

OPENING REMARKS BY THE DIRECTOR-GENERAL OF THE NEA

Ladies and Gentlemen,

It is with great pleasure that I open the 3rd International Information Exchange Meeting on Actinide and Fission Product Partitioning and Transmutation which is organised by the OECD Nuclear Energy Agency and hosted by the Commissariat à l' Energie Atomique.

Since the NEA was invited to take up this topic in 1988, the interest in it has grown in several of our Member countries. From the outset it was stressed that successful application of Partitioning and Transmutation would not replace the need for geological disposal for high level waste. The task is one of long-term scientific research, but it is increasingly recognised that certain short- or medium-term benefits could also be derived. While a number of bilateral agreements on P&T between OECD countries do exist, clearly, substantial benefit could be achieved from wider international activities and co-operation.

As you know, the NEA's P&T activities are conducted under the guidance of its Nuclear Development and Nuclear Science Committees. Resulting information is always shared with the Radioactive Waste Management Committee.

Under the "umbrella" of the NDC, two successful International Information Exchange meetings were held at Mito City and Argonne National Laboratory in 1990 and 1992, respectively.

During the Mito City meeting an interesting set of papers was presented both on policy orientations and on scientific aspects. The discussion, which concentrated on wide ranging ideas regarding future technologies, led to the conclusion that several disparate approaches had already been taken. It was agreed to organize small specialist meetings on suitable topics such as fundamental physics and chemical data requirements.

Therefore, the NEA helped organise two specialist P&T meetings. The first was arranged by JAERI on partitioning technology and was held in Mito City in November 1991. A wide range of processes for the separation of actinides and fission products, both wet and dry, were presented. The second was at the Paul Scherrer Institute, Switzerland, in March 1992, on the topic of accelerator-based transmutation. Again, there was a wide variety of concepts discussed, together with presentations on data acquired, data needs and models that could be applied.

The specialist meetings held so far have been found most useful by the participants. There had been considerable discussion in which the results achieved in earlier and current work in the USA and Europe had been used to illuminate the more recent work in the vigorous programme being pursued by Japan. There had been a wealth of suggestions for different flow sheets with which to improve the manipulation of actinides into different product streams and for alternative reactor and accelerator-driven transmutation of actinides and fission products.

In November 1992, the Argonne National Laboratory hosted the second NEA International Information Exchange meeting. The papers presented indicated that one common thread was the need for guidance on research needs. A number of emerging important issues were identified during the meeting, including the legal background, the incentives and the implications for the whole fuel cycle in different countries.

It was concluded that an attempt to compare systems studies, or proto-systems studies, already in progress should form a central part of the third NEA Exchange meeting. This was regarded as the very first phase in the approach to a more co-ordinated systems study that would seek to identify benefits and penalties of adding P&T to the nuclear fuel cycle. A careful preparation, given the many diverse approaches and criteria in use, was believed to be essential in setting the framework for the comparison of the studies.

The Nuclear Science Committee and the NEA Data Bank have also carried out several programmes related to Partitioning and Transmutation. You will hear more about this work from the NSC's Vice-Chairman Dr. Matsuura.

The NEA's first stage of the P&T Information Exchange Programme was intended to run for 5 years and will thus be concluded with this meeting. As you are no doubt aware, the Nuclear Development Committee has decided during its June 1994 meeting to extend this stage for a further 3-year period and approved a specific project proposal to perform comparisons of systems studies.

You will be primarily addressing, during this meeting, ways of evaluating a limited number of different P&T systems and their integration into the nuclear fuel cycle. Other areas of interest would certainly be the effects of progress made with various national P&T activities, technical advances, economic assessments and the overall P&T objectives in relation to environmental considerations.

Partitioning and Transmutation is in the stage of development. We must collect all the necessary information which will allow us to fully understand its technical feasibility, the related costs and its environmental impacts. For this type of activity, the role of international co-operation is indispensable for guaranteeing the quality of the results and ensuring proper co-ordination and optimal resource utilization. The NEA and its Committees have the experience required and will be ready, if our Member countries wish us to do so, to undertake all the necessary work.

Before concluding my remarks I would like to underline that both past and present NEA P&T activities were assisted by financial contributions provided by the Government of Japan which was generous enough to provide further assistance to support the NEA's approved 1995 programme.

I thank you all for coming, and I particularly wish to thank the team of speakers, as well as, our hosts who have, I am sure, laid the basis for a successful meeting. I wish you all an interesting, instructive and profitable three days.