

REPUBLIC OF MOLDOVA
NATIONAL AGENCY ON REGULATION OF NUCLEAR AND
RADIOLOGICAL ACTIVITIES



THE FIFTH NATIONAL REPORT ON
IMPLEMENTATION
OF THE OBLIGATIONS UNDER THE
JOINT CONVENTION ON THE SAFETY OF SPENT FUEL
MANAGEMENT AND ON THE SAFETY OF RADIOACTIVE WASTE
MANAGEMENT

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SECTION A

A.1 INTRODUCTION

The Fifth National Report describes the activities carried out by Republic of Moldova in relation to the safety of radioactive waste management (RW). The report has been prepared in accordance with the guidelines for the structure and form of national reports (INFCIRC/604/Rev.3, from May, 2014). This report, is prepared by the National Agency for Regulation of Nuclear and Radiological Activities (NARNRA), in order to comply with the provisions of the Convention.

After entering into the force in Republic of Moldova of the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (further - Convention) on 24 May 2010, NARNRA has submitted four National Reports - the first National Report was submitted in 2012, the second in 2014 and third in 2017 and the last one in 2020.

The origin of radioactive waste in the country remains to be the use of radioactive sources in medical applications, research, education, industry, orphan radioactive source or materials containing radioactive material and seized material from illicit trafficking of nuclear or radioactive substances. All disused radioactive sources are stored in the Radioactive Waste Storage Facility “Special Facilities 5101, 5102” (further - “Special Facilities 5101, 5102”) which serves for the whole country.

The national legislative and regulatory framework of nuclear and radiological activities (inclusive management of radioactive wastes) consists of the Law No. 132 of 8 June 2012 *on safe deployment of nuclear and radiological activities*, which includes the section on national policy and principles for radioactive waste management in base of relevant IAEA safety standards, the Regulation *on radioactive waste management* approved by Government Decision No. 388 on 26 June 2009 and amended on 30 December 2013 by Government Decision No. 1079; the Regulation on the safe transport of radioactive materials, approved by Government Decision No. 434 of

16 July 2015 and the National Strategy on radioactive waste management for 2017-2026 period, with Action Plan approved by Law No. 68 on 13 April 2017 as were reported in the Third JC Report.

SECTION B: POLICIES AND PRACTICES

B.1 Spent fuel Management Policy – Not applicable – The Republic of Moldova has no any spent fuel.

B.2. Spent fuel Management Practices – Not applicable – The Republic of Moldova has no any spent fuel.

B.3. Radioactive Waste Management Policy

The Law No. 132 of 8 June 2012 on safe deployment of nuclear and radiological activities (further Law No. 132/2012), within the Article 41 of Section IX establishes the national policy and principles for radioactive waste management.

The 2017-2026 National Strategy on radioactive waste management with Action Plan for its implementation (*further - National Strategy*), was approved by Parliament on 13 April 2017.

B.4 Radioactive Waste Management Practices

The National Strategy contains the approaches and technical solutions for the implementation of the Radioactive Waste Management Policy and main safety principles. It establishes the modalities and mechanisms for organizing of the measures that are to be undertaken in order to provide the responsible and safe management of radioactive waste.

Therewith, the National Strategy includes the commitments implementation way by the Republic of Moldova at the international level, based on the provisions of international treaties, those arising from the Convention and of the Law No. 132/2012.

During of last 3 years have been drafted and approved two legislative acts which are also related to radioactive waste management:

1. Regulation *regarding radioprotection in the treatment, sorting and conditioning of solid radioactive waste* approved by Ministry of Justice Decision no. 1609 of 15.12.2020 (Published in the Official Monitor of Republic of Moldova No. 360-371 of 25.12.2020);

2. The Parliament of the Republic of Moldova adopted the Law no. 289/2022 *on basic requirements in radiological safety* (Official Monitor of the Republic of Moldova, 2022, no. 383, art. 719).

The implementation of the new law will contribute both to ensuring radiological security and to the observance of the commitments assumed by the Republic of Moldova within the framework of the ratified multilateral international treaties in the field.

3. The Regulation *on the radiological monitoring of recyclable metallic materials throughout the collection, marketing and processing cycle*, approved by Government Decision no. 698 of 20.09.2023.

B.4.1 Criteria used to define and categorize radioactive waste

No updates

SECTION C: SCOPE OF APPLICATION

No updates

SECTION D: INVENTORIES AND LISTS

D.1 Inventory of Radioactive Waste in Republic of Moldova

According to Regulatory Information System Database of NARNRA, currently are registered on the basis of declaration of the “Special Facilities 5101, 5102” the total amount of 10263 spent sealed sources and nuclear material, (especial – Co-60, Cs-137, Sr(Y)-90, Am-241, Ra-226, Ni-63, Th-232, natural uranium, depleted uranium and radioactive materials or goods (products) which contains radioactive material (Pu-239, Ra-226)), including:

- 41 sources of Category 2 (Co-60, Cs-137);
- 95 sources of Category 3 (Co-60, Cs-137);
- 282 sources of Category 4 (Co-60, Cs-137, Ra-226, Sr(Y)-90);
- over 9532 Category 5 sources - smoke detectors with Pu-239, and Am-241 and other devices (Ni-63, H-3, Pm-147);
- Uncategorized sources and materials – 72; Cs-137 polluted soil – 120 m³;
- No spent sources of Category 1; Nuclear material (DU) – over 2 000 kg;

D.2 Not applicable

SECTION E: LEGAL AND REGULATORY SYSTEM

E.1 Regulatory framework description

From the last National Report, there have been some changes to the legislation applied to the radioactive waste management.

