

ATR Fugen to Be Dismantled in Two Decades

On February 12, the Nuclear and Industrial Safety Agency (NISA) approved a plan by the Japan Atomic Energy Agency (JAEA) for the decommissioning of the advanced thermal reactor (ATR) Fugen. Over the next two decades, that work is to be carried out in four stages: (1) the continuing removal of spent fuel, (2) the removal of facilities around the reactor, (3) the dismantling and removal of the reactor, and (4) the dismantling and removal of the building. It will be Japan's second decommissioning of a power reactor, following that of the Tokai NPS of the Japan Atomic Power Co. (JAPC).

Fugen's operation was suspended in 2003, after which the fuel was removed from the reactor. In November 2006, the decommissioning plan was submitted to the government. According to the plan, which has been approved, the entire process is divided into the aforementioned four stages based on radioactive attenuation, and is to be completed in FY2028 (i.e. March 31, 2029).

During the first stage (spent fuel removal), both spent fuel and heavy water will be taken out continuously, after which those pieces of equipment and facilities that are either uncontaminated or of relatively low radioactivity will be dismantled and removed. During the second stage (removal of facilities around the reactor), dismantling and removal will be performed on the reactor cooling systems, fuel-handling equipment, refueling equipment, etc., in preparation for the dismantling of the reactor itself. The third stage -- the dismantling and removal of the reactor -- will be the longest part of the process, involving items of relatively high radioactivity. After the final stage (dismantling of the building), all facilities subject to decommissioning will be completely removed.

The decommissioning is expected to produce about 50,800 tons of waste contaminated by nuclear fuel materials. In addition, JAEA will strive to fully recycle the non-radioactive material (about 141,000 tons) and "clearance material" (about 600 tons), which do not need to be dealt with as radioactive material. JAEA will also publicly release the results of the decommissioning and knowledge gained from the experience, including demonstrations of safety, for use at other nuclear facilities in the future.

On February 12, JAEA's ATR Fugen Station was renamed the "Reactor Decommissioning R&D Center" upon receipt of approval of the decommissioning plan.

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