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Different ways of using manipulator arms for decommissioning at the Risø site

by

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At the Risø site decommissioning of the Hot Cell facility and the research reactor DR 3 are ongoing. DD has initiated the purchase of two identical manipulator arms for use in the various dismantling tasks.

At the Hot Cell facility one manipulator arm will be used for remote controlled grit blasting of the interior surfaces of a row of six concrete cells. The cells have been contaminated with both alpha and beta activity, and radiation levels are so high that access for longer periods of time is not possible. Therefore, it has been decided to carry out the initial cleaning by introducing grit blasting equipment through the Ø260 mm penetrations from the cell front formerly used for master-slave manipulators.

DR 3 was a 10 MW heavy water cooled and moderated research reactor, which was operating from 1960 until 2000. Due to the very high radiation levels from several of the internal parts, it is necessary to use a manipulator arm equipped with the appropriate tools for dismantling these parts. For the purpose of getting familiar with the equipment and train the use of it, we are also considering to use the manipulator arm for removing components in the heavy water plant room beneath the reactor.

Note:

We consider this subject to be suitable for a poster presentation where we will present how the manipulator arms are to be used for different tasks at Risø.