E.2 Legislative and regulatory framework

The Parliament of the Republic of Moldova adopted the new Law no. 289/2022 *on basic requirements in radiological safety* (Official Monitor of the Republic of Moldova, 2022, no. 383, art. 719).

The implementation of the new law will contribute both to ensuring radiological security and to the observance of the commitments assumed by the Republic of Moldova within the framework of the ratified multilateral international treaties in the field.

In the light of the Law No. 132 of 8 June 2012 *on safe deployment of nuclear and radiological activities*, was developed the 2 new Regulations:

1. the Regulation *regarding radioprotection in the treatment, sorting and conditioning of solid radioactive waste* approved by Ministry of Justice Decision no. 1609 of 15.12. 2020 (Published in the Official Monitor of Republic of Moldova No. 360-371 of 25.12.2020) and
2. the Regulation *on the radiological monitoring of recyclable metallic materials throughout the collection, marketing and processing cycle*, approved by Government Decision no. 698 of 20.09.2023.

E.3 REGULATORY AUTHORITY

From the last National Report, the Structure and the Staff limit of the NARNRA have not been changed. The NARNRA is in subordination of Ministry of Environment

The Structure of Government of the Republic of Moldova



Ministry of Finance

Ministry of Energy

Ministry of Justice

Ministry of Agriculture and Food Industry

Ministry of Health

Ministry of Defense

Ministry of Internal Affairs

Ministry of Education and Research

Ministry of Culture

Ministry of Labor and Social Protection

Ministry of the Environment – National Agency for Regulation of Nuclear and Radiological Activities (NARNRA)

Ministry of Infrastructure and Regional Development

According to the Law No. 132/2012, (Article 10) the NARNRA is an administrative authority established by the Government next to the Ministry of the Environment, with the status of a legal person under public law, which has a stamp

with the image of the State Coat of Arms, a name in Romanian, as well as treasury accounts. The National Agency has, according to the legislation in force, the necessary level of independence in the exercise of the functions provided by this law.

The structure and regulations of the National Agency are approved by the Government.

The financing of the National Agency is carried out from the state budget, as well as from other sources according to the legislation in force.

The main basic functions of the National Agency are:

- developing and implementing the state policy in the nuclear and radiological field, consulting public authorities according to their competences, developing policy projects, national strategies, the legal framework with their promotion in the order established by legislation and adopting measures for the effective regulation of nuclear and radiological activities;
- monitoring of the the implementation and execution of the provisions of international treaties in the field to which the Republic of Moldova is a party and of the national legislation in the field;
- elaboration and promotion the legislative acts and other normative acts in the field;
- the registration based on the notification of nuclear and radiological activities, the authorization of these activities based on the assessment at the request for radiological authorization and compliance with the conditions of radioprotection, nuclear and radiological security, physical security of nuclear and radiological objectives and nuclear guarantees;
- performing state control and supervision to verify the conditions of nuclear and radiological security, physical security of nuclear and radiological objectives;
- managing the National Register of sources of ionizing radiation and of fizical persons and authorized legal entities;
- providing free assistance in detecting orphan radioactive sources;
- recognition of technical support organizations, national and international experts;
- coordinating and monitoring the implementation of international technical assistance projects for the fields of nuclear and radiological security, radiation protection and physical security;
- signing, in the manner established by law, bilateral or multilateral agreements with similar profile authorities from third countries;
- participation as an intrinsic part of the national response system in case of a nuclear or radiological emergency;
- representation as a national regulatory body – national point of contact with the IAEA within the framework of international treaties in the nuclear and radiological field, with nuclear regulatory bodies from third countries.

At the request of the Government of the Republic of Moldova the last Integrated Regulatory Review Service (IRRS) mission has taken place in

December 2018, in order to improve the legislative and regulatory framework for the safety of nuclear and radiological activities.

SECTION F: OTHER GENERAL SAFETY PROVISIONS

F.1 Responsibility of the licensee	No updates
F.2 Human and financial resources	No updates
F.3 Quality assurance	No updates
F.4 Operational radiation protection	No updates
F.5 Emergency preparedness	No updates
F.6 Closing	No updates

SECTION G. SAFETY OF SPENT FUEL MANAGEMENT

G.1 General security requirements	No applicable
G.2 Existing facilities	No applicable
G.3 Location of proposed facilities	No applicable
G.4 Design and construction of facilities	No applicable
G.5 Safety evaluation of facilities	No applicable
G.6 Operation of facilities	No applicable
G.7 Disposal of spent fuel	No applicable

SECTION H. SAFETY OF RADIOACTIVE WASTE MANAGEMENT

H.1 General security requirements	No updates
H.2 Existing facilities and past practices	No updates
H.3 Location of proposed facilities	No updates
H.4 Design and construction of facilities	No updates
H.5 Safety evaluation of facilities	No updates
H.6 Operation of facilities	No updates
H.7 Institutional measures after closure	No updates

SECTION I. TRANSBOUNDARY MOVEMENT

No updates

SECTION J. DISUSED SEALED SOURCES

No updates

SECTION K. PLANNED ACTIVITIES TO IMPROVE SAFETY

1. The continuation of Action Plan's implementation for 2017-2026 to the National Strategy on Radioactive Waste Management;
2. Implementation of orphan radioactive sources consolidation activities.