

Experience feedback on the refurbishment of the LECA hot laboratory at Cadarache.
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After ten years of renovation work, the LECA hot laboratory refurbishment project has finally been completed which means it is now time to draw a few conclusions. .

Refurbishment of LECA was needed to enable PIE in this laboratory up to 2015. Improvements were made according to the laboratory safety assessment in March 2001. More than 400,000 working hours were clocked up without any serious accidents. The overall radiological record remained below 0.4 man.Sv for this period despite a high contamination level in the venting system and hot cells. The total fissile mass was decreased by a factor of three, and contamination was also considerably reduced.

The project was finalised two years later than expected, mainly due to difficulties with two contracts on civil engineering work to improve seismic resistance and on inserting stainless steel casing into some hot cells. Renovation work on existing structures was underestimated, as was the time required to re-commission the cells. The fact that the total number of external staff working inside the facility at the same time was limited also slowed work down. This delay affected the research programmes mainly over the last two years.. On the whole, 85 % of all experimentation activities were nevertheless continued during refurbishment.

New steps for refurbishment have already been planned so as to extend the LECA service life once again. A line of lead-shielded cells – not designed to withstand current earthquake standards – will be demolished before the end of 2008, and civil engineering operations have been programmed for 2013-2014 so the facility will be able to withstand a Maximum Design Earthquake.