



Romania's Radioactive Waste Management Overview

British – Czech Nuclear Forum

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Nuclear Agency Radioactive Waste (ANDR)

- Support for the nuclear energy development in Romania (power and non – power applications), exclusively for peaceful purposes
- Responsible for disposal of radioactive waste (RW) and spent nuclear fuel (SNF), and ensure at national level the coordination of the nuclear installations decommissioning processes

National Commission For Nuclear Activities Control (CNCAN)

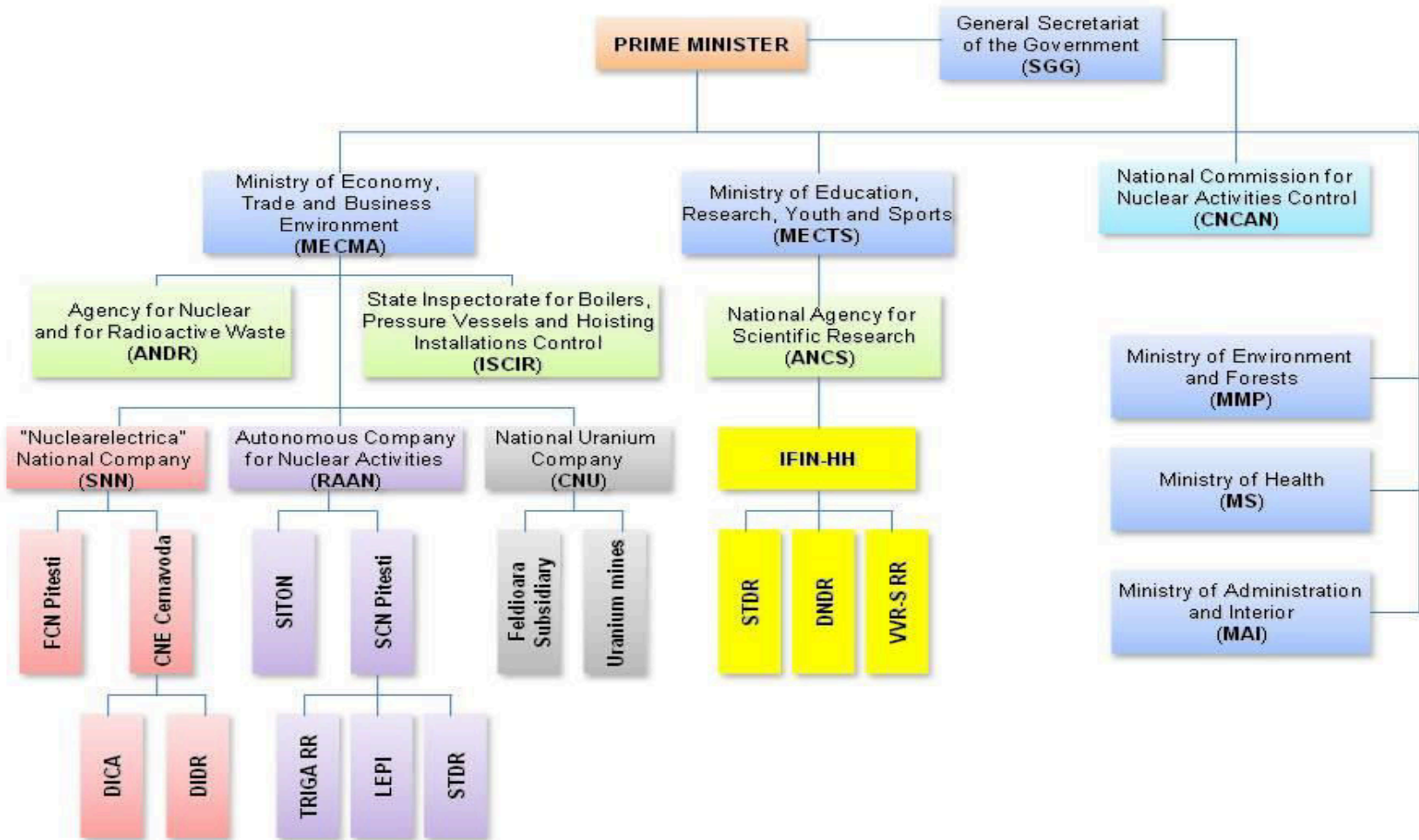
- regulatory body in the nuclear field

Waste producers

- Responsible for predisposal activities of SNF and RW and for decommissioning of their facilities;
- Bear the expenses related to the collection, handling, transport, treatment, conditioning, storage and disposal of its wastes
- Pay the annual contributions to the funds for disposal of SNF and RW and for decommissioning of nuclear facilities



Main institutions involved in the nuclear field





ANDR main responsibilities (1/3)

