



NERIS Workshop 2015

State-of-the-art and needs for further research for emergency and recovery preparedness and response

27-29 April 2015, Milan, Italy

Draft Programme

Organised in cooperation with the University of Milano



**UNIVERSITÀ
DEGLI STUDI
DI MILANO**

Day 1 - Monday 27 April 2015

NERIS Workshop Opening Ceremony

Chair: Marie-Claire Cantone & Thierry Schneider

12.00 – 13.30 **Registration** (no lunch foreseen)

13.30 – 14.00 **Welcome & Introduction**

Marie-Claire Cantone - University of Milano (Italy) – Local Organizer

The NERIS Platform and the NERIS Strategic Research Agenda

Thierry Schneider - CEPN (France) – President of NERIS

14.00 – 15.45 **Session 1: Challenges in atmospheric and aquatic modelling**

Chair: Wolfgang Raskob & Florian Gering

Atmospheric dispersion modelling to locate the source of airborne radioactivity – do we use all the knowhow we have?

Raimo Mustonen, Aleksi Mattila – STUK – Radiation and Nuclear Safety Authority (Finland)

The needs for improvement of atmospheric dispersion capabilities for decision support systems

Slawomir Potemski – NCBJ – National Centre for Nuclear Research (Poland)

Stephano Galmarini – JRC-Ispira – Institute for Environment and Sustainability, Joint Research Centre (Italy)

Assessment of possible consequences from severe accidents at nuclear power plants in Europe

Petra Seibert, Delia Arnold, Nikolaus Arnold, Klaus Gufler, Radek Hofman

Helga Kromp-Kolb, Gabriele Mraz, Anne Philipp, Steven Sholly

BOKU-Met - Institute of Meteorology, University of Natural Resources & Appl. Life Sciences (Austria)

Is the consideration of different types of atmospheric dispersion model likely to impact on the extent of the estimated countermeasures that may be used as an input for site emergency plans?

Peter Bedwell, Hannah Gaskell, Stephanie Haywood – PHE – Public Health England (UK)

Real-time simulation of the near-range atmospheric dispersion using Computational Fluid Dynamics

Lieven Vervecken^{1,2}, Christophe Gueibe¹, Johan Camps¹, Johan Meyers²

¹SCK•CEN, Belgian Nuclear Research Centre (Belgium)

²KU Leuven, Department of Mechanical Engineering (Belgium)

Challenges in aquatic modeling in case of accidental radioactive discharges in the marine environment

Bruno Fievet - IRS[N]/PRP-ENV/SERIS, Laboratoire de Radioécologie de Cherbourg - Octeville (France)

Day 1 - Monday 27 April 2015

14.00 – 15.45
(...)

Integration of short- and long-term radionuclide transport models for freshwater bodies and coastal waters into JRODOS

Eduardo Gallego¹, M. Zhelezniak^{1,2}, L. Papush³, R. Bezhenar^{1,2}, A. Boyko^{1,2}; I. Levdin^{1,2}; I. Brovchenko^{1,2}, V. Koshebutsky^{1,2}, I. Kovalets^{1,2}, V. Maderich^{1,2}, W. Raskob⁴, D. Trybushnyi⁴

¹UPM – Universidad Politécnica de Madrid (Spain)

²Institute of Mathematical Machines & Systems, National Academy of Sciences, Kiev (Ukraine)

³Private consultant, Nyköping (Sweden)

⁴Karlsruhe Institute of Technology, Institut für Kern- und Energietechnik, Eggenstein-Leopoldshafen (Germany)

15.45 – 16.15

Coffee & Posters

16.15 – 17.30

Session 2: Improvement of existing decision support systems

Chair: Florian Gering & Wolfgang Raskob

Implementation of a method for source term estimation based on measurements and atmospheric dispersion modelling for use in decision support systems

S. Andronopoulos¹, I. Kovalets², R. Hofman³, P. Seibert³

¹National Centre for Scientific Research "Demokritos" (Greece)

²Ukrainian Centre for Environmental and Water Projects (Ukraine)

³Department of Meteorology and Geophysics, University of Vienna (Austria)

Improving the decision support system JRodos according to customer requirements

C. Landman¹, W. Raskob¹, D. Trybushnyi¹, I. Levdin²

¹KIT- Karlsruhe Institute of Technology (Germany)

²UCEWP- Ukrainian Center for Environmental and Water Projects (Ukraine)

SYMBIOSE: A Simulation Platform for post-accidental risk assessment, applications in the terrestrial landscape of the Fukushima region

M.A. Gonze, C. Murlon, V. Nicoulaud, S. Le Dizes, L. Garcia-Sanchez, J.M. Métivier, P. Calmon, M. Sy, M. Simon-Cornu

IRSN - French Institute for Radiological Protection and Nuclear Safety (France)

How to use decision support systems in a nuclear emergency?

