

REPUBLIQUE DU SENEGAL

UN PEUPLE – UN BUT – UNE FOI



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Un Peuple -Un But -Une Foi

CONVENTION ON NUCLEAR SAFETY

Seventh Review Meeting

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Report of the Republic of Senegal

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A. INTRODUCTION

The Republic of Senegal has no nuclear facility within the meaning of the Convention on Nuclear Safety.

The Republic of Senegal had declared its interest for the use of Nuclear energy power as a possible source of energy to the side of the Energies of fossil origin, renewable energies and biofuels during the General Conference of the International Atomic Energy Agency held in September 2008.

After the accident at Fukushima, Senegal had decided to renounce the nuclear power option of its policy of diversification of sources of energy. Declaration was made at the 55th Regular Session of the General Conference of the IAEA, which was held from 19 to 23 September 2011 in Vienna, Austria.

During the fifty-ninth (59th) regular session of the General Conference of the International Atomic Energy Agency (IAEA) held from 14 to 18 September 2015 in Vienna, Austria, Senegal has reviewed its position by declaring again to consider the nuclear power as an option in its energy mix (see annex 1).

The national policy in the field of nuclear safety is mainly based on:

- The strengthening of the regulatory infrastructure in the field of adiation protection, and nuclear safety and security;
- Capacity-building through the training of the personnel of the ARSN as well as national institutions concerned (Customs, Department of Energy, firefighters í);
- The assurance of a permanent watch on all the issues of nuclear safety.

Senegal remains very engaged in the implementation of the provisions of the international conventions that it has ratified and particularly to the Convention on Nuclear Safety.

The present report follows the recommendations of the Guide to the national reports on the Convention on Nuclear Safety (INFCIRC/572/Rev.5). Since the Senegal does not have nuclear facility within the meaning of Article 6 of the Convention, the report will be limited to articles (7, 8, 9, 10, 15 and 16) of the Convention recommended by the Guide for the countries which are in such a situation.

B. SUMMARY

The Republic of Senegal is working continuously to develop its capabilities necessary to the achievement of the objectives of the Convention on Nuclear Safety. It has thus made efforts to strengthen the legislative and regulatory framework relating to the safety and nuclear safety and radiation protection. An important work on the revision of the Framework has been undertaken through two missions of IAEA experts. The budget and human resources of the Senegalese authority of Radiation Protection and Nuclear Safety (ARSN), although still insufficient have been increased. During the five years of existence of ARSN the budget increased from 20 million CFA francs to one hundred and fifty (150) million. It has therefore been multiplied by 7.5, which denotes a certain willingness of the authorities. Two more staffs have been recruited in 2014.

Senegal had decided, following the accident of Fukushima, to no longer consider the nuclear energy power in its energy mix. However, the Decree No. 2010-892 of 30 June 2010 amending the Decree No. 2008-1433 of 12 December 2008 on the establishment and functioning of the working group in charge of the project of nuclear power plant has remained in force (see annex 2).

Furthermore, during the fifty-ninth (59th) regular session of the General Conference of the International Atomic Energy Agency (IAEA) held from 14 to 18 September 2015 in Vienna, Austria, Senegal has reviewed its position by planning again to consider nuclear power as an option in its energy mix.

The present report focuses on the relevant articles of the Convention for the Contracting Parties without nuclear installation.

C. REPORTING ARTICLE BY ARTICLE.

Article 7. LEGISLATIVE AND REGULATORY FRAMEWORK

7-1) Establishing and maintaining a legislative and regulatory framework

1. Each Contracting Party establishes and maintains in force a legislative and regulatory framework to govern the safety of nuclear installations.

The Republic of Senegal has a Law on Nuclear Security which takes into account the nuclear facilities.

The National Assembly and the Senate have voted the Act No. 2009-14 of 02 March 2009 (see annex 3) relating to nuclear safety and radiation protection which repeals provisions to the contrary contained in the Act No.2004-17 of 15 June 2004, which had repealed and replaced the Act No.2001-01 of 3 January 2001 relative to the protection against ionizing radiation (see annex 4).

This Act takes into account all the issues relating to the safety, security and radiation protection associated with nuclear facilities of base.

It has been promulgated and the decree of application relating to the establishment the Senegalese Authority for Radiation Protection and Nuclear Safety (ARSN) foreseen in its Title II (Article 6) has been signed.

In the framework of the revision of its legislative and regulatory framework, a new bill encompassing the Safety, Security and Safeguards of radiological and nuclear facilities has been developed.

