3.1. Law n° 2006-17 of 21 June 2006 on Nuclear Safety and Protection against the Dangers of Ionizing Radiation.

Having regard to the Constitution of 9 August 1999 ;

Considering the law n° 98-011 of May 7, 1998 on the creation of a Public Administrative Establishment called the National Center for Radioprotection (CNRP).

THE NATIONAL ASSEMBLY HAS DISCUSSED AND ADOPTED
The President of the Republic promulgates the following law:

TITLE I: GENERAL PROVISIONS

CHAPTER I : Definitions

Article 1: For the purposes of this Act, the following definitions shall apply

Activity: Designing, manufacturing, constructing, importing, exporting, distributing, selling, borrowing, commissioning, using, maintaining, repairing, transferring, decommissioning or possessing nuclear material and ionizing radiation sources for industrial, educational, agricultural and medical purposes, educational, agricultural and medical research purposes, the transport of radioactive materials, the mining and processing of radioactive ores and the closure of associated facilities affected by residues from past activities, and the management of solid, liquid or gaseous radioactive waste.
Authorization: Permission granted in a document by the National Centre for Radio Protection (NCRP) to a natural or legal person who has applied to undertake an activity or practice within the meaning of this Law. The authorization may take the form of a registration or a license.
Centre National de Radioprotection (CNRP) : Competent National Authority, in Niger, in the field of nuclear safety and security and protection against the dangers of ionizing radiation, created by law n° 98-011 of 7 May 1998.
Declaration: Document submitted by a natural or legal person to the CNRP to notify its intention to engage in a practice or other activity referred to in Article 3 of this law.
Radioactive waste means material in any physical form arising from activities, practices or procedures which is not intended for further use and which contains or is contaminated by radioactive substances in respect of which exposure to such material is not excluded from the scope of this Act.
Dose: A measure of radiation received or absorbed by a target.
Nuclear facility: According to the Agreement between the Republic of Niger and the International Atomic Energy Agency for the Application of Safeguards in connection with the Treaty on the Non-Proliferation of Nuclear Weapons:

- a reactor, a critical facility, a processing plant, a fabrication plant, an irradiated fuel processing plant, an isotope separation plant or a separate storage facility;
- any location where nuclear material in quantities greater than one effective kilogram is customarily used.

Dose limit: The value of the dose that must not be exceeded.

Nuclear material: Special fissionable material, uranium enriched in uranium 235 or 233, source material, including waste nuclear material as defined in Chapter VI of this Act.
Special fissionable material: Plutonium-239, uranium-233, uranium enriched in uranium-235 or uranium-233; any material containing one or more of these isotopes and any other fissionable material as determined by the Board of Governors of the International Atomic Energy Agency (IAEA).
Uranium enriched in uranium-235 or uranium-233: Uranium containing either uranium-235 or uranium-233 or both in such quantity that the ratio of the sum of these two isotopes to the isotope 238 is greater than the ratio of the isotope 235 to the isotope 238 in natural uranium.
Crude Material: Uranium containing the mixture of isotopes occurring in nature, uranium with less than the normal content of uranium-235, thorium, all of the above materials in the form of metal, alloy, chemical compounds or concentrates, any other material containing one or more of the above materials in concentrations to be determined by the IAEA Board of Governors, and any other material designated as such by the Board.
Standards: International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources (IAEA Safety Series No. 115).
The purpose of these standards is to establish basic requirements for protection against the risks associated with exposure to ionizing radiation and for the safety of radiation sources which may cause such exposure.
Practice: Any human activity that introduces additional sources of exposure or pathways or extends exposure to a greater number of people, or modifies the network of pathways from existing sources, thereby increasing the exposure or likelihood of exposure to ionizing radiation of persons or the number of persons exposed.
Physical protection: Measures to protect nuclear material or infrastructure from unauthorized access, removal or sabotage.
Radionuclide: A radioactive nucleus or radioelement.
Radiation protection (or radiological protection): All measures intended to protect the health of the population and workers against the dangers of ionizing radiation and to ensure compliance with regulatory limits.
Ionizing radiation : Radiation capable of producing ion pairs in biological matter.
IAEA Transport Regulations: Regulations for the Safe Transport of Radioactive Material (IAEA Safety Standards Series No. TS-R-1).
Security: Measures to prevent unauthorized access to or damage to radioactive substances or materials and ionizing radiation sources, as well as their loss, theft and unauthorized transfer.
Radiological emergency: An incident or accident that could result in the release of radioactive material or a level of radioactivity that could be harmful to public health.
Source of ionizing radiation : Anything that can cause exposure to ionizing radiation, including facilities containing radioactive substances or radiation-emitting devices.
Sealed radioactive source: Radioactive material that is permanently enclosed in a capsule or fixed in solid form and is not exempt from regulatory control.
Decommissioned source: A radioactive source that is no longer used or intended to be used in the practice for which a licence was granted and is considered to be radioactive waste.
Radioactive substance: Any substance that contains one or more radionuclides whose activity or concentration cannot be ignored for reasons of radiation protection.
Safety: measures designed to reduce as far as possible the probability of accidents involving radioactive substances or materials or sources of ionizing radiation and, should such an accident occur, to mitigate the consequences.

