Experimental Fast Reactor Joyo

The experimental fast reactor Joyo at Japan Atomic Energy Agency's O-arai Research and Development Center was constructed as the first step in sodium cooled fast reactor development in JAPAN.

Joyo is another reading of the characters for the Hitachi-No-Kuni (State of Hitachi) in the Edo Era in Japan and means Eternal Light.

[Role of Joyo]

- 1 Advancement of technology through operation and experiment.
- 2 Conducting irradiation tests on fuel and materials.
- ③ Validation of innovative technology for development of future FBR.



Apply to MONJU and commercialize FBR

Reactor Output: 140MW (Thermal)

Fuel : Mixed Oxide fuel

[History of Joyo]

1977 April Initial criticality of MK-I core (breeder core)

1978 July Attain 50MWt 1979 July Attain 75MWt

1982 November Initial criticality of MK-II core

(irradiation core)

1983 March Attain 100MWt

1984 September Close FBR fuel cycle

2003 July Initial criticality of MK-III core

(high performance irradiation core)

2003 October Attain 140MWt

