

JAEA Compiles List of Accident Scenarios for FBR Monju

On August 11, the Tsuruga Head Office of the Japan Atomic Energy Agency (JAEA) drew up a list of 118 different accident and trouble scenarios posited to occur during the plant confirmation trials, performance trials and full-fledged operation of the fast breeder reactor (FBR) Monju, appending the countermeasures to be taken for each. The list was entitled, "Toward Safety Assurance at Monju."

The list was created based on the examination of some 400 accidents and troubles occurring in overseas FBRs in the past, as well as some 400 incidents at light water reactors (LWRs) and other facilities in Japan. The examination also included some 15 incidents at JAEA's experimental fast reactor Joyo, and 50 at Monju itself. Finally, around 50 potential accident and trouble scenarios were posited.

After the various incidents were categorized and those irrelevant to Monju excluded, the final list of 118 scenarios was drawn up. On the International Nuclear Event Scale, there were three incidents at Level 2, 19 at Level 1, and the remaining 96 at Level 0.

As for FBR troubles occurring in the past, nearly half (48%) were caused by sodium fixation or obstruction, contamination by foreign elements in the sodium system, or sodium leakage. The JAEA plans to expand the list at any time as necessary should additional incidents occur in Japan or abroad.

Editor: Noriyuki Ishii, JAIF