Decree 26 of the Minister of Georgian Environmental and Natural Resources Protection Agency
26 July 2017
Tbilisi

Concerning the Security of Nuclear and Radiation Facilities, Radioactive Sources, Radioactive Waste and Other Sources of Ionizing Radiation.

According to the 53rd paragraph, point 51, sub-point b) of Georgian Legislation concerning "Nuclear and Radiation Safety", I declare:

Paragraph 1

Officially adopting attached demands concerning "security of nuclear and radiation facilities, radioactive sources, radioactive waste and other sources of Ionizing radiation"

Paragraph 2

This decree is to become effective upon declaration

Minister of Georgian Environmental
and Natural Resources Protection agency **Gigla Agulashvili**

Requirements of physical security of nuclear and radiation facilities, radioactive sources, radioactive waste and other sources with harmful radiation

Paragraph 1 General Regulations:

The following decree is made in accordance with “Convention Physical Protection of Nuclear Substances” of March 3rd 1980 concerning, “Amendment to Convention of Physical Protection of Nuclear Materials” of July 8th 2005 and Georgian legislation concerning "Nuclear and Radiation Safety"

Paragraph 2 Regulation Area of the decree:

a) Ensuring the requirements of physical security that are mandatory for legal entities and/or natural persons while dealing with nuclear and radiation activities (except activities related to ionizing radiation generators);
b) Competence concerning security of Legal Entity of Public Law - Agency of Nuclear and Radiation Safety (from here on referred to as Regulatory Body) as a part of Georgian Environmental and Natural resources protection agency

Paragraph 3 Goals and Tasks:

1 The goal for the following decree is ensuring the security of nuclear and radiation facilities, radioactive sources, radioactive waste and other sources with harmful radiation and correspondingly the safe of human, population, environment and property from the harmful radiation.

2 The task of the following decree is to establish requirements that ensure effective detection, delay and response based on a graded approach, defense in depth, risk assessment and/or design basic threats and complex protection concerning security and security systems.

Paragraph 4 Security Goals and Principals:

1 Security Goals:

A) Protecting nuclear and radiation facilities from illegal activities concerning radioactive sources, radioactive waste and other sources of ionizing radiation.

B) Efficient and coordinated response to illegal actions to obtain the location, search and impose regulatory control upon illegally obtained radioactive elements.

2 General principles of security are defined in the Georgian legislation concerning "nuclear and radiation security"

3. Security measures should be collaborated, planned and implemented complexly according to the demands of nuclear and radiation safety.

Paragraph 5 Definition of Terms:

1. for the purposes of this decree the following terms are defined as:

a) **Design Basis Threat**- A comprehensive description of the motivations, intentions and capabilities of potential adversaries against which protection systems are designed and evaluated.

b) **Security -** The prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities

c) **Threat**- person and/or persons that have the motive, intent and opportunity to commit sabotage or other illegal actions.

d) **Insider**- a person that has official access to nuclear and radiation facilities, radioactive waste, nuclear materials, radioactive sources, associated devices and corresponding information and that has the opportunity to act illegally or help an outside violator in his or her illegal actions.

e) **Storage**- Buildings and structures that can be used to temporarily store the nuclear and radiation sources and/or radioactive waste safely, that are in possession of the juridical or natural person in charge of implementing nuclear and radiation activities.

f) **Security culture**- The combination of features, approaches and actions by individuals, organizations and Authorities that support nuclear security, safety, development and stability.

g) **Detection**- Function of security that is responsible for the detection of illegal action and assessment of the threats caused by this action.

