

Regulation of the Minister of Economic Affairs, Agriculture and Innovation of 7 December 2010, No. WJZ/10183066 containing rules on the securitysecurity of nuclear facilities and nuclear materials (Nuclear Facilities and Nuclear Materials (SecuritySecurity) Regulation)

The Minister of Economic Affairs, Agriculture and Innovation,

Having regard to the Convention on the Physical SecuritySecurity of Nuclear Material adopted in Vienna and New York on 3 March 1980 (*Treaty Series 1981, 7*) as amended by *the Convention adopted on 8 July 2005 in Vienna amending the aforementioned Convention (Treaty Series 2006, 81)*, Article 22 of the Nuclear Facilities, Nuclear Materials and Ores Decree, Article 1d of the Nuclear Materials, Ores and Radioactive Materials (Transport) Decree and Article 1 (1) of the Nuclear Energy Act (Confidentiality) Decree;

Decrees:

§1. General

Article 1

In this Regulation the following terms are defined as follows:

Annex: the Annex to this Regulation;

Category I material: nuclear materials listed in Annex I that meet the conditions stated in that Annex for classification in Category I;

Category II material: nuclear materials listed in Annex I that meet the conditions stated in that Annex for classification in Category II;

Category III material: nuclear materials listed in Annex I that meet the conditions stated in that Annex for classification in Category III;

facility: facility as referred to in Section 15 (b) of the Act;

Minister: the Minister of Economic Affairs;

reference threat: long-term analysis of threats of theft of Category I, II or III material or of sabotage of that material or of facilities;

licensee: holder of a licence as referred to in Section 15 (a) or (b) of the Act, with the exception of the holder of a licence for the transport, holding in storage in connection with transport and bringing or causing to bring into or out of Dutch territory of nuclear materials or ores;

carrier: holder of a licence for the transport, holding in storage in connection with transport and bringing or causing to bring into or out of Dutch territory of Category I, II or III material.

§2. Security of nuclear facilities and nuclear materials

Article 2

The reference threat and changes therein shall be defined by the Minister. The reference threat defined shall be communicated to the licensees.

Article 3

1. The licensee shall take the security measures that are reasonably necessary to protect the facility or the Category I, II or III material against the threats set out in the reference threat, taking into consideration the security package defined and approved in accordance with Articles 4 and 5.
2. The licensee shall take at least the security measures needed to prevent the maximum value of

the amount of radioactivity emitted into the air stated in Annex II, determined in accordance with Annex II, or the maximum values of the effective dose received by a member of the public or an employee as referred to in Article 1 of the Radiation Security Decree, determined in accordance with Annex II, from being exceeded.

3. The licensee shall gear the combination and level of security measures to:
 - a. the nature of the material and the facility, and
 - b. the extent of the potential effects due to exposure to radiation of humans, animals, plants and property in the event of theft or sabotage of Category I, II or III material or sabotage of facilities
4. When taking the security measures the licensee shall take into account any measures that have been or are being taken to prevent damage. Measures that have been or are being taken to prevent damage shall take precedence over security measures.

Article 4

1. The licensee shall have a security package with a description of how the facility or Category I, II and III material is protected.
2. The security package shall contain at least:
 - a. designation of a security expert and deputy security expert who are responsible for the implementation and observation of the security measures and who meet the educational requirements listed in Annex III;
 - b. designation of positions of trust as referred to in Section 1 of the Security Screening Act;
 - c. an internal security organization plan as referred to in Article 7;
 - d. a description of the security measures taken and to be taken as referred to in Articles 8-11;
 - e. designation of an central alarm station as referred to in Article 9 (2);
 - f. designation of a company security service to which a licence as referred to in Section 3 of the Private Security Organisations and Detective Agencies Act has been granted;
 - g. an evaluation programme comprising tests, checks, audits and drills to enable the effectiveness of the security measures to be assessed;
3. It shall be stated when each of the plans and measures referred to at (2) was implemented.

Article 5

1. The security package referred to in Article 4 (1) and changes therein require the approval of the Minister.
2. Approval shall be refused if the security package does not meet the requirements laid down in this Regulation.
3. The Minister may attach conditions to the approval.
4. The Minister may refuse approval or withdraw or change the conditions attached thereto if the security package no longer meets the requirements laid down in this Regulation.

