



Japan's nuclear power strategies for the early 21st century

Japan's nuclear programs began with the Atomic Energy Basic Law, which was enacted in 1955 and stipulates underlying principles that Japan's use of nuclear energy is for peaceful purposes and that safety is a priority.

During the intervening time of more than 40 years, our nation has held firm to these basic principles throughout the progress we have made in the development of nuclear power.

We currently have 52 nuclear power units in operation, with another four units under construction, and a total generating capacity of some 48 GW.

Nuclear power is the leading source of energy for Japan.

Why is it that Japan stands in such need of nuclear power? The answer is in the basic objectives that underlie our nation's energy policy. These consist of the simultaneous attainment of three goals, namely conservation of the environment, economic efficiency, and a stable supply of energy.

Nuclear power has the virtues of stable fuel supply and generating costs, and the absence of carbon dioxide emissions. These characteristics conform to the basic objectives of Japan's energy policy.

Securing a stable supply of energy is particularly crucial for Japan in view of our nation's extreme dearth of domestic energy resources and, being an island nation, our isolation from foreign power supply grids. For this reason, Japan aims to boost yet further the stability of supply of nuclear-

generated electricity by effectively utilizing the plutonium and uranium recovered through spent fuel reprocessing.

Nuclear is expected to be one of Japan's principal sources of energy through the early years of the 21st century, along with other sources such as natural gas and coal.

In 1998 MITI's advisory committee for energy set the target for nuclear power capacity in 2010 at 66–70 GW. This target is currently being revised, and the plans of electric power operators show the projected figure for nuclear power capacity in 2010 to be some 62 GW.

Whatever the actual figure proves to be, we have to construct more nuclear power plants in the years ahead to ensure that an adequate proportion of the energy supply is nuclear generated. It is a challenging task.

In meeting this challenge, it is, I believe, crucial that we act in accord with the old Japanese saying "Never forget your beginnings". In other words, each and every individual who has a part in Japan's nuclear power must remind themselves of the basic principles laid down in the Atomic Energy Basic Law and unflaggingly devote themselves to ensuring the safety and peaceful use of nuclear energy.

Last year's accident at JCO Tokai Works (see p. 42) was a source of bitter regret. Those engaged in Japan's nuclear energy programs must reflect on the accident and draw useful lessons from the failure, so as to reaffirm safety culture that prevails within the industry.

If we are to win the unshaking understanding and trust of the people at home and in the international community as a whole with regard to Japan's development of nuclear power, then it is essential that we commit ourselves to transparency and to giving a clear ongoing account of our nation's stance and principles. In addition, we need to offer consistent proof that our principles are verified repeatedly by our actions.

Such continuous commitment will, in my belief, promise a bright future for nuclear power in the 21st century.

藤 富 正 晴

Masaharu Fujitomi
deputy director general
Agency of Natural Resources and Energy
Ministry of International
Trade & Industry, Japan
fujitomi-masaharu@miti.go.jp