CHAPTER II: Purpose and objectives

Article 2: The purpose of this Law is to regulate the activities and practices related to the peaceful use of nuclear substances and materials and sources of ionizing radiation in all economic and social sectors, both public and private. It determines the means of minimizing the risks arising from such use and of ensuring nuclear safety and security.

Article 3: The purpose of this law is to :

- to protect people, property and the environment, for both present and future generations, from the risks associated with the use of nuclear substances and materials and sources of ionizing radiation, in accordance with the principles of sustainable development ;

- to adopt measures for the physical protection of nuclear substances and materials and of sources of ionizing radiation, for emergency response and for any other measure aimed at limiting nuclear damage and protecting nuclear energy from illegal activities, in accordance with the international commitments undertaken by the Republic of Niger.

CHAPTER III: Scope of application

Article 4: This Law shall apply to all activities and practices within the framework of the peaceful use of nuclear energy and involving exposure to ionizing radiation, in particular the use of electric ionizing radiation generators, the production, import, export, trade, processing, handling, use, detention, warehousing, storage, transport, transit and disposal of natural or artificial radioactive substances unless expressly excluded or exempted.

Article 5: Exposures due to cosmic radiation and natural background are excluded from the scope of this law.

Practices and sources associated with practices may be exempted from the application of this Law by the National Center for Radiation Protection (CNRP) according to the exemption levels defined by decree issued by the Council of Ministers.

Release levels are set by the CNRP.

TITLE II: NUCLEAR SAFETY AND SECURITY, PROTECTION AGAINST THE DANGERS OF IONIZING RADIATION AND THE NATIONAL CENTRE FOR RADIATION PROTECTION

CHAPTER I: On safety and nuclear security

Article 6: Any natural or legal person who intends to carry out any of the activities or practices referred to in Article 3 must make a declaration, request and obtain the authorization of the CNRP in accordance with the conditions set forth in this law and the texts adopted for its implementation.

Article 7: The following are however prohibited

the import of nuclear weapons, nuclear explosive devices, as well as their manufacture, possession and activation;

addition of radioactive substances in the manufacture of foodstuffs, cosmetics and household products;

the use of radioactive substances in the manufacture of toys; the import of

radioactive waste.

Article 8: The primary responsibility for the safety and security of an activity or practice covered by this law lies with the holder of the corresponding authorization.

Article 9: The holder of a licence shall ensure the safety and security of ionising radiation activities, practices or sources, including the installations for which he is responsible and :
applies the terms and conditions specified in the authorization;

applies the detailed requirements set out in the law and regulations in force; applies the relevant

requirements set out in the Standards.

CHAPTER II: Protection against the dangers of ionizing radiation

Article 10: Any exposure to ionising radiation sources, where necessary or unavoidable, shall be considered in accordance with the following principles of justification, optimisation and limitation
:

- no practice or activity involving exposure to ionizing radiation shall be permitted unless its application produces a net positive benefit to persons, property and the environment ;

- exposure to radiation from this practice or activity should be kept as low as reasonably achievable taking into account socio-economic factors;

- exposure doses must not exceed the limits set by the regulations in force.

CHAPTER III: The National Radiation Protection Centre (CNRP)

Article 11: The responsibility and authority to implement and enforce this law, regulations and requirements on radiation protection, safety and nuclear security throughout the country shall be vested in the CNRP.

TITLE III: SPECIAL PROVISIONS

CHAPTER I : Radioactive waste.

Article 12: Any natural or legal person whose activities generate radioactive waste is responsible for the waste it produces. It shall ensure the management thereof in accordance with the radioactive waste management procedures defined by regulation.

Article 13: Any management of radioactive waste requires a prior authorization issued by the CNRP in accordance with the regulations in force.