Wolfgang Raskob - KIT- Karlsruhe Institute of Technology (Germany)

17.30 – 18.00

Discussion: Sessions 1 & 2

Moderators: Wolfgang Raskob & Florian Gering

Rapporteur: Eduardo Gallego

Day 2 - Tuesday 28 April 2015

9.00 – 10.30

Session 3: Improvement of the decision-making-processes and the implementation of the Basic Safety Standards

Chair: Kaj Vesterbacka & Christophe Murith

Implementation of BSS in Germany

Florian Gering - BfS- Federal Office for Radiation Protection (Germany)

Consideration of emergency situations in the new Swiss ordinance on radiation protection

Christophe Murith - FOPH - Federal Office of Public Health, Radiological Protection (Switzerland)

Strategy for Radioactivity Measurements in Radiological Emergency to Improve Decision-Making Processes

T.K. Ikäheimonen, P. Vesterbacka, K. Vesterbacka, J. Lahtinen, S. Klemola, J. Huikari, K. Peräjärvi

STUK - Radiation and Nuclear Safety Authority (Finland)

Measurement uncertainties and their impact on decision support

Johan Camps - SCK•CEN - Belgian Nuclear Research Centre (Belgium)

Assessing Personal Doses from External Radiation Using Personal Dosimeters with GPS and GIS technologies in Fukushima

Wataru Naito¹, Motoki Uesaka¹, Hideki Ishii²

¹- Research Institute of Science for Safety and Sustainability (RISS), National Institute of Advanced Industrial Science and Technology (AIST) (Japan)

²- Fukushima Future Center for Regional Revitalization, Fukushima University (Japan)

The OPERRA Project: First Period Main Achievements

Jean-René Jourdain - OPERRA Project Coordinator - IRSN - French Institute for Radiological Protection and Nuclear Safety (France)

10.30 – 11.00

Coffee & Posters

11.00 – 12.00

Session 3 (con't): Improvement of the decision-making-processes and the implementation of the Basic Safety Standards

Chair: Kaj Vesterbacka & Christophe Murith

The importance of operational optimisation in recovery of contaminated terrestrial areas

Kasper G. Andersson - DTU - Technical University of Denmark (Denmark)

Soil vulnerability maps for predictive purposes in decision making processes for post-accident recovery in Spain

C. Trueba, M. Montero, B. García-Puerta - CIEMAT (Spain)

INEX 5 Exercise on Notification, Communication and Interfaces Related to Catastrophic Events involving Radiation or Radiological Materials

H. Burcin Okyar - OECD Nuclear Energy Agency

Radiological Protection and Radioactive Waste Management Division

Day 2 - Tuesday 28 April 2015

11.00 – 12.00
(...)

Scenario Based Nuclear and Radiological Emergency Preparedness in a Non-Nuclear Country (Norway)

Øyvind Gjølme Selnæs - NRPA, Norwegian Radiation Protection Authority (Norway)

12.00 – 12.30

Discussion: Session 3

Moderators: Kaj Vesterbacka & Christophe Murith

Rapporteur: Anthony Bexon

12.30 – 13.30

Lunch

13.30 – 15.30

Session 4: Stakeholder engagement and dialogue

Chair: *Inger Eikermann & Marie-Claire Cantone*

Societal Deliberation: Formal and Informal Behaviours

Simon French¹, Nikolaos Argyris²

¹University of Warwick (UK)

²University of Loughborough (UK)

Effective management of nuclear emergencies: which social factors may play a key role?

