



Spanish Strategy for Managing RW coming from non-energy uses

13th November 2019

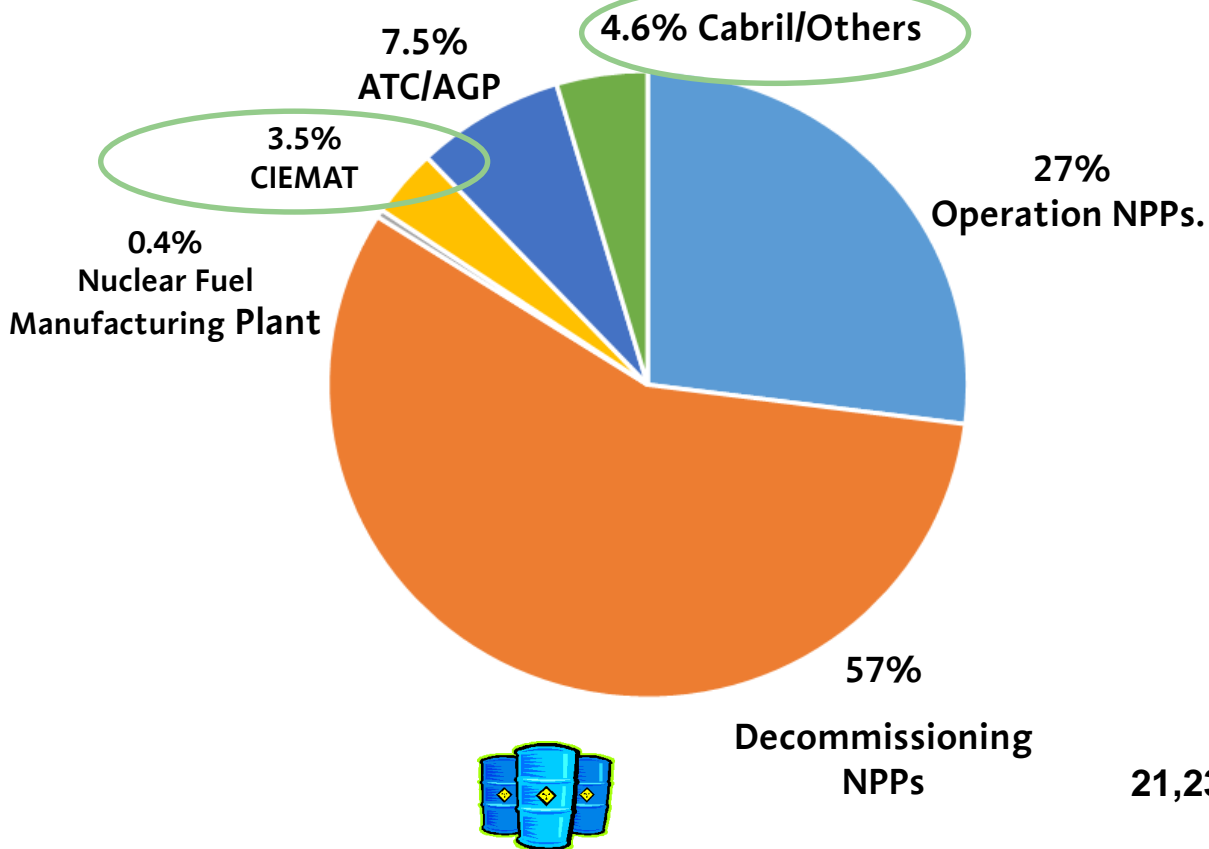
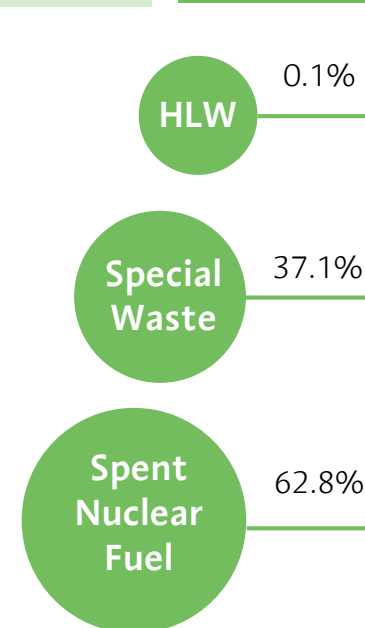


