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Law No. 2021-44 of 31 December 2021 on Radiation Protection, Nuclear Safety and Security and Safeguards

EXPLANATORY STATEMENT

Like other advanced technologies, nuclear energy makes a significant contribution to the social and economic progress of nations. However, certain aspects of its use, such as the accumulation of waste, accidents, misuse and the risks of nuclear weapons proliferation, pose threats to peace, health and prosperity worldwide.

In order to ensure and preserve the acceptability of the technology at the national and international levels, the International Atomic Energy Agency (IAEA), together with its Member States and its many partners around the world, are working to promote safe, secure and peaceful nuclear technologies.

A member of the IAEA since 1960, Senegal is a Party to a number of relevant international legal instruments under the aegis of the IAEA, in particular, the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) ratified on 22 December 1970, as well as the Safeguards Agreement and the Additional Protocol associated with this NPT, signed and ratified on 14 January 1980 and 24 July 2017 respectively, the Nuclear Safety Convention, in force since 24 March

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2009, the Convention on the Physical Protection of Nuclear Material and its 2005 Amendment, ratified on 3 November 2003 and 24 July 2017 as well as the Vienna Convention on Civil Liability for Nuclear Damage in force since 24 March 2009.

In order to comply with the relevant provisions of these instruments, Senegal adopted Act No. 2004-17 of 15 June 2004 on Protection against Ionizing Radiation. Faced with the energy crisis of the 2000s, Senegal, in its policy of including nuclear power in its energy mix, adopted Law No. 2009-14 of 2 March 2009 on nuclear safety and radiation protection.

The implementation of the above-mentioned laws has shown considerable progress, but has come up against a number of limitations relating to the non-conformity of these texts with the international commitments undertaken by Senegal because they do not exhaustively cover issues related to the physical protection of nuclear and other radioactive materials, guarantees as well as civil liability in the event of nuclear damage. In addition, the late drafting of the implementing decrees for these two laws did not make it possible to detect very quickly certain contradictory provisions between the two laws which led to a lack of clarity, in particular concerning the status of the Senegalese Authority for Radiation Protection and Nuclear Safety (ARSN).

The purpose of this bill, which repeals and replaces Law No. 2004-17 of 15 June 2004 on Protection against Ionizing Radiation and Law No. 2009-14 of 2 March 2009 on nuclear safety and radiation protection, is to establish, guarantee and maintain an appropriate legal framework for .

establish a regulatory control system to ensure the safety and security of nuclear material, sources of ionizing radiation and facilities to protect people, property and the environment, now and in the future, from the potentially harmful effects of ionizing radiation, including those that may result from improper use, malicious acts, accidents, and mitigate the consequences

take effective measures to prevent, detect and respond to unauthorized acts involving nuclear material, other radioactive substances or associated facilities, including theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, which may cause harm to persons, property or the environment or otherwise endanger national security

control the safe and secure management of radioactive waste from these activities in order to protect current and future generations from the harmful and excessive impacts of ionising radiation

to ensure the implementation of the relevant international commitments to which Senegal is a party, in particular, the Treaty on the Non-Proliferation of Nuclear Weapons and the Safeguards Agreement and the Additional Protocol thereto, as well as the Treaty of Pelindaba, the Convention on the Physical Protection of Nuclear Material and its amendment, the Convention on the Early Notification of a Nuclear Accident, the Convention on Assistance in the Event of a Nuclear Accident or Radiological Emergency, the Convention on Nuclear Safety, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, the Vienna Convention on Civil Liability for Nuclear Damage and the Convention on Additional Compensation for Nuclear Damage

To provide the national regulatory body with functions and responsibilities to exercise regulatory control over the peaceful uses of nuclear energy and its applications.

The present bill introduces the following innovations. the merger

of the two old laws into a single text, the consecration of the

liability of legal persons; clarification of the status of the

ARSN

the regulation of activities related to nuclear and other radioactive materials, including nuclear reactors, in order to achieve nuclear safety objectives

ensuring the physical protection of radioactive and nuclear material

Transparency through effective implementation of safeguards agreements

- the establishment of compensation mechanisms in the event of nuclear damage.

This bill contains seventeen (17) titles - TITLE I

relates to the general provisions - TITLE II relates to

the institutional framework - TITLE III specifies

regulatory activities

- TITLE IV deals with protective measures against ionizing radiation
- TITLE V lays down provisions on radioactive sources;
- TITLE VI deals with the safety of nuclear installations and their decommissioning,
- TITLE VII deals with emergency preparedness and response
- TITLE VIII relates to the extraction and processing of minerals, - TITLE IX relates to the transport of radioactive materials

TITLE X addresses radioactive waste and spent fuel .

TITLE XI specifies liability and compensation for damage

- TITLE XII relates to safeguards and non-proliferation;

TITLE XIII relates to export and import control measures

- TITLE XIV deals with nuclear security, physical protection and illicit trafficking
- TITLE XV deals with the investigation and establishment of offences and penalties - TITLE XVI relates to penal provisions -

TITLE XVII deals with the final provisions.

That is the structure of this bill.

The National Assembly adopted, at its session of Tuesday, December 21, 2021

The President of the Republic promulgates the following law:

TITLE I. - GENERAL PROVISIONS

Chapter I. - Purpose, scope and prohibitions

Section I. - The object

Article I. - The purpose of this Act is to establish a legal framework for carrying out activities relating to nuclear energy and ionizing radiation in a manner that adequately protects people, property and the environment now and in the future.

;

Section II. - Scope and prohibitions

Art. 2. - This law applies to all civil installations, activities and practices carried out in the national territory and under its jurisdiction.

It applies in particular to .

the production, use, import and export of sources of ionising radiation for industrial, medical and research purposes, the transfer, free of charge or for consideration, the handling, possession, disposal, trade, processing, storage, storage, transport, transhipment and transit of nuclear and/or radioactive materials and, where appropriate, electrical generators of ionising radiation;

- the design, siting, construction, commissioning tests, operation and maintenance of the facilities, as well as their permanent shutdown including, where appropriate, their decommissioning; radioactive waste management activities and site remediation

- radioactivity in the environment and consumer products,

- research, exploration, exploitation, processing, production and storage of radioactive ores;

any other practice or activity identified by the Regulatory Authority as defined in section 8 of this Act.

Art. 3. - This Act does not apply to .

a) exposure to natural radioactivity in the human or animal body;

b) surface exposure to radionuclides present in the Earth's undisturbed crust •

c) exposure situations that are not subject to regulatory control, in particular those of cosmic and telluric rays on the Earth's surface •

d) concentrations of naturally occurring radionuclides contained in raw materials and any other source not modified by human activities,

e) activities or practices involving exposures that have been excluded from regulatory control under regulations established by NSRA.

Art. 4. - Exempts sources and practices whose resulting exposure is too low to warrant the requirement to submit them to some or all parts of the regulatory control program.

Art. 5. - The criteria for exemption from authorization shall be set by decree issued for the purposes of this Act.

Art. 6. - Are prohibited.

a) any activity or practice related to the acquisition or development, possession and use of nuclear explosives, radioactive material dispersal devices or related technology, or to assist others in carrying out such activities;

b) the addition of radioactive substances in the manufacture of foodstuffs, cosmetics, building materials, in the manufacture of objects of entertainment, jewellery, adornments and in any product for domestic or private use,

c) the import and export, where appropriate under any customs procedure, as well as the placing in stores and temporary storage areas of such goods, products and foodstuffs which have undergone such addition and referred to in point (b) of this Article,

d) the export of radioactive waste to States whose legislation prohibits its import or which do not have the legislative, regulatory, technical and administrative means to manage radioactive waste in complete safety and security;

e) practices and activities considered not justified by the ARSN, because they have insufficient benefits in relation to the potential dangers they present, in view of the state of science,

f) unauthorized access to the facilities and any malicious act against the facilities, including theft, sabotage, illegal transfer of nuclear materials, other radioactive substances.

Chapter II. - Definitions

Art. 7. - For the purposes of this Act, the following definitions apply: •

nuclear accident: an act or sequence of events of the same origin which causes nuclear damage or, but only with regard to preventive measures, creates a serious and imminent threat of damage of that nature,

* Safeguards Agreement: Agreement between the Republic of Senegal and the International Atomic Energy Agency, hereinafter referred to as the Agency or the IAEA, for the application of safeguard measures under the Treaty on the Non-Proliferation of Nuclear Weapons and any Protocol thereto •

activity: for the purposes of the application of IAEA safeguards, any activity to which safeguards are applied under the safeguards agreement between Senegal and the Agency and any protocol thereto;

activities: the production, use, import and export of sources of ionising radiation for industrial, medical and research purposes, the transfer, free of charge or for consideration, the handling, possession, disposal, trade, processing, storage, storage, transport, transhipment and transit of nuclear and/or radioactive materials and, where appropriate, electrical generators of ionising radiation; the design, site selection, construction, commissioning tests, operation and maintenance of the facilities, as well as their permanent shutdown including, where appropriate, their decommissioning and dismantling; radioactive waste management activities and site remediation,

nuclear activity: activity associated with a nuclear facility or nuclear materials;

* Approval or approval: consent given by the regulatory body hereinafter referred to as the Senegalese Authority for Radiation Protection, Nuclear Safety and Security (ARSN) •

Authorisation: permission granted in a document by the Regulatory Authority to a natural or legal person who has submitted an application to undertake an activity or practice covered by the law and regulations in force, on the basis of a safety and security assessment, with specific conditions and requirements that the holder of the authorisation must comply with. This authorization may take the form of a licence or a registration,

nuclear fuel: any material that produces energy by a nuclear fission chain reaction

* spent fuel: nuclear fuel that has been irradiated in the core of a reactor and has been permanently removed from it

* containment: methods or physical structures intended to prevent or control the release and dispersion of radioactive substances,

* Contamination: the incidental or undesirable presence of radioactive substances on surfaces, in solids, liquids or gases (including in the human body), or the processes that cause such presence

regulatory control: any form of control or regulation applied to facilities and activities by the Regulatory Authority for reasons related to nuclear safety and radiation protection or nuclear security •

fuel cycle: all operations associated with the production of nuclear energy, including:

(a) the extraction and processing of uranium or thorium ores,

b) uranium enrichment,

c) Nuclear fuel fabrication

d) the operation of nuclear reactors, including research reactors

e) the reprocessing of spent fuel,

f) all waste management activities, including decommissioning, related to operations associated with nuclear power generation,

g) any related research and development activities ,

* radioactive waste: any material, in any physical form, that results from the exercise of practices or interventions, which is not intended to be used subsequently, and

i) that contains, or is contaminated with, radioactive substances and has an activity or activity concentration above the release level of the regulatory requirements

ii) and for which exposure to this material is not excluded from the scope of the applicable regulation .

* declaration: a document submitted by a natural or legal person to the ARSN to notify an activity or practice involving sources of ionising radiation or their intention to carry out such an activity or practice or to make other use of a source already in their possession

* decommissioning: all steps leading to the lifting of regulatory control over a facility other than a radioactive waste disposal facility. These steps include decontamination and possibly dismantling operations;

* nuclear divergence: the start of the nuclear fission or fusion chain reaction process in a nuclear reactor

* nuclear damage.

(i) any death or damage to persons; (ii) any loss of or damage to property (iii) any non-material damage resulting from a loss or damage referred to in points (i) or (ii) of this definition, in so far as it is not included in those points, if it is suffered by a person who is entitled to claim compensation for that loss or damage;

(iv) the cost of measures to restore a degraded environment, unless the degradation is insignificant, if such measures are actually taken or are to be taken, and provided that such cost is not included in point (ii) of this definition

v) any loss of profit in relation to any use or enjoyment of the environment that results from significant degradation of the environment, and provided that such loss of profit is not included in point (ii) of this definition

vi) the cost of preventive measures and any other loss or damage caused by such measures,

(vii)any non-material damage, other than that caused by environmental degradation, if permitted by the applicable law of the competent court concerning civil liability, in respect of points (i) to (v) and (vii) of this definition above, to the extent that the loss or damage arises from or results from ionising radiation emitted by any source of radiation inside a nuclear installation, or emitted from nuclear fuel or radioactive products or waste at a nuclear facility, or nuclear material from, emanating from, or being sent to a nuclear facility, whether the loss or damage results from the radioactive properties of those materials or a combination of those properties and the toxic properties, explosive or other hazardous properties of such materials;

* Dose: A measure of the energy deposited by radiation on a target

* Special Drawing Right (SDR): An international reserve asset created by the IMF to supplement the official foreign exchange reserves of its member countries. The value of the SDR is based on a basket of five major currencies: the United States dollar, the euro, the Chinese renminbi, the Japanese yen and the pound sterling

commissioning tests: all operations that consist of operating systems and components manufactured for installations and activities, and verifying that they conform to the design and meet the prescribed performance criteria,

registration: a form of authorisation for low- or moderate-risk practices, under which the legal person responsible for the practice has, as appropriate, prepared and submitted to ARSN, a safety and security assessment for the facility and equipment,

storage: the storage of radioactive sources, spent fuel or radioactive waste in a facility that provides containment for the purpose of recovering it

* State where the installation is located: a foreign State that is a party to the civil liability conventions for nuclear damage to which Senegal is a party and on whose territory a nuclear installation is located;

safety assessment: assessment of all relevant aspects of a practice for radiation protection and safety; for a licensed facility, this includes the siting, design and operation of the facility,

exclusion: the deliberate exclusion of a particular class of exposure from the scope of this Act because it is not considered suitable for regulatory compliance , exemption: the determination by the competent regulatory authority that a source or practice does not need to be subject to some or all of the elements of regulatory control because the exposure (including potential exposure) from the source or practice is too low to justify the application of these elements;

exploitant (i) any organization or person that has applied for or obtained a licence and/or is responsible for the nuclear, radiological, radioactive waste or transport safety and security in the performance of activities or in relation to any nuclear facility or source of ionizing radiation. These may include private individuals, public bodies, shippers or carriers, licence holders, hospitals, independent retailers, etc.;

ii) It may also be either anyone who directly controls a facility or activity during use (e.g. radiologists or transporters) or, for a source that is not under control (e.g. a lost or illegally removed source or a satellite re-entering the atmosphere), anyone who was responsible for the source before it escaped control;

iii) in respect of a nuclear installation, means the person designated or recognised by the State in which the installation is located as the operator of that installation,

