

Conference 2011

The NSFS XVI conference was held in Reykjavik, Iceland on August 22 – 25, 2011.

Program and abstracts

Book of abstracts from the conference.

Individual contributions

Opening and Bo Lindell Lecture

S1-01

Bo Lindell Lecture: Past, present, and future problems – are there any solutions?

Jack Valentin, former scientific secretary, ICRP

S1-01_Valentin

Challenges in Radiation Protection

S2-01

International Commission on Radiological Protection: Challenges and opportunities in the next 20 years

Christopher Clement, ICRP

S2-01_Clement

S2-02

Challenges in radiation safety from an international perspective

Renate Czarwinski, IAEA

S2-02_Czarwinski

S3-01

The changing world of radiological protection: Challenges and opportunities from an NEA perspective

Ted Lazo, NEA

S3-01_Lazo

S3-02

EPA's role in U.S. radiation protection: past successes and Challenges Ahead

Mike Boyd, Environmental Protection Agency, USA

S3-02_Boyd

S3-03

Challenges and Opportunities for Radiation Protection – 2011

Kenneth R. Kase, IRPA

S3-03_Kase

EU-BSS

S4-01

Draft Revised EU BSS: Part I, Existing and Emergency Exposure Situations

Augustin Janssens, EU

S4-01_Janssens

S4-02

Draft Revised EU BSS: Part II, Planned Exposure Situations

Kaare Ulbak, SIS, Denmark

S4-02_Ulbak

Nordic Nuclear Safety Research (NKS)

S5-01

Overview of the NKS-R programme and summary of ongoing activities

Karoliina Ekström, Fortum Power and Heat, Finland

S5-01_Ekstrom

S5-02

An overview of the NKS-B Programme 2008-2011

Justin Gwynn, NRPA, Norway

S5-02_Gwynn

S5-03

International Gamma Spectrometric Assessment Exercises Using Simulated Spectra

Mark Dowdall, NRPA, Norway

S5-03_Dowdall

S5-04

Evaluation of the Radiological Emergency Field Operative Exercise, RE-FOX, taking place in Sweden 2012 with Nordic countries invited – Suggestion for a NKS-project.

Robert Finck, SSM, Sweden

S5-04_Finck

S5-05

Radioecology and Radiation Emergency Preparedness in Iceland for 25 years – A Tribute to NKS

Sigurður E. Pálsson, IRSA, Iceland

S5-05_Pálsson

Medical 1

S6-01

European population dose from radiodiagnostic procedures – early results of Dose Datamed 2

Ritva Bly, STUK, Finland

S6-01_Bly

S6-02

Trends in examination frequency and population doses in Norway, 2002 – 2008.

Hilde M. Olerud, NRPA, Norway

S6-02_Olerud

S6-03

Frequency of medical x-ray examinations and Patient and Population Doses in Iceland in 2008

Guðlaugur Einarsson, IRSA, Iceland

S6-03_Einarsson

S6-04

Optimisation in diagnostic radiology – how EMAN can contribute to improvements

Anja Almén, SSM, Sweden

S6-04_Almén

S6-05

Administrative Inspection of Danish X-ray Clinics

Annika Bjerkborn, SIS, Denmark

S6-05_Bjerkborn

S6-06

Patient organ radiation doses during treatment for aneurismal subarachnoid haemorrhage

Michael Sandborg, Linköping University, Sweden

S6-06_Sandborg

S6-07

Radiation dose in cardiac CT measured with TLDs and compared with DLP

Heiðbjört Í. Friðriksdóttir, Akureyri Hospital, Iceland

S6-07_Friðriksdóttir

Posters

S6-P1

Staff Doses in Interventional Cardiology

Hanne Waltenburg, SIS, Denmark

S6-P1_Waltenburg

S6-P2

Changes in collective dose a result of underlying variations in frequency and dose

Anders Frank, SSM, Sweden

S6-P2_Frank

S6-P3

Thermoluminescence dosimetry used as a postal quality audit in intraoral radiology

Anna Kelaranta, STUK, Finland

S6-P3_Kelaranta

S6-P4

What about veterinarians' use of x-ray equipment? Results from a nation-wide survey on the use of diagnostic x-ray among veterinarians in Norway

