RECENT TOPICS IN THE FIELD OF RADIOACTIVE WASTE MANAGEMENT IN JAPAN

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1. Introduction

Thank you Mr. Chairman for your kind introduction. Distinguished guests, and Ladies and Gentleman, I'm very honored and glad to have this opportunity to make a speech here today.

On behalf of the Science and Technology Agency, I'd like to present here, recent topics in the field of radioactive waste management.

2. Policy Development for the Geological Disposal of High Level Radioactive Waste

The Atomic Energy Commission of Japan put forward a road map for the geological disposal of the high-level radioactive waste in its "Long-Term Program for Research, Development and Utilization of Nuclear Energy" issued in June 1994. The Program attached particular importance to the program of the management of radioactive waste, especially to ensure the smooth implementation of disposal of high-level radioactive waste. The Program stipulates that the high-level radioactive waste generated through the reprocessing of spent fuels be disposed of in geological formation after vitrification and temporary storage for cooling (for about 30-50 years). The role and responsibility of the related organizations concerned with the geological disposal have been confirmed and the schedule and procedures are shown for the implementation of the disposal.

3. Current Activities for Radioactive Waste Management

Along with the basic philosophy and mile stones set at the Long-Term Program said above, the Atomic Energy Commission set course to promote the discussion and preparation of high-level radioactive waste disposal in September 1995. The Atomic Energy Commission set up "Special Committee on the Disposal of High-Level Radioactive Waste". The Special Committee will make a wide range of study including social and economic aspects in order to pave the way for public understanding and approval of specific measures for actual implementation of the disposal of high-level radioactive waste. "Advisory Committee on Nuclear Fuel Cycle Backend Policy", which was set up by the Atomic Energy Commission last year, is intensively studying and deliberating technological items concerning disposal such as formulation of a research and development plan on geological disposal of high-level radioactive waste.

The special Committee has produced general consensus to promote implementation and research and development for disposal of high-level radioactive waste positively by our own responsivility. On the other hand, the Advisory Committee has started its discussion to produce a research program concerning the high-level radioactive waste disposal forwarding year 2000, when Power Reactor and Nuclear Fuel Development Corporation will publish a report on the results of research and development as said above. The Advisory Committee is now discussing how to evaluate the report. The Advisory Committee is also considering the implementation system as well as research and development for the other radioactive wastes and the decommissioning of nuclear facilities etc. in the future.

Steering Committee on High-Level Radioactive Waste Project (SHP) was established in May 1993. SHP is responsible to prepare measures to encourage the establishment of organization to excute the disposal of the high-level radioactive waste under the public understanding and cooperation. The recent activities of SHP are as follows:

- considering what kind of organization is the most appropriate to conduct the disposal project
- developing mid- to long- term, public relation strategy
- investigating a policy to collect the fund for the disposal project
- investigating the plan for regional developments for site incentive

SHP published the first interim report in May 1996, which includes coexistence with the host communities, define the nature of and funding for the implementing entitiy including its legal and regulatory aspects, and public information programs and activities for promoting public understanding and acceptance.

4. Underground Research Laboratory

On 28 December 1995, the Power Reactor and Nuclear Fuel Development Corporation (PNC) signed an agreement with the prefectural and local governments concerned with the construction of an underground research laboratory at Mizunami city in Gifu prefecture, central Japan. It is the first underground laboratory to be able to provide undisturbed conditions of deep underground in Japan, which is of great advantage compared with in-situ test facility using mining galleries. It is expected to conduct a comprehensive geoscientific research, and provide fundamental knowledge of groundwater and rock mass in deep underground to the research and development for geological disposal.

The research projects in the deep underground research laboratory, which will last 20 years, are expected to executed with the participation of researchers from not only other research organization concerned in Japan but also ones abroad.

5. Partitioning and Transmutation Technology

The Partitioning and Transmutation technology, which would reduce the environmental impact of the disposal by utilizing useful nuclides in the high-level radioactive waste, is considered to be future technology in the Long-Term Program. The Japan Atomic Energy Research Institute (JAERI), the Power Reactor and Nuclear Fuel Development Corporation (PNC) and other organization such as the Central Research Institute of Electric Power Industry (CRIEPI) are carrying out the basic research and development of these technologies. Research and Development activities of this technology are being continued according to the Long-Term Program for Partitioning and Transmutation, which was published by the Atomic Energy Commission in 1988. The activity which follows this program is called OMEGA project (Options for Making Extra Gains of Actinides and Fission Products generated in Nuclear Fuel Cycle). The check and review based on the progress of these activities will be carried out in the second half of this decade and consideration will be given to how to further proceed with development of this technology.

Now, it's time to close my presentation. Thank you very much for your attention.