

Decommissioning Plan for Fugen Announced

On November 7, the Japan Atomic Energy Agency (JAEA) filed an application with the Nuclear and Industrial Safety Agency (NISA) for permission to carry out a decommissioning program for the advanced thermal reactor (ATR) Fugen. From now on – over the next 22 years – the demolition and removal of the main facilities will be carried out, along with the waste disposal and decontamination work.

ATR Fugen, which had a generating capacity of 165 MW, was developed independently by Japan to demonstrate the burning of plutonium using heavy water as the moderator. It thus played a key role in the development of nuclear fuel-cycle technology, burning 772 MOX-fuel assemblies in its 25 years of operation – a world record for a single reactor – and also contributed a total of 21.924TWh to the national power supply.

In 1970, an application was filed for permission to install a reactor, launching Fugen's construction. In 1978, the reactor achieved its first criticality, and operations began the next year. Two years later, in 1981, the first domestic MOX fuel was loaded. The milestones of 10TWh and 20TWh total generated electricity were reached in 1989 and 2000, respectively. In 2003, Fugen ended its active service, having accumulated a long and valuable record of operational results.

The facilities covered by the decommissioning program include the reactor and facilities where nuclear fuel materials are handled or stored. The program will be implemented in four steps: (1) removal of spent fuel over a period of about five years, starting during the current fiscal year (ended March 31, 2007); (2) demolition and removal of the facilities around the reactor; (3) demolition and removal of the reactor; and (4) demolition of the reactor building.

The entire process is expected to be completed by around FY2028. JAEA will make its best effort to publicly release the knowledge and understanding it acquires in the course of the decommissioning work, to ensure that the experience is as beneficial as possible in regard to future nuclear facilities.

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