

# Pluthermal Plan

We outlined a plan to start pluthermal operations at Genkai-3 that will be in use by FY2010.

We established a policy for the pluthermal plan at Genkai-3 that will be in use by FY2010.

We submitted our applications for prior consent to Saga Prefecture and Genkai town on May 28, 2004, based on our safety agreement. On the same day, we submitted the application for permission for reactor modification to the government.

After undergoing a safety review, we received permission for our pluthermal plan from the Ministry of Economy Trade and Industry (METI) on September 7, 2005.

In order to obtain understanding from surrounding municipalities, we continued to conduct activities to help local residents understand both the safety and the necessity of our pluthermal plan. On March 26, 2006 Saga prefecture and Genkai town gave us their consent.

We will proceed with the procedures for Mixed Oxide fuel (MOX fuel) fabrication and shipment, aiming to implement our pluthermal

plan by FY2010. And we will also comply with relevant laws in each stage and ensure measures for safety by doing appropriate quality assurance activities.

The safe operation of our nuclear power plants is our top priority, and we make every efforts to disclose information. With the understanding and cooperation of neighborhood people, we are making steady advances in our pluthermal plan.



President Matsuo receiving the document of prior consent

### Main activities to gain understanding for our Pluthermal project

- Visitations and information seminar activities
- Open discussions
- Seminars, lectures, events
- Newspaper ads
- Magazine ads
- TV and radio commercials, etc.



The pluthermal open forum of hosted Kyushu Electric power (February 20, 2005)

### History outline

- April 28 We established the policy for implementing the pluthermal plan at Genkai-3 by FY2010.
- May 28 Applications for prior consent were submitted to Saga Prefecture and Genkai town based on the safety agreement between the municipalities and Kyushu Electric Power. Based on the Nuclear Reactor Regulation Law, the application for permission for reactor modification was submitted to the government.
- February 10 METI consulted the Atomic Energy Commission and the Nuclear Safety Commission to obtain their permission for our pluthermal plan.
- February 20 A forum on our pluthermal plan was hosted by our company in Genkai town.
- August 29 The Nuclear Safety Commission submitted its report to METI.
- August 30 The Atomic Energy Commission submitted its report to METI.
- September 7 METI granted us permission to proceed with our pluthermal plan.
- October 2 A forum on pluthermal was hosted by the government in Genkai town
- December 25 A forum on pluthermal was hosted by Saga prefecture in Karatsu city.
- February 7 Saga prefecture announced its views on the safety of our pluthermal plan at Genkai-3.
- March 26 Based on safety agreements, Saga prefecture and Genkai town gave us their consent for our pluthermal plan.

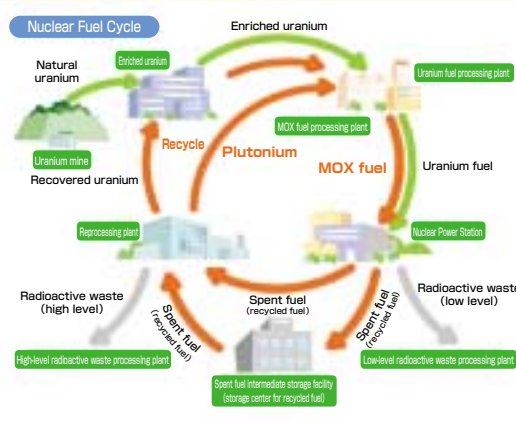
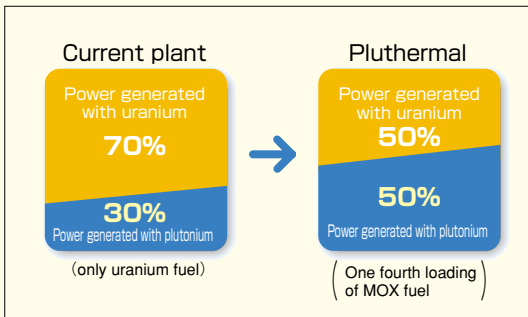
## The Necessity of our pluthermal plan

Our Pluthermal plan enables us to conserve uranium resources and reduce levels of radioactive waste because plutonium contained in spent fuel is recovered and reused.

In a view of nonproliferation, we intend to safely and steadily utilize the plutonium that has already been recovered from our plants' spent fuel.

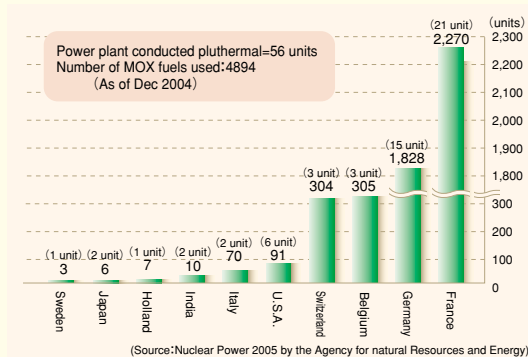
## Theafety of our pluthermal plan

- In nuclear power plants that use only uranium fuel, some plutonium transformed from uranium burns in the reactor. The amount of energy produced from the plutonium in current reactors is approximately 30%.
- In the case of pluthermal operation, the amount of energy produced from plutonium rises to 50%, since loaded MOX fuel contains plutonium. The government has confirmed



the safety of pluthermal operations.

- Pluthermal operations have been conducted safely in France, Germany, Belgium and other parts of Europe since the 1960's
- Problems attributable to the characteristics of MOX fuel have not been reported.
- Our pluthermal plan at Genkai-3 has been reviewed by the government and deemed safe.



### (What is pluthermal?)

Spent uranium fuel burned in a nuclear reactor contains plutonium that can be reused as nuclear fuel.

"Pluthermal" involves utilizing the plutonium extracted from spent fuels as MOX fuel. MOX fuel is made of plutonium extracted from spent fuels and uranium, and is loaded into the current reactor.

At Genkai-3, we plan to load 48 MOX fuels, which is one fourth of the total 193 fuels, into the reactor.

The term "pluthermal" comes from plutonium and thermal reactor.

### (What is MOX fuel?)

MOX fuel is the fuel utilized in the pluthermal process. The term "MOX" comes from mixed oxide, since MOX fuel is made from uranium and plutonium as forms of mixed oxides.