Exposure: the act of exposing or being or having been exposed to radiation. Exposure can be either external (irradiation from sources outside the body) or internal (irradiation from sources inside the body) •

Planned exposure: (a) exposure situation resulting from the planned operation of a source or a planned activity resulting in exposure from a source ,

(b) as protective and security measures may be taken before undertaking the activity concerned, the associated exposures and their probabilities of occurrence may be limited from the outset.

the

(c) The primary means of controlling exposure in planned exposure situations is the proper design of facilities, equipment and operating procedures. In situations of planned exposure, some level of exposure is expected to occur medical ,exposure: exposure to patients for the purpose of medical or dental diagnosis or treatment; to caregivers; and to volunteers exposed as part of a biomedical research program; potential exposure: prospective exposure that is not predictable with certainty, but which may result from a planned operational incident, an accident involving a source, or an event or sequence of events of a probabilistic nature, including equipment failures and incorrect manoeuvres; export: effective transfer of nuclear or other radioactive materials, including sources or any other controlled items, from Senegal to the outside world management , of radioactive waste: all administrative and operational activities relating to the handling, pre-treatment, treatment, conditioning, transport, storage and final disposal of radioactive waste; import: effective transfer of nuclear or other radioactive materials, including sources or any other controlled items, to an importing State or a beneficiary in an importing State to Senegal incident: any unintentional event, including mismanoeuvres, equipment failures, initiating events, accident precursors, near misses or other anomalies or unauthorized acts, malicious or not, whose actual or potential consequences are not negligible from the point of view of protection and safety; Facilities and activities: a generic name for nuclear facilities, uses of all sources of ionizing radiation, all radioactive waste management activities, the transport of radioactive materials, and any other practice or circumstance that could result in the exposure of persons to radiation emitted by natural or man-made sources. ‗ facilities: include nuclear facilities, irradiation facilities, raw materials extraction and processing facilities, such as uranium mines, radioactive waste management facilities, and any other location in which radioactive materials are produced, processed, and used, handled, stored or permanently stored or in which radiation sources are installed on such a scale that protection and safety must be considered

activities: include the production, use, import and export of radiation sources for industrial, medical and research purposes, the use of radioisotopes in spacecraft, the transport of radioactive materials and the decommissioning of facilities, the management of radioactive waste, activities such as effluent discharge and certain aspects of the remediation of sites contaminated by residues from past activities, nuclear facility: a facility, including associated buildings and equipment, in which nuclear material is produced, processed, used, handled, stored or permanently stored. The nuclear facility includes, inter alia, the nuclear fuel fabrication plant, the nuclear power plant, the research reactor including critical and subcritical assemblies, the spent fuel storage facility, the enrichment plant or the reprocessing facility, ∗ nuclear facility for the purpose of applying International Atomic Energy Agency safeguards: facility as defined in the Safeguards Agreement between the State of Senegal and the International Atomic Energy Agency

l. a reactor, a critical facility, a processing plant, a manufacturing plant, an irradiated fuel processing plant, an isotope separation plant or a separate storage facility;

2. any location where nuclear material in quantities exceeding one effective kilogram is customarily used; ∗ nuclear facility for the purposes of liability for nuclear damage:

l. any nuclear reactor other than one with which a means of sea or air transport is equipped for use as a power source, whether for propulsion or for other purposes,

2. any plant using nuclear fuel for the production of nuclear material or any plant for the processing of nuclear material, including any plant for the processing of used nuclear fuel;

3. any facility where nuclear material is stored, with the exception of storage incidental to the transport of such material, provided that the NSRA or the competent authority of the State of installation, in the case of nuclear facilities located on its territory, may determine that several nuclear facilities of an operator located on the same site are considered to be a single nuclear facility,

and

Response: (l) any action to reduce or avoid exposure or to decrease the likelihood of exposure to sources that are not associated with a controlled practice or that have been lost as a result of an accident

2) includes actions taken after detection to defeat an abuser or to mitigate potentially serious consequences; Rationale: (l) Process for determining for a planned exposure situation, whether a practice is, overall, beneficial, i.e., whether the expected benefits to individuals and society associated with the initiation or continuation of the practice outweigh the harm (including radiological harm) resulting from the practice

(2) the process of determining, for an emergency or existing exposure situation, whether a proposed protective or remedial action is, overall, likely to be beneficial, i.e., whether the expected benefits to individuals and society (including the reduction of radiological harm) associated with the introduction or continuation of the protective or remedial action outweigh its cost and harm, or the damage it could cause,

* Release: Removal of radioactive material or radioactive objects associated with practices notified or authorized from the regulatory control of the NSRA. The control in question here is the monitoring carried out for the purposes of radiation protection

* license: a legal document issued by the regulatory body granting permission to carry out specified activities related to a facility or activity;

* (i) any nuclear fuel, other than natural or depleted uranium, capable of producing energy by a nuclear fission chain reaction outside a nuclear reactor, whether by itself or in combination with other materials; (ii) any radioactive product or waste; nuclear material: plutonium, uranium-233, uranium enriched in uranium-233 or uranium-235, or any other material which, in the opinion of the ARSN, should be classified as nuclear material • nuclear material for the purposes of the application of IAEA safeguards: any special fissionable material or any source material as defined in the Safeguards Agreement between the State of Senegal and the International Atomic Energy Agency; this expression is not interpreted to apply to ores or mineral residues • radioactive material: material designated in domestic law or by the ARSN as being subject to regulatory control

Threat: a person or group of people with the motivation, intent, and ability to commit a malicious act

Baseline threat: 1) a comprehensive description of the motivation, intentions and capabilities of potential adversaries against which physical protection systems are designed and assessed;

2) national alert level established by the competent authorities,

* remediation measures: any reasonable measures which have been approved by the competent authorities of the State in which the measures are taken and which are intended to restore or restore damaged or destroyed elements of the environment, or to introduce, where reasonable, the equivalent of such elements into the environment •

* preventive measures: any reasonable measures taken by any person after a nuclear accident has occurred to prevent or minimize the damage referred to in points (F)(i) to (v) or (vii) of the definition of nuclear damage, subject to the approval of the competent authorities required by the law of Senegal or of the State where the measures were taken, in the case of measures taken within the foreign territory,

reasonable measures: measures that, according to Senegalese law, are appropriate and proportionate in light of all the circumstances, for example .•

i) the nature and extent of the damage suffered or, in the case of preventive measures, the nature and extent of the risk of such damage;

ii) the extent to which, at the time they are taken, these measures are likely to be effective; and (iii) relevant scientific and technical expertise;

radioactive ore mine: a mine from which ores containing radionuclides of the uranium or thorium family are extracted in quantities or concentrations sufficient to justify their development or, when they are accompanied by other extracted substances, in quantities or concentrations requiring radiation protection measures,

mine or plant for the preparation of radioactive ores: any installation for the extraction or preparation of ores containing radionuclides of the uranium or thorium family,

* release level: value fixed by the Regulatory Authority and expressed in the form of concentrationof activity and/or total activity, at or below which a source of radiation may be freed from regulatory control,

notification: the process by which a natural or legal person notifies the Regulatory Authority of its intention to engage in a practice or make other use of a source,

Emergency Plan: A description of the objectives, principles and concept of emergency response operations, the structure, authorities and responsibilities for a systematic, coordinated and effective response. The contingency plan serves as the basis for the development of other plans, procedures and checklists;

safety plan: a document drawn up by the operator and possibly to be reviewed by the ARSN for examination, which presents a detailed description of the safety arrangements in place in a facility,

practical: any human activity that introduces additional sources of exposure or additional routes of exposure, or changes the network of exposure routes from existing sources, thereby increasing the exposure or likelihood of exposure of persons, or the number of persons exposed; radioactive product or waste: any radioactive material obtained during the process of production or use of nuclear fuel, or any material made radioactive by exposure to radiation emitted as a result of that process, excluding radioisotopes that have reached the final stage of manufacture and can be used for scientific, medical, agricultural, commercial or industrial purposes.

physical protection: measures to protect nuclear material or licensed facilities designed to prevent unauthorized access to facilities, unauthorized removal of fissile material or acts of sabotage under safeguards, such as those provided for in the Convention on the Physical Protection of Nuclear Material

Additional Protocols to Safeguards Agreements: Additional Protocol designed for States that have a safeguards agreement with IAEA to enhance the effectiveness and efficiency of the safeguards system as a contribution to the overall objectives of nuclear non-proliferation Radiation protection (or radiological protection) Protection of persons from the harmful effects of exposure to ionizing radiation and the means of ensuring such protection,

radioactivity: phenomenon of spontaneous random decay of atoms, usually accompanied by the emission of radiation

* radionuclide: name given to atoms of natural or artificial radioactive elements •

* Radon: i) radioactive gas resulting from the decay of uranium and radium naturally present in soil and rocks •

i) any combination of isotopes of the element radon, ii) radon-222 ∗ cosmic radiation: a cascade of secondary particles resulting from the collision between very high-energy particles from space and nuclei contained in the atmosphere; ∗ ionizing radiation: for radiation protection purposes, ionizing radiation is capable of producing pairs of ions in biological matter ∗ telluric radiation: the earth's crust contains radioactive atoms thorium-232, uranium-235 and uranium-238, which together with their progeny are responsible for emission called telluric radiation • ∗ nuclear reactor: any structure containing nuclear fuel in such an arrangement whereby a self-contained nuclear chain fission process can occur without an additional source of neutrons either for military applications, or for the production of electricity in a nuclear power plant (so-called power reactor), or for research, power reactor: nuclear power plant intended for the production of electrical energy from nuclear energy from nuclear fuel , research reactor: a nuclear reactor used primarily for the production and use of neutron fluxes and ionizing radiation for research purposes and for other uses, such as the production of radioisotopes. This definition excludes nuclear reactors used for electricity generation, ship propulsion, desalination or district heating. In the context of this Act, the term "research reactor" also includes associated experimental facilities and critical assemblies;

Releases: Planned and controlled emissions into the environment, as a legitimate practice within the limits authorized by the regulator, of liquid or gaseous radioactive material from regulated nuclear facilities under normal operating conditions ∗ Radiological hazards: adverse health effects of exposure (including the likelihood of such effects). Any other safety risk (including to the environment) that may be a direct consequence of.: • _ exposure to radiation, the presence of radioactive material (including radioactive waste) or its release into the environment

loss of control of the core of a nuclear reactor, a nuclear chain reaction, a radioactive source or any other source of radiation, sabotage: any deliberate act directed against a nuclear facility or nuclear material in use, storage or transport, which is likely, directly or indirectly, to harm the health and safety of personnel or the public or the environment by causing exposure to radiation or release of radioactive substances, (nuclear) security: measures to prevent, detect, and respond to theft, sabotage, unauthorized access, illegal transfer, or other malicious acts involving nuclear and other radioactive materials or associated facilities • Nuclear or radiological emergency: a situation in which the cause of the real or perceived hazard is: (a) energy resulting from a nuclear chain reaction or the decay of products of a chain reaction or (b) exposure to radiation; source: anything that can cause exposure to radiation, for example through the emission of ionizing radiation or the release of radioactive substances or materials, and can be considered as a single entity for protection and safety purposes radiation source: any radiation generator, radioactive source or other radioactive material that is outside the nuclear fuel cycles of research and power reactors;

orphan source: a radioactive source that is not subject to regulatory control, either because it has never been subject to regulatory control or because it has been abandoned, lost, misplaced, stolen or disposed of without proper authorization radioactive source: radioactive material that is permanently enclosed in a capsule or fixed in solid form and is not exempt from regulatory control; it also includes any radioactive material released if the radioactive source leaks or is broken, but does not include material enclosed for disposal, or nuclear material that is part of the nuclear fuel cycle of research and power reactors, storage: the holding of radioactive sources, radioactive materials, spent fuel or radioactive waste in a facility that ensures their containment, with the intention of recovering them; safety: protection of people and the environment against radiological risks, and the safety of installations and activities giving rise to risks.

* worker: any person who works full-time, part-time or temporarily on behalf of an employer or on his own account and who is recognized as having rights and duties in the field of occupational radiation protection. A self-employed person is considered to have the duties of both an employer and a worker,

* Authorization Holder: The holder of a valid authorization issued for an activity or practice that has recognized rights and duties for that activity or practice, particularly with respect to safety and security

* Transportation: All operations and conditions associated with the movement of nuclear and other radioactive materials, such as the design of packaging, its manufacture, maintenance and repair, and the preparation, shipment, loading, conveyance, including in-transit storage, unloading and receipt at the final destination of shipments of such materials and packages • Material balance area: indoor or outdoor area to an installation such as .

a) the quantities of nuclear material transferred can be determined at the entrance and exit of each "material balance zone"; and

b) the physical stock of nuclear material in each "material balance area" can be determined, if necessary, in accordance with established rules, so that the Agency's safeguards material balance can be established.

TITLE 11. - OF THE INSTITUTIONAL FRAMEWORK Chapter I. - The regulatory authority

Section I. - The Senegalese Authority for Radiation Protection, Nuclear Safety and Security

Art. 8. - An independent administrative authority, with legal personality and financial autonomy, is created, called the Senegalese Authority for Radiation Protection, Nuclear Safety and Security (ARSN). It is attached to the Presidency of the Republic.

Art. 9. - The ARSN is the competent authority for radiation protection, nuclear safety and security and the implementation of safeguards.

Section II. - Missions

Art. 10. - The ARSN is responsible for developing and implementing the radiation protection, radiological and nuclear safety and security policy, as well as the implementation of safeguards. It is also responsible for monitoring nuclear activities and informing citizens.

Radiological questions;

Art. I l . - The rules of organisation and operation of the ARSN are set by decree.

Chapter II. - The National Committee for the Prevention of Nuclear and Radiological Emergencies

Art. 12. - The Ministry of the Interior, in collaboration with the administrations concerned and with the Senegalese Authority for Radiation Protection, Nuclear Safety and Security, is setting up a National Committee for the Prevention of Nuclear and Radiological Emergencies.

