

SPEECH AT THE OPENING CEREMONIES

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Ladies and Gentlemen!

It gives me great pleasure to convey the IAEA Director General's greetings and best wishes at the opening ceremony of the International Conference on Nuclear Data for Science and Technology.

Nuclear power and nuclear technology have become now more controversial and are facing serious public acceptance problems in several countries. We are at present faced with a very mixed global picture and many contradictions. Nevertheless, today 16 percent of the electricity in the world is nuclear generated and by 1990 we can expect it to be 20 percent. Considerable efforts are now being made in individual countries and in the IAEA to ensure that operational safety is high and that any accidents and incidents in nuclear power stations that might occur in the future will not have any significant consequences outside the power stations.

The conclusion can be drawn that most governments continue supporting nuclear energy, and countries like France and Japan are, indeed, using nuclear power as a principal part of their energy policies. At present nuclear power stations of Japan are producing 29.1% of Japanese electricity. Ten reactors are under construction and in addition a 250 MW breeder reactor is being built.

The average construction time for a nuclear plant in Japan is 50 months - one of the shortest time in the world (in France - 65 months, in the USA - up to 13 years). Operational reliability in the Japanese nuclear power stations has gradually improved so that Japan can now proudly point to some of the best performance data in the world.

I would like to mention again that a breeder reactor is being built in Japan. It is known that the construction of breeder reactors on a large scale basis is postponed until a later date. At the September 1987 International Fast Breeder Conference, Posco, USA, it was proposed that this delay has to be used for patient and careful improvements of breeders, their fuel cycles and safety characteristics. But a direct experience can only be acquired by building breeders.

The nuclear data basis for fission reactor design calculations is now to a large extent almost satisfactorily established. However, the nuclear data needed for assessing the safety of nuclear installations (comprising reactivity coefficients connected with the problem of inherent reactor safety; reactor operational safety; nuclear decay heat; fuel cycle safety including the subcriticality of reprocessing plants; computation and monitoring of radiation damage in reactor structural materials; radioactivity releases in reactor decommissioning; shielding and radiation protection of nuclear facilities) are to a considerable extent not yet

known to the required accuracies. Now the need arises of establishing accurate comprehensive data bases for fusion reactor transport calculations and safety analysis, for neutron cancer therapy and related neutron dosimetry for neutron energies in the range 20 to 100 MeV, for nuclear geophysics applications, medical radioisotope production and safeguards applications.

The atomic collision data basis for fusion plasma research is still in its infancy and significant improvements of particle-tissue interaction data are still needed for medical microdosimetry.

So you have very big tasks to solve, and I close my remarks now by wishing you all success on your work.