h) **Delay**- function of security that is responsible for obstruction of illegal action (with the purpose of extending time) while accessing nuclear and radiation facilities, radioactive sources,

radioactive waste and other sources of ionizing radiation.
i) **Response**- function of security that is comprised of a combination of measures by operator personal, security service and persons responsible for responding to illegal actions, whose goal it is to act in full accordance of law against the person or persons that have committed the illegal action as well as reduction of any negative effects resulting by this action.
j) **Security Management**- Assigning adequate human and financial resources for the security of nuclear and radiation facilities, radioactive sources and radioactive waste, as well as collaboration and implementation of plans concerning the procedures for treating confidential information and security culture.
k) **Graded approach**- planning and implementation of measures that ensure security in response to possible illegal actions.
l) **Defense in Depth** - A concept of several layers and methods of protection (structural, technical, personnel and organizational) that have to be overcome or circumvented by an adversary in order to achieve their objective.

m) **Security System**- unity of personnel, procedures and technical capacities in physical security measures.

2) Other terms in the decree have the same meaning as used in the acting Georgian legislation

Paragraph 6 Competent authorities in security of nuclear and radiation facilities, radioactive sources, radioactive waste and other sources of ionizing radiation:

1. Functions of the regulatory authority in regards to the security of nuclear and radiation facilities, radioactive sources, radioactive waste and other sources of ionizing radiation are:
a) Setting and updating the security system requirements according to this decree for owners, or applicants the licenses for nuclear and radiation activities.
b) Review of documentation to ensure of secure conditions and decision making in accordance with the Georgian legislation during authorization.
c) Control and assessment of the security measures made by licensed persons and or legal entities through inspection.
d) Setting necessary measures in accordance of administrative provisions and/or control of updated security systems due to possible new threats.
e) Implementing mandatory enforcement measures in accordance to Georgian legislation in case of violation of security parameters in nuclear and radiation activities and/or exposure of faulty functioning in security system.
f) Involvement in elaboration of requirement for establishment of design basis threats.
g) Assessment of design basis threats for high risk nuclear and radiation facilities, category 1 nuclear materials and radioactive sources, W1 class radioactive waste for natural persons or legal entities

h) Recording and registry of nuclear and radiation sources, radioactive waste and other sources of ionizing radiation.

2. The competence of the Ministry Internal Affairs of Georgian in regards to security of nuclear and radiation facilities, radioactive sources, radioactive waste and other sources of ionizing radiation is defined by the acting Georgian legislation.

Paragraph 7 .Obligations of the operator concerning the security of nuclear and radiation facilities, radioactive sources, radioactive waste and other sources of ionizing radiation:

1 Operator is obligated to :
a) Maintain the Georgian legislation to ensure security.
b) Develop of a quality control program.
c) Assess existing and potential threats.
d) Consider the design basis threats and other threats connected to planning and implementation of security systems related to nuclear and radiation facilities with high risk of radiation, category 1 nuclear materials and radioactive sources, W1 class radioactive waste natural persons or legal entities;

e) Provide documentation on security systems and quality control programs to the Regulatory Body for licensing nuclear and radiation activities.
f) Uphold the confidentiality of information related to the security system.
g) Renew the security system:
i) In case of emergence of a new threats,
ii) In case of activity expansion and/or in case of acquirement of new sources with higher category
iii) In case of implementation of new technologies in security
h) Periodically check the functionality of the security system and report the findings in the corresponding document.
i) In case of violation from the requirements of Georgian legislation, implement the measures defined by the Regulatory Body in the allocated time.
j) Report the corresponding documents to the Regulatory Body within 10 days in case of any change in the security system.
k) Ensure preparedness and response in accordance with the response plan in case of a radioactive incident and/or accidents
l) Immediately report to the Regulatory Body and competent authorities about intent of illegal action, preparation for illegal action, attempt of illegal action and exposure of illegal actions concerning radioactive materials, storage, high risk nuclear and radiation facilities;.
m) Supply information about new internal and external threats to the Regulatory Body and competent authorities.
n) Implement the security culture
o) Record the radioactive sources, radioactive waste and other sources of ionizing radiation.
p) Implement the two key principal in case of handling with I,II, III category radioactive sources and Nuclear Material, W1-W2 class of radioactive waste;

q) Ensure the correct functionality of technical items used in security system.
r) Ensure the training and retraining of personnel in matters concerning security

2. In case of the emerging threat the operator is obligated to:

a) Immediately strengthen the security of high radiation risk facilities, I, II, III category nuclear materials and radioactive sources, W1, W2 and W3 class radioactive waste.
b) Immediately provide information about threats to the Regulatory Body and corresponding competent authorities.
c) Implement mitigation measures.
d) Assess the results caused by the potential threats and effectiveness of the mitigating measures.