This National Committee for the Prevention of Nuclear and Radiological Emergencies is part of the National Committee for Civil Security of the ORSEC Plan.

The missions of this National Committee for the Prevention of Nuclear and Radiological Emergencies are:

to contribute to the implementation of the national nuclear and radiological emergency plan in collaboration with the competent authorities

to develop and implement municipal intervention plans in the event of nuclear and radiological accidents.

Art. 13. - The composition, organization and functioning of the Committee for the Prevention of Nuclear and Radiological Emergencies shall be determined by decree.

TITLE 111. - ACTIVITIES REGULATORY

Chapter I. - The issuance of the authorisation

Section I. - Declaration, authorisation and approval

Art. 14. - Any natural or legal person who intends to undertake an activity or practice subject to the provisions of this law, declares to the ARSN his or her intention to carry out this activity or practice in the form and within the time limits required in the decrees adopted for the application of this law.

Art. 15. - Any natural or legal person who intends to undertake activities related to nuclear or radioactive materials and other sources of ionizing radiation, and subject to the provisions of this Law, shall be required to obtain prior authorization from the Senegalese Authority for Radiation Protection and Nuclear Safety and Security, unless the practice is exempted from regulatory control.

Authorisations are issued by ARSN for a fixed period, after examination and assessment of the safety and security conditions related to the activity or installation.

The ARSN determines, in consultation with the ministry in charge of environmental protection, the activities for which a radiological impact study on the environment will be required as well as the terms and conditions of this assessment.

The ARSN assesses, in accordance with the State's financial rules and procedures, the cost of the cessation of authorised activities for installations that present significant risks of pollution, and establishes financial guarantees for their safe decommissioning.

Authorisations issued by the ARSN are not transferable.

Art. 16. - The ARSN shall establish a system of authorisations on the basis of a graduated approach and on the categorisation of sources mentioned in Article 60 of this Law.

Any authorisation may be subject to specific conditions relating to radiological safety and security that the ARSN deems appropriate to impose, in particular the obligation for the operator to draw up an internal emergency plan when the activity concerned is likely to cause an incident or accident likely to harm the health of persons due to exposure to sources of ionising radiation, or the environment.

The categories of authorisations, their duration and the terms and conditions for their renewal, modification, suspension or withdrawal shall be determined by decree issued for the purposes of this law.

Art. 17. - The ARSN shall accredit, under conditions laid down by regulation, the organisations that participate in the inspections and/or monitoring of radiation protection, nuclear safety and security, in order to carry out the technical inspections provided for by the regulations in the areas within its competence.

Section II. - Conditions and processes for issuing authorizations

Alt. 18. - The ARSN only issues a permit for activities or practices that .

can be conducted in a manner that adequately protects people and the environment,

are carried out only for peaceful purposes in accordance with the obligations of the State of Senegal under the relevant international instruments.

Art. 19. - Without prejudice to the requirements relating to the issuance of authorisations established by the ARSN, authorisations are issued to natural or legal persons who meet the following conditions

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for a legal person governed by private law, to be constituted in the form of a company and not to be in a state of tax adjustment or judicial liquidation, - for a legal person governed by public law, to be authorised by virtue of its constitutive text to carry out activities and practices, - for a natural person, to be of Senegalese nationality or authorised to carry out a self-employed professional activity.

The applicant must provide proof of technical and financial capacity to carry out the project and ensure the safety and security of the activity or practice.

The applicant for authorisation shall provide information on the manufacturers, any intermediaries and, in the case of radioactive sealed sources, on the arrangements for their return by suppliers or manufacturers when they are expired, damaged or no longer in use, as well as the associated financial guarantees.

Art. 20. - ARSN publishes information on the licensing process, which includes:

- an indication of the activities or practices for which a permit is required; - procedures and timetables for the application, examination, issuance and renewal of authorisations; - the criteria to be taken into account in decisions on authorisations and their legal basis, including a provision specifying that the reasons for the rejection of an application must be communicated to the applicant; - the conditions that must be fulfilled or the qualifications that must be met by the applicant for a permit - where applicable, the procedures and requirements concerning public participation in the process of issuing authorizations; - the procedures and requirements concerning the dissemination of information relating to the examination of the application for authorisation, including the protection of classified and confidential information • - the indication of the fees set by the ARSN for authorisations.

Section III. - Conditions of suspension, modification, renewal, withdrawal or renunciation

Art. 21. - Without prejudice to criminal proceedings, the authorisation issued in accordance with this law and its implementing texts may be suspended, amended or withdrawn by the ARSN in the event of a breach of the terms of the authorisation; when the conditions for which the authorisation was issued are no longer met; if the authorised activity or practice entails or is likely to entail, at a given time, a risk of exposure to ionising radiation in excess of the prescribed limits for persons, property or the environment.

Art. 22. - The holder of an authorisation may renounce it after declaration to the ARSN when the latter determines that the renunciation does not compromise the protection of people, property and the environment.

Art. 23. - An authorization ceases to be valid when the time limit set by one of the decrees made pursuant to this law or a condition of the authorization has expired or when a subsequent decree contains provisions to the contrary.

Section IV. - The responsibilities of the person or entity holding an authorization

Art. 24. - Any person or entity that holds an authorization to conduct an activity or practice has primary responsibility for carrying out that activity or practice in a manner that is safe and secure and for compliance with this Act, all applicable regulatory requirements, and the conditions of the authorization issued by ARSN. It also has the obligation:

1) inform ARSN of its intention to make changes to any activity or practice that it is authorised to carry out, whenever the changes are likely to have a significant impact on the safety or security of the business, and only make such changes if it has been authorised to do so by ARSN;

2) to provide the information required by the ARSN and the necessary access to verify compliance with the rules.
and the applicable conditions,

3) to provide the ARSN with all the assistance it requests in the exercise of its regulatory functions;

4) maintain records as required by the NSRA and make them available for inspection, if necessary.

In the event of permanent cessation of use of a sealed source when the source is expired, damaged or no longer in use, the holder of the authorisation must return it, at his own expense, to his supplier, who is obliged to take it back.

Every licensee shall immediately report any loss of control over a radioactive source or any other situation or incident in relation to a radioactive source that could pose a significant risk of
radiological injury to persons or significant damage to property or the environment.

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Art. 25. - Any holder of an authorisation who ceases an activity or practice must inform the ARSN before the cessation of that activity or practice within a period set by the decrees made pursuant to this Act. The ARSN notifies, where applicable, the conditions to which the cessation of the activity or practice will be subject.

Art. 26. - Holders of an authorisation may not use an ionising radiation source for purposes other than those specified in the authorisation.

Chapter II. - Inspection

Section I. - The appointment of inspectors

Art. 27. - The Director General of the ARSN appoints, on the advice of the Committee of Experts, inspectors with the required qualifications and training and issues them with appropriate powers indicating their legal status under the laws of the State of Senegal.

The ARSN establishes the qualification criteria for inspectors and a training program to ensure that their level of competence is consistent with their mission.

Art. 28. - The sworn inspectors of the Regulatory Authority are authorised to have free access to sites, installations and means of transport that are intended to house or are supposed to contain sources of ionising radiation or any other radioactive material in order to verify their compliance with the requirements of this law, its regulatory texts adopted for its application and the terms of the authorisation.

They may, if necessary, investigate any incident or accident involving sources of ionizing radiation, take samples and question personnel.

Section II. - The Inspection Program

Art. 29. - The NSRA shall establish an inspection programme, based on the graduated approach, to verify compliance with the provisions of this Act, any applicable regulations and the terms and conditions of authorisations issued under its authority.

The ARSN has the specific responsibilities of carrying out .

- planned inspections at all stages of the licensing process;

reactive inspections, if necessary, following events, incidents or accidents; Announced or unannounced inspections.

The NSRA ensures that the inspection program has adequate financial, technical and human resources to achieve its objectives.

NHRA has the authority to place inspectors at the site of an activity or practice when it deems it necessary.

Section III. - Conducting inspections

Art. 30. - The Senegalese Authority for Radiation Protection, Nuclear Safety and Security shall have the power to conduct inspections and carry out any other examination that may be necessary to verify compliance with the provisions of this Act, the applicable regulations and the conditions of the licences.

The sworn inspectors of the Authority shall have free access to sites, installations and means of transport which are intended to contain or are supposed to contain sources of ionising radiation or any other radioactive material in order to verify their compliance with the requirements of this Act, its regulations adopted for its application and the terms of the authorisation.

As such, inspectors have access at all times to all parts of the premises or facilities or activities where the practices are carried out in order to

a) obtain information on the state of their nuclear and radiological safety and security,

b) verify compliance with the provisions of this Act, all applicable regulations and the terms and conditions of authorizations

c) investigate any incident or accident involving nuclear material or sources of ionizing radiation

d) may take environmental samples for analysis •

e) hear any person with duties that, in the opinion of the authorised representatives of the ARSN, may be relevant to the inspection in progress.

Art. 31. - Whenever necessary, the Regulatory Authority notifies the authorization holder to conduct an inspection.

However, in the event of an emergency, unusual event, or if there may have been unauthorized activities or malicious acts, inspections may be conducted unannounced.

Art. 32. - The results of inspections are recorded in archived reports that are made available to interested jurisdictions and authorization holders as a basis for corrective or enforcement actions.

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Section IV. - Inspectors' obligations

Art. 33. - The Inspectors are subject to the obligation of discretion and confidentiality with regard to confidential information of any kind that comes to their knowledge in the performance of their duties. In particular, they are required not to disclose secrets related to the control and research activities to which they have access.

They remain obliged to comply with these obligations even when they cease to hold office.

Chapter III. - Coercion

Section I. - Coercion

Art. 34. - In the event of a proven breach of this Act and any other relevant legislation affecting security as well as the applicable regulations or the terms and conditions of the authorisation by a natural person or an entity holding an authorisation, the ARSN shall take the necessary enforcement measures proportionate to the seriousness of the breach.

In all cases, the person or entity subject to the enforcement action shall take the necessary steps to remedy the violation as soon as practicable, in accordance with the requirements of the NSRA and to prevent a recurrence of the case.

Where the breach is of minor importance to safety or security, the NSRA may issue a written warning and set a time limit for corrective action.

Art. 35. - If there is an immediate danger to safety or security to persons or the environment, NHRA may require the individual or entity subject to the enforcement action to suspend operations until the situation has been corrected. In such cases, the NSRA may also suspend or revoke the authorization or vary the conditions and conditions of the authorization.

Art. 36. - In the event of repeated or extremely forceful violations of the terms and conditions of a permit or in the event of a significant release of radioactive waste into the environment, the ARSN withdraws the permit and requires the permit holder to remedy any problems raised, without prejudice to criminal prosecution.

Section II. - The power of coercion of inspectors

Art. 37. - If an SNRA inspector finds that an activity or practice is being carried out in contravention of this Act, the regulations made under this Act or the terms and conditions of an authorization and constitutes an immediate risk of harm to persons or significant damage to property or the environment, the inspector may, among other things, order

a) immediately the temporary suspension of the activity or practice

b) that the natural person or entity holding the authorisation prohibits workers who do not meet the applicable conditions from participating in the activity or practice,

c) that the nuclear or radioactive material emanating from the suspended activity or practice be stored in a safe and secure manner.

Where a decision referred to in the first paragraph of this Article is taken by an inspector, it shall remain valid until it is

a) reversed, modified or confirmed by a decision of the ARSN •

b) annulled by a judicial decision.

Art. 38. - In the event of enforcement action taken by an inspector, a report shall be drawn up containing the relevant findings and indicating the elements supporting the findings, including measures, test results, explanations and other information. This report shall be communicated to the holder of the authorisation, who shall have the right to submit explanations or objections after the report has been drawn up and within a period fixed by the decrees and regulations adopted for the implementation of this Law.

Chapter IV. - Appeals against ARSN decisions

Art. 39. - Any applicant or holder of an authorisation or any other person concerned on the merits by a decision of the ARSN, may lodge an administrative appeal before it against this decision in accordance with national legislation.

Art 40. - The judicial remedy is lodged with the competent courts, under the conditions provided for by law.

Art. 41. - However, the appeal does not have a suspensive effect on the decisions of the authority.

TITLE IV. - PROTECTIVE MEASURES AGAINST IONIZING RADIATION

Chapter I. - The fundamentals of radiation protection

Art. 42. - Any practice and/or activity carried out in Senegal or under its jurisdiction that may cause exposure to ionizing radiation must be justified by the benefits it provides sufficient to compensate for any adverse effects taking into account economic, social and all other relevant factors.

Art. 43. - For exposures resulting from a given activity or practice, radiation protection measures are optimized so that doses, the number of exposed persons and the likelihood of exposure are kept as low as reasonably possible at all times, taking into account economic, social and all other relevant factors.

Art. 44. - Human exposure to ionizing radiation must be strictly restricted so that whole-body or organ doses are always below regulatory limits, so that no one is exposed to an unacceptable risk from exposure.

Chapter II. - Radiation safety monitoring for the public and workers

Art. 45. - Subject to the provisions of the Labour Code relating to the protection of workers, the employer shall set up, for any activity the characteristics of which meet one of the conditions defined below, a monitoring of exposure to ionising radiation of natural origin and shall have an estimate of the doses to which persons are likely to be subjected as a result of this activity to be carried out. The following are concerned.

a) activities in which these persons are subject to internal or external exposure involving elements of the natural families of uranium and thorium,

b) activities involving the use or storage of materials not used because of their radioactive properties but naturally containing radionuclides •,

c) activities resulting in the production of residues naturally containing radionuclides.

For the activities referred to in (b) and (c), the dose estimate shall be for the population in the vicinity of the facilities as well as for all persons exposed when these activities produce consumer goods or construction products.

Art. 46. - An interenninistial order of the Minister for Labour, the Minister for Health and the Minister for the Environment, issued after consultation with the Senegalese Authority for Radiation Protection, Nuclear Safety and Security, shall define the categories of occupational activities to which the provisions of this article apply, taking into account the quantities of radionuclides held or the exposure levels likely to be measured.

