MOLDOVA

(based on JC national report)

a) National framework for management of spent fuel and radioactive waste

Up to now the Republic of Moldova remains a non-nuclear country with radioactive waste generated from the use of radioactive sources in medical applications, research, education and industry. The Law on safe deployment of nuclear and radiological activities, establishes the national policy and principles for the management of radioactive waste, which has to be in accordance with the following principles:

- protection of human health: radioactive waste is managed in such a way as to ensure an acceptable level of protection of human health;
- environmental protection: radioactive waste is managed in such a way as to offer an acceptable level of protection of the environment, including natural resources;
- protection beyond the borders of the Republic of Moldova: radioactive waste is managed in a way which takes possible effects on human health and the environment beyond national borders into account;
- protection of future generations: radioactive waste is managed in such a way as to ensure that the impact on the health of future generations will not be greater than the relevant impact levels which are acceptable today;
- burden for future generations: radioactive waste is managed in such a way as not to place an undue burden on future generations;
- national legal framework: radioactive waste is managed within an adequate national legal framework, with responsibilities and powers in relation to the independent regulation of these activities being clearly defined;
- control over the generation of radioactive waste: the generation of radioactive waste shall be kept to a minimum;
- nuclear and radiation safety, physical security of facilities where radioactive waste is present: nuclear and radiation safety and the physical security of installations for the management of radioactive waste shall be adequately protected at every stage of the life cycle of the installation.

Within the Republic of Moldova, radioactive waste shall be managed in accordance with the following principles and approaches:

- polluter pays: the financial burden for the management of radioactive waste shall be borne by the generator of the radioactive waste;
- transparency regarding all aspects of radioactive waste management: all radioactive waste management activities shall be conducted in an open and transparent manner and the public

shall have access to information regarding radioactive waste management where this does not compromise the physical security of the nuclear or radiological facility;

- transparency of decision-making based on scientific research, risk analysis and optimization of resources: the decision-making process shall be based on scientifically-grounded information and results obtained and presented by competent national and international institutions dealing with this field;
- precaution: where there is uncertainty about the nuclear or radiation safety of an activity relating to radioactive waste management, a conservative approach shall be adopted;
- prohibition of the importation of radioactive waste;
- international cooperation: The Government accepts its responsibility towards other countries for global and regional radioactive waste management issues.

The draft of the National Strategy on radioactive waste management (years 2017-2026) with Action Plan for its implementation was developed (to be approved by the Government).

b) National legal and regulatory framework

The main national Law related to the regulation of nuclear and radiological activities, was reviewed and amended. As a result was approved in Parliament and promulgated by the President of Moldova the new Law No. 132 of 8th June 2012 On safe deployment of nuclear and radiological activities, with introduction of the section on national policy and principles for the management of radioactive waste. There is also Government Decree No.388/2009 about Radioactive Waste Management and Draft of National Strategy of RWM with Action Plan for 2017-2026 which establishes the modalities and mechanisms for organizing of measures that are to be undertaken in order to provide the responsible and safe management of radioactive waste.

The National Agency for Regulation of Nuclear and Radiological Activities is the National Regulatory Authority with the functions in the field of nuclear and radiological activities. With introduction of the new sections in the mentioned Law, including the nuclear safeguards and the national policy and principles for the management of radioactive waste, the structure of the Regulatory Authority was revised. The Government has allocated four new units, including for the establishment of the Radioactive Waste Service.

c) Radioactive waste management, decommissioning and spent fuel strategy

The unique company in the country that deals with radioactive waste management is the Radioactive Waste Disposal Facility “Special Facilities 5101, which is subordinated to the Civil Protection and Emergency Situations Service of Ministry of Internal Affairs. The company is involved in receiving, transportation, long–term storage, processing/conditioning (to be authorized in 2016), of radioactive waste and radioactive materials. There is National Central Radioactive Waste Storage and conditioning facility - the former laundry facility has been reconstructed into the conditioning facility for solid RW.

The company has the following capabilities:

- Near surface disposal facility “RADON” type (not in use, is planned to be decommissioned);
- Facility for storage of conditioned radioactive waste;
- Facility for storage of high active disused radioactive sources;
- Two vehicles of transportation of radioactive material;
- Conditioning facility of radioactive waste.

Currently is on-going:

- obtaining the authorization for processing/conditioning of radioactive waste;
- developing a feasibility study for retrieval of legacy radioactive waste, followed by remediation plan of the site;
- retrieval of legacy radioactive waste of “RADON” type facility;
- upgrading the security system of the site.

In Republic of Moldova is not in place the radioactive waste treatment process deployment yet, so the waste is in surface storage (temporary stored disused radioactive sources).

According to Regulatory Information System Database of NARNRA, currently there are registered on base of declaration of the "Special Facilities 5101, 5102" as in below tables:

Disused radioactive sources stored at Surface Storage Building
from RW Storage Facility "Special Object no.5101, 5102"
Categories I-V (for April 2016)
Republic of Moldova

No	Isotope	Total number	Remarcs
1	U_{nat}, U-238, Pu (238+239) and Th-232	6445	About 6250 smoke detectors in base of Pu-239 1,85 X E^5 Bq
2	Cs-137	453	6 - I category, Average category III
3	Co-60	264	110 – II category, Average category III
4	Ra-226	274	Average category III
5	Sr(Y)-90	463	Average category IV
6	Kr-85	18	IV
7	H-3	51	V
8	Am-241	2	III
9	C-14	68	V
10	Ni-63	30	V

Radioactive sources from near surface "Radon type" storage

Disposal unit	Source form	No of sources by source category					Sub-total
		2	3	4	5	exempted	
I	conditioned sources				1		1
	control device in overpack		1		16	8	25
	source in HIC				683	12	695
II	conditioned sources				199	32	231
	control device in overpack		50	26	1695	212	1983
	source in HIC		4	67	1235	139	1445
III	conditioned sources				10		10
	control device in overpack			28	1706	12	1746
	source in HIC	65	65	21	767	8	926
IV	control device in overpack			86	968		1054
	source in HIC		1	18	798	19	836
Sub-total		65	121	246	8078	442	8952