Paragraph 8 Security System:

1. With the purpose of security the license holder/ license seeker must implement the security system, considering the graded approach, which will ensure the detection, delay and response of the illegal action. Security system must include the measures for detection, delay and response.
2. Detection measures must be implemented with the goal of exposing and assessing illegal actions, preparation for illegal actions and attempts of illegal actions. Detection, based on graded approach, must be provide by: visual and video devices, electric sensors, registration records, alarm and control system and others;
3. Delay measures should be implemented with the goal of obstructing illegal entry and excess to nuclear and radiation facilities, radioactive sources, radioactive waste and other sources of ionizing radiation. Assessment of delay defined as the time from detection of the intruder in the nuclear and radiation facilities for the attempted or successful illegal possession of radioactive sources, radioactive waste and other sources of ionizing radiation. For delay using different types of barriers and/or physical means (Stationary constructions, fences, doors, railings, storing and transport containers, locks and others). Delay measures must be based on grader approach defined on facilities Nuclear and radiological risks, category of Nuclear materials and radioactive sources, radioactive waste)
4. Response measures must be enacted immediately based on detection and analysis in order to suppress the illegal action. Response measures should be planned in accordance with the graded approach based on the risk level of nuclear and radiation facilities and the category of radioactive sources, radioactive waste and nuclear materials, radioactive waste.
5) Security Management creates the base for effective implementation of security functions and sustainability foundation.

Paragraph 9 Security of Radioactive Sources:

1. Three levels of security: "A", "B", "C" (*appendix 1*) exist according to the categories of radioactive sources
a) Security Level A- prohibition of illegal possession of radioactive sources.
b) Security Level B- Reduction to the minimum of illegal possession of radioactive sources.
c) Security Level C- Restriction of illegal possession of radioactive sources.

2. The requirements for Security levels "A", "B", "C" for radioactive sources are defined in appendix 2
3. The requirements for ensuring security of category 4-5 radioactive sources are as follows:
a) Establishing preventive measures for accidental or illegal entry.
b) Yearly inventory and documentation of radioactive sources inventory results;
c) Implementing control mechanisms on all levels of handling with the radioactive sources;
d) Ensuring the storage of radioactive sources in safe containers.
e) Ensuring the notification of competent authorities in case of discrepancies in the inventory process.

4. In the case of simultaneous usage or storage of different category radioactive sources implemented security measure must be corresponding to highest category sources.

Paragraph 10 Security of Radioactive waste:

1. For planning and implementing the security system for radioactive waste should be considered the mass of the radioactive waste, its volume, activity, distribution in the facility as well as the following features:
a) radionuclide specific activity in the radioactive waste.
b) Physical and chemical form of the radioactive waste.
c) Packaging of the radioactive waste.
2. The relative threat of the radioactive waste (R) should be considered while planning` the security system. The value of R in each packaging is calculated by the following formula:

$$R = \sum_n \frac{A_n}{D_n}$$

Where A_n is the radionuclide activity of n. D_n is Dangerous value of n radionuclide, that is defined by a technical regulation- "Categorization of Sources of Ionizing Radiation, creation and maintenance of registry of authorization, sources of ionization radiation and radioactive waste' (Resolution N689)

The class (W1, W2, W3. W4) of radioactive waste is determined according to the value of relative threat (R) and the mass of the packaging of the radioactive waste. The class of radioactive waste determines the requirement for a corresponding security system.

