

**RESOLUTION OF THE COUNCIL OF MINISTERS OF THE  
REPUBLIC OF BELARUS  
September 27, 2010 No 1385**

**ON APPROVAL OF REGULATION ON PHYSICAL PROTECTION  
OF NUCLEAR FACILITIES**

Pursuant to paragraph 9, clause 5 of the Law of the Republic of Belarus "On Use of Nuclear Energy" of July 30, 2008, the Council of Ministers of the Republic of Belarus DECIDES:

1. To approve the Regulation on Physical Protection of Nuclear Facilities attached.
2. Republican public authorities shall take measures towards implementation of the present Resolution.
3. The present Resolution comes into force after its official publication.

Prime Minister of the Republic of  
Belarus

S. Sidorsky

APPROVED  
Resolution of  
the Council of Ministers of  
the Republic of Belarus  
No. 1385 of 27.09.2010

**REGULATION ON PHYSICAL PROTECTION OF NUCLEAR  
FACILITIES**

1. This Regulation identifies the conditions and procedures for physical protection of nuclear facilities (hereinafter – physical protection).
2. In terms of this Resolution, terms and their definitions are used in the meanings established by the Law of the Republic of Belarus On the Use of Nuclear Energy of July 30, 2008 (the National Register of Legal Acts of the Republic of Belarus, 2008, No. 187, 2/1523), Criminal Code of the Republic

of Belarus, as well as the following terms and their definitions:

vulnerability test - a process implemented by the operating organization to detect vulnerable points based on accepted design basis threat and possible ways of unauthorized act realization;

inner area - the area inside protected zone with limited and controlled access, surrounded by physical barriers, under constant protection and surveillance, where nuclear material, spent nuclear material, operational radioactive waste are used and (or) stored;

protected area - the area under constant protection and surveillance surrounded by physical barrier, and the access to this area shall be limited and controlled;

violator - a person who commits an unauthorized act as well as a person who assisted in such action;

unauthorized act - committing or attempt to commit, theft of nuclear material, diversion with regard to nuclear and storage facility, unauthorized access to a nuclear and storage facility, carrying (passage) of prohibited objects to a nuclear and storage facility, damage or violation of functioning of engineering and technical means of physical protection;

vital area - an area located in the inner area which contains equipment, systems, facilities, nuclear material, spent nuclear material, operational radioactive wastes, unauthorized acts against which may cause threat to public health or life as a result of radiation exposure and result in radioactive contamination of the environment;

design basis threat - properties and characteristics of potential violators, which the physical protection is designed and assessed to oppose to;

threat - a combination of conditions and factors that create the probability of unauthorized acts, or a person with intentions and abilities to committing unauthorized acts;

vulnerabilities - operational and storage facilities for nuclear materials, spent nuclear materials, operational nuclear waste, as well as individual elements of systems, equipment, nuclear unit and (or) storage facilities, unauthorized act against which may result in emergency situation or cause threat to public health or life as a result of radiation exposure and result in radioactive contamination of the environment;

physical barrier - a physical obstacle hindering the access to the protected, inner and vital area for violator.

3. Physical protection is ensured by operating organizations and republican public authorities within their competence.

4. In order to maintain physical protection in a state of effective response to design basis threat, the operating organization develops and, after harmonizing with republican public authorities implementing state regulation of activities on safety assurance during use of nuclear energy, adopts

programs of physical protection quality assurance.

The programs of physical protection quality assurance should envisage periodic inspections of functional ability of all physical protection components.

5. In order to develop requirements for physical protection, the operating organization shall define the design basis threat to each nuclear facility in line with procedure established by the Ministry of Internal Affairs.

6. Based on design basis threat and taking into account the categories of unauthorized acts consequences, a physical protection is developed by the operating organization for each nuclear facility. The categories of unauthorized act consequences, pursuant to Annex 1, which can be committed with regard to nuclear facility or its vulnerabilities, are subject to determine on the basis of scope of radiation impact.

7. The operating organization categorizes buildings and facilities of a nuclear unit and storing facility based on the category of individual nuclear materials located in these facilities, taking into account their combination and results of vulnerability test. Categories of nuclear materials, pursuant to Annex 2, are established considering the degree of their potential threat based on the type and amount of nuclear materials, their isotopic composition, physical and chemical form, enrichment degree, the radioactive exposure level. Nuclear material that does not belong to Category 3, as well as natural uranium, depleted uranium and thorium, must be protected according to requirements of technical regulations in radiation safety.

8. The operating organization, as agreed with republican public authorities implementing state regulation of activities on safety assurance during nuclear energy use, ensures construction of protected, inner, vital areas, and siting of nuclear facilities in these areas.

Access to these areas is limited and controlled. Personnel to get an access to a nuclear or storing facility, to nuclear material and radioactive waste, is agreed with the State Security bodies after prior verification of all persons claiming such access.

9. The operating organization ensures:

construction and functioning of physical protection in cooperation with republican public authorities within their competence;

performing vulnerability test of nuclear facilities;

assessment of unauthorized acts consequence with regard to nuclear facilities;

effectiveness assessment and development of proposals on physical protection improvement;

development and duly approval of local statutory frameworks on physical protection;

performing other duties prescribed by the law.

10. The operating organization interacts with republican public authorities implementing state regulation of the activities on safety assurance whilst nuclear energy use, as well as inform instantly state bodies concerned, within their competence, of illegal acts with regard to nuclear facilities or attempts to commit such acts.

Annex 1  
to the Regulation on  
Physical Protection of  
Nuclear Facilities

CATEGORIES OF UNAUTHORIZED ACT CONSEQUENCES

Category of unauthorized action consequences	Scope of radiation exposure
I	radiation impact covering the territory of one or more regions of the Republic of Belarus or extending beyond the territory of the Republic of Belarus
II	radiation impact not belonging to the category I but able to cause radiation impact beyond the boundaries of the sanitary protection zone of a nuclear facility and (or) storing facility
III	radiation impact extending beyond the boundaries of buildings and facilities but not going beyond the boundaries of the sanitary protection zone of a nuclear facility and (or) storing facility

Annex 2  
to the Regulation on  
Physical Protection of  
Nuclear Facilities

CATEGORIES OF NUCLEAR MATERIALS

Material	Form	Category I	Category II	Category III
Plutonium <1>	unirradiated <2>	2 kg or more	less than 2 kg but more than 500 g	500 g or less but more than 15 g
Uranium-235	unirradiated <2> with enrichment:			
	20% or more of uranium-235	5 kg or more	less than 5 kg but more than 1 kg	1 kg or less but more than 15 g
	from 10% but less than 20% of uranium-235		10 kg or more	less than 10 kg but more than 1 kg
	more than natural but less than 10% of uranium-235			10 kg or more
Uranium-233	unirradiated <2>	2 kg or more	less than 2 kg but more than 500 g	500 g or less but more than 15 g
Irradiated nuclear material			depleted or natural uranium, thorium or low enriched nuclear material (with amount of fissile isotopes less than 10%	

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<1> All plutonium except for one the isotope concentration of which exceeds 80 % of plutonium-238.

<2> Material not irradiated in nuclear reactor, or material irradiated in nuclear reactor but with exposure level equal or less than 1 Gy/hr (100 rad/hr) at a distance of 1 m without protection (biological).