Marie Solberg, NRPA, Norway

S6-P4_Solberg

S6-P6

Occupational dose of technical staff at radiotherapy simulation PET/CT studies

Francisco H. Cutanda, Hospital Gregorio Marañón, Spain

S6-P6_Cutanda

S6-P7

Advice to refrain from non-medical ultrasound examinations of the foetus

Catarina Danestig Sjögren, SSM, Sweden

S6-P7_Sjögren

S6-P8

DAP in Panoramic and Cephalometric examinations in Iceland

Daníel Y. Shimmyo, IRSA, Iceland

S6-P8_Shimmyo

Medical 2

S7-01

Guidance on internal audits and self--assessments: support to external clinical audits

Hannu Järvinen, STUK, Finland

S7-01_Järvinen

S7-02

Dose Measurements on Dental Tomographs and CBCTs

Peter K. Frederiksen, SIS, Denmark

S7-02_Frederiksen

S7-03

Nordic survey on national management and requirements for use of dental Cone Beam CT

Eva G. Friberg, NRPA, Norway

S7-03_Friberg

S7-04

External effects of an out--patient PET/CT facility

Francisco H. Cutanda , Hospital Gregorio Marañón, Spain

S7-04_Cutanda

S7-05

Radiation doses 2001-2010 to staff working in a large PET and PET/CT department

Søren Holm, Rigshospitalet, Copenhagen, Danmark

S7-05_Holm

S7-06

Implementation of Radiation Measurement Criteria and Limits for Guidelines for Small Radioactive Spills at Landspítali University Hospital

Valdís Guðmundsdóttir, Landspítali University Hospital, Iceland

S7-06_Guðmundsdóttir

S7-07

Interactive Web Services for Optimizing Nuclear Medicine

Carl Bladh-Johansson, SSM, Sweden

S7-07_Bladh-Johansson

Emergency Preparedness 1

S8-01

Action levels and guidelines for Swedish Armed Forces operations in radioactively contaminated environments

Jonas Boson, FOI, Sweden

S8-01_Boson

S8-02

Officer on Duty at the Swedish Radiation Safety Authority

Karin Fritioff, SSM, Sweden

S8-02_Fritioff

S8-03

Use of deliberative stakeholder involvement in preparation of radiological emergency operating procedures at a steel mill

Markku Koskelainen, STUK, Finland

S8-07_Koskelainen

S8-04

RadiaCopter – UAS Gamma Spectrometry for Detection and Identification of Radioactive Sources

Magnus Gårdestig, Linköping University, Sweden

S8-04_Gårdestig

S8-05

A real-time statistical alarm method for mobile gamma spectrometry: combining binomial counting with a goodness-of-fit

Peder Kock, Lund University, Sweden

S8-05_Kock

S8-06

NKS NordRisk II: Atlas of long-range atmospheric dispersion model calculations

Jens Havskov Sørensen, DMI, Danmark

S8-06_Sørensen

Posters

S8-P1

RadiaDroid -Simulated Radiation Detection in Smartphones

Magnus Gårdestig, Linköping University, Sweden

S8-P1_Gårdestig

S8-P2

Challenges in the case of an incident during transport of spent nuclear fuel along the Norwegian coast

Karl Eliassen, NRPA, Norway

S8-P2_Eliassen

S8-P3

The European platform on preparedness for nuclear and radiological emergency response and recovery (NERIS Platform)

Raimo Mustonen, STUK, Finland

S8-P3_Mustonen

S8-P4

Georeferenced data sharing during radiological accidents

Tuomas Peltonen, STUK, Finland

S8-P4_Peltonen

S8-P5

Alpha- and beta contamination of surfaces. Which levels of contamination are possible to detect with manual search?

Angelica Hedman, FOI, Sweden

S8-P5_Hedman

S8-P6

Source preparation of Actinides and Polonium using coins

Elis Holm, NRPA, Norway

S8-P6_Holm

S8-P7

Using the LaBr₃:Ce scintillation detector for mobile γ -spectrometry

Jonas Nilson, Lund University, Sweden

S8-P7_Nilson

S8-P8

A comparison between multiple car-borne gamma-ray measurements performed during two separate missions at the same route