Art. 47. - The ARSN is mapping the radon potential on the national territory for the protection of the population and workers against the dangers resulting from exposure to this radioactive gas inside buildings.

An inter-ministerial order of the Ministers of Labour, Health and the Environment and Housing, issued after consultation with the Senegalese Authority for Radiation Protection, Nuclear Safety and Security, defines the procedures for managing the risk associated with radon for all types of construction (housing, establishments open to the public and workplaces) and sets the reference level.

Art. 48. - The ARSN defines dose limits to the public and workers that must not be exceeded in the context of activities under regulatory control. These dose limits take into account the recommendations of recognized international bodies, including the International Atomic Energy Agency.

Art. 49. - The ARSN determines which sources or practices are exempt from regulatory control based on the following criteria.

the radiological risk to people is low enough that there is no need to concern it in the regulations,

- the collective radiological impact is low enough to warrant regulatory control,

the source or practice is considered to be inherently safe, with no likelihood of situations that could lead to non-compliance with the criteria set out in (a) and (b).

Art. 50. - Notwithstanding the provisions of the laws in force on labour and health, the employment of any person in work under ionizing radiation must be carried out in accordance with the provisions of this law.

Without prejudice to the provisions of the Labour Code, the Senegalese Authority for Radiation Protection, Nuclear Safety and Security shall draw up regulations relating to work under ionizing radiation, in collaboration with the competent structures of the ministries concerned.

Art. 51. - The NSRA sets release levels below which radioactive materials or objects used in authorized activities and practices may be released from regulatory control.

Chapter III. - Radiation protection requirements for licences

Art. 52. - The ARSN adopts radiation protection requirements that must be complied with before an authorisation can be issued for an activity or practice. In particular, it ensures that the holder of the authorisation

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a) has a good understanding of the fundamentals of radiation protection

b) take all necessary measures to ensure the protection and safety of workers and the public, keeping doses below the applicable threshold and ensuring that all reasonable measures are taken to minimize immediate and future adverse effects on the public •,

c) plans and implements the technical and organisational measures necessary to ensure adequate safety, including effective defences against radiological hazards;

d) prepares and implements the appropriate contingency plan;

e) complies with dose limits set by the ARSN and monitors worker exposure;

f) has adequate human and financial resources to conduct the proposed activity or practice in a manner that ensures safety and security;

g) has made adequate financial arrangements for the final disposal of the waste and decommissioning and to cover its potential liability in the event of nuclear or radiological damage,

h) authorises access by ARSN inspectors to the locations necessary to carry out their tasks;

i) does not alter the conduct of a licensed activity or practice in a way that could affect the protection of workers, the public or the environment without seeking approval from NSRA •

j) provide, upon request or in accordance with the requirements of the relevant regulations, all information deemed necessary by ARSN.

Chapter IV. - Responsibilities of Persons and Entities with Authorizations

Art. 53. - The primary responsibility for safety rests with the person(s) or entity(ies) licensed to undertake activities involving ionizing radiation and nuclear energy.

Art. 54. - Persons and entities holding authorisations shall ensure compliance with the requirements and dose limits set out in the ARSN and shall ensure that doses to workers and the public, including doses resulting from releases to the environment, are as low as reasonably practicable, taking into account social and economic factors.

Chapter V. - Patient protection

Art. 55. - All medical exposure is carried out in compliance with this law, the texts and provisions of the Public Health Code and the texts adopted for their application as well as the good practice guides.

The guides to good practice are approved by interministerial orders of the Minister for Civil Protection, the Minister for the Environment, the Minister for Health and the Minister for Labour, on a proposal from the ARSN.

The good practice guides set out the recommendations relating in particular to the radiological protection of patients examined or treated with ionising radiation and the requirements relating to the calibration of ionising radiation devices and equipment.

Art. 56. - The ARSN shall establish the following requirements for medical practices, in conjunction with the Ministry of Health, in addition to those set out in Article 52 of this Law.

a) the qualification and training of users, including in radiation protection;

b) measures to protect persons who use equipment producing radiation and radionuclides;

c) patient protection measures, including the justification of practices and the optimization of exposures;

d) design and performance criteria for radiation-producing equipment and devices containing radionuclides

e) measures for the safety and security of radioactive sources.

Art. 57. - The person holding a licence to conduct medical practices shall ensure that no patient is exposed for diagnostic or therapeutic purposes unless the exposure is prescribed by a doctor whose main task and obligations are to ensure the general protection and safety of patients or by any other authorised person.

Art. 58. - The user of a device or a source of radiation for medical or dental use ensures that performance is maintained by implementing appropriate maintenance and quality control procedures as approved by ARSN.

TITLE V. - PROVISIONS ON RADIOACTIVE SOURCES

Chapter I. - Regulatory control of radioactive sources

Art. 59. - The NSRA establishes a system for the control of radioactive sources and the devices in which such sources are incorporated to ensure that they are managed safely and securely during their useful life and at the end of their useful life.

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Art. 60. - Based on internationally recognized guidance, including that of the International Atomic Energy Agency, the ARSN adopts a categorization of sources according to the potential harm to people and the environment that could result from sources not being managed safely or securely.

Chapter II. - National Register of Radioactive Sources

Art. 61. - LARSN shall establish and maintain a national register of sealed radioactive sources on the basis of the categorisation of radioactive sources referred to in Article 60 of this Law.

Art. 62. - The NSRA adopts measures to protect the information contained in the national registry to ensure the safety and security of these sources.

Chapter III. - Export and import of radioactive sources

Art. 63. - On the basis of recognised international guidance, including that of the International Atomic Energy Agency, ARSN develops regulatory requirements and procedures for the issuance of licences for the export, import, transhipment and transit of radioactive sources from, to or through the national territory.

Art. 64. - The procedures set out in Article 63 of this Law provide for the evaluation of information to verify that the recipient is authorized to receive the requested source and has the means to ensure its safety and security.

Art. 65. - For applications for the export of high-activity sources, the ARSN ensures, to the extent possible, that the importing State has the appropriate technical and administrative means, resources and regulatory structure to manage the requested source in a safe and secure manner.

Chapter IV. - Recovery of orphan sources and decommissioning of facilities using high-activity sources

Art. 66. - Anyone who discovers an orphan source has an obligation to report it to the NSRA without delay.

When the person responsible for a nuclear activity has been the subject of a judicial liquidation and who, as a result, cannot fulfil his obligations with regard to the return or take-back of sealed radioactive sources, the latter shall be considered as orphan radioactive sources.

Art. 67. - The ARSN coordinates the development of a national strategy for the rapid takeover or resumption of control over orphan and legacy sources. The national strategy is coordinated with relevant public bodies and approved by the President of the Republic.

The ARSN coordinates with the organizations in question the recovery and security of orphan and legacy sources.

Art. 68. - The NSRA will only lift regulatory control over large facilities using high-activity sources after the licence holder has demonstrated that the final stage of decommissioning has been reached

and that all additional regulatory requirements have been complied with.

TITLE VI. - SAFETY OF NUCLEAR FACILITIES AND THEIR DOWNGRADING

Chapter I. - Power reactors

Section I. - The obligation to obtain a permit

Art. 69. - Authorization for the establishment of any nuclear facility that includes a power reactor or the conduct of related activities is issued by Order in Council.

Art. 70. - Any legal person that has obtained an authorization under section 69 of this Act and that intends to construct or operate a power reactor or conduct related activities shall obtain the relevant authorizations from the NSRA in accordance with the provisions of this Act and the applicable regulations Depending on the stages and the level of implementation, these authorisations concern the following elements.

a) the site of installation;

b) Construction

c) operation, including use and modification

d) decommissioning, including the removal of regulatory control.

Only reactors whose design is approved by the Regulatory Authority of the country of manufacture and which have already been successfully tested for stages a) etc.

The application for authorisation, the content of which is set out in regulations, must include a safety analysis report for the installation, including a site selection and assessment report and an environmental impact assessment of the installation, as well as an internal emergency plan and a physical protection plan, updated at the level of the various authorisation phases.

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Section II. - National Site Assessment Process for Nuclear Power Reactors

Art. 71. - The ARSN develops, in conjunction with the competent technical services, a process for selecting potential sites for power reactors, which includes, among other things, the evaluation of potential sites.

The national process for assessing potential sites for a power reactor shall take into account, inter alia, - the effects of external events occurring in the site area, whether natural or human-caused, - the characteristics of the site and its environment that could affect the transfer of released radioactive material to the public and the environment, - the population density and distribution and other characteristics of the external area to the extent that they may affect the implementation of emergency measures and the assessment of risks to people and the environment.

Section III. - Site licensing for nuclear power reactors

Art. 72. - An application for the use of a site for the construction of a power reactor may be made only for a site that has been selected following the national site assessment process referred to in the second paragraph of section 71 of this Act.

For the purpose of issuing a site licence for the construction of a power reactor, NHRA must ensure that the application meets the requirements of this Act and any applicable regulations, including those related to the following:

a) the frequency and severity of external events of natural or human origin and phenomena that could affect the safety of the installation;

b) the foreseeable evolution of natural and human factors in the area that could affect safety over a period of time equivalent to the projected life of the facility

c) the risks associated with external events to be considered in the design of the facility, including the potential effects of combining these risks with environmental conditions, including hydrological, hydrogeological and meteorological conditions,

d) other safety-related aspects, such as the storage and transport of nuclear and other radioactive materials, new and spent fuel and radioactive waste;

e) the possible non-radiological impact of the installation, in particular chemical discharges or thermal leaks and the risk of explosion and dispersion of chemicals;

f) potential interactions between nuclear and non-nuclear effluents

g) the potential radiological impacts under operating conditions on the population of the region, including those that could lead to emergency measures or potential impacts outside the territory of Senegal

h) to the extent possible, the total nuclear capacity to be installed at the site, taking into account the possible reassessment of the site if the installed capacity is to be increased well beyond the level considered in a previous assessment.

Section IV. - Authorization for the construction of a power reactor

Art. 73. - For the purpose of issuing a site licence for the construction of a power reactor, the NSRA shall ensure that the application meets the requirements of this Act and any applicable regulations, including, but not limited to, those related to:

a) the competence of the applicant or holder of the permit and its ability to meet the requirements of the permit during construction and operation;

b) the characterisation of the site prepared in accordance with Article 71 of this Law to determine its acceptability, and the related information necessary for the design of the proposed installation;

c) the availability of the pre-construction site reference study, covering the radiological conditions, to collect the information for comparison with the final stage after decommissioning,

d) the certificate of environmental compliance of the proposed facility,

e) the basic design of the proposed facility, to confirm that it can meet the relevant safety, security and physical protection requirements ,

f) the management system of the applicant or holder of the authorisation and the vendors;

g) provisions relating to the decommissioning and management of radioactive waste, including financially.

Section V. - Review and Evaluation of Nuclear Power Reactors During Construction

Art. 74. - During construction, ARSN reviews and assesses the progress of the facility design through documentation submitted by the applicant or permit holder, or if appropriate through a site visit, to determine whether it remains acceptable.

Section VI. - Pre-commissioning review and evaluation of nuclear power reactors

Art. 75. - Prior to the commencement of commissioning operations for a nuclear power reactor, the NSRA shall conduct a review and evaluation of the commissioning programme and, if necessary, establish a timetable for a subsequent review and evaluation prior to the commencement of operation.

Section VII. - Review and evaluation of nuclear power reactors prior to initial operation

Art. 76. - Prior to authorizing the loading of nuclear fuel or the first discrepancy, the NSRA shall complete the review and assessment of the following, including:

a) the final design, construction and manufacturing quality of the facility;

b) the results of non-nuclear commissioning tests .

c) operating limitations and conditions during commissioning, with a gaduous approach if necessary;

d) Radiation protection provisions

e) the adequacy of driving instructions and procedures, in particular the main administrative procedures, general driving procedures and emergency driving procedures,

f) Statements and reporting systems

g) provisions for the training and qualification of the facility's personnel, including staffing and fitness for duty,

h) management systems for operations,

i) the Emergency Preparedness Program,

j) the accounting measures of nuclear and radioactive materials,

k) the adequacy of physical protection measures:

l) provisions for periodic testing, maintenance, inspection, change control and monitoring

m) provisions relating to the decommissioning and management of radioactive waste.

Section VIII. - Review and evaluation of nuclear power reactors prior to full power operation

Art. 77. - Before authorising the routine operation of a nuclear power reactor at full power, the NSRA shall complete the review and assessment of the following

a) the results of the commissioning tests,

b) the limits and conditions of safe operation.

Section IX. - Examination and evaluation of nuclear power reactors during operation

Art. 78. - During the operation of a nuclear power reactor, the NSRA may require a review and evaluation of changes to operating limits and conditions or significant safety-related changes, to be carried out before authorizing them.

Art. 79. - From the date of issue of the operating permit, the permit holder must, at intervals set by the decrees and regulations adopted for the application of this Law, carry out a periodic review of the safety of the reactor, taking into account the requirements of this Law and any applicable regulations. In the periodic safety review, the licensee identifies and assesses the safety impact of the conclusions drawn and proposes solutions to improve safety.

Section X. - Information du public

Art. 80. - The NSRA shall establish appropriate mechanisms and procedures for informing and consulting interested parties and the public, in particular persons residing in the vicinity of a proposed nuclear facility, on the possible radiological risks associated with the facilities and activities, at the appropriate stages of the review-evaluation and licensing process.

During the operation of a nuclear facility, the licensee shall publish an annual report on nuclear safety, radiation protection, incidents and accidents that have occurred within the perimeter of the facility, and the protective measures implemented. Chapter II. - Research reactors

Section I. - The regulation of research reactors

Art. 81. - The NSRA establishes provisions for the regulatory control of research reactors, including the following elements

(a) criteria for the siting, construction, operation, maintenance and decommissioning of research reactors

b) the assessment and verification of safety and security by the operating body and by the ARSN;

c) the financial and human resources required to ensure safety and security,

d) the management systems to be put in place by the operating body at the different stages of the installation's life cycle,

e) the human factors to be taken into account by the operating body during the life of the installation •,

f) radiation protection programmes to ensure that radiation doses to workers and the public remain within prescribed limits and are as low as reasonably practicable, taking into account social and economic factors;

g) emergency preparedness and response plans and programmes;

h) criteria for a technical preservation program to maintain the safety and security of research reactors in prolonged shutdown

i) the financial provisions relating to the decommissioning and management of radioactive waste.

