

Introduction

The SCK•CEN has built a large know-how in D&D, thanks to its BR3 decommissioning project. In 2007, the decommissioning activities at BR3 have been continued according to the strategy.

Principal results

The Neutron Shield Tank

The Neutron Shield tank is the latest activated component at BR3; it is a tank that surrounded the reactor pressure vessel. The BR3 team uses therefore a telemanipulated arm that deploys an Abrasive Water Jet Cutting head (AWJC). All operations are carried out remotely and are visually controlled using camera systems. In 2007, the first phase was carried out. This concerns the inner surface of the cylindrical tank. First, holes were drilled into the metal surface, then cuts were carried out to cut a square segment out of the tank. The hole is used to hang up and later manipulate the cut piece and to put it, again remotely, into the dedicated waste rack. As the radioactivity levels of the cut pieces are different depending on the altitude they are coming from, the pieces will be distributed between low and intermediate level waste.



*Teleoperated arm and cutting head.
At the tip of the cutting head, you
see the water jet cutting.*

New ventilation for the controlled area, dismantling of the former one and characterization of the stack

The confinement of the BR3 installation is ensured by a ventilation system. This system must also be totally decommissioned. To allow safe working conditions for the rest of the project, a new ventilation has been installed on the roof of the auxiliary building, the last building that will be decommissioned. This installation has been built, installed, qualified and put into service. Consequently, the former ventilation components that occupied almost the whole ventilation building could be dismantled and the arising material decontaminated, measured and finally free released. The 60 m height brick stack was thus also no more needed. The stack has been characterized on its whole height and the measurements have shown that with minor treatment operation, it can be free released.



Some parts of the work needed to finally get a strong file to propose to our authorities the free release of the stack.

Thanks to its pioneer role, to the long experience built up and to the European character of the project, SCK•CEN is involved in many different international committees and bodies concerned with the decommissioning of nuclear facilities: IAEA, OECD/NEA, EC, NATO, NRC, etc.

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