Contents

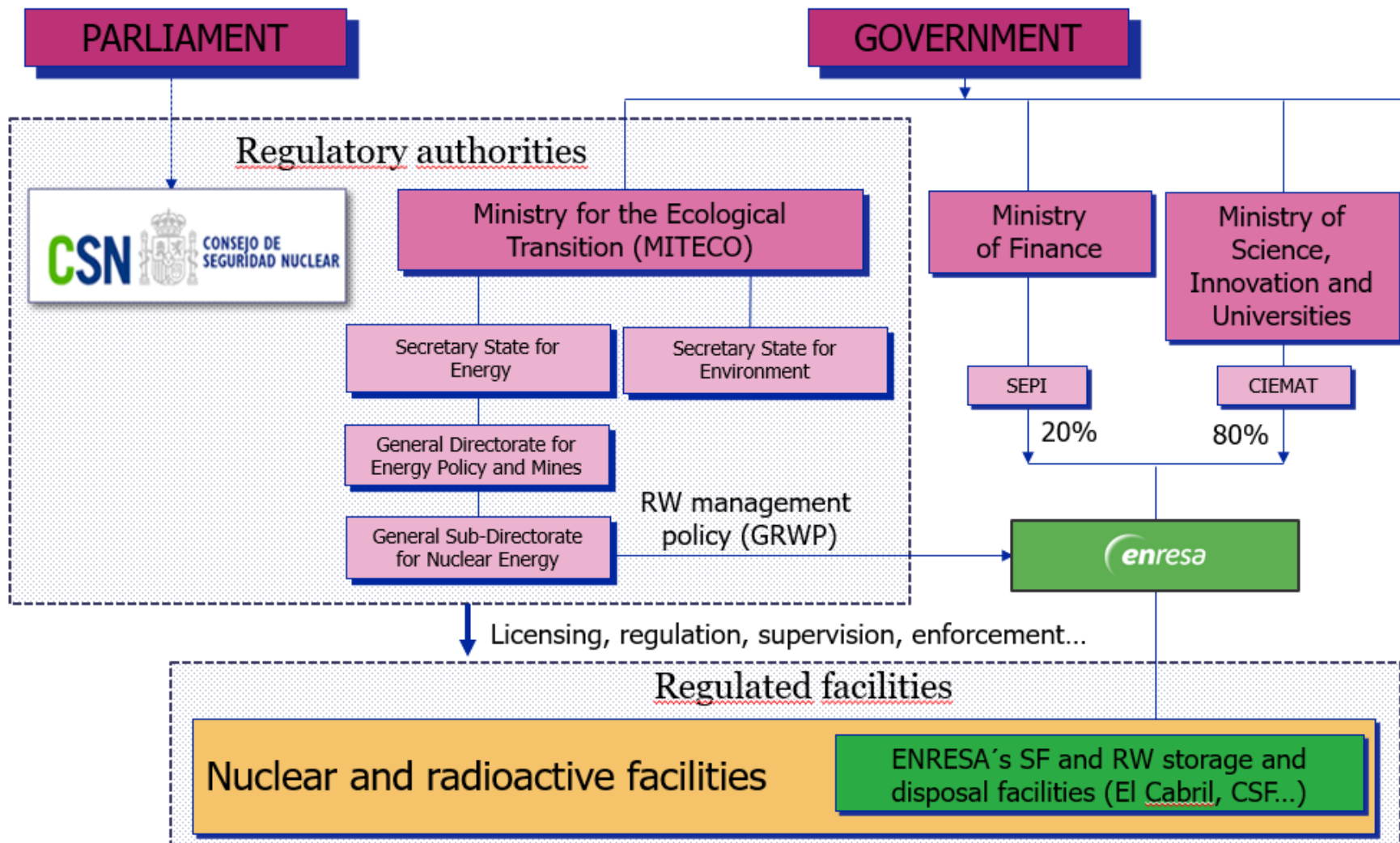
1. Introduction
2. National framework
3. General Radioactive Waste Plan (GRWP)
4. El Cabril Disposal Facility

