Country Report of Japan

The 15th FNCA Ministerial Level Meeting
Sydney, Australia
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Contents

• Background: Challenges surrounding Japan
• Fukushima Update
• The New Strategic Energy Plan
• Japan’s Nuclear R&D Activities
• Expectation of FNCA
Energy Security

- 6% energy self-sufficiency. Second lowest among 32 OECD member countries.
- 88% of fossil fuel imported from abroad.
- 81% of crude oil through the Strait of Hormuz.

Economy

- Fuel cost increase due to NPP shutdown: US$33bn (2013)
- Electricity rate +19% for home use, +28% for industry use (2013>2010)
Global Warming

- CO2 emission +6.9% (2012>2010)

Anti-Nuclear Surge

- 60-70% Public Opinion against restarting nuclear power reactors
The New Strategic Energy Plan

Good balance of 3E + S

Energy Security, Economic Efficiency, Environment and Safety

“Dependency on nuclear power generation will be lowered to the extent possible by energy saving and introducing renewable energy.”
“An important base-load power source; low- carbon, quasi-domestic energy source”
“Carefully examine volume of electricity to be secured by nuclear power”
48 reactors idled; 20 under review by NRA, 2 cleared by NRA

“Promote the nuclear fuel cycle”
- to reduce volume and harmfulness of radioactive waste and to utilize resources -

Established the Nuclear Risk Research Center (NRRC) October 1, 2014
Decommissioning and contaminated water management

• Removal of 1533 fuel rods from Unit 4 waterpool to be completed.
  • Three ALPS in operation
  • Groundwater pumping and bypass (April 2014~)
    • Frozen-soil impermeable walls (March 2015~)

Evacuation orders lifted in some affected areas (April 2014)

Publishing marine monitoring results (daily) and foods monitoring (weekly)

Establish an international collaborative research center on decommissioning (April 2015)
Japan’s Nuclear R&D Activities

(1) R&D for Reactor Decommissioning of Fukushima Daiichi
- Promoting advanced technology development in a Plan to accelerate the Reactor Decommissioning

Prospective International Collaborative Research Center

(2) Human resource development and R&D on nuclear technologies
- Education of young people and training of researchers and engineers
- Basic research on nuclear physics and radiation applications
- Research on High Temperature Gas-cooled Reactor (HTGR)

HTTR (High Temperature engineering Test Reactor)

(3) Nuclear safety research
- Research on safety of nuclear facility
- Research on radiation protection for human and environment

NSRR (Nuclear Safety Research Reactor)

JMTR (Japan Materials Testing Reactor)

(4) R&D on nuclear fuel cycle and high-level radioactive waste disposal
- Fast reactor development
- Reduction of hazardous radioactive waste
- Accelerator Driven System (ADS) for MA Transmutation

FBR “Monju”

Accelerator Driven System (ADS)
Expectation to FNCA

Towards next 15 years of FNCA progress ..........

Let’s recall FNCA pioneers’ spirit

• *Our cooperation has to:*
  • meet true needs of each country
  • provide tangible output
  • be flexible to take each country’s situation into consideration
  • be horizontal rather than vertical, i.e. equal partnership

Counting on every country’s leadership

• Ministerial level leadership and proactive involvement of Coordinators in designing the future FNCA’s direction
Thank you