Kenneth Lidström, FOI, Sweden

S8-P8_Lindström

Emergency Preparedness 2

S9-01

Outlines of a content management system for emergency preparedness and response

Michael Ammann, STUK, Finland

S9-01_Ammann

S9-02

The Danish CBRN Institute -joint civil-military terror preparedness

Carsten Israelson, CBRN, Denmark

S9-03

Local-national forum for emergency and recovery strategies

Inger M. Eikermann, NRPA, Norway

S9-03_Eikermann

S9-04

Swedish Armed Forces deployable R/N-laboratory

Michael Granström, Armed Forces, Sweden

S9-04_Granström

S9-05

Dimensioning of Norwegian nuclear and radiological emergency preparedness and crisis management

Øyvind G. Selnæs, NRPA, Norway

S9-05_Selnæs

S9-06

SecurEau -Security and decontamination of drinking water distribution systems following a deliberate contamination

Tuukka Turtiainen, STUK, Finland

S9-06_Turtiainen

S9-07

Aspects of dispersion of airborne radioactivity in a city centre

Erik Johansson, FOI, Sweden

Dosimetry and Industrial Radiation Protection

S10-01

UV radiation induced processes in AlN and its potential application for solid state dosimetry

Laima Trinkler, University of Latvia

S10-01_Trinkler

S10-02

Dose assessment after an historic intake of uranium

Tore Ramsøy, IFE, Norway

S10-02_Ramsøy

S10-03

OSL on tooth enamel – a Potential Emergency Radiation Dose Assessment Tool

Terese Geber, Lund University, Sweden

S10-03_Geber

S10-04

Uranium in urine and hair of occupationally unexposed Finnish people

Maarit Muikku, STUK, Finland

S10-04_Muikku

S10-05

Licensing of complex facilities other than nuclear power plants

Carl-Göran Stålnacke, SSM, Sweden

S10-05_Stålnacke

S10-06

Radiation Safety Assessment of industry licensees

Camilla Bysell, SSM, Sweden

S10-06_Bysell

S10-07

Radiation accident at a Swedish mining company

Peter Frisk, SSM, Sweden

S10_07_Frisk

Posters

S10-P1

Gafchromic film as a fast visual indicator of radiation exposure of first responders at a radiological or nuclear accident

Ünal Ören, Lund University, Sweden

S10-P1_Ören

S10-P2

Whole-body counters for measurement of internal contamination in Finland

Jussi Huikar, STUK, Finland

S10-P2_Huikar

S10-P3

Uptake and retention of per os administered cobalt in human subjects

Ylva Ranebo, Lund University, Sweden

S10-P3_Ranebo

S10-P4

A study on PTW 10000, 1000 and 28 cc spherical ionization chambers

Silvia Vargas Castrillón, CIEMAT, Spain

Concepts and Policy

S11-01

New perspectives for radiation protection concepts in the frame of sustainability

Gilbert Eggermont, VUB University, Belgium

S11-01_Eggermont

S11-02

Is guidance in ICRP publications consistent on the application of reference levels?

Per Hedeman-Jensen, Danish Decommissioning, Denmark

S11-02_Hedeman-Jensen

S11-03

Teaching laymen an in depth understanding of ionising radiation

Christer Samuelsson, Lund University, Sweden

S11-03_Samuelsson

S11-04

Current problems of quantities in radiation protection and their possible solutions

Jozef Sabol, Czech Technical University, Czech Republic

S11-04_Sabol

S11-05

How the use of the concept “Dose Constraint” may help to lower annual individual doses

Virva Nilsson, Forsmark Kraftgupp AB, Sweden

S11-05_Nilsson

S11-06

Radiation Safety Assessment of licensees using with Open Sources

Helene Jönsson, SSM, Sweden

S11-06_Jönsson

S11-P1

Ethical guidance, stakeholder involvement and radiation protection culture in the Belgian Society for Radiation Protection

Gilbert Eggermont, Belgian Society for Radiation Protection

S11-P1_Eggermont

S11-P2

CEEPRA – Collaboration Network on EuroArctic Environmental Radiation Protection and Research

Maarit Risto, STUK, Finland

S11-P2_Risto

Natural Radioactivity and Radioecology

S12-01

NORM and other radioactive sources found in scrap metal yards in Sweden

Ann-Louis Söderman, SSM, Sweden

S12-02_Söderman

S12-02

Developing an Survey of the impact of enhanced natural radioactivity on human and natural environment

