



N°4 December 2012 A UNIQUE ARRAY OF SKILLS AND SERVICES

Andra wishes you a merry Christmas and a happy new year

and a nappy new yea



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A new milestone for the French Deep Geological Repository project, CIGEO, was reached on November 7th with the announcement of a Public Debate. Organized by the national independent commission, and expected in 2013, the Public Debate fits into the continuity of the process of exchange and dialogue engaged with stakeholders from the 1991 law on management of high-level radioactive waste. The Public Debate on Cigéo is a key step of the project, and will help Andra prepare the licensing application, which will be handed over to the State in 2015. The Cigéo authorization will then require launching a process expected to last several years including adoption of a law on the reversibility conditions. *Find more (in French) on Cigeo*: The WWW.cigeo.com

Waste Acceptance Criteria: Ukraine and Italian site to use Andra expertise

Waste Acceptance Criteria (WAC) are a key element of a national or local waste management strategy. With successive treatment and storage steps each coming with specific acceptance criteria, it is important to ensure the consistency of the overall process, including final disposal. Failure to use such an integrated approach may result in creating waste unfit for existing or future storage, treatment or disposal routes. Even in the absence of an existing disposal solution, generic WAC can provide waste producers with the assurance that waste generated will be compatible with future facilities' acceptance criteria. With the expertise built in its own facilities, including disposal centers for Very low and Low Level Waste and waste treatment facilities. Andra was recently selected in Ukraine and Italy to issue generic waste acceptance criteria allowing early selection of the most favorable disposal route in the absence of national disposal facilities.

In Ukraine, this year, Andra issued the first iteration of generic WAC for VLLW, LLW and ILW in Ukraine, following the newly proposed waste classification scheme. Andra was selected again, as part of a consortium including DBETech (D), Enresa (E), SKB (S) and Covra (NL) to propose waste disposal concepts and designs, for all waste types and categories, and associated safety assessment and waste acceptance criteria.

In Italy, a large site decommissioning programme required a robust waste management process, ensuring consistency between the various facilities acceptance processes, and compatibility with future disposal solutions. Andra provides the expertise to review and modify the generic WAC for solid waste.

A 100m long HLW disposal cell excavated in Bure Underground Research Laboratory

The test tunneling of a long High Level Waste (HLW) disposal cell in July was successful: in 9 days, a horizontal microtunnel 100 meters long and 75cm in diameter was excavated and fitted with an inner steel tube.



This eighth test cell opens the door to the optimization of the Cigéo Industrial Centre for Geological Disposal, as the current blueprints are based on HLW disposal cells 40 meters long previously bored in the underground laboratory. The next test will study the behavior of a heated cell.

The MoDeRn International Repository Monitoring Conference and Workshop will be held on 19-21 March 2013 in Luxembourg.



Andra now proposes practical waste management courses

Andra has set up a complete program to provide training in different fields of radioactive waste management. Over 30 trainees have already benefited from the practical, hands-on experience and immersive training offered by Andra on its 3 disposal facilities and Underground Research Laboratory, and in its Paris headquarters. Through this program designed and taught by recognized waste management experts from Andra, a trainee can obtain skills on :

- 1. Long term safety assessment of radioactive waste disposal
- 2. Operational safety of disposal facilities
- 3. Disposal facilities design
- 4. Waste management: from inventory to disposal
- 5. High level waste R&D program
- 6. Waste acceptance criteria and compliance verification
- 7. Waste characterization

As for the content, the duration of the course can be adapted to the training objectives, and range from 1 to 16 weeks; it can be complemented with an internship within one of Andra teams of engineers or scientists.



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