In the month of December 2008 Senegal has ratified the following conventions:
ÉConvention on Nuclear Safety (CSN), accession 24/12/2008, entry into force 24/03/2009.

ÉRADW: Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management; accession: 24/12/2008, entry into force: 24/03/2009.

ÉCV: Vienna Convention on Civil Liability for Nuclear Damage; accession: 24/12/2008, entry into force: 03/24/2009.

É Assist: Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency, 23/01/2009; signature:15/6/1987; ratification/24/12/2008

ÉSigning of the Convention on the additional compensation for nuclear damage (CSC) on 20 September 2011.

7-2-i) National safety requirements and regulations

The Republic of Senegal is establishing a national regulations relating to the safety of nuclear installations in compliance with international norms and standards. The Act lays down the guidelines of the national rules with regard to the use of the sources of ionizing radiation.

In accordance with Article 3 of this Act No. 2009-14 of 02 March 2009, the State defines the regulations in the field of nuclear safety and security and implements the controls aimed at the application of this Regulation.

Projects of regulatory texts have been or are being developed in particular for the control of workplaces and the transport of radioactive sources.

7-2-ii) System of licensing

The Title IV of the Act n°2009-14 provides the legal framework relating to nuclear facilities and the transport of radioactive substances.

The creation of a nuclear installation is subject to authorization (Article14).

The operator of a nuclear installation is responsible for the safety of its installation (article13).

An authorization may be issued only if, taking account of scientific and technical knowledge at the time, the operator demonstrates that the technical provisions or the organization taken or envisaged to the stages of the design, the construction and the operation as well as the general principles proposed for the dismantling are of a nature to limit or prevent sufficiently the risks or disadvantages that the installation presents for the health, safety, security and public safety or the protection of nature and the environment.

The authorization takes into account the technical and financial capabilities of the operator which must allow him to drive his project in compliance with the provisions of article 14 of the law n°2009-14.

The State ensure the information of the public on the risks related to nuclear activities and their impact on the health and safety of persons as well as on the environment in accordance with the article 12 of the law n°2009-14.

7-2-iii) System of regulatory inspection and assessment

The nuclear installations are the subject of a monitoring to ensure compliance with the regulations in the field of nuclear safety. This monitoring is exercised by inspectors of the Nuclear Safety and Radiation Protection sworn and compelled to professional secrecy. The inspectors carry out their missions under the authority of the ARSN (Article 27 TITLE IV).

Associate experts can work with the ARSN in the context of monitoring and evaluation, they can come from the universities, the private sector or of Member States of the IAEA, in accordance with the relevant international agreements.

7-2-iv) Enforcement of applicable regulations and terms of licences

Chapter II (controls and police measures) of the Act 2009-14 as well as its Chapter III (criminal law provisions in respect of nuclear facilities and basic transport of radioactive substances) contain the relevant provisions to enforce the regulations and provide for appropriate penalties when needed.

The applicable provisions in the regime of the authorizations are thus declined in the Act 2004-17. The conditions of the authorizations, including suspension, modification or withdrawal have been detailed in the new projects of legislative texts and regulations