Rajdeep Sidhu, IFE, Norway

S12-02_Sidhu

S12-03

Radon in Finnish mines 1972-2010

Siiri-Maria Aallos-Ståhl, STUK, Finland

S12-03_Aallos-Ståhl

S12-04

Radon prevention in new construction in Finland

Hannu Arvela, STUK, Finland

S12-04_Arvela

S12-05

Effectiveness of anti-radon measures in Norwegian homes, seven years after mitigation

Ingvild E. Finne, NRPA, Norway

S12-05_Finne

S12-06

Radon control in European countries - a RADPAR questionnaire study

Olli Holmgren, STUK Finland

S12-06_Holmgren

S12-07

Comparison of two ^{222}Rn exhalation rate measurement methods by study of Hungarian adobe building materials

Zsuzsanna Szabó, Eötvös Univeristy, Hungary

S12-07_Szabo

S12-08

Nordic re-parameterisation of the ECOSYS ingestion model

Kasper Andersson, Risø, Denmark

S12-08_Andersson

S12-P1

Assessment of the clearance options for NORM-waste

Merle Lust, University of Tartu, Estonia

S12-P1_Lust

S12-P2

Radon measurements in Finnish workplaces during measurement seasons 2005-2010

Heikki Reisbacka, STUK, Finland

S12-P2_Reisbacka

S12-P3

Radiocesium in moose in Finland

Eila Kostiainen, STUK, Finland

S12-P3_Kostiainen

S12-P4

Assessment of doses to biota in the Baltic Sea

Iisa Outola, STUK, Finland

S12-P4_Outola

S12-P5

External radiation doses to important organs in biota: Monte Carlo dose model calculations

Mattias Karlsson, Linköping University, Sweden

S12-P5_Karlsson

S12-P6

STAR-Strategic Network for Intergrating Radioecology

Maarit Muikku, STUK, Finland

S12-P6_Muikku

S12-P7

Migration and plant uptake of ^{137}Cs in six pasture soils after the Chernobyl accident 1987-2007

Klas Rosén, SLU, Sweden

S12-P7_Rosen

S12-P8

Radiocaesium in fungi in Pasvik, Norway

Johannes Nilssen, NRPA, Norway

S12-P8_Nilssen

S12-P9

The Swedish Radiation Safety Authority's regulations on exemption and clearance of NORM waste

Ann-Louis Söderman, SSM, Sweden

S12-P9_Söderman

Nuclear industry and technology

S13-01

Developing an Information Barrier for verification in nuclear disarmament processes

Tore Ramsøy, IFE, Norway

S13-01_Ramsøy

S13-02

UK-Norway Initiative: Research into Managed Access of Inspectors During Warhead Dismantlement Verification

Steinar Backe, IFE, Norway

S13-02_Backe

S13-03

Iodine and cesium release fractions in a Loss-of-Coolant Accident

Knut K.R. Eitrheim, IFE, Norway

S13-03_Eitrheim

S13-04

A review of a 14C model for dose assessment of releases from normal operation of nuclear facilities

Charlotte Lager, SSM, Sweden

S13-04_Lager

S13-05

Clearance measurements of embedded pipes

Thommy I. Larsen, Danish Decommissioning, Denmark

S13-05_Larsen

S13-06

Industrial Radiography at Nuclear Power Plants

Birgitta Ekström, SSM, Sweden

S13-06_Ekström

S13-07

A Nordic approach to impact assessment of accidents with marine reactors

Ole Reistad, IFE, Norway

S13-07_Reistad

S13-P1

Preparing a WANO Peer Review within Radiological Protection at Forsmark NPP

Virva Nilsson, Forsmarks Kraftgrupp AB, Sweden

S13-P1_Nilsson

Nuclear industry and policy

S14-01

Regulatory Approach to Radiation Protection in New NPPs

Veli Riihiluoma, STUK, Finland

S14-01_Riihiluoma

S14-02

Establishing one set of scaling factors from a series of

measured activity concentrations

Jens Søgaard--Hansen, Danish Decommissioning, Denmark

S14-02_Søgaard-Hansen

S14-03

Reducing the discharges from Studsvik to the Baltic Sea

Ann-Christin Haegg, SSM, Sweden

S14-03_Haegg

S14-04

Qualified Experts for Radioactive Waste Management – the UK approach

Chris Englefield, Environment Agency, UK

S14-04_Englefield