Section II. - The obligation to obtain a permit

Art. 82. - Authorization for the establishment of any nuclear facility containing a research reactor or the conduct of related activities is given by decree.

Any legal person that has obtained the authorization referred to in paragraph 1 of this section and that intends to construct or operate a research reactor or to conduct related activities shall obtain the relevant authorizations from ARSN in accordance with the provisions of this Act and the applicable regulations.

Section III. - Responsibility of the Authorization Holder

Art. 83. - The primary responsibility of the licensee is to ensure the safety and security of the reactor and all associated activities and procedures.

Licence holders shall take the necessary measures for the monitoring and accounting of the nuclear material present in their installations and under their responsibility.

Section IV. - Extended shutdown

Art. 84. - If, due to unusual and compelling circumstances, it becomes necessary to shut down or maintain a research reactor, the operating organization should, if necessary and with the approval of the NRSA, prepare and implement a technical preservation program to maintain the safety of the reactor and its fuel.

This program includes the following elements:

provisions to ensure that the reactor core remains subcritical, bearing in mind that if appropriate provisions exist for the safe storage of the fuel, it is preferable to discharge the core;

- procedures and measures for disconnecting, dismantling and preserving systems that need to be decommissioned or temporarily dismantled;

changes to the safety report and operating limits and conditions,

- provisions on radioactive fuel and waste;
- regular monitoring and periodic inspection, testing and maintenance activities to ensure that the safety performance of structures, systems and components does not degrade;

revised emergency planning provisions,

an analysis of personnel requirements to carry out tasks aimed at maintaining the research reactor in a safe state and preserving knowledge about the research reactor,

- provisions for the safety of the reactor and the facility.

Art. 85. - When a research reactor is shut down for a long time and there is no longer an active operating organisation, the management of the safety and security of the research reactor is taken over by the State.

Chapter III. - The definitive shutdown of nuclear facilities

Art. 86. - When the operator plans to permanently stop the operation of its installation or part of its installation, it must declare this to the ARSN. In its declaration, it shall indicate the date on which this shutdown must take place and specify, with justification, the operations it intends to carry out, in the light of this shutdown and pending the initiation of decommissioning, in order to reduce the risks or inconveniences that they may present for public safety, health and sanitation or the protection of the environment.

Art. 87. - The declaration referred to in Article 86 shall be made at least two years before the planned shutdown date, or as soon as possible if the shutdown is carried out with a shorter notice period for reasons justified by the operator. The operator is no longer authorised to operate the installation from that date.

Art. 88. - The declaration of permanent shutdown referred to in Article 86 shall include an update of the decommissioning plan. This update •

(l) describe the operations that the operator intends to carry out prior to decommissioning in order to reduce the risks or inconveniences

2) specifies whether the operations referred to in 1 (0) may be carried out in accordance with the authorisation referred to in Article 79, or whether they are subject to the amendment procedures ,

3) outlines the key equipment that will be required for the decommissioning of the facility, including the equipment it plans to construct or install

4) presents the waste management channels envisaged .

5) presents the organisation envisaged by the operator to definitively stop its installation.

Section I. - Decommissioning of nuclear facilities

Art. 89. - The ARSN establishes requirements for the decommissioning of nuclear installations, in particular .

a) safety and environmental criteria, including the conditions of the final stage of decommissioning;

b) limits and conditions for the lifting of regulatory controls on facilities containing radionuclides;

c) criteria for the release of radioactive material during and after decommissioning.

Art. 90. - Before authorising the decommissioning of a nuclear facility, the ARSN •

1) requires the applicant to provide a pre-construction site reference copy, covering the radiological conditions, to collect the information for comparison with the final stage after decommissioning;

2) ensure that relevant documents and records prepared by the authorisation holder are retained before, during and after decommissioning for a period to be specified;

3) establishes criteria for determining whether a nuclear installation or part of an installation should be permanently closed;

4) assesses the condition of the facility after the completion of decommissioning activities to ensure that applicable regulatory requirements have been met.

Art. 91. - The ARSN shall only lift the regulatory control over the facility after the licence holder has demonstrated that the final stage described in the decommissioning plan has been reached and that all additional regulatory requirements have been complied with.

Section II. - The decommissioning plan

Art. 92. - At the time of design of a nuclear facility, the applicant for a licence to construct and operate the facility shall prepare an initial decommissioning plan in relation to the type and

situation of the facility, as well as the risks associated with its decommissioning for approval by the ARSN.

ARSN ensures that interested parties have an opportunity to review and comment on the decommissioning plan prior to its approval.

Art. 93. - The SNRA requires the authorisation holder to .

a) set up periodic reviews and updates of the decommissioning plan and specify the maximum interval between such reviews and updates;

b) revises at its request and updates the plan to take account of any changes to the original decommissioning plan and submits it to the ARSN for approval;

c) prepare and submit to the Commission for approval the final decommissioning plan prior to the completion of decommissioning activities.

Art. 94. - ARSN shall ensure that a programme for the enforcement and verification of compliance with the remaining regulatory requirements has been established for sites whose decommissioning has been completed, but for which the authorisation or restrictions on future use remain in force.

Upon completion of decommissioning, ARSN shall ensure that appropriate records are maintained to confirm the completion of decommissioning activities in accordance with the approved decommissioning plan. This includes records of the premises and final storage of radioactive waste and materials and all documentation that is necessary to respond to any requests for compensation.

Section III. - The responsibilities of the authorization holder for decommissioning

Art. 95. - For the performance of decommissioning activities at a facility, the holder of an authorization

is required .

1) ensure the safety, security and protection of the environment, including for activities performed by subcontractors •

2) to prepare safety and safety assessments

environmental pact necessary for the implementation of the decommissioning plan,

3) Establish a system for archiving major problems and changes that have occurred during the life of the facility that could have an impact on decommissioning.

4) to ensure that the site's SEO survey is carried out efficiently and on time;

5) ensure that new or unproven methods of decommissioning are justified and submitted to ARSN for approval •

6) inform the ARSN within the required time limits of a decision to permanently close a facility and submit an application for the decommissioning of the facility as well as the draft final decommissioning plan within two years of the final cessation of operations,

7) ensure, in the event of a deferred decommissioning, that the installation is put in, and maintained, in a safe state, and appropriately decommissioned in the future

8) establish and maintain a management organization and personnel resources to ensure that decommissioning can be carried out safely, including that those responsible have the skills, expertise and training required for the safety of decommissioning

9) establish and maintain emergency plans based on the associated hazards and report significant incidents to the NSRA

10) ensure that adequate financial arrangements are made for all stages of decommissioning.

Section IV. - Financing of decommissioning

Art. 96. - The applicant for a licence to construct and operate a nuclear installation shall ensure that adequate financial resources are available when necessary to cover the costs related to safe decommissioning, including those of the resulting waste management.

The financial resources to be allocated to decommissioning activities are determined by an estimate of facility-specific costs. This estimate is reviewed and possibly reassessed as part of the periodic review of the decommissioning plan.

Chapter IV. - The qualification of nuclear installation operators

Section I. - The obligation to obtain a nuclear operator's licence

Art. 97. - No person shall conduct any activity or practice associated with the operation of a nuclear facility unless he or she has a sufficient complement of persons with the necessary qualifications and experience to carry out the activity or practice.

Art. 98. - The NHRA establishes a licensing system for persons who conduct activities or practices associated with the operation of nuclear facilities.

This system includes, among other things:

a) a categorization of authorizations for the types of work to be performed

b) an indication of the training required to obtain such authorisations, including the responsibilities of the operating body in this area,

c) the criteria for issuing the corresponding authorisations,

d) a review programme for applicants for authorisations as operators;

e) a system for recording the permits issued •

f) the conditions for the validity of authorisations and the requirements concerning their periodic renewal.

Section II. - Qualifications of plant operators

Art. 99. - The ARSN shall establish a procedure for the issuance of licences to operators of nuclear installations in accordance with the requirements of this Act and which shall include, in particular,

a) a review of the information to determine whether an applicant has the necessary professional skills to carry out the activities covered by the relevant authorisation

b) a review of the information proving that the applicant possesses the integrity and qualifications required for the job.

Art. 100. - For the purposes of the licensing requirements prescribed in section 97 of this Act, proof that a person has been convicted of a negligent offence is considered a condition for refusing to issue an authorization.

TITLE VII. - PREPARATION AND THE CONDUCT OF INTERVENTIONS EMERGENCY

Chapter I. - Contingency plans

Section I. - The obligation to have an emergency plan for all activities and practices

Art. 101. - Obtaining any authorization to conduct an activity or practice, operate a facility, or possess or use a source is subject to an appropriate radiological emergency plan developed by the applicant and approved by ARSN, for the preparation and conduct of emergency response.

Art. 102. - The requirements for the development and approval of internal and external emergency plans, for any facility, activity, practice or source that may require an emergency response, are set out in regulations.

Section II. - Preparing emergency plans

Art. 103. - Nuclear and radiological emergencies are categorized by regulation. This categorization of nuclear and radiological emergencies serves as a basis for the development of optimized preparedness and response arrangements.

Art. 104. - When preparing emergency plans, the following must be taken into account: - an assessment of the nature, probability and potential extent of the consequential damage, in particular to the population and territories threatened by an accident, malicious act or incident

the results of accident analyses and lessons learned and/or incidents and accidents that have occurred in the course of similar activities or practices.

The emergency plans include

- the obligation for an authorisation holder to immediately notify the ARSN and the State services concerned in emergency intervention, of any situation or incident that could present a risk of radiological injury requiring emergency intervention;
- the designation of the point of contact for the notification of events to the relevant emergency response and response organizations; - conditions that may require emergency intervention,
- the intervention levels for protective actions and their scope, depending on the possible severity of the emergencies that could occur,

procedures, including communications arrangements, for contacting and obtaining assistance from emergency response organizations,

- a description of the methods and equipment required to assess an emergency situation and its consequences
- Criteria for stopping each protective action •
- provisions for the training of responders and for the conduct of practical exercises, to test the adequacy of the plan and to ensure that all parties likely to be involved in emergency response are properly informed and prepared for possible emergencies
- provisions for the advance disclosure of information to members of the public who can reasonably be expected to be affected by an emergency.

Art. 105. - The development of emergency plans for facilities, activities, practices or sources that could result in significant nuclear or radiological damage is coordinated with all relevant emergency response agencies, including the National Emergency Management Committee of the ORSEC plan.

Section III. - Updating and complying with the emergency plan

Art. 106. - Contingency plans are reviewed, updated, tested periodically and resubmitted to NSRA for approval.

Art. 107. - In the event of a nuclear or radiological emergency, the licensee shall implement the emergency plan as approved by the NSRA.

Section IV. - The national plan for nuclear or radiological emergencies

Art. 108. - The development and updating of a national emergency plan for the response to a nuclear or radiological emergency is coordinated by the National Civil Security Committee of the ORSEC plan, in collaboration with the National Committee for the Prevention of Nuclear and Radiological Emergencies and all the public bodies involved and in accordance with the national policy and strategies on civil protection and emergency management.

Art. 109. - The national response plan in the event of a nuclear or radiological emergency assigns the responsibilities and actions to be carried out to the various public and private bodies concerned, including provisions for communications and information to the public.

Section V. - Transboundary emergencies

Art. 110. - In the event of a nuclear or radiological emergency which may result in radioactive contamination beyond national frontiers, the Government shall immediately inform the International Atomic Energy Agency and the competent authorities of any State which is or may be physically affected by a discharge which may be of radiological importance to that State.

Art. I l l . - The NSRA shall serve as the point of contact for the provision of any information or assistance relating to nuclear or radiological emergencies under the relevant international instruments, including the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency.

TITLE vm. - EXTRACTION AND OF THE PROCESSING OF ORES

Chapter I. - Regulation of mineral exploration, extraction and processing activities

Section I. - Requirements for extraction and processing activities

Art. 112. - Applicants for an authorisation to explore, extract or process radioactive minerals on a site, submitted to the Ministry in charge of Mines under the mining law in force, must attach to their application a certificate of compliance in the sense of safety, security and guarantees issued by the ARSN.

Without prejudice to the provisions of the Mining Code, the ARSN establishes requirements for certificates of conformity, including in particular the requirements relating to radiation protection.

Art. 113. - In addition to the provisions set out in Article 112 of this Law, the ARSN shall establish requirements for authorisations to carry out activities related to the exploration, extraction and processing of materials that could pose risks to health and safety due to exposure to ionising radiation, in particular the following:

- referencing the pre-construction site, covering the radiological conditions, to collect information for comparison with the final stage after decommissioning,

any prospecting activity involving possible exposure to radiation •

removal of uranium or thorium from a site for testing or evaluation (unless exempted);

extraction activities carried out at a site, including a test mine, for the purpose of assessing or delineating the deposit,

the siting, construction or operation of a mine or processing facility; the transport of the product of extraction or processing activities,

decommissioning or closure of a mine or processing facility, radioactive waste management and site remediation.

The NHRA shall establish an inspection system to ensure that any applicable regulations and authorizations issued pursuant to this section are complied with.

Art. 114. - Without prejudice to the provisions of the Mining Code and the Environmental Code, exploration, extraction and processing of other minerals in which radioactive ores are a significant by-product or become so by treatment, are subject to prior radiological impact studies to be submitted to the ARSN before exploitation.

The ARSN conducts regular inspections to monitor the exposure to ionising radiation of workers and the public that may occur, in particular through the inhalation of radon progeny, the inhalation of airborne dust, direct exposure to gamma radiation or the ingestion of materials contaminated with radionuclides resulting from exploitation.