Article 8: REGULATORY BODY

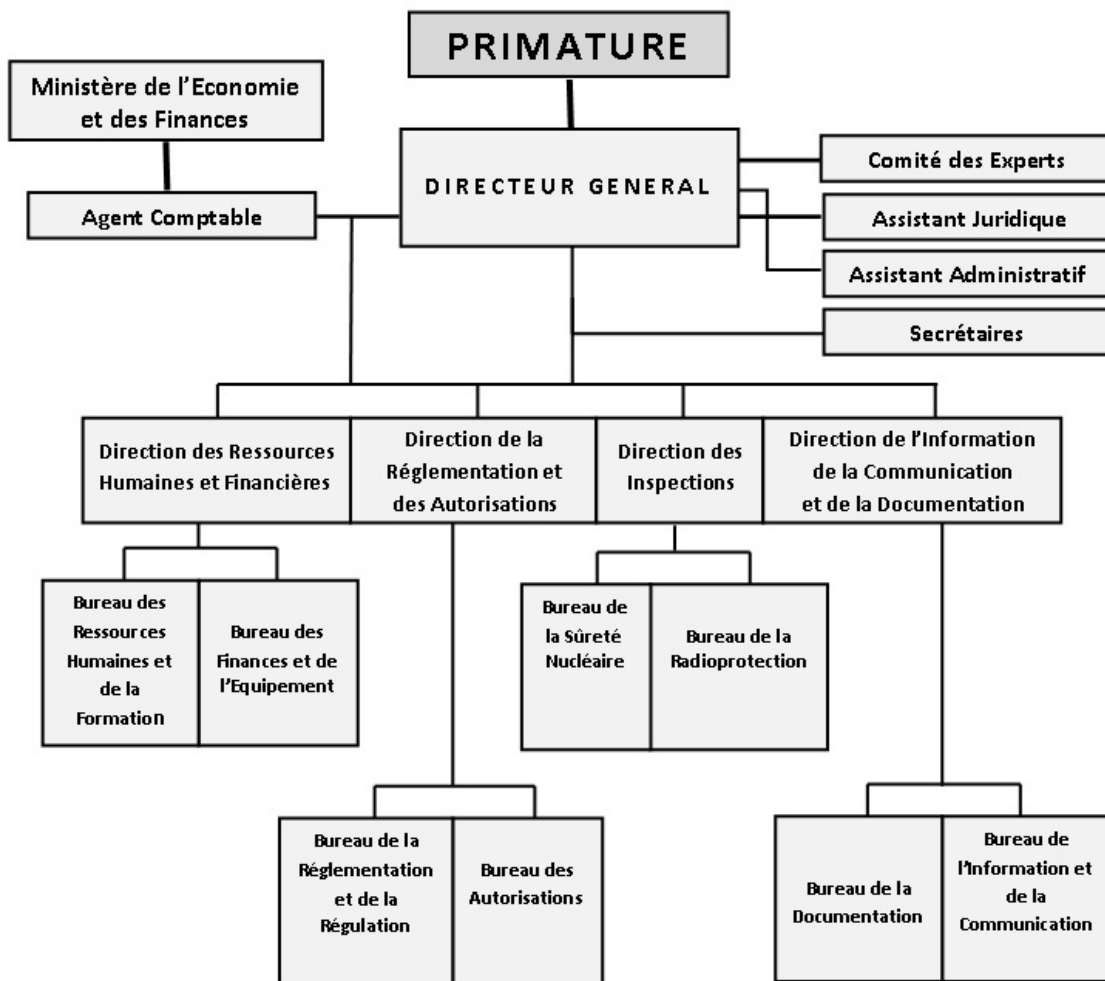
8-1)

1. Each Contracting Party shall establish or designate a regulatory body entrusted with the implementation of the legislative and regulatory provisions referred to in Article 7, and with the powers, competence and financial and human resources adequate to assume the responsibilities that are assigned to them.

The regulatory body put in place by Senegal is the Senegalese authority of Radiation Protection and Nuclear Safety (ARSN). It is an independent administrative authority which participates in the control of nuclear safety and radiation protection, and the provision of information to the public in these areas according to article 6 of Act 2009-14.

The bodies of the ARSN are the Committee of Experts (comprising five members appointed by decree) and the General Direction.

Its rules of organization and operation are laid down by the Decree No. 2010-893 of 30 June 2010 on the organization and functioning of the authority of Radiation Protection and Nuclear Safety (see annex 5).



8-2)

2. Each Contracting Party shall take appropriate measures to ensure an effective separation of the functions of the regulatory body and those of any other body or organization in charge of the promotion or the use of nuclear energy.

Article 10 of the Act 2009-14 marks the independence of the Regulatory Authority and the provision of adequate means of its policy. The ARSN proposes to the Government the budget necessary for the fulfillment of its missions.

It can employ civil servants in the course of activity and recruit contract agents in the conditions laid down by the provisions of the general status of civil servants.

The ARSN reports to the Parliament, the President of the Republic and the Prime Minister

Article 9: RESPONSIBILITY OF THE LICENCE HOLDER

Each Contracting Party makes the necessary for that the primary responsibility for the safety of a nuclear installation rests with the holder of the corresponding authorization and takes appropriate measures to ensure that each holder of an authorization assumes its responsibility.

Article 13 of Chapter I of the Act 2009-14 (Rules applicable to nuclear installations and the transport of radioactive substances) stipulates that:

The operator of a nuclear installation is responsible for the safety of its installation. Article 12 of the Act 2004-17 stipulates that any physical or moral person filing an application for an authorization must take all necessary measures for the protection and safety of persons, of the public and, where appropriate, of patients.

The monitoring and control of nuclear facilities are carried out by inspectors under the authority of the ARSN. Although not yet having nuclear facilities, inspections (of facilities using radioactive sources) are conducted every month

on the basis of the program established in order to ensure that the authorization holders exercise their responsibilities for safety and each time that an authorization is issued, the principles of safety and appropriate measures are recalled (see annex 5).