3. Class of the radioactive waste is determined according to the diagram 1

Diagram 1

Value of R	Mass of the packaging of	Scenario

	radioactive waste M(kg)	Theft	Sabotage
R ≥ 1000	M< 2000*	W1	W1
	M ≥ 2000*	W2	
10 ≤ R < 1000	M< 2000*	W2	W2
	M ≥ 2000*	W3	
1 ≤ R < 10	M< 2000*	W3	W3
	M ≥ 2000*	W4	
R < 1	Any	W4	W4

2000 is the minimum mass of the packaging of the radioactive waste that is considered problematic in case of possible illegal action*

4. The class of the radioactive waste may be changed by the licensee, with informing the regulatory Body, based on the change of the characteristics of radioactive waste.
5. Security system requirements for W1, W2 and W3 class radioactive waste are defined by *appendix 4*
6. Security system requirements of W4 class radioactive waste are determined according to the practical appropriateness with the agreement of the Regulatory Body.

Paragraph 11 Security of storage and disposal of the radioactive waste:

1. The department of radioactive waste management of the Regulatory Body is obligated to:
a) Ensure security of radioactive waste on storage of radioactive waste and disposal of radioactive waste.
b) Implement the security system according to threat assessment and design basis threats.
c) Ensure that the security systems are in working order.
2. All nuclear and radiation facilities, which are handling with radioactive waste and radioactive sources should be implemented security system on based of maximum level of security defined by this order.

Paragraph 12 Security of radioactive waste and radioactive sources during transportation:

1. In order to avoid illegal actions the security system in transportation of radioactive sources and radioactive waste should be planned with consideration of the graded approach.
2. Following aspects should be considered for planning the security system in case of

transportation of radioactive sources and radioactive waste:
a) Physical and chemical properties of the radioactive sources and radioactive waste.
b) The form of transport used.
c) Packaging.
d) Risk assessment of possible threats caused by radioactive sources and radioactive waste.
3. Possible radiological impacts is assessed according to the properties of the radioactive sources and radioactive waste.
4. Following security measures should be planned according to the radiological impact analysis and graded approach:
a) In case of marginal radiological impacts- Security measures must be implemented based on practical appropriateness.
b) In case of limited radiological impacts- Basic security measures must be implemented.
c) In case of significant radiological impacts- Intensified security measures must be implemented.
5. Requirements for the basic security measures for transporting radioactive sources and radioactive waste:
a) The security level of the buildings and structures used as temporary storage for the radioactive sources and radioactive waste while transporting them should comply with the requirements for security of radioactive sources and radioactive waste and their storage sites.
b) Trustworthiness of the persons tasked with transporting the radioactive sources and radioactive waste should be ensured and the tasks of said persons should be clearly defined.
c) Timely exchange of information between the sender, transporter and receiver of the package should be insured.
d) Timely response should be made according to the corresponding plan in case of an incident and/or accident while transporting radioactive sources and radioactive waste.
e) It is forbidden to leave the packaging and corresponding transport of radioactive sources and radioactive waste unsupervised.
f) Persons transporting the radioactive sources and radioactive waste should be qualified in matters of radioactive safety and security.
6. Intensified measures of security for transporting radioactive sources and radioactive waste include basic as well as additional measures, which means an increase in the levels of security for detection, delay and response as well as confidentiality.
7. The route (with restricted access to populated areas) and time of transportation of radioactive sources and radioactive waste should be collaborated with the corresponding Authorities according to the Georgian legislation.
8. Transportation of radioactive sources and radioactive waste should be accompanied by the security personnel in accordance with Georgian legislation.
9. The transport used in transporting the radioactive sources and radioactive waste should comply with the requirements of Georgian legislation.
10. The transportation of radioactive sources and radioactive waste should be conducted by persons authorized by Georgian legislation.
11. In case of threat the following additional measures should be taken:
a) Delay of transportation.

b) Change of route in order to avoid threat.
c) Increasing the sustainability of packaging and transport vehicle.
d) Ensuring transportation by adding more security personal.
e) Informing the corresponding Authorities about the threat of theft, sabotage and any other illegal actions.