Section II. - Requests for authorization

Art. 115. - Applicants for a certificate of compliance, set out in section 112 of this Act, for the exploration, extraction or processing of uranium or thorium ore at a site shall provide information on the following aspects (if applicable)

a) mining leases,
b) site features, including geology and mineralogy,
c) site selection or construction plans;
d) design studies of the mine or processing facility;
e) Proposed activities, extraction techniques and types of equipment envisaged
f) quantities of uranium and/or thorium to be extracted from the ore;
g) transport of ore;
h) estimation of exposures and doses to which workers are subjected,
i) radiation protection measures to be taken,
j) accident prevention procedures;
k) plans of effluent management systems and procedures;
l) procedures to deal with accidental releases of radioactive or non-radioactive contaminants into the environment, and to mitigate the risks thereof;
m) Impacts on public health and safety and the environment ,
n) siting of tailings and storage facilities or stockpiles of ore and waste rock;
o) Proposed plans for decommissioning, including financial arrangements for decommissioning
p) Security measures

q) the operational status and estimated annual production capacity at any location where radioactive minerals are extracted and at intervals specified by the NSRA.

TITLE IX. - THE TRANSPORT OF RADIOACTIVE M4TIERES

Chapter I. - The regulation of the transport of radioactive materials

Art. 116. - The requirements for the transport of radioactive materials to, from and under the jurisdiction of the State of Senegal are set by regulation by the Ministry of Transport on the proposal of the ARSN after consultation with the Ministers of the Interior and the Environment respectively.

These requirements include a categorization of radioactive materials that takes into account the hazard they may pose by type, quantity and level of activity.

Art. 117. - The requirements adopted under this article shall take into account the technical provisions of the most recent edition of the Regulations for the Safe Transport of Radioactive Material published by the International Atomic Energy Agency.

The requirements referred to in the first paragraph of this Article shall include measures for the physical protection of radioactive materials in accordance with the most recent guidance documents published by the International Atomic Energy Agency.

Chapter II. - The requirement to obtain a licence for the transport of radioactive materials

Art. 118. - Without prejudice to the regulations on the transport of dangerous goods, any transport, by land, sea or air, of radioactive materials whose activity exceeds the exemption limits set by regulation, is subject to authorisation by the ARSN, in accordance with the provisions of this law and the texts adopted for its application.

Art. 119. - The scope of this chapter excludes the transport • - of radioactive materials which are an integral part of the means of transport of radioactive materials moved within an establishment where the activity or practice requiring the transport - of radioactive materials implanted or incorporated into the body of a living being for the purpose of diagnosis or therapy is carried out,

- natural materials and ores containing natural radionuclides not intended to be processed for the use of such radionuclides, provided that the mass activity of these materials does not exceed the values fixed by regulation,

- radioactive material used as a sample for bioassays.

Art. 120. - A general authorization may be granted to a carrier who wishes to carry out the regular transport of radioactive materials. This authorisation is granted for a period not exceeding five years.

The transporter holding a general authorisation shall inform the ARSN on a monthly basis, in accordance with the procedures laid down by the latter, of the shipments of radioactive materials carried out during the previous month.

An exceptional authorization may be granted to a carrier who wishes to carry out an occasional transport of radioactive materials.

Art. 121. - The person or entity holding an authorization to transport radioactive material has primary responsibility for ensuring the safety and security of radioactive material during transport.

Chapter III. - Procedures for responding to threats, accidents or incidents

Art. 122. - If, during the transport of radioactive materials, it becomes apparent that a danger to the safety of the public is threatening, the person transporting radioactive materials is required to immediately inform all competent authorities, including the ARSN and other parties involved in the transport concerned.

Art. 123. - In the event of an accident or incident during the transport of radioactive material, the response plan established by the licensee and approved by ARSN is implemented to protect people, property and the environment.

TITLE X. - RADIOACTIVE WASTE AND SPENT FUEL

Chapter I. - The scope of application and the national policy and strategy

Art. 124. - A national policy and strategy for the safe and sustainable management of radioactive waste and spent fuel, including final disposal, is drawn up by the ARSN and the other structures concerned and approved by the Government.

The national strategy provides for the implementation of research and studies on the management of radioactive waste and spent fuel, as necessary.

Chapter II. - General principles

Art. 125. - At all stages of the management of radioactive waste and spent fuel, natural or legal persons holding licences must

a) ensure that the generation of radioactive waste is kept as low as possible •

b) take into account the interdependencies of the different stages of radioactive waste and spent fuel management;

c) ensure the effective protection of individuals, society and the environment by applying at national level appropriate methods of protection that have been approved by ARSN within the framework of national legislation, which takes due account of internationally agreed criteria and standards, in particular those adopted by the International Atomic Energy Agency

d) take into account the biological, chemical and other risks that may be associated with the management of radioactive waste and spent fuel;

e) take due account of the criticality and removal of waste heat produced in the management of radioactive waste and spent fuel,

f) to ensure that at all stages of spent fuel and radioactive waste management there are effective defences against potential risks so that individuals, society and the environment are protected, now and in the future, from the harmful effects of ionising radiation, so that the needs and aspirations of the present generation are met without compromising the ability of future generations to meet their own needs,

g) avoid imposing undue constraints on current and future generations,

h) ensure that appropriate funding arrangements are made.

Chapter III. - The obligation to obtain a permit for the management of radioactive waste and spent fuel

Art. 126. - No person may operate a radioactive waste or spent fuel management facility without first obtaining an authorisation issued by the ARSN.

Radioactive liquid and gaseous discharges into the environment from nuclear installations are subject to authorisation.

Art. 127. - Radioactive waste meeting exemption levels set by regulation shall be exempted from the application of the provisions of this Chapter.

Chapter IV. - The regulation of radioactive waste and spent fuel management

Art. 128. - The ARSN ensures the continuity of regulatory control over radioactive waste from its production to its final disposal, including institutional control.

Chapter V. - Responsibility for the safety and security of radioactive waste and spent fuel

Art. 129. - The management of radioactive waste or spent fuel must be based on a division of responsibilities between the following parties:

- the producer of radioactive waste or spent fuel,
- the body responsible under the law for the centralised management of radioactive waste or spent fuel generated at national level -, the ARSN.

The missions of the body responsible for the centralised management of radioactive waste or spent fuel will be defined by decree.

Art. 130. - Funding related to the management of radioactive waste and/or spent fuel is the responsibility of the licence holders.

The mechanism for financing the costs related to the management of radioactive waste and spent fuel and the terms and conditions for the contribution of licence holders shall be determined by decree.

Art. 131. - In the absence of any other duly designated party, the State remains responsible for the management of radioactive waste and spent fuel.

Chapter VI. - Final storage plan

Art. 132. - The licensee of a nuclear waste disposal facility must develop a plan for the closure of the nuclear waste facility that includes institutional, active and passive controls.

The ARSN approves this plan before authorising the operation of this facility.

Chapter VII. - Import and export of radioactive waste

Art. 133. - Radioactive waste produced outside the national territory may not be imported into Senegal, unless the Government, after obtaining the assent of the ARSN, decides that the import is in the national interest.

Radioactive waste or spent fuel produced in Senegal may only be exported if an authorization has been issued by the ARSN.

It is prohibited to export spent fuel or radioactive waste for storage or disposal to a destination south of 60(south latitude.

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Art. 134. - Without prejudice to the 1994 Declaration of Helsinki, the following criteria for the export of radioactive waste or spent fuel shall apply when determining whether to approve an export permit:

a) the importing State has approved the shipment and will be notified of the shipment of radioactive waste or spent fuel prior to receipt

b) the movement of exported materials shall be carried out in accordance with the relevant international obligations in all States through which they transit;

c) the importing State shall have the administrative and technical capacity, as well as the regulatory structure, to manage the exported radioactive waste or spent fuel in a safe and secure manner, in accordance with the relevant internationally recognized standards, in particular those published by the International Atomic Energy Agency.

Art. 135. - If an export of radioactive waste or spent fuel, which has been the subject of an authorization, cannot be carried out in accordance with this law, the radioactive waste or spent fuel shall be reimported into Senegal, unless other measures can be taken to guarantee its safety and security.

TITLE XI. - ACCOUNTABILITY AND DAMAGE REPAIRS

Chapter I. - The responsibility of the operator

Art. 136. - The title applies to civil compensation for nuclear damage caused by a nuclear accident occurring on the national territory, the territorial sea or the exclusive economic zone and covered by the civil liability conventions for nuclear damage to which Senegal is a party.

Art. 137. - Except as otherwise provided in this Act, no person, other than the operator, shall be liable for nuclear damage proved to have been caused by a nuclear accident at the operator's nuclear facility.

Art. 138. - Liability for any nuclear damage caused by stolen, lost, discarded or abandoned nuclear material rests with the last operator authorized to hold that material.

The operator's liability for nuclear damage is incurred regardless of where the damage is suffered.

Chapter II. - Liability during transport

Art. 139. - The operator of a nuclear installation is liable for any nuclear damage that is proven to have been caused by a nuclear accident involving nuclear material that originates from or emanates from the nuclear installation and that has occurred.

before liability for the nuclear accident caused by that material has been assumed, under the terms of a written contract, by the operator of another nuclear installation; in the absence of the express provisions of such a contract, before the operator of another nuclear installation has taken over that nuclear material ; if the nuclear material was sent to a person in the territory of a non-Contracting State, before it has been discharged from the means of transport by which they arrived in the territory of that State.

Art. 140. - The operator of a nuclear facility is liable for any nuclear damage that is proven to be caused by a nuclear accident involving nuclear material that is sent to its facility and that occurs.

a) after he has taken charge of these matters,

b) after liability for nuclear accidents caused by that material has been transferred to it, under the terms of a written contract, by the operator of another nuclear installation;

c) if the nuclear material is sent, with the written consent of the operator, by a person in the territory of that non-Contracting State, then the operator shall be liable from the time the nuclear material has been loaded onto the means of transport by which it is to leave the territory of that State.

Art. 141. - A transporter of nuclear material may, at its request and with the consent of the operator concerned, be designated or recognised as the operator in its place, subject to the approval of the Government with the opinion of the ARSN and if the conditions required by Article 143 below are met.

In such a case, the carrier is considered to be an operator of a nuclear installation for the purposes of this Act.

Chapter III. - Liability coverage and financial guarantee

Art. 142. - The amount of the civil liability of the operator of a nuclear installation for nuclear damage caused by a single nuclear accident is that set at three hundred (300) million Special Drawing Rights (SDRs), or about 239.46 billion CFA francs, according to the Convention on Supplementary Compensation for Nuclear Damage.

However, taking into account the nature of the nuclear installation or the nature of the nuclear materials in question as well as the probable consequences of a nuclear accident that they are likely to cause, the Government may set a lower amount of the operator's liability, provided that in no case may it be less than three billion nine hundred and thirty-five million seven hundred and forty-two thousand (3,935,742,000) CFA francs.

This amount shall be automatically indexed as a percentage to changes in the International Monetary Fund's Special Drawing Rights between the date of entry into force of this Act and the date of the nuclear accident.

Art. 143. - The operator of a nuclear installation is required to take out and maintain insurance or other financial security up to the amount, per accident, covering its liability for nuclear damage as provided for in Article 142 of this Law.

The operator of a nuclear installation shall submit to the Government for approval and after obtaining the opinion of the ARSN, the conditions of the financial guarantee required in the preceding paragraph of this article.

The operator of a nuclear installation, in order to obtain authorization for commissioning tests, must, before the arrival of the nuclear fuel on the national territory, provide proof of coverage of its civil liability in respect of nuclear damage as provided for in Article 142 of this Law.

Art. 144. - Where claims exceed or are likely to exceed the maximum amount awarded in accordance with section 142 of this Act, compensation for nuclear damage caused by a nuclear incident shall be awarded in the first instance for any loss of life or bodily injury. Once all such requests have been satisfied, claims for further loss or damage will be compensated.

Art. 145. - The funds available are exclusively reserved for the reparation of nuclear damage covered by this law and do not take into account the interest and costs awarded by the competent court for compensation for nuclear damage.

Art. 146. - Except as otherwise provided in this Act, any person who claims to have suffered nuclear damage and who has submitted a claim for compensation within the prescribed period may amend the claim to take account of any aggravation of the damage, even after the expiry of that period, provided that no final judgment has been rendered.

Chapter IV. - The statute of limitations for the action for damages

Art. 147. - An action for compensation for nuclear damage under this Act is extinguished if it is not brought:

a) within thirty (30) years from the date of the nuclear accident, in the event of death or damage to persons;

b) within ten (10) years from the date of the nuclear accident, for all other nuclear damage.

Art. 148. - The action for compensation for nuclear damage shall be extinguished within three (03) years from the date on which the victim knew or should reasonably have known of such damage and of the identity of the operator who is responsible, unless the time limits set out in Article 147 of this Law have expired.

Chapter V. - Compensation and Jurisdiction

Art. 149. - The courts of Senegal have jurisdiction to hear claims for compensation in the event of:

a) nuclear damage caused by a nuclear accident occurring on the national territory, the territorial sea or the exclusive economic zone;

b) of nuclear damage when such exclusive jurisdiction is envisaged by the convention(s) on civil liability for nuclear damage to which Senegal is a party.

Art. 150. - When the nuclear damage caused exceeds or is likely to exceed the amount fixed by Article 142 of this Law, priority in the distribution of compensation shall be given to claims submitted in the event of death or damage to persons. Once these claims are met, those who have suffered further loss or damage are compensated.

Art. 151. - The Court of First Instance of the place of the accident shall have exclusive jurisdiction to hear claims submitted, pursuant to this law, to obtain compensation for nuclear damage caused by a nuclear accident occurring on the territory of Senegal.

Art. 152. - Any person entitled to compensation, in compensation for nuclear damage, may bring an action for compensation against the operator responsible or directly against the insurer or any other person who has provided financial security in accordance with Article 143 of this Law.

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Art. 153. - When the amount of the operator's insurance or financial guarantee is insufficient to satisfy the compensation for all nuclear damage, the State shall ensure the payment of the necessary supplement, provided that the total of this supplement may not exceed the amount of the civil liability applicable to the operator as provided for in Article 142 of this Law.

However, after payment by the State of the supplement, he may bring an action for recourse against the author.

