

## **SITING PROCESS FOR A CENTRALISED STORAGE FACILITY FOR SPENT FUEL AND HIGH LEVEL WASTE IN SPAIN.**

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In Spain radioactive waste is generated mainly in installations of the nuclear fuel cycle and, at a much smaller scale in the use of radioisotopes in different branches of industry, medicine or research. The nuclear power programme consists of ten nuclear power plants, eight of which are presently in operation and the other two have already been shutdown. There are also installations in the front end of the nuclear fuel cycle, mainly a fuel fabrication plant in operation and Uranium mining and milling facilities already shutdown.

On creating ENRESA (Empresa Nacional de Residuos Radiactivos, S.A.) in 1985, it was decided to concentrate all radioactive waste management activities under the responsibility of only one organization. ENRESA is a state-owned limited liability company with responsibilities in the long-term management of all kind of wastes and in the decommissioning of nuclear installations.

The radioactive waste management strategy is approved by the government through the Radioactive Waste Plan (GRWP), ENRESA having the obligation to submit a proposal every four years. This Plan contains not only the strategies and technical actions, but also the financial related aspects.

At present, the policy for spent fuel management is based on an open fuel cycle. Reprocessing of spent fuel was stopped in 1983, except for the spent fuel from Vandellós 1, a gas-cooled graphite reactor, which was totally reprocessed in France. These reprocessing activities generate obligations to return some HLW/MLW to the country.

One strategic objective for the SF/HLW management programme is to develop a centralized storage facility to accommodate, not only the spent fuel unloaded from the nuclear power plants and the reprocessing waste to be returned to the country, but also the intermediate level waste that will arise as a consequence of the decommissioning and dismantling of the nuclear power plants. With the hypotheses of the current RWMP, a total amount of some 13.000 m<sup>3</sup> of SF/HLW is estimated. This objective has been included and remained through the several Plans approved by the Governments, but its implementation successively failed, due to the lack of a site.

In 2004, the Congress through its Commission for Industry, requested the government to take action to develop the procedures to site a centralized storage facility for SF/HLW. As a consequence, a new GRWP, including this facility as an strategic objective, was approved in 2006 and, at the same time the government decided to set up and Interministerial Commission with the objective of defining the siting criteria, supervise the siting process and to elaborate a proposal of potential candidate sites for the Government.

The Commission, formed by high rank officials of different Ministries, commenced their work in late 2006 by developing the siting criteria report, as well as some other reports containing explanations on the need of the installations, the international references,

radiation protection and nuclear safety general aspects and SF/HLW transport means and experience. All this reports, along with general project information, were made public through a dedicated Web site established for such purpose. Also, the minutes of all the Commission meetings are made public. For this work, the Commission is assisted by a Technical Advisory Committee.

Based on the dedicated Web site and information distributed through different media, an information campaign took plan in 2007, allowing the municipalities, interested stakeholders and public at large to make questions and to request the information they would need. Site visits to other countries installations, mainly to the HABOG vault type facility in the Netherlands, with politicians and concerned stakeholders took place during all this time.

In this background, an open call for voluntary candidate municipalities was officially launched at the end of 2009. The Resolution includes a brief description of the project as well as the procedure and basis ruling the process. Fourteen voluntary candidate municipalities have sent proposals, six of which were disqualified either for not complying with the requirements established in the basis of the process or due to the application of the exclusion criteria.

Within this process, a public information and inquiry process was conducted, giving rise to some fifteen thousand inquiries. The final list of candidates includes eight municipalities located in five different regions.

The Commission, taking into account the sites information provided by the candidate municipalities and the basis of the open call, is now elaborating the report to be proposed to the Government, who will finally decide the site, after a Cabinet meeting.

The project includes not only the reception, treatment and storage facilities, but also a Technological Centre which will be equipped with different research laboratories and the infrastructures needed to facilitate the participation of companies and organizations, both during construction and operation phases