1. Introduction



LILW $\cong 219,350 \text{ m}^3$ **SF/HLW
16,450 m^3** **(62,800 m^3 as of 31/12/2018)****21,236 Fuel assemblies / 7,488 Ut****(5,246 Ut as of 31/12/2018)**

2. National Framework



Royal Decree 102/2014, on the responsible and safe management of SF and RW

- “...the Government shall establish the national program and policy on the management of radioactive waste, including spent nuclear fuel, and the decommissioning and closure of nuclear installations, by means of the approval of the General Radioactive Waste Plan (*Plan General de Residuos Radiactivos*).” (art. 5)
- “...the *Empresa Nacional de Residuos Radiactivos, S.A. (ENRESA)* is entrusted with the management of radioactive waste and spent nuclear fuel and the decommissioning and closure of nuclear facilities.” (art. 9)
- “ENRESA shall carry out, for the fulfilment of its purposes, the following functions:

- Drafting and Proposal of National Strategy (PGRR)
- Treatment, conditioning, storage and disposal of SF and RW
- Site selection and the design, construction and operation of centers for the storage and disposal
- Establishment of systems for the collection, transfer and transport
- Establishment and keeping of the National Inventory of SF and RW
- Management of operations arising from the decommissioning of nuclear installations
- Providing support to civil defense services in the event of nuclear emergencies
- Establishing training plans and drafting and co-ordination of R+D Plans
- Performance of the technical and economic–financial studies
- Management of the Nuclear Waste Management Fund

Royal Decree 102/2014

Article 11. *Technical and administrative acceptance specifications.*

1. Holders of nuclear and radioactive facilities will be required to sign the technical and administrative acceptance specifications for its spent nuclear fuel and radioactive waste, with a view to its collection and subsequent management by ENRESA.
2. This same obligation shall extend to holders of installations or activities not subject to the licensing regime of the legislation on nuclear power, in which radioactive waste may be produced.
3. These specifications shall establish the term thereof, which shall run until the end of lifetime of the facilities, including the decommissioning and closure of the nuclear facilities and, where appropriate, of the radioactive facilities.
4. Such specifications will have to have been approved by the Ministry, with the prior report of the Nuclear Safety Council (CSN).

Technical-administrative specifications

In January 2016, MITECO approved 6 specifications for RW acceptance in order for ENRESA to provide the public service for the management of the RW produced or to be generated in, for example, authorized radioactive installations.

Other specifications are:

- gaseous sources;
- for installations with radioactive materials, equipment and devices (art. 74 of the RINR);
- in other installations or activities outside the nuclear legislation;
- in case of incidents in this installations;
- and, in case of NORM waste in facilities and activities outside nuclear legislation.

As at 31/12/2018 the subscribed technical-administrative specifications were 935 (1 in Melilla).

