performance of sensitive activities shall be verified in advance;
- f) Access to information on that shipment shall be limited to the minimum necessary number of persons.

(6) Protection of data related to the transport of nuclear material including detailed data on the route, schedule and on the measures for coding of messages transmitted via means of communication shall be assured in accordance with the Act on Classified Information Protection.

Scope of requirements for physical protection in transport of Category I and II nuclear material

Section 24

(1) The shipper shall give the receiver an advance notification of the planned shipment of nuclear material specifying the mode of transport - by road, rail, sea, air, river, or combined. The advance notification shall also include the estimated time of the shipment arrival and the exact point of shipment handover on the territory of the Czech Republic, setting out the obligation to assure its physical protection.

(2) The receiver shall confirm its readiness to accept the shipment at the proposed point and time.

(3) The mode of transport of nuclear material and the route shall be chosen so as to keep to a minimum the number and time of shipment reloading; consideration shall be also given to the stability of security situation along the route.

(4) Shipment containing nuclear material shall be shipped in a closed and locked vehicle or in transport packages for transport of nuclear material. If the mass of a shipment exceeds 2,000 kg, it can be transported on an open vehicle with tarpaulin cover either fitted on circular supports or simply covering the package. If tarpaulins are used, the shipment should be secured by a sealed lock.

(5) If the vehicle was not permanently located in the guarded area, the Police shall perform a pyrotechnical check-up of the vehicle prior to loading.

Section 25

(1) The shipper shall give the carrier

- a) A written instruction specifying the method of physical protection assurance;
- b) The prescribed route for transport of nuclear material;
- c) The points of stops and reloading;

- d) The personal data of persons authorised to accept the shipment;
- e) The reporting procedures for the progress of transport of nuclear material;
- f) The specification of cooperation with the police escort including communication; and
- g) The Emergency Rules.

(2) Upon delivery, the receiver shall check the integrity of the package, locks and seals, and accept the delivery immediately, with the take-over certificate and notify the shipper of the take-over.

(3) An operation centre shall be set up for transport of nuclear material to ensure communication with the carrier, shipper, receiver, the Police and the Office.

(4) For international shipments of nuclear material, the points at which physical protection responsibilities are transferred from the shipper to the receiver shall be established.

(5) For the shipments of nuclear material to the Czech Republic or for its transit, a pyrotechnical check of vehicles shall be performed by the Police prior to accepting nuclear material in the Czech Republic.

Section 26

Requirements for physical protection in transport of Category I and II nuclear material by mode of transport

(1) For transport of nuclear material by road

- a) It is possible to use only vehicle
 1. Specially designed to resist attack and prevent unauthorised removal of nuclear material;
 2. Equipped with a vehicle disabling system;
 3. Intended exclusively for transporting nuclear material; and
 4. Accompanied by the police escort with simultaneous two-way radio communication and the agreed signals between the vehicle and the police escort vehicle; and
- b) There shall be
 1. Ensured continuous police surveillance over the shipment and check of the locks and seals at each stop;
 2. In the event the transport cannot be completed in one day, during the stop, ensured immobilisation of the vehicle and its parking in a locked and guarded building; and
 3. Performed a preliminary survey on the route and the alternate route and their protection for the time of that shipment.

(2) For transport of nuclear material by rail

- a) This transport may be carried out in a separate train or as a part of any other goods train;
- b) Shipment wagon shall be under surveillance of the police escort, while the licensee shall make sure that a sufficient number of separate carriages is available for the police escort.

(3) Shipment of nuclear material by air shall be carried out in a designated charter aircraft. Physical protection shall be ensured prior the take-off and after landing until the subsequent transport of nuclear material has started.

Section 27

Scope of requirements for physical protection in transport of Category III nuclear material

(1) For transport of Category III nuclear material, a preliminary notification shall be given to the receiver of the planned shipment specifying the mode of transport, the time and point of shipment arrival to the receiver and setting out the obligation to assure physical protection.

(2) The receiver shall confirm to the shipper its readiness to accept the shipment.

(3) Where practicable, the locks and seals should be fitted onto a vehicle or transport packages in transport of nuclear material.

(4) The receiver shall notify the shipper of the arrival of the shipment immediately upon the take-over certificate signature.