Paragraph 13 Security of Nuclear Materials:

1. Security level of nuclear material is determined by categories in the appendix 4.
2. The correlation of nuclear material security levels with security levels of radioactive sources is as follows:
a) III category nuclear material- Level "C" of radioactive source security.
b) II category nuclear material- Level "B" of radioactive source security.
c) I category nuclear material- Level "A" of radioactive source security.
3. Following requirements should be met while transporting II and III category nuclear materials:
a) Basic security action should be ensured.
b) There should be a prearranged place, time and procedure of passing nuclear materials between sender, transporter and receiver.
4. Intensified measures of security must be used while transporting category I nuclear materials.
5. In the case of transporting nuclear materials inside the country and of the volume that exceeds categorization of nuclear materials actions that correspond to IV-V category radioactive source transportation should be implemented, which are determined in appendix 3.

Paragraph 14 Security Culture:

1. Security culture must be implemented for the long run and corresponding human and financial resources must be allocated in order to ensure the stability, sustainability and effectiveness of security. For the purpose of security each and all competent Authorities and persons that are involved in ensuring security and control must implement, develop and maintain the security culture.
2. The foundation of security culture is as follows:
a) Realization, assessment and analysis of existing potential threats.
b) Ensuring the stability of security.
c) Defining the duties and functions of personnel and having control mechanisms over them.
d) Improving awareness and knowledge of personnel.
e) Continuous improvement of security systems in order to complete security functions.

Paragraph 15 Ensuring quality of security:

1. Quality assurance of security is mandatory for competent Governmental Authorities and those natural persons and/or legal entities that work nuclear and radiation fields.
2. Operators must use the graded approach to create and renew the quality assurance program that allows for the creation, implementation and maintenance of the security system in accordance with threat assessment and/or design basis threats and acting legislation.
3. Quality assurance program must include:
a) Guarantee of compliance with the requirements related to security.
b) Guarantee of correspondence with components of security system and quality tasks.
c) Ability to assess and check effectiveness of quality control mechanisms and procedures.
d) Ways of creating, maintaining, development and implementation of security a system.
e) Ways of implementing and assessment of security culture.
4. Operator is obligated to systematically check, develop and maintain the program ensuring the quality for physical security and help with its implementation.

Appendix 1

Levels of security according to the categories of radioactive sources

A/D	Category of the source	Level of security
A/D ≥ 1000	I	«A»
10 < A/D ≤1000	II	«B»
1 < A/D ≤10	III	«C»
0.01 < A/D ≤1	IV	
A/D ≤ 0.01 and A>Exemption level*	V	

* Exemption level is determined by appendix 1 of technical regulation #450 decreed on August 27th of 2015 of Georgian government about Technical Regulations - "Radiation safety norms and basic requirements related to handing of ionizing radiation sourcesA- Radioisotope activity;

D- Dangerous value, that is determined by decree #689 made on December 19th of 2014 by Georgian government concerning "Categorization of Sources of Ionizing Radiation, creation and maintenance of registry of authorization, sources of ionization radiation and radiactive waste'

Appendix 2

Requirements for security of radioactive sources according to the "A', "B" and "C" levels

Security Level "A"

Function of Security	Task of Security	Measures for Implementation
	Immediate detection must be ensured in case of illegal entry in the nuclear and radiation station/ area of storage of radioactive sources	Electronic system for detecting illegal entry and/or constant surveillance by personnel

