

## MAIN ORIENTATIONS

The legislator thought it desirable to continue the research assessment approach for radioactive waste management conducted until now by the first National Assessment Committee (CNE) within the scope of the 1991 law. As a matter of fact, in the 28<sup>th</sup> June 2006 law relative to the sustainable management of radioactive waste and materials, it has again set up a "National Committee" which was given the responsibility to yearly assess the progress of research and studies relative to the management of radioactive waste and materials. The Committee's area of competence is both widened and supervised by the National Management Plan for Radioactive Waste and Materials (French acronym PNGMDR).

Therefore the Committee must *a priori* consider in its reports the entire research and studies mentioned in this first PNGMDR. Unlike the 1991 law which only concerned long-lived high activity waste, the 2006 law applies to all radioactive waste and materials, whatever their activity or life span may be. Consequently, the Committee may now be concerned by the assessment of research focusing on a wide sector. This might be from very high to low, even very low, activity waste, including the various radioactive materials, mining sources and waste. However, it is desirable that the area of research and studies that the Commission must assess, should be defined by decree in the next few months, in agreement with the Nuclear Safety Authorities.

The Committee and its twelve totally voluntary members, does not have the necessary means at its disposal to tackle all the problems thus formulated. Some of them may raise scientific issues (graphite, radiferous or tritiated waste). Others are not the subject of scientific research, their management depending essentially from purely technical or statutory measures (medical or industrial sources) and from where the facilities are located. Finally others represent a vast area that is less precisely defined, such as residues from uranium mines.

The scientific and technical areas assessed by the first CNE covered mainly physics, chemistry and sciences of the Earth. Some areas are now mentioned or underlying in the texts: modelling and simulation, radiobiology and radioecology, societal and economical type of research. The modelling – simulation approach is vital, particularly for the development of structures and forecasting long term storage behaviour. Research in radiobiology and radioecology is indispensable to ensure “the respect for the protection of people’s health, security and the environment”. Societal and economical-type research enables to better prepare the decision-making process and to fuel debates within society.

The committee is asking for the works that may have been carried out in this area, to be presented to its members and it recommends to the Ministry of Research to organize grants for doctoral and post-doctoral theses on societal and economic subjects.

The pursuit of the research and its orientation given by the 2006 law, goes along the lines of practical achievements. This evolution appears through a clearer legal definition of the waste families, a restrictive calendar and a direct link between each achievement and the stages that will have to follow. Research for the primary conditioning of old or varied waste now depends on the waste producers, but Andra is responsible for planning the specifications concerning their disposal. Focusing on waste reprocessing considerably reduces the research on the containers to dispose of spent fuel assemblies. Storage is now clearly designed as an industrial operation while waiting for the disposal of waste packages. As for geological disposal, which is now the reference option for long-lived high and medium activity waste, Andra has launched, in the transposition zone, a detailed scouting programme to reach a proposition, in a restricted area, of one or several favourable areas for setting up a repository and its associated concepts. Besides, Andra has the mission to propose a concept and a disposal site for long-lived low activity waste (graphite and radiferous). For separation-transmutation, the objectives are assessing the

transmutation programme in critical or sub critical fast neutron reactors, and developing a fast neutron reactor prototype, and associated facilities.

The new Committee, in the short time available (May-June 2007), has heard the representatives of Andra, CEA and CNRS, who also provided all the documents concerning these organizations' programmes and their international collaboration. CEA also informed the Committee on the main lines of research in radiobiology and radiotoxicology that are being conducted in France, and the prospects of the 4<sup>th</sup> Gen. The report does not look into this last point.

This report is the first global approach of the works that the Commission will have to assess and enables to draw the list of the main themes that will be examined during the next annual period (September 2007 – June 2008). Here and now, it is aware that the provisional calendar of Andra seems to be extremely tight, for the disposal of radiferous and graphite waste, as well as the HLW disposal. It is the same for some parts of CEA calendar.