Article 14: A national radioactive waste management agency shall be established by decree of the Council of Ministers.

CHAPTER II : Transport of radioactive materials

Article 15: Any transport for the import, export and transit of nuclear material or ionizing radiation sources shall not take place without prior authorization from the CNRP and shall be carried out in accordance with this Law, the Regulations on the Transport of Radioactive Material of the International Atomic Energy Agency (IAEA) and the IAEA Code of Conduct on the Safety and Security of Radioactive Sources.

The CNRP establishes regulations for the import and export of nuclear materials and ionizing radiation sources in cooperation with the relevant ministries and institutions.

CHAPTER III: Special conditions for workers exposed to ionizing radiation

Article 16: The employment of any person in work involving ionizing radiation shall be in accordance with the provisions of laws and regulations relating to nuclear safety and security and radiation protection for occupational exposure, without prejudice to other laws and regulations relating to work in force in Niger.

CHAPTER IV: Radiological emergency plans

Article 17: A national radiological emergency plan shall be established by the CNRP in collaboration with the concerned ministries and authorities.

Article 18: In each facility, a radiation emergency plan shall be prepared by the licensee and approved by the CNRP.
To this end, the licence holder must provide the designated radiation protection officer with the means to implement the emergency plan and any other measures deemed necessary. These means must be available at all times and subject to periodic inspection by CNRP inspectors.

CHAPTER V : Physical protection of nuclear material and safety of ionizing radiation sources

Article 19: The primary responsibility for the physical protection of nuclear material and the safety of ionizing radiation sources during their handling, use, storage and transport shall rest with the licence holder.

The licensee shall implement and maintain the measures for the physical protection of nuclear material and the security of ionizing radiation sources as prescribed by the CNRP.

The CNRP establishes regulations detailing the provisions for the physical protection of nuclear material and the security of ionizing radiation sources.

In the event of theft, threat of theft, or loss of nuclear material or ionizing radiation sources, the licensee shall :

- notify the CNRP and other competent public authorities without delay;

- send a written note to the CNRP detailing the details and provide further information upon request for appropriate action.

Any discovery of an abandoned ionizing radiation source should be brought to the attention of the local authorities and the CNRP without delay.

Article 20: The transmission of confidential information on measures for the physical protection of nuclear material and the security of ionizing radiation sources to an unauthorized person is prohibited.

Article 21: The State shall take all necessary measures:

- to ensure the physical protection of nuclear material during its import, export, transit or transport in accordance with the international commitments undertaken by the Republic of Niger;
- to establish sustained cooperation in this field with other States and the IAEA.

CHAPTER VI : Guarantees

Article 22: Any licensee possessing, using or holding nuclear material shall, in accordance with the provisions of this Act

a) to keep the prescribed accounts;
b) submit to the NPRC reports requested periodically, or at the time of an event, as required by regulation;
c) to carry out prescribed measurements of nuclear material and to maintain programs for the control of prescribed measurements;
d) periodically take an inventory of nuclear material in the prescribed manner and frequency;

e) request and obtain prior authorization from the CNRP for any import, export, transit or transport of nuclear material;
f) report any loss of nuclear material to the CNRP and the relevant government authorities without delay;
g) provide the CNRP, in the prescribed manner and frequency, with the program of planned activities.

Any natural or legal person conducting research and development activities related to the nuclear fuel cycle must notify the CNRP prior to the commencement of the prescribed activities, in accordance with the regulations established by the CNRP.

Any natural or legal person who intends to import or export non-nuclear equipment and materials specified in the regulations established by the CNRP must submit a declaration to the CNRP of such intention.

The CNRP establishes the implementation texts of the Agreement of Guarantees ratified by the Republic of Niger in relation with the competent authorities and ministries.

Article 23: Any natural or legal person holding nuclear material or carrying out research and development activities related to the nuclear fuel cycle, as well as any competent State authority, shall allow access to and provide the necessary cooperation to the IAEA in order for it to carry out the inspections it is authorized to carry out in accordance with the international commitments undertaken by the Republic of Niger
To this end, inspectors and other representatives of the IAEA shall enjoy the privileges and immunities conferred by the Agreement on Privileges and Immunities of the IAEA concluded with the Republic of Niger.