Detection	Ensuring immediate detection of illegal entry with the purpose of obtaining radioactive sources, including inside violators	Electronic system for detecting illegal entry and/or constant surveillance by personnel
	Ensuring immediate assessment of discovery	Implementation of a close circuit video monitoring system. Assessment of the results of monitoring by the person responsible
	Ensuring the immediate informing of the responsible Authorities and persons	Different types of quick, reliable audio (communication) devices like land line, mobile phone, walkie-talkie and others
	Ensuring the detection of loss through physical verification	Daily verification via cameras, motion detection sensors and other devices
Delay	Ensuring to provide enough delay after detecting illegal action to provide time for responsible personnel to prevent illegal possession of radioactive source	At least two obstacles of security system that collectively ensure enough delay for the team tasked with response to prevent illegal possession of the radioactive sources
Response	Ensuring immediate response to alarm in order to impede or prevent illegal possession of radioactive sources	The ability to immediately provide resistance by personnel with corresponding training and equipment
	Ensuring that only authorized personnel is allowed in the storage area of radioactive sources	Identity verification: For example locks controlled with an ID card reader, or personal key
	Ensuring trustworthiness of the persons with authorization	Special verification of all persons that have access to radioactive sources and corresponding information without an accompanying person

Security Management		
	Determining confidential information and it's security	Devising procedures for determining confidential information, ensuring its security and avoiding illegal disclosure
	Devising quality control program	Devising quality control program that is in accordance with requirements of legislation and response to increased threats
	Readiness for unexpected events	Devising response procedures for different scenarios to ensure security
	Implementing accountancy systems	Devising timely accountancy procedures

Security Level "B"

Function of Security	Task of Security	Measures for implementation
	Immediate detection must be ensured in case of illegal entry in the nuclear and radiation station/ area of storage of radioactive sources	Electronic system for detecting illegal entry and/or constant surveillance by personnel

Detection	Ensuring immediate detection of illegal entry with the purpose of obtaining radioactive sources, including inside violators	Electronic system for detecting illegal entry and/or constant surveillance by personnel
	Ensuring immediate assessment of discovery	Implementation of a close circuit video monitoring system. Assessment of the results of monitoring by the person responsible
	Ensuring the immediate informing of the responsible Authorities and persons	Different types of quick, reliable audio (communication) devices like land line, mobile phone, walkie-talkie and others
	Ensuring the detection of loss through physical verification	Weekly verification via cameras, motion detection sensors and other devices
Delay	Ensuring enough delay after detection of illegal action to minimize the possession of Radioactive sources	At least two obstacles of security system that collectively ensure enough delay for the team tasked with response to prevent illegal possession of the radioactive source
Response	Ensuring immediate response to alarm to impede or prevent illegal possession of radioactive sources	Equipment and procedures for immediate response
Security Management	Ensuring that only authorized personnel is allowed in the storage area of radioactive sources	At least one criteria for identification
	Ensuring trustworthiness of the persons with authorization	Special verification of all persons that have access to radioactive sources and corresponding information without an accompanying person
	Determining confidential information and ensuring it's security	Determining confidential information and ensuring security against illegal disclosure

	Devising quality control program for Security	Devising quality control program that is in accordance with requirements of legislation and response to increased threats
	Readiness for unexpected events	Devising response procedures for different scenarios to ensure security
	Implementing accountancy systems	Devising timely accountancy procedures

Security Level "C"

Function of Security	Task of Security	Measures for implementation
	Ensuring detection of illegal possession of radioactive sources	Equipment for detecting illegal entry and/or verification by personnel
	Ensuring immediate assessment of discovery	Assessment by personnel and/or by persons responsible
	Ensuring detection of loss through verification	Monthly verification via video monitoring and other devices
Delay	Ensuring delay to limit the illegal possession of radioactive sources	At least one obstacle of security or supervision by personnel

Response	Implementation of corresponding measures in case of illegal possession or radioactive sources	Devising necessary procedures for response
Security Management	Ensuring that only authorized personnel is allowed in the storage area of radioactive sources	One criteria of identification
	Ensuring trustworthiness of the persons with authorization	Appropriate verification of all persons that have access to radioactive sources and corresponding information without an accompanying person
	Determining confidential information and ensuring it's security	Determining confidential information and ensuring security against illegal disclosure
	Devising quality control program for Security	Devising quality control program that is in accordance with requirements of legislation
	Readiness for unexpected events	Devising response procedures to ensure security
	Implementing accountancy systems	Devising timely accountancy procedures