- draws up and reviews, at least every 5 years, the national medium and long term strategy on the safe management of SNF and RW, and monitors its implementation;
- is directly liable for the set up of the repositories for the disposal of RW; the repositories are in the patrimony and administration of ANDR;
- ensures, directly or by means of third parties, the design, construction, commissioning, operation, closing and post-closing monitoring of the repository of RW;
- ensures the set up and annual update of a national data base regarding the quantities, types of generated RW, including the ones resulting from the decommissioning of the nuclear and radiological facilities;
- approves the documentations and procedures drawn up by the holders of license, related to the stages of the safe management of SNF and of RW, in order to comply with the WAC for disposal;
- draws up the WAC for the disposal of RW and subjects them to the approval of CNCAN;



ANDR main responsibilities (2/3)

- ensures, directly or by means of third parties, for the disposal, the execution of services of safe management of:
 - the orphan sources of nuclear radiations;
 - historical RW resulting from past practices;
 - RW resulting from incidents and nuclear accidents;
 - the SNF and RW from the economic operators which are bankrupt or in official winding up;
- ensures, directly or by means of third parties, the physical protection of the repositories of RW;
- performs audits at the main generators of radioactive waste in order to ensure the compliance of the activities of safe management of RW with WAC;
- monitors the radioactivity of the environment in the area of the repositories in order to protect the population and the environment;



ANDR main responsibilities (3/3)

- periodically checks, according to the regulations in force, the stage of accumulation of the financial resources designated to the management of the SNF and RW and the decommissioning of the nuclear and/or radiological facilities;
- draws up and updates, periodically, technical-economic studies regarding the estimation of the costs related to the disposal of the SNF and RW for the establishment of the amounts of the annual contributions of the license holders;
- manages the financial resources designated to the management of the SNF and RW and the decommissioning of the nuclear and/or radiological facilities;
- informs and prepares the public of the area close to the repositories for the acceptance of their location.



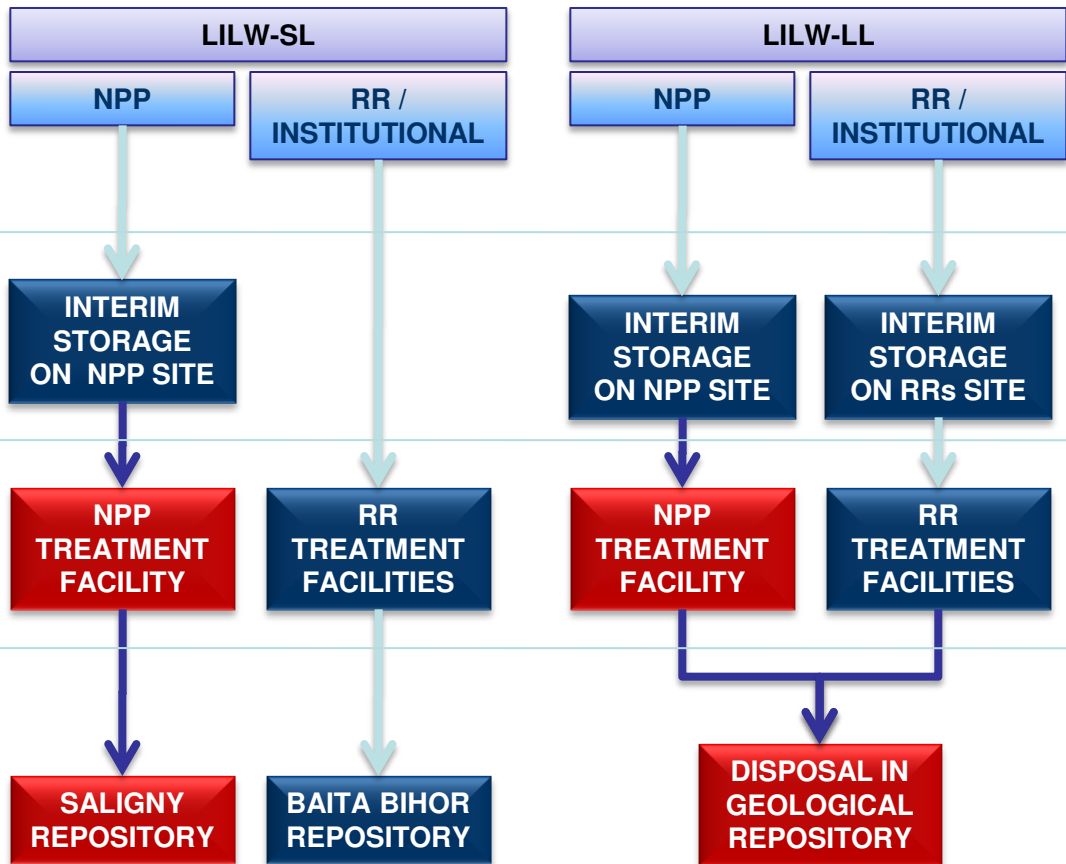
Basic principle

Basic principle of radioactive waste disposal in Romania:

- VLLW: less complex arrangement than LILW-SL;
- LILW-SL: near surface disposal facility;
- LILW-LL and SNF: geological repository;



The National Strategy for Safe Management of Radioactive Waste - LILW -

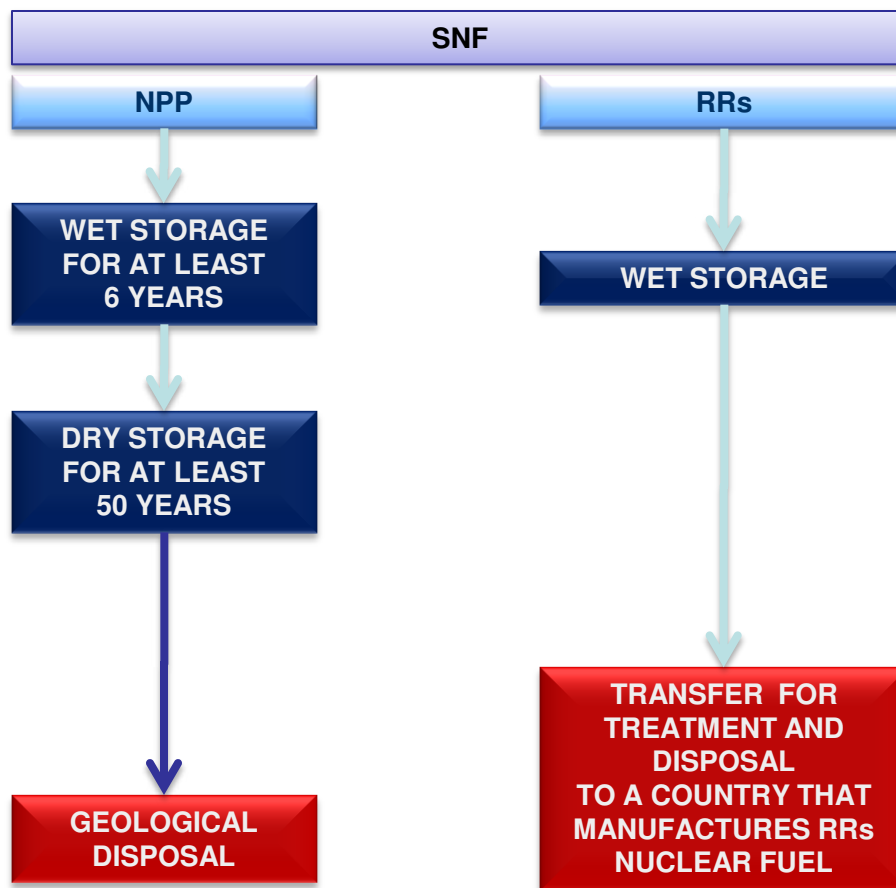


 EXISTING

 PLANNED



The National Strategy for Safe Management of Radioactive Waste - SNF -



 EXISTING

 PLANNED



Main activities for 2013 – 2015

- Updating of the existing legislation concerning the safe management of SNF and RW;
- Updating the national strategy / programme for safe management of SNF and RW;
- Updating the national radioactive waste inventory;
- Performing auditing and verifications to the main waste producers;
- Review the fee for safe management of SNF and RW and decommissioning of nuclear and radiological installations;
- Training of personnel involved in the management of SNF and RW