3. General Radioactive Waste Plan (GRWP)

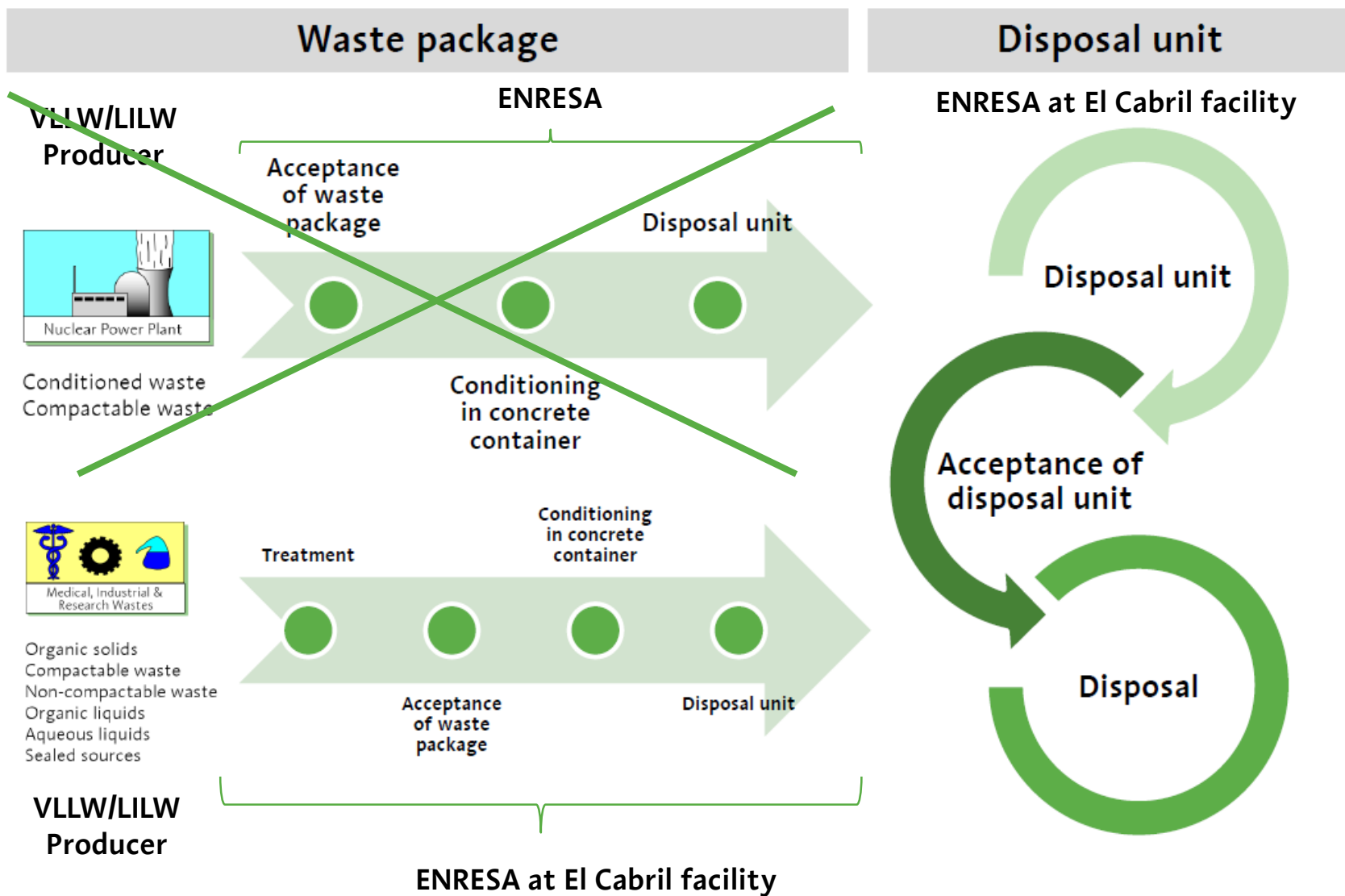
Radioactive waste is defined as “any waste material or product for which not further use is foreseen and which contains or is contaminated with radionuclides in concentrations or activity levels in excess of those established by MITECO, subject to a report from the CSN” (art. 2 Law 25/1964, on nuclear energy)

The GRWP indicates:

- There is an integrated management system for LILW with the necessary capacities, configured on the basis of the assignment of responsibilities to a group of clearly identified agents in a structured manner.
- The RW coming from non-energy related facilities deliver their wastes to ENRESA following the technical administrative acceptance specifications already approved.
- ENRESA is responsible for collecting and transporting RW to El Cabril facility.



Waste acceptance process



Different types of RW



4. El Cabril Disposal Facility

El Cabril Facility

Disposal areas for LILW and VLLW
Treatment and Conditioning systems
Concrete containers manufacturing plant
Characterization laboratories
Ancillary installations
Interim storage

According to the final report of the combined mission IRRS-ARTEMIS (October 2018):

“... Low and Intermediate Level Waste (LILW) is currently successfully disposed of in the El Cabril Disposal Facility, which includes capacity for the disposal of Very Low-Level Waste (VLLW) in dedicated vaults.”



VLLW and LILW

LILW facility in operation since 1992 and VLLW facility in operation since 2008.

A license document is “Waste Acceptance Criteria for the Disposal Units”.

