

## **Short summary of the NKS Seminar on the Fukushima Accident and Perspectives for Nordic Reactor Safety and Emergency Preparedness, Stockholm, Sweden, 8-9 January 2013**

The objective of the seminar was to give an overview of the Fukushima accident, with emphasis on issues of relevance to the Nordic countries. A total of 26 presentations were given, and the seminar had 140 participants.

The seminar was initiated with a suite of four key speakers (Vice Chair of ICRP Abel González, Chair of UNSCEAR Wolfgang Weiss, President of ASN André-Claude Lacoste, and General Director of STUK Tero Varjoranta) giving an international overview of various aspects of relevance to the Fukushima accident. One issue that was highlighted in this opening session was the cause of the accident. It was pointed out that a major factor governing the extent of the disaster was a problematic mindset of assumptions, methods and notations held by those responsible for the safety of the plant<sup>1</sup>. Also, responding effectively to any accident requires good monitoring strategies. In this connection the problem was pinpointed that there is a lack of updated international recommendations on environmental monitoring policy following a large accidental release of radioactive materials to the environment. In the Fukushima case, much effort has been spent measuring quantities (e.g., specific contamination in an unspecified topsoil layer), which were far from optimal seen from an operational angle. Also international information exchange could be improved much. It was stressed that it is the ethical duty of the international community to learn from such lessons and resolve their challenges to avoid repetition.

The following session primarily reviewed the Nordic response to the accident, and important learning points included that an accident in a distant country can be very resource demanding, and that prioritization of limited resources and extensive collaboration between countries is important. Also, it became apparent that decisions and recommendations made by authorities in different countries affect each other. A specific issue that was discussed was the discrepancy in the recommendations of authorities in different Nordic countries regarding iodine prophylaxis for citizens in affected areas. Anyway, tablets were rather rapidly made available for potential use by Nordic citizens in Japan, due to efficient Nordic collaboration in the supplying process. Also the use of countermeasures in the contaminated areas was discussed, stressing needs for familiarization with existing decision support tools well in advance of their use.

The next session focused on the implications for nuclear safety, and an overview was given of the changes in Europe in this context following the Fukushima accident. Then followed overviews of the developments in the two Nordic nuclear power producing countries – Finland and Sweden – given by both authority and utility representatives. Although no immediate needs have been identified for plant changes, extensive studies are being carried out, and it has among other things been proposed to look at flooding and earthquake resistance.

In the session that followed, further lessons were extracted from the events, and for instance the needs for better information strategies and exercises to test preparedness were mentioned. With a view towards possible future contaminating events, it was discussed if operational capabilities in the Nordic countries are sufficient, e.g., with respect to expertise and monitoring equipment.

The final session focused on the future for Nordic nuclear safety and emergency preparedness, asking which improvements might be relevant. Viewpoints of the NEP Group (Nordic work group on Emergency Preparedness) were presented, and on the nuclear safety side, for example a need for common understanding of safety evaluation and associated research was expressed. It was concluded that Nordic communication with the public needs strengthening.

It is hoped that the outcome of the seminar can be further developed into proposals for future NKS work and follow-up on relevant issues in reactor safety and emergency preparedness.

---

<sup>1</sup> See The National Diet of Japan: The official report of The Fukushima Accident Independent Investigation Commission – Executive Summary (2012) [http://www.cjwalsh.ie/wp-content/uploads/2012/07/Fukushima-NAIIC-Executive-SummaryEnglish\\_2012.pdf](http://www.cjwalsh.ie/wp-content/uploads/2012/07/Fukushima-NAIIC-Executive-SummaryEnglish_2012.pdf)