NKS NewsFlash 49
June 27, 2013

Upcoming Seminars

NKS-R EXAM-HRA
Evaluation of Existing Applications and Guidance on Methods for Human Reliability analysis

31 October, 2013, Venue not yet decided

A project seminar will be arranged to report the on-going work within EXAM-HRA phase 3a (2013). The phase 3a seminar will focus on project results and the decision if the work should continue with a phase 3b application (2014).

EXAM-HRA is a Nordic, German and Swiss project which assesses human reliability analysis (HRA) applications in existing probabilistic safety analysis (PSA) studies. The overall project objective is to provide guidance for a state of the art HRA for purposes of PSA, to ensure that plant specific properties are properly taken into consideration in the analysis. This shall also provide means to improve the experience feedback on plant features based on HRA and PSA results. The project is performed in several consecutive phases.

The on-going 3rd phase shall maintain and extend the assessments of existing HRA application and continue the analysis to provide interpretation of important plant features and identify good operational practices. Phase 3 shall provide an overview of the assessments done by developing guidance on scope of HRA applications and choice of methods for HRA applications.

For further information please contact Gunnar Johansson (gunnar.johansson@eskonsult.se).

NKS-B GammaTest 2013 (new information)
A series of linked workshops on gamma spectrometry

17-19 September, 2013, FOI, Umeå, Sweden

Registration deadline: **18th of August**

As was pointed out in the NKS Newsletter sent out on 4 April, a new series of workshops for users of gamma spectrometry will be held 17th-19th September 2013 at FOI Umeå, Sweden. Information about the hotels (three) and surroundings can be found here:

Scandic Umeå Syd
Clarion Collection Hotel Uman
Comfort Hotel Winn
Information from Umeå Municipality
Information about Umeå in Wikipedia

The form of the GammaTest (as for the earlier GammaSems and GammaWorshops) is to enable the users to address the problems in gamma spectrometry they find most pressing, through lectures and practical exercises in addition to sharing their experience with others in a similar position. The main topics at this year's workshops are:

-Intercomparisons on 1) soil sample(s); 2) sample spectra; and 3) on peak identification in complicated spectra.

In addition, there will also be:
-One invited lecturer (Professor Octavian Sima, Physics Department University of Bucharest),
-Practical exercise(s) on 'complicated' spectra,

-Lessons learned from the intercomparison(s),
-Possibilities for participants to share their experiences in the implementation of e.g. coincidence summing correction and self-absorption correction,

Participants are strongly encouraged to report back their experiences in the implementation of e.g. correction methods for true coincidence summing and self-absorption correction.

The programme is being prepared by a working group consisting of: Elisabeth Strålberg (IFE), Sigurður Emil Pálsson (IRSA), Henrik Ramebäck (FOI), Sven P. Nielsen (DTU) and Seppo Klemola (STUK). Updated information, detailed agenda and links to technical background material will be available on the **GammaWiki** web site: https://www.gr.is/wiki/GammaWiki/

If you are interested in participating in the workshop, please obtain a registration form from maiken.karlsson@foi.se, and fill in and return it to her as soon as possible, but not later than **18 August 2013**.

Contact persons are Maiken Karlsson [maiken.karlsson@foi.se] and Henrik Ramebäck [henrik.ramebeck@foi.se].

NKS-B RADIOANALYSIS (new information)
Workshop on Radioanalytical Chemistry

2-6 September, 2013, Roskilde, Denmark

Application/Registration deadline: **1st of August**

This is the 2nd Nordic Workshop on Radioanalytical Chemistry following the 1st workshop held Nov. 2009 in Roskilde, Denmark. The workshop is organised by the Technical University of Denmark, in collaboration with University of Helsinki; Norwegian University of Life Sciences, Royal Institute of Technology, and Swedish Radiation Safety Authority; supported by Nordic Nuclear Safety Research (NKS).

The objectives of this workshop are:
1) To provide the participants with an overview of radiochemical analytical methods for determination of various radionuclides (mainly beta and alpha emitting) relevant to environmental radioactivity and waste management
2) To provide an opportunity to the participants getting knowledge and practical (hands-on) experience of state-of-the-art measurement techniques used for the determination of different radionuclides by participating in practical training in the laboratory (experimental demonstration and analysis of real samples)
3) To provide a forum for knowledge exchange of analysis of various radionuclides and discussion of present radiochemical procedures for individual radionuclides.

The workshop aims to strengthen the education of MSc/PhD students and young scientists in radiochemical analysis for environmental radioactivity, radiation monitoring, waste management, decommissioning of nuclear facilities, and other relevant areas, and to increase competence of staff involved in radiochemical separation and determination of radionuclides.