Article 10: PRIORITY TO SAFETY

Each Contracting Party shall take appropriate measures to ensure that all organizations engaged in activities directly related to nuclear installations shall establish strategies giving the necessary priority to nuclear safety.

The title IV of the Act provides the provisions ensuring that the issues of the safety of nuclear installations are effectively addressed in priority.

The provisions relating to the culture of safety and security are provided for in the draft of the new Act in order to ensure that users place the required priority to nuclear safety. Sensitization workshops and national training of licensees have been implemented (see annual reports).

Article 15: RADIATION PROTECTION

Each Contracting Party shall take appropriate measures to ensure that, in all normal conditions of operation, the radiation exposure to the workers and the public due to a nuclear facility is maintained at the lowest level that it is reasonably possible to achieve and that no individual is exposed to radiation doses which exceed the limits of the prescribed dose at the national level.

The regulatory framework relating to radiation protection, which takes account of international standards is being put in place. The general requirements to be complied with in the area of radiation protection of workers and for the protection of the public have been planned by the laws in force (laws 2004-17 of 15 June 2004 and 2009-14 of 02 March 2009). Articles 12 and 13 of the Act 2009-14 give the general requirements to be met in the field of radiation protection by the holder of an authorization for the operation of nuclear

installation. Articles 9 and 8 of this Act stipulate that the ARSN can appeal to external resources for technical support in case of need. In addition, Senegal is a party to the conventions RSA and Assist, which allows him to call in case of need to the IAEA or other countries members of the IAEA.

A draft decree on the zoning and the dosimetry has been developed with the assistance of the IAEA. A mission of expert on the drafting of the Guides for the protection of workers and patients is scheduled in January 2017 in the framework of the national project with the IAEA.

Article 16: EMERGENCY PREPAREDNESS

1. Each Contracting Party shall take appropriate measures to ensure that it exists, for nuclear facilities, internal and external emergency plans which are tested periodically and which cover the actions to be carried out in case of an emergency situation.

For any new nuclear installation, such plans are developed and tested before it begins to operate above a low power level approved by the regulatory body.

2. Each Contracting Party shall take appropriate measures to ensure that, to the extent where they are likely to be affected by a situation of radiological emergency, its own population and the competent authorities of the States in the vicinity of the nuclear installation are provided with appropriate information for emergency planning and response.

3. The Contracting Parties which do not have a nuclear installation on their territory, to the extent where they are likely to be affected in the event of radiological emergency at a nuclear installation in the nearby, shall take the appropriate measures in order to develop and test emergency plans for their territory that cover the actions to be carried out in case of an emergency situation of this nature.

The Act 2004-17 provides in Title 3 on the planning of the management of incidents and accidents and the implementation of the interventions and in its article 13 that each licensee must plan in the form of emergency plans the interventions in the event of an incident or accident as well as the simulation exercises of an incident or accident.

The ARSN will develop in collaboration with all relevant national structures the national plan of radiological emergency. Currently the Senegal participates in regional projects of the IAEA in the area of radiological emergency preparedness and in the projects of the centers of excellence for CBRN of the European Union, in order to strengthen its skills to be able to respond to an emergency situation if it arose. From 23 to 27 June 2014, the ARSN has participated, in the framework of the Project 22 of this the European Initiative on CBRN risks, at a session of specialized technical training aimed at strengthening capacities of First Responders in situation of threats related to CBRN products. This training has been done at the National Police School, with the participation of national structures: Head of the Armed Forces, High Command of the Gendarmerie, National Police, Customs, National Brigade of Firefighters, National Gendarmerie Environment Section, Center for the management of environmental emergencies, High Authority responsible for the coordination of maritime Safety and Security and the protection of the Marine Environment (HASSMAR), Autonomous Port of Dakar, Divisions of Environmental Studies, and the Direction of the Environment and the classified establishments.

It is also planned an exercise in the framework of these CBRN centers in October 2016 which will be coordinated by the Ministry of the Interior.

It is thus expected that the regulatory framework on Emergency Preparedness which takes account of international standards to be put in place by ministerial order.

Annexes:

- 1) Declaration of the Republic of Senegal during the General Conference 2015
- 2) Decree No. 2010-892 of 30 June 2010 amending the Decree No. 2008-1433 of 12 December 2008.
- 3) Act No. 2009-14 of 02 March 2009
- 4) Act No.2004-17 of 15 June 2004
- 5) Decree 2010- 893
- 6) ARSN 2014 report