

MINISTERE DE L'ÉNERGIE, DES MINES ET DE L'EAU

REPUBLIQUE DU MALI
UN PEUPLE – UN BUT – UNE FOI

AGENCE MALIENNE DE RADIOPROTECTION
(AMARAP)

CONVENTION ON NUCLEAR SAFETY (CNS)

MALIAN NATIONAL REPORT

AUGUST 2016

Agence Malienne de Radioprotection (AMARAP)

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Introduction

National nuclear activities

- i. Mali is IAEA member Country since 1991. The Conventions on nuclear Safety has been signed and ratified respectively the 22 Mai 1995 and 13 May 1996. It entered in force the 24 October 1996.

But, this will be the first time, Mali is submitting a national report.

The Malian Agency of Radiation Protection (AMARAP) is responsible for the implementation of the Convention.

ii.

Mali doesn't have any nuclear installation

iii.

The Government of Mali as asked to the Ministry in charge of Energy, to engage thinking on the possibility to embark, on a regional basis, regarding the wide electrical need of the Country.

iv.

Mali has a national register of sources inventoried in the country.

We have national register under RAIS, V3.

v.

Mali has temporarily storage for disused sources.

ARTICLE BY ARTICLE REPORT

Article 7.

Legislative and Regulatory Framework

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Each Contracting Party shall establish and maintain the legislative and regulatory framework to govern the sa

fety of nuclear installations.

The legislative and regulator y framework shall provide for:

(i)

the establishment of applicable national safety requirements and regulations;

(ii)

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a system of licensing with regard to nuclear installations and the prohibition of the operation of a nuclear installation without a license;

(iii)

a system of regulatory inspection and assessment of nuclear installations to ascertain compliance with applicable regulations and the terms of licenses;

(iv)

the enforcement of applicable regulations and of the terms of licenses, including suspension, modification or revocation

I. NATIONAL STRATEGY AND POLICY ON SECURITY NUCLEAR.

No clear procedure in this area. Reference is made to the need for the IAEA .

II. AGREEMENTS AND CONVENTIONS RATIFIED BY MALI

N° order	Designation	Instead of ratification	instrument of ratification
1	Convention on Nuclear Safety, adopted in Vienna June 17, 1994	Vienna	- Ratification May 13, 1996
2	Treaty on the Non- Nuclear weapons profilération + Guarantees Agreement and Additional Protocol	Moscow Washington Vienna	-10/02/1970 - 5/03/1979 Signature September 12, 2002
3	Bamako Convention on the ban on imports of hazardous waste and the control of their transboundary movements in Africa	Bamako	30/01/1991

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N° order	Designation	Instead of ratification	Instrument of ratification
4	Zone Treaty example of nuclear weapons in Africa (Pelindaba Treaty) signed in Cairo on 11 april 1996 and entered into force July 15, 2009	Vienna	july 22, 1999
5	CTBO (Comprehensive nuclear - Test- Ban Treaty Organization) , New York September 24, 1996	New York	

N° Order	Designation	Instead of ratification	Instrument of ratification
6	Convention on the Physical Protection of Materials Physics, adopted in Vienna on 26/10/1979	Vienna	- Ordinance No. 02-027 / P - RM of 22/01/2002 ; - Decree No. 02-064 / P -RM of 12/02/2002
7	Amendment to the Convention on Protection of Nuclear Material, adopted in Vienna, July 8, 2005	Vienna	the acceptance of instruments 22/12/2009
8	Convention on Early Notification of a Nuclear Accident , adopted in Vienna on 26/09/1986 by the General Conference of the IAEA	Vienna	Ordinance No. 07-001 / P -RM of 07/03/2007 ; - Decree No. 07-104 / P -RM of 29/03/2007 ; - IR No. 0004 of April 26, 2007 . -

N° Order	Designation	Place of filing	Instrument of ratification
9	Convention on Assistance in case of accident or radiological emergency	Vienna	Ordinance No. 07-002 / P -RM of 07/03/2007 ; - Decree No. 07-105 / P -RM

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			of 29/03/2007 ; - IR No. 0003 of April 26, 2007 .
10	International Convention on Terrorist Bombings , adopted by the UN General Assembly on 12/12/1997 in New York	New York	Ordinance No. 02-019 / P -RM of 21/001/2002 ; - Decree No. 02-060 / P -RM of 03/09/2009 ;
11	International Convention for the Suppression of Acts of Nuclear Terrorism , adopted in New York on 13 April 2005 by the UN General Assembly.	New York	- Ordinance No. 09-022 / P -RM of 03/09/2009 ; - Accession Instrument No. 0014 of 16/10/2009 .

N° Order	Designation	Place of filing	Instrument of ratification
12	Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (1988 SUA Convention) , done at Rome on 10 March 1988.	Rome	- Ordinance No. 02-026 / P -RM of 07/02/2002 ; - Decree No. 02-073 / P -RM of 29/03/2007 ; A.I. No. 0113 dated 22 /03 /2002 .
13	Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms located on the Continental Shelf , done at Rome on 10 March 1988.	Rome	- Decree No. 02-072 / P -RM of 15/09/2002 ; - A.I. No. 0112 of 22/03/2002 .
14	Protocol of 2005 on the Convention SUA of 1988		
15	Protocol of 2005 on the Convention on the stationary platforms of 1988.		