Article 6

1. The licensee shall change the security package referred to in Article 4 (1) if the reference threat is changed or if the Minister considers this necessary and has notified the licensee thereof in writing, stating the nature of the changes required.
2. Within one year of the reference threat being changed or within one year of the Minister giving notification that he considers a change in the security package to be necessary, the licensee shall submit an application for approval of the security package changed in accordance with the reference threat or the Minister's notification respectively.

3. The time limits stated at (2) may be shortened by the Minister if:
 - a. the change in the reference threat or the changes in the security package considered necessary by the Minister warrant(s) these shorter time limits, and
 - b. the changes can reasonably be made by the licensee within the time limit set by the Minister.

Article 7

1. The licensee shall have an internal security organization plan including at least a description of the organization, the responsibilities, the duties, the powers and the instructions of the security expert and the deputy security expert, the company security service and the emergency call centre, in particular in the event of:
 - a. theft of Category I, II or III material;
 - b. sabotage of Category I, II or III material or of the facility;
 - c. theft or the entry into the public domain of the reference threat, the security package referred to in Article 4 (1) or other sensitive information concerning the security of the facility or of Category I, II or III material, and
 - d. threat of attempted theft or sabotage as referred to at (a)-(c).
2. The internal security organization plan shall be linked to an external security organization plan containing a description of the action to be taken by the chief constable, the mayor and the public prosecutor in the cases referred to at (1).

Article 8

The licensee shall take physical security measures that at least delay the threats in the reference threat and cover at least roofs, ceilings, walls, floors, windows, doors, door and window furniture, safes and fences.

Article 9

1. The licensee shall take electronic security measures that are able at least to warn of the threats in the reference threat.
2. The electronic warnings shall be received by an emergency call centre that assesses them and if necessary requests assistance from the police.

Article 10

The licensee shall take security measures that are reasonably necessary to protect the emergency call centre referred to in Article 9 (2) against the threats set out in the reference threat. These security measures shall cover at least:

- a. the professional expertise and reliability of persons who design, install and maintain the equipment at the emergency call centre;
- b. technical requirements for the equipment at the emergency call centre;
- c. the professional expertise and reliability of persons who have access to or work at the emergency call centre.

Article 11

1. When taking the security measures the licensee shall divide the site on which the facility and its buildings are located, insofar as applicable, into:
 - a. a limited access area, being an area between the boundary of the site on which a facility is located and the boundary of a protected area as referred to at (b);
 - b. a protected area, being an area within a limited access area as referred to at (a) where Category III material may be held, and
 - c. a vital area, being an area within a protected area as referred to at (b) where Category I or II

material may be held or where facilities are located or where materials may be present that could cause direct or indirect harm in the event of sabotage.

2. The licensee shall take security measures that cover at least:
 - a. shielding and illumination of the areas referred to at (1) and the buildings in those areas;
 - b. surveillance of the areas referred to at (1) and the buildings in those areas;
 - c. limiting access and if necessary escorting persons and vehicles in the areas referred to at (1) and the buildings in those areas, and
 - d. supervision of that access.

Article 12

The licensee shall report any events that present an obstacle to the full application of the security package to the Minister immediately.

Article 13

The Nuclear Energy Act (Confidentiality) Decree shall apply to the reference threat and the security package referred to in Article 4 (1).

Article 14

1. The licensee shall implement the evaluation programme referred to in Article 4 (2g). This shall at least include an audit of the internal security organization plan, inspection of the physical security measures, testing of the electronic security measures and application of the internal security organization plan in a drill.
2. The licensee shall assess the security package for effectiveness annually. This assessment shall take into account the findings of the evaluation referred to at (1) and indicate whether the internal security organization plan is linked to an external security organization plan. The licensee shall report the results thereof to the Minister within a month of the assessment.
3. The licensee shall change the security package insofar as the results of the assessment referred to at (2) so warrant. He shall submit the change to the Minister for approval within one year of the reason for the change coming into being.

Article 15

1. The licensee shall assess every ten years whether the security package referred to in Article 4 (1) is in line with the state of the art. For this purpose the security measures taken shall be compared with the most effective techniques for achieving a high level of security that are economically and technically reasonably feasible at that time. If the licensee is required under the licence conditions to carry out a ten-yearly evaluation of nuclear safety and radiation security, the assessment shall be carried out simultaneously with that evaluation.
2. The licensee shall revise the security package referred to in Article 4 (1) insofar as the results of the assessment referred to at (1) so warrant.