PART FIVE

CONTENT OF DOCUMENTATION FOR LICENSED PRACTICES IN THE AREA OF SECURITY

Section 28

(1) The analysis of needs and possibilities to provide physical protection shall include

- a) Description of the technical modification of a nuclear installation;
- b) The evaluation of site and local conditions in terms of physical protection of a nuclear installation;
- c) The preliminary assessment of the risks arising from any unauthorised activity with nuclear material and nuclear installation or any part thereof;
- d) The preliminary proposal for categorisation of nuclear material and the preliminary delineation of the areas of a nuclear installation or any part thereof;
- e) The preliminary design of the technical system of physical protection;
- f) The method of protection of the control system in design, construction and operation of the technical system of physical protection;
- g) The preliminary efficiency assessment for the proposed physical protection;
- h) The proposal of preliminary administrative and technical measures for physical protection of a nuclear installation; and
- i) The proposal of the measures of physical protection during nuclear installation construction.

(2) The preliminary plan of physical protection assurance shall include

- a) The analysis of the possibility of unauthorised handling of nuclear material and nuclear installation, and evaluation of the impacts of such handling, taking into account the design basis threat;
- b) The analysis, which will result in a proposal to delineate the areas at a nuclear installation pursuant to Section 4;
- c) The proposal of the nuclear material categorisation pursuant to Section 3;
- d) The detailed function analysis of the proposed technical system of physical protection or alarm systems;
- e) The documents of the assessment of detectors, mechanical barriers, access and entry control equipment and central panels of the alarm system performed by an authorised state testing laboratory;

- f) The license for designing, installing and assembling of alarm systems, in accordance with any other legislation;
- g) The description of the control system in physical protection assurance for the period of operation of a nuclear installation;
- h) The efficiency assessment for the proposed physical protection performed using mathematical models;
- i) The proposal of preliminary organisational measures for physical protection;
- j) The function analysis of physical protection with regard to construction, first physical and power start-up and operation of a nuclear installation, and to anticipated emergencies;
- k) The analysis of the consequences in terms of physical protection, nuclear safety and radiological emergency management for inner and vital areas in case of intentional illegal use of passenger aircraft against them; and
- l) The description of the measures of physical protection during nuclear installation construction.

(3) The plan of physical protection assurance shall include

- a) The risk assessment for nuclear material, the guarded and protected areas of a nuclear installation and consideration of design basis threat;
- b) The categorisation of nuclear material and the delineation of individual areas;
- c) The description of the actual technical system of physical protection or alarm systems, and evidence that the changes in original design will not reduce the level of physical protection;
- d) The programme of 144-hour complex testing of the technical system of physical protection or of the alarm system and evaluation of the results of 144-hour complex testing of the technical system of physical protection or of the alarm system, and CCTV system testing;
- e) The plan of organisational measures, which shall include
 1. Physical protection instructions for the case of unauthorised activities with nuclear material or nuclear installation, describing the system of communication, notification and command of the individual components of physical and emergency protection;
 2. Physical protection instructions for the case of radiological emergency;
 3. The plans computer security in the field of nuclear safety management, accounting for nuclear material, physical protection and radiological emergency management against intentional misuse, which include a description of the organisation and definition of the obligation to ensure security of information systems in a nuclear installation, the method of assets management, risk assessment and vulnerability, a description of the way and control of changes in configuration and the method of security of information systems, and a description of personnel measures;
 4. The verification procedure for trustworthiness and compliance with the requirements, pursuant to the Act on Classified Information Protection, and keeping the relevant documentation;
 5. Regime measures for access and entry permission;
 6. The description of the system of issuing identification cards or passports for access and keeping of their records;
 7. Instructions for handling of keys in the areas pursuant to Section 4 and keeping of their records;
 8. Instructions for the manipulation, operation, maintenance and testing of the technical system of physical protection or alarm systems;

9. Instruction for the retention of data on access permit for physical persons and entry of vehicles, data on alarm situations, dealing with the situations with any violation of physical protection and system testing; and
 10. Documentation for the physical security, which contains the structure and management of the guard service, the agreement for the provision of security services entered into with the licensee, the guard duties, the licensee's documentation necessary to counter physical protection breaks, and the plans of security guards training for the physical protection service at nuclear installations and verification of their qualification;
- f) Agreements with the police on the emergency protection assurance of a nuclear installation and the police escorts of the shipment of nuclear material, and on the connection of alarm systems to the police central protection panel, if applicable;
 - g) The analysis of the consequences in terms of physical protection, nuclear safety and radiological emergency management for inner and vital areas in case of intentional illegal use of transport aircraft against them;
 - h) The plan for dealing with the situations associated with any violation of physical protection;
 - i) The plan for dealing with the situations associated with any intentional use of passenger aircraft against the delineated areas in a nuclear installation pursuant to Sections 11 to 14; and
 - j) The plan for technical and organisation measures to deal with the situations associated with the threat of illegal action from any place outside the guarded area for nuclear installation pursuant to Sections 11 to 14.

