

## Restoring a nuclear-energy policy

*An excellent analysis whether we proponents of the nuclear option like it or not.*

The Japan Times ... an editorial

January 5, 2003

<http://www.japantimes.co.jp/cgi-bin/getarticle.pl5?ed20040105a1.htm>

The Atomic Energy Commission's latest white paper, announced late last year for the first time in 5 1/2 years, is a reminder of the troubled condition of Japan's nuclear power industry. The report's publication had been delayed because of a series of irregularities and accidents that came to light in recent years, such as reactor coolant leakages and test data fabrications.

No wonder public confidence in nuclear safety has plummeted, perhaps to the lowest level since the commission was created in 1956. The report is only too right to emphasize the importance of restoring the public's trust in nuclear energy. One chapter -- "Nuclear energy policy in a new age" -- focuses on grass-roots efforts to win the hearts and minds of local residents.

The report, however, adheres to the current policy, which calls for reprocessing spent nuclear fuel and for establishing the "nuclear fuel cycle" in which plutonium is extracted for use as fuel. But it is difficult to believe that maintaining the status quo is the way to address public concerns about nuclear safety and other problems.

Perhaps a new policy initiative is needed to break the stalemate in the current nuclear energy program. As the report points out, public understanding and support is essential for a successful implementation of policy. A first step in this direction would be to conduct a broad and deep public debate on the range of possible options.

Problems are many. The fast-breeder reactor, the center of the nuclear-fuel cycle project, now looks more like a mirage. The prototype reactor "Monju" is in mothballs due to an accident that occurred in the cooling system in 1995. Remodeling plans are up in the air because of a local court injunction. The AEC's scenario for building a post-Monju demonstration reactor in the runup to commercial operation has already collapsed.

In theory, the fast-breeder reactor is said to be at least 100 times more fuel-efficient than the existing light-water reactor. The report describes the fast breeder as "one of the most potential technological options for resolving future energy problems." It would be unwise, however, to pursue a dream that may not come true, without regard to technical difficulties and development costs.

Problems are also involved in the underground disposal of high-level radioactive waste. One problem is that it is difficult to find disposal sites, particularly because Japan is densely populated. Another is the enormous cost of storing such waste deep in the ground.

No doubt the nuclear energy industry -- which supplies a third of the nation's electricity needs -- faces formidable challenges. Establishing the nuclear fuel cycle seems all but impracticable because it involves too many problems. Costwise, nuclear energy's advantage over other types of energy could disappear if the costs of the fuel cycle and waste disposal are included.

Market liberalization, meanwhile, is pushing down electricity prices. For example, the price of plutonium fuel -- mixed oxides of plutonium and uranium -- is estimated to be at least 50 percent higher than that of ordinary fuel. Established power companies already face competition from newcomers.

Sluggish power demand, along with market decontrol, is also cutting into the competitiveness of costly nuclear power plants. In fact, two construction projects -- one in Suzu, Ishikawa Prefecture, and the other in Maki, Niigata Prefecture -- were canceled recently.

The AEC has played an important role in maintaining the principle of peaceful use of nuclear energy. Now, however, the commission finds itself in a difficult position. Unless it deals positively with current problems and criticisms concerning its basic policy, its very *raison d'être* could be called into question.

What is needed now is a comprehensive analysis of all factors related to nuclear energy policy, such as safety, supply stability, environmental conservation, economic advantage, systemic sustainability and nuclear nonproliferation. The AEC, whose lineup is set for a substantial reshuffle this year, will have plenty of work to do in the year ahead.