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The AMARAP is the contact point for most of these Conventions. Indeed, the creation of the AMARAP is related to their implementation, including that of the Convention on Nuclear Safety.

Thus, AMARAP is able to conduct all actions relating to the implementation of the Action Plan of Integrated Safety and Nuclear Safety.

III ACTIVITIES, PRACTICES AND USING SOURCES OF RADIATION:

0. Medicine and Biology

- Diagnostic radiology (hospitals and public or private clinics) which uses: conventional radio to X-ray scanners, mammography, dental radios;

- Nuclear Medicine (National Point G Hospital) for diagnostic diseases like goiter, thyroid cancer, ... by in vitro assays (radioimmunoassay: 1-125) in vivo (bone scintigraphy thyroid, kidney, biliary and cardiac Tc-99m, 1-131, gamma camera):

1.1. Medicine and Biology (continued)

Radioisotope use to understand the drug resistance mechanisms of communicable diseases (cases of tuberculosis, malaria , ...) :

- Center for Research and Training on Malaria (MRTC / FMPOS)
- National Institute for Research in Public Health (INRSP)
- Laboratory of Molecular Biology of FAST ,
- Radiotherapy (development stage) using a linear accelerator 6 MV .

1.2. Industry

- Gauges (density, thickness , level , humidity, ... or checking the status of items) used in areas such as :
- Stationery, Building / public works , sugar and tobacco factory , brewery,
- Geology and mining research, prospecting and exploration (oil, uranium , ..)
- sedimentology , management and operation of surface water , study the movement of sands (hydrology)
241m , 137Cs , etc.

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1.3 Agriculture / Livestock

- Irradiation used for:

- The development of improved varieties of cereals (sorghum, African rice, etc.): IPR / IFRA Katibougou, IER,
- The fight against harmful insects (tsetse fly, ..) by the sterile insect technique,
- Improving milk production of exotic crossbred cows: IER.

1.2. Education / Research

- Research institutions will: Rural Polytechnic Institute (RPI), Institute of Rural Economy (IER), Central Veterinary Laboratory (CVL), Centre for Research and Training on Malaria (MRCT / FMPOS) Laboratory of Molecular Biology (FAST) , use of isotope technology for the study of issues related to human biology, animal and plant to improve the health and / or productivity.

1.3. Airport, Points of terrestrial inputs Bank

- Scanners: baggage; parcels, vehicles and containers.

1.4. Waste management

- About a sixty small radioactive sources is in the temporary depot built by the AMARAP.

Article 8. Regulatory Body

i)
Each Contracting Party shall establish or designate a regulatory body entrusted with the implementation of the legislative and regulatory framework referred to in Article 7, and provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities.

ii)
Each Contracting Party shall take the appropriate steps to ensure an effective operation between the functions of the regulatory body and those of any other body or organisation concerned with the promotion or utilization of nuclear energy

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- Legislative and regulatory framework consists of 2 orders and 2 decrees :
- **Ordinances** No. 02-059 / P-RM 05 June 2002 on Radiation Protection and Safety of Radiation Sources Ionizing : It establishes the basis for radiation protection and safety / security sources .
- **Ordinances No.** 02-060 / P -RM of 5 June 2002 , establishing the Malian Agency for Radiation Protection (AMARAP) ; it sets , create a single regulatory authority which has the AMARAP .
 - **Decree No.** 02-333 / P -RM of 6 June 2002 establishing the organization and manner of operation of the AMARAP , as amended by Decree No. 10-045 / P -RM of 29 January 2010,
 - **Decree No.** 06-488 / P-RM of 23 November 2006 laying down rules on protection against ionizing radiation, safety and security of radiation sources , as amended by Decree No. 2014-931 / P- RM of 31 December 2014.

1. Creation of the Malian Agency of Radiation Protection - AMARAP

- Accession of Mali to the IAEA : August 10, 1961
- Creation of AMARAP: Ordinance No. 02-060 / P -RM of 5 June 2002 ,
- AMARAP : outcome of a long process initiated since 1986 under successive technical cooperation projects Mali - IAEA (MLI / 9/ 002 , RAF / 9 /024 , RAF / 9/ 027 in particular).

2. MISSIONS AMARAP

The AMARAP apply national energy policy in its security aspects to this, the AMARAP include:

- Develop legislation and regulations of the drafts related to radiation protection and ensure their implementation;
- Ensures traceability of ionizing radiation sources in the country through their inventory and maintain a national register;
- Deliver the permissions on all activities related to sources of ionizing radiation (import / export , possession , use, transfer , transport, etc.) ;

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- Performs inspections or radiological controls to ensure that ionizing radiation sources are used in good security conditions for people and the environment;
- ensures the implementation of treaties and conventions signed by our country in the field of safety and radiological and nuclear security;
- ensure that workers exposed to ionizing radiation given adequate protection through the radiation monitoring and other means;
- etc.

Bamako, August 2016

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AMARAP

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