§3. Security for the transport of Category I, II or III material

Article 16

To protect Category I, II or III material against theft and sabotage the carrier shall take security measures as referred to in Annex IV and security measures covering:

- a. the package of Category I, II or III material;
- b. limiting the duration of transport and any storage in connection with the transport;
- c. the choice of means of transport, the route and the location of any storage in connection with the transport;

- d. the duties, professional expertise and reliability of the vehicle crew;
- e. communications and other facilities on the vehicle;
- f. the security of specific data on the security measures in connection with the transport.

Article 17

1. The carrier shall have a security plan with a description of how Category I, II or III material is to be protected.
2. The security plan referred to at (1) shall contain at least a description of the security measures taken by the carrier to comply with Article 16 and a reference to the licence under the Nuclear Materials, Ores and Radioactive Materials (Transport) Decree under which the carrier is authorized to transport Category I, II or III material, hold it in connection with transport or bring it or cause it to be brought into or out of Dutch territory.

Article 18

1. The security plan referred to in Article 17 (1) and changes therein require the approval of the Minister.
2. The Minister may attach conditions to the approval.
3. The Minister may withdraw approval or change the conditions attached thereto.

Article 19

1. The carrier shall change the security plan referred to in Article 17 (1) if the Minister considers this necessary and has notified the carrier thereof in writing, stating the nature of the changes required.
2. Within one year of the Minister giving notification that he considers a change in the security plan to be necessary, the carrier shall submit an application for approval of the security plan changed in accordance with the Minister's notification.

Article 20

The carrier shall act in accordance with the most recently approved security plan referred to in Article 17 (1).

§4. Final Provisions

Article 21

1. Insofar as conditions concerning security are attached to a licence of a licensee or carrier, that package or that plan shall take the place of those conditions with effect from the day on which the Minister's decision to approve the security package or security plan takes effect.
2. The licensee or carrier at the time when this Regulation enters into force shall within one year of the entry into force of this Regulation adopt a security package or security plan respectively that is in accordance with this Regulation and submit it for the approval of the Minister within that time limit.

Article 22

This Regulation shall enter into force on 1 January 2011.

Article 23

This Regulation shall be cited as the 'Nuclear Facilities and Nuclear Materials (Security) Regulation'.

This Regulation shall be published with its Explanatory Notes in the Government Gazette.

â€™The Hague, 7 December 2010

The Minister of Economic Affairs, Agriculture and Innovation,
M.J.M. Verhagen

Annex 1 as referred to in Article 1 of the Nuclear Facilities and Nuclear Materials (Security) Regulation

Material	Form	Category I	Category II	Category III
1. Plutonium ¹	Non-irradiated ²	2 kg or more	Less than 2 kg but more than 500 g	500 g or less but more than 15 g
2. Uranium-235	Non-irradiated ²			
	– enriched uranium containing 20% or more ²³⁵ U	– 5 kg or more	– Less than 5 kg but more than 1 kg	– 1 kg or less but more than 15 g
	– enriched uranium containing at least 10% but less than 20% ²³⁵ U		– 10 kg or more	– less than 10 kg but more than 1 kg
	– uranium enriched to a level above natural content but containing less than 10% ²³⁵ U			– 10 kg or more
3. Uranium-233	Non-irradiated ²	2 kg or more	Less than 2 kg but more than 500 g	500 g or less but more than 15 g
4. Irradiated nuclear material			Depleted or natural uranium, thorium or low-enriched fission material (less than 10% nuclear material) ^{3,4}	

¹ With the exception of plutonium with an isotope content of more than 80% plutonium-238.

² For the purposes of this table ‘non-irradiated’ means material that has not been irradiated in a reactor, or material that has been irradiated in a reactor with a radiation level of 1 gray/hour (100 rads/hour) or less at one metre unshielded.

³ The Minister may classify these materials in a different category if there are special circumstances.

⁴ Other nuclear material assigned to Category I or II as regards radiation based on its original nuclear material content may be classified one category lower as long as the radiation level of the material is greater than 1 gray/hour (100 rads/hour) at one metre unshielded.

