

Monju Remodeling Begins

On September 1, the Japan Nuclear Cycle Development Institute (JNC) started remodeling work to improve the safety of the prototype fast breeder reactor (FBR) Monju. On the day, JNC employees, workers from cooperating companies and others got together to “pledge safety.” Following an address by JNC President Yuichi Tonozuka, in which he told them that “a man-made disaster can be prevented by man’s own efforts,” the 800 people attending recited a pledge en masse to “keep safety during the remodeling work.” (See photo)

Work began with the installation of an electric motor in the upper room of the primary cooling system, making it possible to operate drain valves remotely. With the other workers watching on a large screen, the motor was installed, marking the first step toward Monju’s restart since its operation was suspended almost a decade earlier, in December 1995, when sodium leaked in the secondary cooling system.



In December 2002, JNC obtained permission from the government to change the reactor installation, including remodeling to improve safety. In January 2005, designs and work methods were approved. One month later, the preliminary agreements were obtained from the governor of Fukui Prefecture and the mayor of Tsuruga City. The remodeling consists mainly of: (1) measures to prevent sodium leakage, (2) the replacement of thermometers, and (3) improvements to the safety-related performance of an evaporator. (See the February 7 article entitled "Fukui Governor Agrees to Remodeling Monju".)

The work done on September 1 changed the maintenance drain valves from manual to electric, making it possible to drain sodium remotely from the Central Control Room. Major steps from now on will include the start of the cutting of the secondary cooling system drain piping (November), the cutting of the sheaths of the secondary cooling system thermometers (December), and the replacement of the sections of the secondary cooling system piping where the sodium leakage occurred (March 2006). All the work is to be completed by early 2007, with performance tests, tests to confirm the soundness of the plant, and others to be undertaken over approximately the following 12 months. If everything goes smoothly, Monju is expected to resume operation at the beginning of 2008.

The current long-term nuclear program identifies Monju as the “core of R&D on FBR cycle technology,” and seeks the early resumption of operation to (1) establish the technology to handle sodium and (2) demonstrate reliability as a power plant through the experience of actual operations. In addition, the draft fundamental principles on nuclear policies, consolidated in July by the Atomic Energy Commission (AEC), state that FBRs will be introduced on a commercial basis around 2050.

In starting the remodeling, JNC Vice President Yoichiro Kishimoto expressed his determination to resume Monju’s operation, saying, “Let’s prove once again the sophistication of Japan’s technology.”

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