The workshop includes two parts:
1) Invited lectures and presentations of the participants (**5-6th Sept. for 2 days**);
2) Laboratory training/practice (**2-4th Sept. for 3 days**).
About 15 invited lectures will be given by experienced senior researchers all over the world in the field of radiochemistry and radioecology. The participants can participate in all lectures/presentations, and 2 of 3 laboratory practices.

The three laboratory practices are:
(1) Radiochemical separation of Pu and ICP-MS measurement of Pu isotopes;
(2) Radiochemical separation of ^{210}Po and ^{226}Ra and their alpha spectrometry measurement.
(3) Radiochemical separation of ^{55}Fe, ^{63}Ni, ^{90}Sr and their LSC measurement.
Each lab practice will take for 1.5 days.

The topics of the lectures include:

- General aspects in radiochemical analysis for radionuclides;
- Advanced separation techniques for determination of radionuclides
- Techniques for speciation analysis of radionuclides

- Updated methods for radiochemical analysis of various radionuclides including isotopes of Pu, and Ra, ^{237}Np, ^{210}Po, ^{210}Pb, ^{99}Tc, ^{90}Sr, ^{3}H, ^{14}C, ^{36}Cl, ^{41}Ca ^{55}Fe, ^{63}Ni, and ^{129}I.
- Sampling and pre-concentration techniques for environmental radioactivity analysis
- Radiometric analytical techniques including γ- and α-spectrometry, beta counting with ultra-low level background G-M counter, and liquid scintillation counting.
- Mass spectrometry and other techniques for measurement of long-lived radionuclides including ICP-MS and AMS.
- Automated and rapid analytical technique for radionuclides.

Confirmed Lecturers:

Prof. Jay W. Grate (Pacific Northwest National Laboratory, USA)

Prof. Ian W. Croudace (University of Southampton, UK)

Prof. Clemens Walther (Leibniz University Hannover, Germany)

Dr. Peter Steier (University of Vienna, Austria)

Dr. Phil E. Warwick (National Oceanography Center, UK)

Prof. Chunli Liu (Peking University, China)

Prof. Brit Salbu (University of Life Sciences, Norway)

Prof. Jukka Lehto (University of Helsinki, Finland)

Prof. Mats Jonsson (Royal Institute of Technology, Sweden)

Dr. Lindis Skipperud (University of Life Sciences, Norway)

Dr. Mats Eriksson (Swedish Radiation Safety Authority)

Dr. Sven P. Nielsen (Technical University of Denmark)

Dr. Per Roos (Technical University of Denmark)

Prof. Xiaolin Hou (Technical University of Denmark)

There is no registration fee for participants from the Nordic countries. A limited numbers of participants from other countries are accepted with a registration fee of 700 Euros. No financial support for travel and accommodation is available from the workshop organizers. Young Nordic participants are recommended to apply for travel support directly from NKS. Please visit the NKS web site for further details.

Applications for participation in the workshop should be sent by email to prof. Xiaolin Hou (xiho@dtu.dk) by the 1st August, 2013. Participants are invited to submit an abstract to the workshop (by 1st August; MS Word file attached to email). After evaluation by scientific committee, selected abstracts will be invited to be presented in the workshop orally or by poster. A certification of participation with 5 ECTS will be issued to the students who participate in the whole workshop and give a presentation of his/her own work in the workshop.

The workshop proceedings will be published as a NKS report (with ISBN number).

Organizers
Prof. Xiaolin Hou (xiho@dtu.dk)
Dr. Sven P. Nielsen (spni@dtu.dk)
Prof. Jukka Lehto (jukka.lehto@helsinki.fi)
Prof. Mats Jonsson (mats@kth.se)
Dr. Lindis Skipperud (lindis.skipperud@umb.no)
Dr. Mats Eriksson (Mats.Eriksson@ssm.se

New Publications

The following NKS-R reports are available free of charge: Download by clicking the appropriate link.

NKS-283	June 2013	Antti Timperi, Michael Chauhan, Timo Pättikangas, Jarto Niemi: Modelling of pressure loads in a pressure suppression pool	ENPOOL	View document

NKS-284	June 2013	Hua Li, Walter Villanueva, Pavel Kudinov: Validation of Effective Momentum and Heat Flux Models for Stratification and Mixing in a Water Pool	ENPOOL	View document

NKS Young Scientist Travel Assistance

A reminder that NKS offers travel assistance for young scientists wishing to attend NKS-R and NKS-B events as well as related non-NKS events that are held within the Nordic countries. More information on how to apply for travel assistance can be seen on the NKS web site here (http://www.nks.org/en/nksr/travel_assistance/travel_assistance.htm) for NKS-R related events, and here (http://www.nks.org/en/nksb/travel_assistance/travel_assistance.htm) for NKS-B related events.