Annex II as referred to in Article 3 (2) of the Nuclear Facilities and Nuclear Materials (Security) Regulation

The maximum value of the amount of radioactivity emitted into the air is the radiological equivalent of 10 terabecquerels of I-131.

The radiological equivalent is determined using the table below. The activity of each emitted isotope is multiplied by the factor shown in the table, then the values found are added together.

Table: Multiplication factors for isotopes

Isotope	Factor
Am-241	8,000
Co-60	50
Cs-134	3
Cs-137	40

H-3	0.02
I-131	1
Ir-192	2
Mn-54	4
Mo-99	0.08
P-32	0.2
Pu-239	10,000
Ru-106	6
Sr-90	20
Te-132	0.3
U-235(S)	1,000
U-235(M) ¹	600
U-235(F) ¹	500
U-238(S) ¹	900
U-238(M) ¹	600
U-238(F) ¹	400
U-nat	1,000
Noble gases	0

¹ Lung absorption classes: S – slow; M – medium; F – fast. In the case of uncertainty the most conservative value shall be used.

Maximum values for the effective dose received by a member of the public or an employee:

- “ an effective dose with probable occurrence of a lethal deterministic effect on one or more members of the public or employees;
- “ an effective dose with probable occurrence of a non-lethal deterministic effect on three or more members of the public or employees;
- “ an effective dose of 200 mSv for ten or more members of the public or employees;
- “ an effective dose of 10 mSv for 100 or more members of the public or employees;
- “ an effective dose of 20 mSv for 100 or more employees.

Annex III as referred to in Article 4 (2a) of the Nuclear Facilities and Nuclear Materials (Security) Regulation

Educational requirements for security expert:

Possession of at least:

- “ a certificate at higher professional (HBO) or at least equivalent level, and
- “ a certificate of the post-HBO Security Management course as certified by Stichting Post HBO Nederland, or a certificate at least equivalent to the last-mentioned certificate.

Professional requirements laid down in another European Union Member State, or a state that is not a European Union Member State but is party to a Treaty wholly or partly to this effect that is binding on the Netherlands, which guarantee a professional level at least equivalent to the level that the national requirements are designed to achieve shall be equated with the aforementioned professional requirements.

The Minister shall certify whether a qualification is equivalent on request by a licensee.

The following qualifications are in any event equivalent:

- “ a Master of Science (MSc) in the Study of Security Management from the University of Leicester (England);
- “ a Master of Business Administration (MBA) in Security Management as certified by the Dutch Validation Council;

â€“ a certificate of the Certified Security Professional (CPP) course of the American Society for Industrial Security (United States).

Annex IV as referred to in Article 16 of the Nuclear Facilities and Nuclear Materials (Security) Regulation

Levels of physical security to be used as security measures for the transport of material classified in Annex I

1. Levels of physical security for Category I, II or III material in storage during transport.
 - a. *Category III material*
Storage on a site where access is supervised.
 - b. *Category II material*
Storage on a site that is continuously monitored by security guards or electronic equipment and surrounded by a boundary fence with a limited number of suitably supervised entrances, or any site with corresponding physical security.
 - c. *Category I material*
Storage on a protected site as described above for Category II material where access is moreover limited to persons whose reliability has been established and that is under the surveillance of security guards who are in close contact with the authorities authorized to act.

The aim of the special measures taken in this connection should be to discover and prevent violent or unauthorized access to, or the unlawful removal of, Category I, II or III material.

2. Levels of physical security for Category I, II or III material during transport:
 - a. *Category II and III material*
Transport shall take place with due observance of special precautions, including prior agreements between the consignor, consignee and carrier and any prior agreement between natural or legal persons, subject to the jurisdiction and regulations of the exporting and importing states, stating the time, place and procedures for the transfer of responsibility for transport.
 - b. *Category I material*
Transport shall take place with due observance of the special precautions as laid down above for the transport of Category II and III material, with constant supervision by escorts and under conditions that guarantee close contact with the authorities authorized to act.
 - c. *Natural uranium other than in the form of ore or ore residue that is covered by material classified in Annex I*
When quantities of more than 500 kg of uranium are being transported, prior notification shall be given of the consignment, stating the mode of transport and the presumed time of arrival, and receipt of the consignment shall be confirmed subsequently.