TITLE IV : CONTROLS AND INSPECTIONS

Article 24: The activities provided for in Article 3 of this law are subject to periodic and unannounced controls and inspections by the CNRP.
To this end, sworn and duly mandated CNRP inspectors shall have the right of access to premises, sites and vehicles housing or capable of housing a radioactive substance, radiation device or source of ionizing radiation and to relevant documents in order to obtain information on their safety and security, and to verify compliance with the requirements of the law, regulations and the terms of the licence.
The methods of control and inspection and their intervals shall be laid down by regulation.

Article 25: Controls and inspections may lead to the taking of precautionary measures. Depending on the gravity and urgency of the situation, these measures shall be ordered by the inspector in charge of the control or by the CNRP.

In the event of an accident or risk of accident, as well as failure to comply with this law, the CNRP is empowered to establish a report and to order, under a fine, either the modification, suspension, cessation or prohibition of the activity that caused the danger or accident, or the temporary or permanent closure of the establishment and/or the confiscation of equipment and materials. In case of necessity, the CNRP may call upon the forces of law and order for the execution of the ordered measures.

The CNRP may also refer the matter to the public prosecutor's office to prosecute the holder of the permit for harming the public interest.

TITLE V : COMPENSATION FOR DAMAGE

Article 26: In the event of damage resulting from non-occupational exposure to a source of ionising radiation, the principle of strict liability shall apply to the licence holder.

Article 27: The CNRP shall, depending on the damage likely to be caused by a source, require the holder of the authorization for possession and use to take out insurance or to make a provision constituting a financial guarantee to repair any damage.

TITLE VI: SANCTIONS AND PENALTIES

Article 28: The CNRP or any other person having an interest in the matter may take legal action against the perpetrators of violations of this law.

Article 29: Any violation of the provisions of this Law shall be punishable by administrative measures involving the sequestration of nuclear materials and ionizing radiation sources, equipment, the closure of facilities, the temporary or permanent cessation of activities relating to ionizing radiation sources or radioactive waste, without prejudice to criminal and civil penalties.

These measures may be appealed in accordance with the administrative procedures in force. force.

Article 30: The offences relating to nuclear material and sources of ionizing radiation are those described in Article 7 of the Convention on the Physical Protection of Nuclear Material.

Any natural or legal person guilty of any of these offences shall be punished in accordance with the provisions of the Penal Code of the Republic of Niger.

Article 31: Refusal to carry out a control or inspection mission provided for in Article 25 above shall be punishable by a fine of two hundred and fifty thousand francs (250,000) CFA francs to five hundred thousand francs (500,000) CFA francs and a term of imprisonment of fifteen (15) days to one (1) month or either of these two penalties only

In the case of a refusal with violence, the sanctions provided by the Niger Penal Code for crimes and offences against citizens in charge of a public service apply.

Article 32: Except in cases of force majeure, failure to report within 48 hours to the CNRP and to the gendarmerie or police authorities the loss, theft or misappropriation of a source of ionizing radiation or nuclear material shall expose the holder of the authorization or the person in charge of the custody or management of the source to imprisonment for a period of six (6) months to two (2) years and to a fine of two hundred and fifty thousand francs (250.000 (250,000) CFA francs to five hundred thousand (500,000) CFA francs or to one of these two penalties only.

Article 33: Shall be punished by imprisonment for a term of three (3) to ten (10) years and a fine of one million (1,000,000) to ten million (10,000,000) CFA francs or either of these two penalties only:

- any breach of the provisions of Articles 6 and 16 ;

- any continuation of the practice or activity the cessation, suspension or prohibition of which has been decided under Article 25 above.

Article 34: Shall be punished by imprisonment of ten (10) to thirty (30) years and a fine of fifty million (50,000,000) to five hundred million (500,000,000) CFA francs:

- any person guilty of an offence under the provisions of Article 7 above;

- any person guilty of using ionizing radiation sources and nuclear material for criminal or terrorist purposes.

In the event of a repeat offence, the death penalty will be imposed in accordance with the provisions of Article 11 of Order No 89-24 of 8 December 1989 prohibiting the import of toxic industrial and nuclear waste.

TITLE VII : TRANSITIONAL PROVISIONS

Article 35: As from the date of promulgation of this law, a period of one year is granted to any natural or legal person carrying out an activity or practice covered by this law to comply with its provisions.

TITLE VIII : FINAL PROVISIONS

Article 36: A decree issued by the Council of Ministers shall specify the modalities for the application of this law.

Article 37: All previous provisions contrary to the present law are hereby repealed.

Article 38: The present law shall be published in the *Official Gazette* of the Republic of Niger and executed as a law of the State.

TANDJA MAMADOU