Chapter VI. - Exemptions from civil liability

Art. 154. - The operator of a nuclear installation is not liable for nuclear damage if it is established that such damage is a direct result of armed conflict, hostilities, civil war or insurrection.

Art. 155. - The operator of a nuclear installation is not liable for nuclear damage caused.

a) at the nuclear facility itself or at any other nuclear facility, including a nuclear facility under construction, at the same site

b) property that is located on the same site and that is or is to be used in connection with such a facility.

Art. 156. - Where the operator of a nuclear installation proves that the nuclear damage is the result, in whole or in part, of the gross negligence of the person who suffered it, or that that person acted or omitted to act with the intention of causing damage, the operator of a nuclear installation may be relieved, in whole or in part, of the obligation to pay compensation for the damage suffered by that person.

Art. 157. - Nothing in this Act shall affect the liability of an individual for nuclear damage for which the operator is not liable under sections 155 and 156 of this Act and the individual is caused by an act or omission committed with intent to cause damage.

A natural person who has intentionally caused, by act or omission, damage cannot be exonerated from liability,

Chapter VII. - The extinction of remuneration rights

Art. 158. - Subject to point (b) of this Article, the rights of compensation for nuclear damage under this Act shall be extinguished if an action is not brought

a) in the case of loss of life or personal injury, within thirty years of the date of the nuclear accident,

b) in respect of any other nuclear damage, within ten years of the date of the nuclear accident.

Art 159. - The rights of compensation for nuclear damage under this Act shall be extinguished three years from the date on which the person who suffered the damage knows or reasonably would have known of the damage and of the operator responsible for the damage, provided that the time limits set out in the first paragraph of this section are not exceeded.

TITLE XII. - SAFEGUARDS AND NON-PROLIFERATION

Chapter I. - The commitment to the peaceful use of nuclear materials

Art. 160. - Nuclear material on the national territory shall be used only for peaceful purposes and in accordance with the relevant international obligations undertaken by the State of Senegal relating to nuclear-weapon-free zones or other non-proliferation commitments, in particular the Treaty of Pelindaba and the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) as well as the Safeguards Agreement and the protocols thereto.

Any natural or legal person intending to carry out research and development activities related to the nuclear fuel cycle, as defined in the Safeguards Agreement and any protocol thereto, shall provide ARSN with information on such activities before undertaking them.

Students and employees are not legally required to provide this information if they are hired by an entity that does.

Art. 161. - The presence of nuclear weapons and other nuclear explosive devices, the direct or indirect control of such weapons or devices, their manufacture or acquisition by other means, and the solicitation or receipt of any assistance for the purpose of their manufacture shall be prohibited in the national territory.

Chapter II. - Cooperation in the application of safeguards

Art. 162. - The ARSN ensures the fulfilment of the obligations of the State of Senegal under the NPT, the Safeguards Agreement and any related protocols.

As such, the ARSN must .

a) to verify compliance with the obligations of the State of Senegal arising from the instruments referred to in Article 160 of this Law;

b) collect and provide the IAEA with the information required for the full implementation of the Safeguards Agreement and Additional Protocols to the Safeguards Agreement;

c) facilitate access by IAEA inspectors to any location or facility within the territory of the State of Senegal or under its jurisdiction to undertake activities authorized by the Safeguards Agreement and Additional Protocols thereto;

d) ensuring coordination with other relevant government agencies to ensure the provision of information to the IAEA related to the Safeguards Agreement and any related protocols.

Art. 163. - All public bodies in Senegal and all persons and entities holding a licence shall cooperate fully with the IAEA in the implementation of the control measures, in particular in .

a) promptly providing all necessary information in accordance with the Safeguards Agreement and any related protocol between Senegal and the IAEA;

b) providing access to all locations required in accordance with the relevant Safeguards Agreement and any related protocol

c) assisting ARSN inspectors, as appropriate, representatives duly authorized by ARSN and IAEA designated inspectors in carrying out their duties;

d) providing ARSN inspectors, where appropriate, with representatives duly authorized by ARSN and designated IAEA inspectors with all necessary services during their inspections.

Chapter III. - Safeguards inspections and accounting of nuclear material

Art. 164. - NSRA inspectors and, where applicable, duly authorized representatives of NSRA and designated IAEA inspectors shall have access to any place where an activity is taking place, including but not limited to any nuclear facility or off-site locations, as provided for in the Agreement and the protocols thereto, in order to conduct the verification activities specified in those instruments.

Any person carrying out activities subject to the Safeguards Agreement and any protocol thereto shall authorize ARSN and duly designated IAEA inspectors to take any samples or measures that ARSN or IAEA deems necessary or appropriate for the purposes of the

that the State of Senegal respects the commitments it has made under these international instruments.

Art. 165. - The ARSN approves for Senegal, the appointment of inspectors proposed by the IAEA, as part of its Safeguards monitoring missions.

Senegal must, at the request of the IAEA, expedite the issuance of appropriate multiple entry/exit visas valid for at least one year and renewable, if necessary, to enable IAEA designated inspectors to stay in Senegal and carry out their Safeguards missions.

Art. 166. - For the effective application of safeguards on the national territory, the ARSN shall establish and implement a national system of accounting and control of nuclear materials (CNS), based on a structure of material balance areas, including, inter alia

a) a system for measuring nuclear materials,

b) a system for evaluating the accuracy of measurements ,

c) the procedures for examining the discrepancies between the measurements between the sender and the consignee,

d) procedures for drawing up an inventory of physical stocks;

e) a system for assessing unmeasured stocks and unmeasured losses,

f) a system of readings and reports, for each balance sheet area, to monitor the evolution of stocks and flows of nuclear materials,

g) procedures to ensure the correct application of accounting methods and rules;

h) procedures for reporting to the IAEA.

Chapter IV. - Responsibilities of authorisation holders

Art. 167. - Persons authorized to hold, use, handle or process nuclear material subject to the Safeguards Agreement and any related protocol are required to: ..

a) maintain records as specified by ARSN;

b) submit the required reports to the NSRA in the form and on the dates specified by the NSRA

c) carry out measurements concerning nuclear materials and apply control programmes for the measures specified by ARSN •

d) provide the NSRA with information on the design of any nuclear facility, including any changes to the design of the facility

e) Preparing inventories of physical stocks of nuclear material •

f) notify ARSN of the import or export of nuclear material, as well as the non-nuclear equipment and material specified in Annex II of the Safeguards Agreement and the Additional Protocol,

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g) notify the ARSN without delay of any loss of nuclear material exceeding the limits prescribed by the decrees and regulations adopted for the application of this law

h) provide reports on planned future activities, as specified by ARSN;

i) ensure that authorized representatives of ARSN and designated officials of the IAEA have unhindered inspection of any facility or other site referred to in this Act, the Safeguards Agreement or any protocol thereunder; •

j) provide the ARSN with the information and data necessary for Senegal to comply with its commitments under these instruments.

TITLE XIII. - CONTROL MEASURES
EXPORTS AND IMPORTS

Chapter I. - Export and import controls

Art. 168. - The objectives of the control of exports and imports of nuclear and other radioactive materials and related equipment or techniques are to:

protect people and the environment,

guarantee the security and economic interests of Senegal •

meet the country's obligations under relevant international instruments •

to promote international cooperation in favour of the safe and peaceful use of nuclear energy;

To support international efforts against the proliferation of nuclear weapons, nuclear explosive devices and radioactivity dispersing devices.

Art. 169. - The ARSN establishes, in accordance with Senegal's international obligations and commitments, a list of items subject to control, for the purposes of import, export, transhipment or transit of a controlled article.

Chapter II. - Export and import authorizations

Art. 170. - The ARSN adopts, in collaboration with the institutions concerned, all the necessary measures, including the creation of a system of authorisations to control the export and import, re-export, transit by land and transhipment of a material, of any article deemed susceptible to control by the ARSN, to ensure security and to protect the strategic interests of the State.

Art. 171. - The NSRA establishes standards detailing the licensing process for the export and import of controlled items, including .

a) the procedures for the submission of applications for authorisation, including the timetables for their examination and the decisions to be taken on them,

b) provisions for the periodic revision or updating of the lists of goods and items subject to control to take account of technological developments or relevant circumstances;

c) criteria for the evaluation of applications and the issuance of authorizations

d) control of the final destination;

e) requirements for pre-export notification where such notification has been deemed necessary •

f) a timetable for the payment of the fees due for the processing of the application for authorisations; (g) provisions for the transhipment of materials or goods for which an export authorisation is not required,

h) provisions for records to be kept of licensed activities

i) provisions for the protection of confidential information relating to authorised activities.

Art. 172. - Prior to the granting of an export authorization for an item or technology that is deemed necessary for control, NSRA shall ensure in particular that .

a) the receiving State has made a binding undertaking to use the material and information transferred only for peaceful purposes •

b) international safeguards in the form of comprehensive safeguards agreements are applied to the transferred object •

c) the receiving State is a party to the IAEA Safeguards Agreements;

d) the transfer of a material and technology previously transferred to a third country is subject to the prior agreement of the Senegalese State

e) the levels of physical protection applied to the exported material are in accordance with those set out in the Convention on the Physical Protection of Nuclear Material;

f) the applicant has provided sufficient information on the end use and final destination of the nuclear material, equipment or information to be transferred, which confines the legitimate peaceful use of that material, item or information,

g) for spent nuclear fuel or radioactive waste, the State of Senegal has received a notification prior to the transfer

h) for spent nuclear fuel or radioactive waste, the receiving State has demonstrated that it has the necessary administrative and technical capacity as well as the regulatory infrastructure to manage the materials in a safe and secure manner

i) nuclear material shall not be transferred to geographical areas prohibited by the international instruments to which the State of Senegal is a party.

Art. 173. - Before granting an authorisation for the export of a material, equipment or technology whose control is deemed necessary, the ARSN shall ensure in particular that:

a) the material, material or technology to be imported is not otherwise prohibited by any law or regulatory provision in Senegal

b) the designated beneficiary of the material, equipment or technology that requires an authorization to import has received an appropriate authorization

c) the end-user of the imported material, material or technology has demonstrated that it has the technical and administrative capabilities and resources to use the imported material, articles or technology in a safe and secure manner,

d) The material, material or technology to be imported is not likely to be diverted from civilian or peaceful use for use in malicious acts.

TITLE XIV. - NUCLEAR SAFETY, PHYSICAL PROTECTION AND ILLICIT TRAFFICKING

Chapter I. - Provisions applicable to physical protection

Art. 174. - The State shall ensure the establishment and implementation of a national nuclear security regime to protect people, property, society and the environment against malicious acts involving nuclear and other radioactive materials. It establishes a national system of physical protection, which includes persons, procedures and equipment, for the protection of nuclear facilities and nuclear materials from theft or other unauthorized removal or unlawful acquisition, sabotage or other malicious acts, as well as measures to locate and recover missing materials and to mitigate or minimize the consequences of a malicious act.

This system must also include measures to protect confidential information.

No one shall disclose confidential information, including any information obtained pursuant to the provisions of the Convention on the Physical Protection of Nuclear Material and the Amendment to that Convention.

Art. 175. - The ARSN, in conjunction with the national defence forces, regularly assesses the threat to the State. On this basis, it shall establish the requirements and measures relating to the security of nuclear and other radioactive materials.

They include:

a) a categorization of nuclear and other radioactive materials based on an assessment of the damage that could result from theft or diversion of such materials or sabotage of a facility housing such materials;

b) the necessary protective measures for the different categories of materials, including those required to protect nuclear installations;

c) measures for the accounting and control of nuclear and other radioactive materials;

d) rules, procedures and conditions for the issuance of permits including provisions on physical protection;

e) inspection and surveillance measures, including during transport, to verify compliance with the applicable physical protection rules;

measures to intervene in the event of a malicious act and to minimize the radiological consequences of this malicious act.

Chapter II. - Responsibilities of the authorization holder

Art. 176. - Any person or entity licensed to conduct activities or practices involving the use of nuclear or other radioactive material has primary responsibility for ensuring the physical protection and other security measures of such material and associated facilities in accordance with applicable regulations and the conditions attached to the licence.

When this responsibility is assumed by the public authorities of the State, it will be at the expense of the operator.

Art. 177. - In the event of theft, threatened theft or loss of nuclear material or radioactive sources, the licensee

(a) promptly inform ARSN of the circumstances in which the incident occurred •

b) submits as soon as possible a detailed written report giving details to the ARSN so that it can take the appropriate measures,

c) communicate to the ARSN any additional information requested.

Chapter III. - International cooperation and assistance

Art. 178. - In the event of theft, robbery or unlawful acquisition of nuclear or other radioactive materials, or a likely threat of such an act, the ARSN shall, together with the relevant State administrations, take appropriate measures as soon as possible to inform other States or international organisations likely to be affected of the circumstances of the incident.

The ARSN collaborates with the relevant State administrations for the development and implementation of recovery and intervention measures in the event of theft or illicit acquisition of these materials or sabotage of these materials or of a nuclear installation.

In the event of theft or illicit acquisition of nuclear or radioactive materials, the ARSN collaborates with the relevant State administrations for any necessary agreement and assistance with any state or international organization that requests it in order to recover and protect these materials.

Art. 179. - The ARSN is the point of contact for the provisions of the Convention on the Physical Protection of Nuclear Material.

The ARSN shall provide the IAEA, within the framework of mechanisms set up by the IAEA, with information on cases of theft, robbery or illicit acquisition of nuclear or radioactive materials, equipment and technology or of sabotage of a nuclear facility.

TITLE XV. - RESEARCH AND THE RECORDING OF INFRINGEMENTS - SANCTIONS

Chapter I. - Administrative penalties

Art. 180. - In the event of a breach of the terms of the authorisation, the ARSN may give notice to any natural or legal person who has committed the offence, regardless of the criminal proceedings that may be initiated, to comply with these conditions within a specified period.

Chapter II. - Formal notices

Art. 181. - If, at the end of the time limit, he has not replied to the formal notice, the ARSN may, by reasoned decision and after giving the interested party the opportunity to submit his observations

a) oblige it to deposit in the hands of a public accountant a sum corresponding to the amount of the work to be carried out or the cost of the measures to be taken; This sum is then returned to the operator as and when the prescribed work or measures are carried out by him

b) have the person given formal notice carry out ex officio, at the expense of the person given formal notice, the execution by the latter of the prescribed works or measures; Amounts deposited under (a) may be used to pay for expenses so incurred

c) suspend the operation of the installation in question.