Activities will be financed from ANDR budget



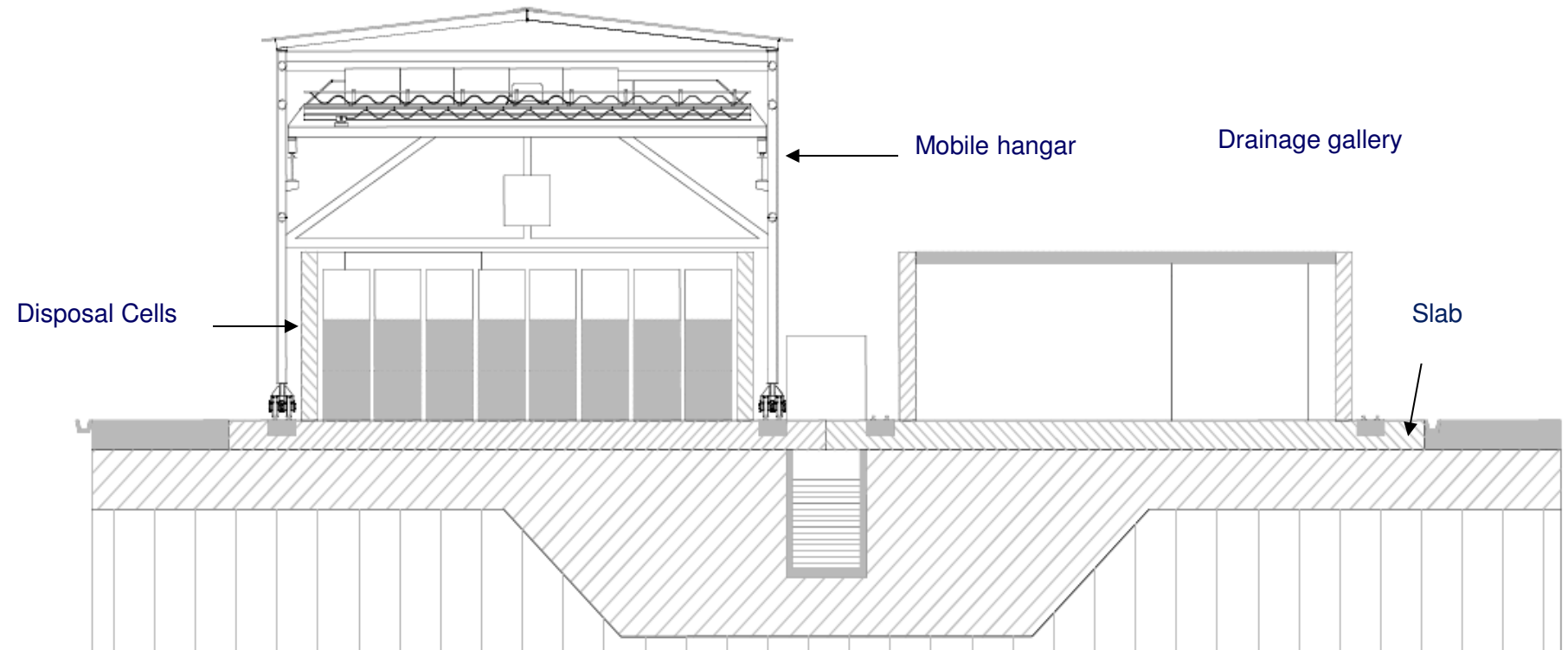
Main activities for 2013 – 2015

- **Continuing the Saligny repository project;**
Getting the siting license for siting a near surface radioactive waste disposal facility in Saligny;
Set-up the project company
- **Development of a strategy for safe management of SNF;**
Possibility to recycle the CANDU used fuel
- **Coordination of decommissioning at Magurele VVR reactor;**
Approving documentation and coordinate second stage of decommission
- **Strengthening the efforts to increase the Public Acceptance for Radioactive Waste Repositories;**
Set –up and implement a communication strategy
Possibility to start local social programmes

Activities will be financed from ANDR budget



Saligny repository project





Estimated Costs for the new LILW/SL repository

Initial cost (8 cells): 69 M€

Total cost envelop scenario (64 cells): 452 M€

2009 prices, without VAT



Phare Ro 2006 147.05.01 “Support to ANDRAD to get the siting license for Saligny LILW near surface repository”

Phare Ro 2006 411.03.03 “Design and Preliminary Safety Assessment for licensing of the construction of Saligny L/ILW national repository”

The following main technical documentation was elaborated :

- Site selection studies;
- Final assessment report of the Saligny site performance;
- Pre-operational monitoring plan of the Saligny site;
- Conceptual design of the new near surface repository;
- Safety assessment documentation for siting a near surface radioactive waste disposal facility in Saligny. Includes:
 - Safety assessment for the operational period;
 - Safety assessment for the post-closure period;
 - Uncertainty and sensitivity analysis;
 - Conceptual plan for closure
 - Management system conceptual plan.

The technical documentation was submitted to CNCAN



The way ahead

To obtain the site licence

Technical documentation for siting:

- safety assessment report;
- description of the conceptual design;
- conceptual plan for closure;
- site selection studies;
- environmental agreement;
- management system conceptual plan;
- any other document request by CNCAN.

The environment agreement and authorizations shall be issued by the central authority for the protection of the environment on the basis of the authorisation and control criteria provided by law, in consultation with CNCAN and the Ministry of Public Health, with reference to the monitoring and reporting of releases of radioactive effluents in the environment, as well as of the radioactive contamination of the environment factors.



The way ahead

Main activities to be performed

- Implementation of the preoperational monitoring plan for Saligny site;
- Getting different agreements / authorisations from different authorities; (PUZ, environmental impact assessment , etc.)
- Implementation of a communication strategy in order to increase the public acceptance.

ANDR budget, 2013-2016: about 1.5 Mil. Euros for implementation of this activities (works and technical assistance)
including site license activities



The way ahead

To set-up the implementation organization

Prepare a bussiness model

Governmental Decision to define the project and the project company