

The primary mission of the "Radioactive Waste and Clean-up" division is to propose, develop and assess solutions for a safe, acceptable and sustainable management of radioactive waste.

The Radioactive Waste and Clean-up division programme consists in research, studies, development and demonstration aiming to realise the objective of **Agenda 21** on sustainable development in the field of radioactive waste and rehabilitation on radioactively contaminated sites. Indeed, it participates in the realisation of an objective which is *"to ensure that radioactive wastes are safely managed, transported, stored and disposed of, with a view to protecting human health and the environment, within a wider framework of an interactive and integrated approach to radioactive waste management and safety."*

We believe that nuclear energy will be necessary for the sustainable development of mankind in the 21st century, but we well understand that it would not be maintained if it is not proven that within benefits of nuclear energy a better protection of the environment is included. Although the current waste management practices are both technically and from the environmental point of view adequate, efforts in relation of future power production and waste management technologies should be put on waste minimisation. Therefore, the new and innovative reactors, fuel cycle and waste management processes and installations should be designed so that the waste generation can be kept in minimum. In addition to the design, the installations should be operated so as to create less waste; consideration should be given e.g. to keeping water chemistry clean and other quality factors. SCK•CEN in general and the "Radioactive Waste and Clean-up" division in particular are present in international groups preparing the development of innovative nuclear reactors, as "Generation 4" and INPRO.

Because performance assessments are often black boxes for the public, demonstration is needed for the acceptance of geological disposal of high active waste. Therefore SCK•CEN, NIRAS/ONDRAF and EIG EURIDICE join their effort to demonstrate the feasibility of geological disposal of radioactive waste and spent fuel in Boom clay. A first step of this demonstration is the PRACLAY project. The objectives of the PRACLAY project are the demonstration of the reference design for vitrified HLW, as well as the characterization, verification, confirmation and demonstration of relevant elements of the disposal system and their behaviour by means of a combination of small surface and large in situ experiments.

Because our planet is a village, because safety and sustainable development cannot be realised just by solving local problems and because knowledge leading to safety is not the property of a limited numbers of scientists but is a part of the world scientific patrimony, we try to deal our experience with other societies and countries:

- training activities are organized mainly towards the former East-European countries;
- training and education sessions are organised in the field of decommissioning in the framework of the EC and IAEA program but also in the frame of other bilateral and multilateral agreements;
- the division performs numerous consultancies and expert appraisals in the fields of waste storage, waste disposal, decommissioning, etc... in the frame of international missions (IAEA, OECD) as well as in the frame of bilateral contracts.

Contact

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