# Nordic perspectives of Fukushima: Where are we now and where do we go?

Joint NKS-R and NKS-B Seminar, Stockholm, 12-13 January 2016

### Draft Program for 12/1-2016:

12:00 - 13:00 Registration

13:00 – 13:10 Intro: *Torbjörn Wahlborg* (Vattenfall), *Mats Persson* (SSM) and *Sigurður M. Magnússon* (IRSA/NKS)

13:10 – 13:40 Invited no. 1: *Lyn Bevington* (IAEA) on the IAEA Fukushima report and its implications for nuclear safety and emergency preparedness ("chair": Sigurður M. Magnússon)

# 13:40 – 14:40 Session I: Risk and preparedness (Chair: Tarja Ikäheimonen, STUK)

*Florian Gering* (BfS) – Updated emergency planning zones in Germany and the importance of release source term

Andrew Wallin Caldwell (Lloyd's Register Consulting) on the NKS-R activity L3PSA (Addressing off-site consequence criteria using Level 3 PSA)

*Mark Dowdall* (NRPA) on the NKS-B NORCON activity (Nordic Nuclear Accident Consequence Analysis)

Questions and discussion on Session I

14:40 - 15:10 Coffee

### 15:10 – 16:10 Session II: Which is our tsunami? (Chair: Patrick Isaksson, SSM)

Juhani Hyvärinen (LUT) on Nordic "tsunamis" and defense-in-depth strengths and deficiencies

*Jan-Erik Holmberg* (Riskpilot) on the NKS-R activity MODIG (Modelling of digital I&C)

*Ludovic Fulop* (VTT) on the NKS-R activity ADdGROUND (Modelling as a tool to augment ground motion data in regions of diffuse seismicity)

Questions and discussion on Session II

# 16:10 – 16:55 Session III: Hope for the best and prepare for the worst (Chair: Inger Margrethe Eikelmann, NRPA)

*Jens Havskov Sørensen* (DMI) on the NKS-B FAUNA activity (uncertainty of atmospheric dispersion modelling for emergency preparedness)

*Eldri Holo* (NRPA) on coherent cross-border cooperation in preparedness for large nuclear accidents, including the common Nordic flag book on protective measures and the HERCA-WENRA approach for coherent emergency response

Questions and discussion on Session III

16:55 – 17:05 Status and beyond from the NKS R and B programme – Karin Andgren (Vattenfall/NKS) and Kasper Andersson (DTU/NKS)

17:05 – 17:10 Summary and closure of day 1 (Sigurður M. Magnússon (IRSA/NKS))

17:15 – 19:45 Seminar reception with 'mingling' snacks

#### **Draft Program for 13/1-2016:**

08:30 - 08:35 Intro to day 2 events (Sigurður M. Magnússon (IRSA/NKS))

### 08:35 – 09:50 SESSION IV: Nordic NPP safety progress after Fukushima (Chair: Jorma Aurela, MEE)

Invited no. 2: *Tomi Routamo* (STUK) on Nordic reactor safety related progress (30 min.)

Ove Nilsson (FKA) an example from Forsmark – FOSH

*Pavel Kudinov* (KTH) on the NKS-R DECOSE activity (debris coolability and steam explosion)

Questions and discussion on Session IV

09:50 - 10:20 Coffee

### 10:20 – 11:50 Session V: Measuring the right things (Chair: Gísli Jónsson, IRSA)

Invited no. 3: *Chris Clement* (ICRP) on reflections of the ICRP since the Fukushima accident on measurement requirements for different time phases (30 min.)

*Mark Dowdall* (NRPA) on the NKS-B MOBELRAD and GAMFAC activities (field exercises in Belarus)

*Jixin Qiao* (DTU) on the NKS-B RAPID-TECH activity (Application of rapid and automated techniques in radiochemical analysis)

*Magnus Gårdestig* (Linköping U.) on the NKS-B activity SEMUNARS (use of unmanned airborne radiometric systems)

Questions and discussion on Session V

#### 11:50 - 12:50 Lunch

### 12:50 - 13:35 Session VI: Learning by accident (Chair: Anne Edlund, SSM)

*Teemu Reiman* (VTT) on evolution of safety culture thinking TMI – Chernobyl -Fukushima

*Ann-Britt Skjerve* (IFE) on the NKS-R activity LESUN (Learning from Successes in Nuclear Power Plant Operation to Enhance Organisational Resilience)

Questions and discussion on Session VI

### 13:35 – 14:50 Session VII: Deal with it (Chair: Kresten Breddam, NIRP/SIS)

Invited no. 4: *Ted Lazo* (OECD-NEA) on NEA's learning points from Fukushima in relation to accident management, with focus on the long term (30 min.)

#### 14:05 - 14:35 Coffee

### 14:35 - 15:20 Deal with it (continued)

*Steen Hoe* (DEMA) on update on elements and methodologies used in the Nordic countries in optimised decision support for the longer term

Anneli Hällgren (SSM) on public communication issues and stakeholder engagement

Questions and discussion on Session VII

15:20 – 15:40 *Synnöve Sundell Bergman* on the IAEA Fukushima report in Nordic context and comments on future Nordic requirements ("chair": Sigurður M. Magnússon)

15:40 – 15:55 Summary (incl. future needs) from 2 rapporteurs – *Petra Lundström* (FORTUM) (R) and *Leif Moberg* (B) ("chair": Sigurður M. Magnússon)

15:55 – 16:00 The end (Sigurður M. Magnússon (IRSA/NKS))