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The United States Nuclear Waste Technical Review Board (US NWTRB) has recently released a letter presenting its observations relative to consent-based siting in international Deep Geological Waste Disposal Projects. In this letter, many references are made to Andra, commended for its implementation program, its "single-minded" commitment to safety, and its long-standing efforts to gain and retain public trust. Two key elements of success are identified: providing a "dynamic and sustained effort to engage interested and affected parties" and "advancing a clear and persuasive safety case and then carrying out a focused research and development program designed to address key scientific and engineering questions". It is comforting to see that our values and our driving strategies are recognized and considered inspirational for the US geological disposal

## 70m tunnel bored at the Underground Research Laboratory

A 70m long gallery has been so far excavated in the Callovo-Oxfordian argillite, with a 17m long, 180 ton road headers tunnel boring machine. This is a new method of tunnel construction tested at the Meuse Haute Marnes Underground Research Laboratory, as is the introduction of prefabricated concrete for the tunnel lining segments. This test is part of a project to select the tunneling technique for CIGEO (deep geological disposal of nuclear waste).



Rather than seeking to achieve "industrial" penetration rates during this test, the test objective was to analyze the response of the shale and especially the interaction between the rock and retaining segments and the long term efforts they will sustain. For this, several monitoring techniques were implemented: in boreholes, before the tunnel boring took place (pore pressure, strain measures, inclinometer), and also during the construction (measuring strain in segments, extensometers). Thus, yet another challenge was to the project !



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## The Centre de l'Aube receives neutron protection packages

19 unusually large and heavy packages, containing Lateral Neutron Protections sets, were delivered, grouted and disposed of in a vault at the Centre de l'Aube. Those protection sets were used in Superphenix fast breeder reactor to limit the neutron flux outside the reactor vessel. There are still 30 more similar packages to be delivered. Acceptance of these packages required several years of dialogue with the utility and the safety regulator. On site, specific handling and grouting procedures were used. A new demonstration of the flexibility of Centre de l'Aube disposal concept !



## CIGEO Project Owner File: all you want to know about the Geological Disposal Project

The CIGEO project is currently the subject of an on-line national public debate, an essential pre-requisite for the license application in 2015. This debate is a key forum of discussion with citizens in the Meuse and Haute-Marnes departments, where the project will be hosted, and elsewhere in France. During this public debate Andra hopes to answer all the citizens' legitimate questions about the proposed facility. To present CIGEO, a Project Owner File has been published and is now available here in English, with detailed information on waste, disposal concept, including reversibility, geology, safety, operations and also communication, calendar and funding. For more info on the Public Debate, click here

