LUCOEX project WP5 Newsletter 1/2011

The Large Underground Concept Experiments "LUCOEX" project focuses on developing solutions for underground disposal of nuclear waste. The project was started in 2011 and it is implemented in collaboration with a consortium of Posiva Oy (Finland), Svensk Kärnbränslehantering AB ("SKB") (Sweden), Agence nationale pour la gestion des dechets radioactifs ("ANDRA") (France) and Nationale Genossenschaft für die Lagerung radioaktiver Abfälle ("Nagra")(Switzerland). The project is partly financed by the European Union's EURATOM programme.

The Finnish Posiva Oy is responsible for the project's Work Package 5, KBS-3V Emplacement tests in ONKALO (EMP). This newsletter presents briefly the main activities and outcomes of the WP during the year 2011.

Development of buffer emplacement methods and equipment

In order to acquire complementary expertise and resources for the development and demonstration of the bentonite buffer emplacement concept, Posiva organized a competitive tendering process in January 2011. Altogether 6 expressions of interests were received, leading to 3 tenders. After comparisons and negotiations, the Finnish Insinööritoimisto Comatec Oy was selected. Insinööritoimisto Comatec will support Posiva in developing the bentonite block emplacement and gap filling methods, the needed quality control methods and problem handling instruments.

Development of buffer element transfer and emplacement equipment

The buffer emplacement machinery concept development was realized from May to August 2011 in collaboration between Posiva and Insinööritoimisto Comatec. In the process, the main technologies were selected first, alternative choices developed based on them and finally the technologies to be developed further selected. The handling of buffer blocks and pellets will be based on the use of metal container that has suction grippers for the blocks and storage for the pre-measured pellets. With regard to the buffer transfer and emplacement vehicles, 5 different concepts have been examined. After the examinations and feasibility studies, the alternative of creating two vehicle concepts, installation and transfer vehicles, was considered to be most potential for further development.

Plans for the year 2012

LUCOEX WP5 main activities in 2012 will be manufacturing of equipment; preliminary buffer emplacement testing and creation of plans for solving emplacement problem situations.

Lucoex WP5 team wishes all collaborators
Merry Christmas
and
A Happy New Year!

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