This measure is lifted by operation of law as soon as the conditions imposed have been fully complied with.

Chapter III. - Suspension or withdrawal of authorization

Art. 182. - Without prejudice to criminal sanctions, the suspension or withdrawal of the authorisation may be pronounced against any natural or legal person who has committed one of the following offences:

- non-compliance with the ARSN's formal notice measure;
- the fraudulent exercise of authorization, transfer and transfer of authorization - without compliance with the conditions contained in the authorization,
- operation, without prior installation authorisation .
- Communicating false information to obtain a licence to operate a facility - Disclosure of confidential information
- the communication of information affecting the security of radioactive sources and materials or associated items,
- violation of the provisions relating to the construction and operation of a nuclear facility and the conduct of related activities.

Art. 183. - Where NSRA has determined that a person or entity has failed to comply with the provisions of this Act or the regulations or the terms and conditions of an authorization, the NSRA may impose a monetary penalty to take corrective action resulting from the violation.

TITLE xvl. - PENAL PROVISIONS

Chapter I. - Criminal offences

Art. 184. - Offences relating to nuclear or other radioactive materials and nuclear installations are provided for and punishable by the provisions of the Criminal Code.

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Art. 185. - Any person who obstructs the action of the ARSN or knowingly provides inaccurate information to the persons responsible for carrying out regulatory controls shall be punished by imprisonment for a term of six months to three years and a fine of between 5,000,000 and 10,000,000 CFA francs or one of these two penalties only.

Chapter II. - The criminal liability of legal persons

Art. 186. - Legal persons, with the exception of the State, public establishments, local authorities, implementing agencies and similar administrative structures, may be held criminally liable for the offences provided for in this law committed on their behalf by their organs or representatives.

The liability of legal persons does not exclude that of natural persons, perpetrators or accomplices of the same acts.

Art. 187. - The penalties incurred by legal persons are .

- the fine, the maximum rate of which is equal to five times that provided for natural persons by the law punishing the offence;
- the permanent closure or for a period of five (05) years at most of one or more of the establishments of the company used to commit the incriminated acts; confiscation of the thing used or intended to be used to commit the offence or of the thing that is the product;
- the posting of the decision pronounced or its dissemination either by the written press or by any means of communication to the public by electronic means.

Chapter III. - Jurisdiction and criminal procedures

Article 188. - The Senegalese courts shall have jurisdiction to hear the offences provided for in this law when . the offence is committed on the territory of Senegal or on board a ship or aircraft registered in Senegal.

- the alleged perpetrator of the offence is a national or permanent resident of Senegal • - the alleged perpetrator of the offence is present on the national territory and is not extradited to any other State that declares itself competent - the offence was committed outside the national territory during the international transport of nuclear material and Senegal is the State of origin or the State of final destination of the consignment

The victim of one of the offences provided for in this Act, committed outside the national territory, shall be a Senegalese citizen, if the facts have not given rise to a final decision abroad.

Art. 189. - Infringements of the provisions of this Act, the regulations made for its application and the conditions of the authorisation shall be noted by:

- judicial police officers, authorized agents of the Senegalese Nuclear Protection, Safety and Security Authority referred to in article 8 of this law, provided that they are sworn in and bound by professional secrecy, civil servants and agents of the administration to whom certain judicial police powers are conferred by special texts.

Art. 190. - The agents referred to in Article 189 of this Law shall be bound by professional secrecy.

Art. 191. - The reports drawn up by the agents referred to in Article 189 of this Law shall be authentic until the material findings are entered as forgeries.

They are authentic until proven otherwise.

They are forwarded to the territorially competent Public Prosecutor.

Art. 192. - In the event of a potential or imminent danger reported by the persons authorized by this law to record infringements of the provisions of this law, the regulations adopted for its application and the conditions of the authorization, the Senegalese Authority for Radiation Protection, Nuclear Safety and Security may refer the matter to the competent court ruling in summary proceedings to prescribe all urgent precautionary or restoration measures justified by the circumstances in accordance with the provisions of Articles 247 et seq. of the Code of Civil Procedure.

Art. 193. - The ARSN is authorised to deal with the perpetrators of offences provided for in this Act.

The transaction may take place before or after a final judgment.

After a final judgment, the settlement can only relate to financial penalties.

It allows custodial sentences to remain.

A certified copy of the minutes must, in all cases, be sent to the Public Prosecutor who is notified at the same time of the settlement if there has been one.

Art. 194. - The proceeds of the fines imposed pursuant to this law shall be distributed as follows:

20% for the local authority concerned; - 20% for the State •

- 60% for the ARSN.

The terms of application of this provision shall be specified as necessary, by decree.

UNOFFICIAL PART

TITLE XVII. - Final provisions

Art. 195. - This law shall enter into force six (06) months after its publication in the Official Gazette.

However, the authorisations issued pursuant to Law No. 2004-17 of 15 June 2004, as amended, and Law No. 2009-14 of 2 March 2009 on nuclear safety and radiation protection, remain valid and are considered to have been granted pursuant to this Law.

Art. 196. - This law repeals Law No. 2004-17 of 15 June 2004 on nuclear and radiological safety and security, amended by Law No. 2009-14 of 2 March 2009 on nuclear and radiological safety and security.

Art. 197. - The procedures for the application of this law shall be determined by decree.

This law shall be executed as a law of the State.

Done in Dakar, 31 December 2021.

Macky SALL

Conservation of Property and Land Rights
Rufisque Office

NOTICE OF WIMATRICULATION APPLICATION

All interested persons are entitled to lodge an objection to this registration, in the hands of the undersigned registrar, within three (03) months, from the date of posting of this notice, which will take place shortly in the hearing of the Regional Court of Dakar.

According to requisition no. 502, filed on December 22, 2021, the Head of the Office of the Estates of Rufisque, residing and domiciled in Rufisque, at the Tax Services Center at the place called route des H.L.M,

Acting in the name and on behalf of the Senegalese State, has requested the registration in the Rufisque Land Book of a building consisting of a plot of land with a surface capacity of 08ha 32a 85ca, located in Keur Ndiaye LO and bounded, on all sides, by unregistered land.

He declared that the said building belongs to the State of Senegal, as dependent on the National Domain by virtue of the provisions of Law No. 64-46 of 17 June 1964 on the Law on the National Domain, as well as Title II of Decree No. 64-573 of 30 July 1964 and is not, to his knowledge, encumbered by any real rights or charges, other than those resulting from Decree No. 2014-273 of 3 March 2014.

The Registrar of Land Property,
Ousmane DIOUF

Conservation of Property and Land Rights
Rufisque Office

NOTICE OF APPLICATION FOR REGISTRATION

All interested persons are entitled to lodge an objection to this registration, in the hands of the undersigned registrar, within three (03) months of the posting of this notice, which will take place shortly in the hearing of the Regional Court of Dakar.

According to requisition no. 501, filed on December 22, 2021, the Head of the Office of the Estates of Rufisque, residing and domiciled in Rufisque, at the Tax Services Center at the place called route des H.L.M,

Acting in the name and on behalf of the Senegalese State, has requested the registration in the Land Book of Rufisque of a building consisting of a plot of land with a surface capacity of 03ha 25a 61ca, located in Sangalkam and bounded on all sides by unregistered land.

He declared that the said building belongs to the State of Senegal, as dependent on the National Domain by virtue of the provisions of Law No. 64-46 of 17 June 1964 on the Law on the National Domain, as well as Title II of Decree No. 64-573 of 30 July 1964 and is not, to his knowledge, encumbered by any real rights or charges, other than those resulting from Decree No. 2014-273 of 3 March 2014.

The Consenator of Landed Property,
Ousmane DIOUF

Conservation of Property and Land Rights Louga Office

NOTICE OF APPLICATION FOR
Mv1REGISTRATION

All interested persons are entitled to lodge an objection to this registration, in the hands of the undersigned registrar, within fifteen 15 days, from the date of posting of this notice, which will take place shortly in the hearing of the Louga High Court

According to requisition No. 80 filed on October 07, 2021, the Registrar of Property and Land Rights, acting in the name and on behalf of the Senegalese State, in execution of the prescriptions of Decree No. 2021-725 of June 17, 2021, requested the registration in the Louga land register of a building consisting of a plot of land, with a capacity of 07ha 02a 87ca located in Nguith in the Louga Region.

He states:

That the said building belongs to the State of Senegal by virtue of the provisions of Law No. 64-46 of June 17, 1964 relating to the national domain and for having been the subject of the procedure provided for by Title II of Decree No. 64-573 of July 30, 1964 and is, to its knowledge, not subject to any actual or possible real rights and charges other than those resulting from Decree No. 2020-646 of February 13, 2020.

The Registrar of Land Property,
Serigne Assane Fall DIA

ANNOUNCEMENTS

(The Administration does not intend to be responsible for the content of the announcements or notices published under this heading by private individuals.

Conservation of Property and Land Rights Louga Office

NOTICE OF APPLICATION FOR REGISTRATION

All interested persons are entitled to lodge an objection to this registration, in the hands of the undersigned registrar, within fifteen 15 days, from the date of the addition of this notice, which will take place shortly in the hearing of the Louga Regional Court

According to requisition No. 81 filed on December 14, 2021, the Registrar of Property and Land Rights, acting in the name and on behalf of the Senegalese State, in execution of the requirements of Decree No. 2021-916 of July 08, 2021, requested the registration in the Louga land register of a building consisting of a plot of land, with a capacity of 02ha 25a OOca located in Kébémer in the Louga Region.

He declares •

That the said immovable belongs to the State of Senegal by virtue of the provisions of Law No. 64-46 of June 17, 1964 relating to the national domain and for having been the subject of the procedure provided for by Title II of Decree No. 64-573 of July 30, 1964 and is, to its knowledge, not encumbered by any actual or possible real rights and charges other than those resulting from Decree No. 2021-916 of July 8, 2021.

The Registrar of Land Property,
Serigne Assane Fall DIA

Conservation of Property and Land Rights Thiès Office

NOTICE OF DEMARCATION

OFFICE NOTARIAL
Mes Amadou Moustapha NDIAYE,
Aadhaar Diawara DIAGNE, Mahamadou Maciré DIALLO,
& Serigne Amadou Tamsir NDIAYE Associate
Notaries
83, Boulevard de la République - Immeuble Horizons ème étage
Dakar BP.: 11.045 Dakar Peytavin
DAKAR (SENEGAL

NOTICE OF LOSS

Notice is given of the loss of Land Title No. 5972/ DK, appartenant aux sieurs et dames ci-après : Dienaba NDIAYE, Fatou NDIAYE, Aminata GUEYE, Mandoye NDOYE, Ibrahima NDOYE, Babacar NDOYE, Djibril NDOYE, Idrissa NDOYE, Oumar NDOYE, Aïssatou NDOYE n º 1, Maleine NDOYE, Aïssatou NDOYE n º 2, Yaye Codou NDOYE, Fatou NDOYE, Aminata NDOYE, Khardiata NDOYE n º 1, Binta NDOYE, Asatu Ndye No 3, Rokhaya Ndaye, Khardiata Ndye No 2. 1-2

OFFICE NOTARIAL
Mes Amadou Moustapha NDIAYE,
Aadhaar Diawara DIAGNE, Mahamadou Maciré DIALLO,
& Serigne Amadou Tamsir NDIAYE Associate
Notaries
83, Boulevard de la République - Immeuble Horizons eme. étage
Dakar BP.: 11.045 Dakar Peytavin
DAKAR (SENEGAL

NOTICE OF LOSS

Notice is given of the loss of Land Title No. 6323/ NGA of the land book of Ngor Almadies, belonging to the State of Qatar. 1-2

All interested persons are invited to attend or to be represented by a representative with a regular power.

On January 13, 2022 at 10 a.m., the contradictory demarcation of a building located in Khodoba in the Commune of Keur Moussa, with a surface capacity of Olha 73a 70ca, whose registration was requested by the Head of the Estates Office, acting in the name and on behalf of the State Senegal, according to requisition No. 1090 of September 30, 2021.

The Registrar of Land Property,
M. Saïdou FAYE

OFFICE NOTARIAL Aïda
SECK
Successor of Messrs. Lake-Diop, MBACKE & CISSE Place de France - BP : 949 - THIÈs

NOTICE OF LOSS

Notice is given of the loss of Land Title No. 494/MB of the Mbour land book, belonging to Mr. Amadou Lamine DIAGNE. 1-2

Law firm of Maître Ousseynou NGOM
Avocat à la Cour
Ouest Foire, Cité Bourgi lot no l, route de l'aéroport in front of Auchan - Dakar

NOTICE OF LOSS

Notice is given of the loss of the Land Title No. 2.340/R with an area of 301m2 located in Rufisque, registered in the name of Mr. Bocar BA. 1-2

OFFICE NOTARIAL
Maître Abdel Kader NIANG
Holder of the Office of Thiès II created in 2004
Place de Sousse - Immeuble DIOUCK, n029

NOTICE OF LOSS

Notice is given of the loss of Land Title No. 4.749/ TH, belonging to Mr. Doudou GAYE. 1-2

OFFICE NOTARIAL
Maître Abdel Kader NIANG
Holder of the Office of Thiès II created in 2004
Place de Sousse - Immeuble DIOUCK, n029

NOTICE OF LOSS

Notice is given of the loss of Land Title No. 6.384/ TH, belonging to Mr. Mouhamadou Mactar NDIAYE.

1-2

GENERAL SECRETARIAT OF THE GOVERNMENT

TRANSPOSITION

Application of Law No. 2021-21 of March 2, 2021 laying down the rules of applicability of laws, administrative acts of a regulatory nature and administrative acts of an individual nature.

Number 7485 of the Official Journal dated December 25, 2021 was filed with the General Secretariat of the Government on December 29, 2021.

The Minister, Secretary-General
of the Government

RUFISQUE - Imprimerie nationale DL no 7443