(4) The plan of physical protection assurance for transport of nuclear material shall include

- a) The definition of obligation to assure physical protection between the shipper, the carrier and the receiver;
- b) The assessment of potential risk for the nuclear material to be transported and the consideration of design basis threat for Category I nuclear material;
- c) The proposal of the nuclear material categorisation;
- d) Organisational measures, which shall include
 1. Physical protection instructions for the case of unauthorised activities with nuclear material, describing the system of communication, notification, tracing of movement of a vehicle, listing the routes, mode of transport, composition of transport, planned stops during transport and command of the individual components of physical and emergency protection;
 2. An extract from the Emergency Rules in relation to the instructions for physical protection;
 3. Verification of trustworthiness and compliance with the requirements, pursuant to the Act on Classified Information Protection, and keeping the relevant documentation;
 4. Regime measures for access and entry permission in the place of loading, reloading and unloading of nuclear material;
 5. The certificate of training of the physical persons involved in transport of nuclear material in the field of rules for physical protection;
 6. Instructions for the manipulation, operation, maintenance and testing of the technical means for physical protection of the shipment of nuclear material;
 7. Instruction for the retention of data on access permit for physical persons and entry of the vehicles used in transport of nuclear material, data on alarm situations, dealing with the situations with any violation of physical protection in the course of transport of nuclear material;

8. Documentation for the physical security, which contains the structure and management of the guard service, the agreement for the provision of security services entered into with the licensee, the guard duties, the licensee's documentation necessary to counter physical protection breaks, and the plans of security guards training for the physical protection service during shipment of nuclear material;
- e) Agreement with the police on the police escorts of the shipment of nuclear material, if applicable; and
- f) The plan for dealing with the situations associated with any violation of physical protection in transport of nuclear material.

PART SIX

FINAL PROVISIONS

Section 29

Entry into force

This Decree shall enter into force on 1 January 2017.

Chairperson:

Ing. Drábová, Ph.D., m. p.

CATEGORISATION OF NUCLEAR MATERIAL

No.	Material	Form	Category		
			I	II	III ^{c)}
1.	Plutonium ^{a)}	Non-irradiated ^{b)}	2 kg and more	Less than 2 kg but more than 500 g	500 g or less but more than 15 g
2.	Uranium ²³⁵ U	Non-irradiated ^{b)} Uranium enriched to 20% ²³⁵ U or more	5 kg and more	Less than 5 kg, but more than 1 kg	1 kg or less, but more than 15 g
		Non-irradiated ^{b)} Uranium enriched to 10% ²³⁵ U but less than 20%		10 kg or more	Less than 10 kg, but more than 1 kg
		Non-irradiated ^{b)} Uranium enriched above natural concentration but less than 10% ²³⁵ U			10 kg and more
3.	Uranium ²³³ U	Non-irradiated ^{b)}	2 kg and more	Less than 2 kg, but more than 500 g	500 g or less, but more than 15 g
4.	Irradiated nuclear fuel			Depleted or natural uranium, thorium or low enriched nuclear fuel (less than 10% of fissionable content) ^{d)}	

Explanatory notes:

- a) All plutonium except plutonium with isotopic concentration higher than 80% of plutonium ^{238}Pu .
- b) Nuclear material not irradiated in a nuclear reactor or nuclear material irradiated in a nuclear reactor with a dose rate equal to or less than $1 \text{ Gy}\cdot\text{h}^{-1}$ at one meter unshielded.
- c) Quantities not falling into Category III should be protected pursuant to Section 162(1) of the Atomic Act.
- d) For any other nuclear fuel, which, with respect to the original content of fissionable material, was classified as Category I or II prior to irradiation, one category level may be reduced if the dose rate from such a material exceeds $1 \text{ Gy}\cdot\text{h}^{-1}$ at one meter unshielded.