C. Turcanu, T. Perko, B. Carlé

SCK•CEN - Belgian Nuclear Research Centre (Belgium)

Health surveillance & practical radiological protection culture: two complementary pillars for improving living conditions in a contaminated territory

Pascal Croüail¹, Sylvie Charron², Makoto Miyasaki³, Raïssa Misyura⁴

¹CEPN - Nuclear Evaluation Protection Centre (France)

²IRSN - French Institute for Radiological Protection and Nuclear Safety (France)

³Fukushima Medical University (Japan)

⁴Stolin Central District Hospital (Belarus)

Stakeholder engagement and dialogue and their role in the improvement of the decision-making process

Tatiana Duranova, Jarmila Bohunova - VUJE (Slovak Republic)

The involvement of experts in post-accident management at the service of population: lessons from the Fukushima accident

Thierry SCHNEIDER¹, Jacques LOCHARD¹, Sylvie CHARRON², Jean-Christophe GARIEL², Jean-François LECOMTE², François ROLLINGER²

¹CEPN - Nuclear Evaluation Protection Centre (France)

²IRSN - French Institute for Radiological Protection and Nuclear Safety (France)

Management of contaminated goods in post-accident situations

Sylvie CHARRON¹, Sandra LAFAGE², Bruno CESSAC¹, Pascal CROUAIL², Laurent DESTACAMP¹, Jean-François LECOMTE¹, Christophe MURITH³, Vanessa PARACHE¹, Thierry SCHNEIDER²

¹IRSN - French Institute for Radiological Protection and Nuclear Safety (France)

²CEPN - Nuclear Evaluation Protection Centre (France)

³FOPH - Federal Office of Public Health, Radiological Protection (Switzerland)

Day 2 - Tuesday 28 April 2015

15.30 – 16.00

Coffee & Posters

16.00 – 17.20

Session 4: Stakeholder engagement and dialogue (con't)

Chair: *Inger Eikermann & Marie-Claire Cantone*

Stakeholder Engagement in Ireland on Radioactive Contamination of Food

*Veronica Smith, Catherine Organo, Ciara McMahon
EPA - Environmental Protection Agency (Ireland)*

Stakeholder involvement and local preparedness and communication strategies – views and experiences from Portugal (a non-nuclear country)

*M. Baptista¹, O. Monteiro Gil¹, I. Lopes¹, M.J. Madruga¹, J. Oliveira Martins², I. Paiva¹, L. Portugal¹, M. Reis¹, P. Teles¹, P. Vaz¹
¹IST - Instituto Superior Técnico, Universidade de Lisboa (Portugal)
²APA - Agência Portuguesa do Ambiente (Portugal)*

Local-national forum for emergency and recovery strategies – tool for local emergency and recovery plans

*I.M.H Eikermann, A. Liland
NRPA - Norwegian Radiation Protection Authority (Norway)*

Fukushima: Four Years of Academic Community Support to the State Efforts of Improving People's Lives in the Post Accident Conditions

*Kenj Nanba, Mark Zheleznyak and Thomas Hinton
Institute of Environmental Radioactivity, Fukushima University (Japan)*

17.20 – 17.50

Discussion: Session 4

*Moderators: Inger Eikermann & Marie-Claire Cantone
Rapporteur: Pascal Croüail & Catrinel Turcanu*

20.00 – 23.00

Dinner

Day 3 - Wednesday 29 April 2015

9.00 – 9.45

Session 5: Information and social media

Chair: *Deborah Oughton & Raimo Mustonen*

Managing the complexity of societal needs in a nuclear emergency situation: towards further experts collaboration for the “enlightened protection of populations”

Julie Hazemann¹, Yves Marignac²

¹*EnerWebWatch*

²*WISE-Paris*

Information and participation of local populations in a post-accident situation: a social path for recovery - insights from the PREPARE European research project

Stéphane Baudé¹, Gilles Hériard Dubreuil¹, David Boilley², Thierry Schneider³

¹*MUTADIS (France)*

²*ACRO - NGO in charge of radioactivity measurement in the West of the France*

³*CEPN - Nuclear Evaluation Protection Centre (France)*

Information on Radiation through Social media. A case study and a proposal for a semantic web system to help for Nuclear Post-Accident resilience

Federico Tajariol, Antonin Segault, Ioan Roxin

UFC – University of Franche-Comté (France)

9.45 – 10.15

Discussion: Session 5

Moderators: Deborah Oughton & Raimo Mustonen

Rapporteur: Catrinel Turcanu & Pascal Croüail

10.15 – 10.45

Coffee & Posters

10.45 – 12.30

Session 6: Research coordination and round table discussion

Chair: *Thierry Schneider*

MELODI / CONCERT (*Thomas Jung, BfS*)

ALLIANCE (*T.K. Ikäheimonen, STUK*)

EURADOS (*Paola Fattibene, ISS*)

12.30 – 13.30

Coffee & Posters

13.30 – 16.30

NERIS GENERAL ASSEMBLY