

## **Status of the Broader Approach Activities in Japan**

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Three years have passed since the Broader Approach (BA) activities launched in 2007 under the framework of collaboration between Japan and EURATOM. The BA activities aim at complementing the ITER project and at an early realization of fusion energy by carrying out R&D and developing some advanced technologies for the future demonstration power reactor (DEMO). Three research projects have been undertaken. They are 1) Engineering Validation and Engineering Design Activities for the International Fusion Materials Irradiation Facility (IFMIF/EVEDA) project, 2) International Fusion Energy Research Center (IFERC) project, and 3) Satellite Tokamak Program (STP) project.

Out of the three projects, two projects, namely IFMIF/EVEDA and IFERC projects have been implemented in Rokkasho, Aomori. The STP project is implemented in Naka, Ibaraki, where the JT-60 tokamak is being upgraded to an advanced superconducting tokamak. A new research center named "International Fusion Energy Research Center" has been established in Rokkasho for the BA activities. All the building including Administration & Research Building, IFMIF/EVEDA Accelerator Building, Computer Simulation Center & Remote Experimental Center Building, and DEMO R&D Building have already been constructed in March 2010. About 80 staffs including 10 scientists from Europe are now working at the new research center in Rokkasho for the BA activities.

After the completion of the building, research instruments are to be installed in each building. In the DEMO R&D Building, for example, glove boxes for handling the tritium and radio isotopes, beryllium treatment facility, and microscopic measurement facility such as electron microscope will be installed in 2010. Cooling and Electrical systems for the 9MeV/125mA CW accelerator in the IFMIF/EVEDA and for the High Performance Computer in the Computer Simulation Center are also to be installed. The status of the BA activities in Japan are reviewed in the present paper.