Appendix 3

Security requirements for W1, W2 and W3 radioactive waste

	Measures for the security of radioactive waste	Class of waste		
		W3	W2	W1
1.	Radioactive waste must be placed in a restricted area	+		
2.	Radioactive waste must be placed in an area that is under control		+	
3.	Radioactive waste must be placed in a safe place under a controlled perimeter			+
4.	Physical barrier must be placed around the restricted, controlled safe area	+	+	+
5.	Entrances and exits to the perimeter must be limited to a minimum	+	+	+
6.	Control measures must be implemented at entrance areas	+	+	+
7.	Only authorized personnel must be allowed at the storage area of radioactive waste	+	+	+

8.	Appropriate verification procedures must be devised for permitting unescorted persons in the restricted area			+
9.	Persons who's trustworthiness cannot be ascertained must be accompanied at all times			+
10.	Appropriate rules for using keys and/or cards must be devised for entering the restricted area	+	+	+
11.	Inflow of vehicles in the waste storage area must be kept down to a minimum	+	+	+
12.	Persons, vehicles, packages and cargo must be searched upon entry and departure of the perimeter			+
13.	Appropriate assessment procedures must be devised for cases of illegal entry in the perimeter. Likewise procedures must be devised for an immediate sounding alarm for the appropriate response Authorities		+	+
14.	In order to ensure the working order, person responsible for nuclear and radiation measures must periodically inspect detection and assessment system and other technical means		+	+
15.	In order to ensure assessment of alarm quality, it's cause and if necessary initiating response procedures, all information gathered from detectors related to security must be gathered in a central control point. Storage and design of the central control point must conform to security requirements with consideration of threats			+
16.	Central control point must have means of two way communication with persons responsible for detection, assessment and response			+
17.	In order to ensure uninterrupted functionality of security systems, there must be a backup supply of energy in addition to the main supply			+
18.	In order to ensure coordination between personnel and response teams, planned periodical drills must be conducted			+
19.	Periodically appropriate information and training must be given to personnel	+	+	+
20.	Periodic inventory of radioactive waste must be conducted	+	+	+
21.	Appropriate security measures must be enacted while transporting radioactive materials within the secure and restricted area	+	+	+

Appendix 4

Classification of nuclear materials

Material	Form	Category		
		I	II	III[5]
Plutonium 1	Non-Irradiated[2]	2 Kg or more	Less than 2 Kg and more than 500 grams	Less than 500 grams and more than 15 grams
Uranium-235	Non-Irradiated[2] – Uranium, Enriched with isotope Uranium-235 by 20 or more %	5 Kg or more	Less than 5 Kg and more than 1 Kg	Less than 1 Kg and more than 15 grams
	-Uranium, enriched with isotope Uranium-235 by 10-20%		10 Kg or more	Less than 10 Kg and more than 1 Kg
	-Uranium enriched further than natural but less than 10% of Uranium-235			More than 10 KG
Uranium-233	Non-Irradiated[2]	2 Kg or more	Less than 2 Kg and more than 500 grams	Less than 500 grams and more than 15 grams
Irradiated fuel			Uranium or Thorium that was depleted or at natural state, or weakly enriched fuel (by less than 10% of fissionable isotope)[3,4]	

1. Any Plutonium that contains isotopes except the Plutonium in which the concentration of isotope Plutonium-238 exceeds 80 %

2. Nuclear material that is non-irradiated or is irradiated in the reactor without security, with the radiation power across one meter of 1Sv/h or less.
3. The level of security can be increased or decreased by the competent department based on objective circumstances and risks.
4. Category I or II nuclear fuel that is non-irradiated can be decreased by one if radiation level without security exceeds Sv/h across 1m .

5. Security on quantity of natural uranium and nuclear material that is less than the quantity determined by category III is determined similarly to security requirements like that of IV-V category sources.