NKS NewsLetter 28 January 12, 2018



Organisational announcement

NKS would like to warmly welcome SKB (Swedish Nuclear Fuel and Waste Management Co.) as a new co-financing organisation.

NKS-R Call for Proposals 2018

15 proposals for NKS-R activities were received before the deadline on October 16th. Of these, 5 were applications for continued activities.

The numbers of proposals submitted under the NKS-R areas of interest are as follows:

| Area of Interest | No. of Proposals | Total budget for proposals under area of interest |
|--|---------------------|--|
| Risk Analysis & Probabilistic Methods | 4 | 2300 kDKK |
| Decommissioning incl. Waste | 3 | 1590 kDKK |
| Organisational Issues & Safety Culture | 3 | 1575 kDKK |
| Thermal Hydraulics | 2 | 1272 kDKK |
| Severe Accidents | 2 | 1159 kDKK |
| Plant Life Extension and Management | 1 | 500 kDKK |

The total amount requested was 8396 kDKK from an expected budget of 3000 kDKK.

NKS-B Call for Proposals 2018

17 proposals for NKS-B activities were received before the deadline on October 16th. Of these, 4 were applications for continuation of ongoing activities.

The numbers of proposals submitted under the NKS-B areas of interest are as follows:

| Area of Interest | No. of Proposals | Total budget for proposals under area of interest | | |
|-------------------------------------|---------------------|---|--|--|
| Emergency Preparedness | 6 | 2705 kDKK | | |
| Measurement Technology and Strategy | 4 | 1690 kDKK | | |
| Radioecological Assessments | 6 | 2970 kDKK | | |
| Waste and Discharges | 1 | 550 kDKK | | |

The total amount requested was 7905 kDKK from an expected budget of 3000 kDKK.

Recent Seminars

NKS-B GAMMASPEC Seminar for users of gamma spectrometry

19-20 September 2017, DTU Risø Campus, Roskilde, Denmark

The workshop had 41 participants from 25 organisations including industry, authorities and universities.

The activity was relevant to gamma spectrometry practitioners in the Nordic countries covering intercomparison exercises as well as a seminar. The scope of the seminar was broad allowing a range of topics in gamma spectrometry to be addressed from basic to advanced aspects in order to serve users with different backgrounds and needs in the field. Three experts gave talks on selected topics and challenges in gamma spectrometry. 11 other presentations were given, including 2 from equipment companies. The intercomparison exercises included laboratory measurements of physical samples as well as analyses of exercise spectra with associated information. The event was found by the users to be an excellent forum for networking.

The GammaWiki web site developed during previous NKS activities on gamma spectrometry is used as a platform for further information. (https://www.gr.is/wiki/GammaWiki/index.php/GammaSpec_2017).

The activity leader was Sven Nielsen (spni@dtu.dk).

NKS-B NORDIC ICP

Development and exploration of inductively coupled plasma spectrometry

25-27 September 2017, DTU Risø Campus, Roskilde, Denmark

The seminar consisted of two parts:

25th and 26th September: Invited lectures and presentations from participants. Prof. Frank Vanhaecke (Ghent University, Belgium) gave the opening lecture and five highly reputed experts gave invited talks.

27th September: Lab practice at Risø Campus.

There were 55 participants from Nordic and other countries.

The seminar aimed to strengthen the education of MSc/PhD students and young scientists and to increase competence of staff involved to explore the application of ICP techniques for different purposes in nuclear and radiochemistry fields.

- 1) To provide the participants with an overview of state-of-the-art fundamental aspects and instrumental developments of ICP techniques, and the applications of these techniques in interdisciplinary contexts.
- 2) To provide an opportunity for the participants to get hands-on experience of ICP instrument operation, maintenance, data acquisition and software instruction by participating in practical training in the laboratory.
- 3) To provide a forum for knowledge and experience exchange in various aspects related to ICP techniques and stimulate international collaborations.

Many examples were given of the possibilities for radioanalysis laboratories to benefit from using ICP techniques.

NKS-R NORDEC

Workshop on challenges and opportunities for improving Nordic nuclear decommissioning

20-21 November 2017, IFE, Halden, Norway

The overall goal of the NorDec project is to identify challenges and solutions for Nordic decommissioning and to enhance knowledge transfer among stakeholders in Nordic countries.

IFE, the coordinator of the NorDec project hosted a workshop in Halden, Norway on the 20th and 21st of November. 18 people from 8 Nordic organisations participated. Results from the project, based on interviews and questionnaires with Nordic decom organisations, were presented as a starting point for discussions on the workshop. The most frequently reported decommissioning challenges were: 1) Developing and maintaining competence and motivation; 2) Regulatory oversight and decision making; and 3) Safe and effective waste characterization and clearance. Workshop participants discussed around identified challenges and possible solutions enabling organisations to build up suitable competence for overcoming these issues.

Some noteworthy examples from the discussions:

In the coming years there will be an increased need for decommissioning competence. The resulting business potential will probably result in an influx of decommissioning actors on the market. However the challenge may be to ensure that the competence is of the right quality and provides value for money.

Mobility of staff between research, regulators and licensees, as well as sites, may provide an efficient way to generate a pool of highly skilled professionals with a long term career opportunity.

On the topic of regulation, participants discussed about how to apply a general regulatory framework to a specific decommissioning context. The solution is not to change the framework requirements, but rather have an efficient interaction of the regulator and the utilities in application of the framework for practical tasks.

The participants found this opportunity for coming together and share experiences in a Nordic arena very useful, both during the technical program and the informal dinner.

New Publications

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

Patrick van Hees, Jonathan Vallée, Simo Hostikka,
Topi Sikanen, Dan Lauridsen, Sebastian
Ingermasson: Determination of Fire Barriers
reliability for fire risk assessment of Nuclear Power
Plants (FIREBAN) – Report Year 1

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

| NKS- 398 | Oct. 2017 | Sven P. Nielsen, Anna Rand, Trygve Bjerk, Henrik Ramebäck, Roy Pöllänen, Gísli Jónsson: GammaSpec 2017 Proceedings | GAMMASPEC | View document |
|-------------|-----------|---|-----------|---------------|
| NKS- 399 | Dec. 2017 | H. Toivonen, M. Granström, G. Ågren, G. Jónsson, B. Møller, P. Roos, H. Ramebäck: Activity estimation of shielded or hidden radionuclides in emergency conditions | RADSHIELD | View document |

| NKS- 400 | Dec. 2017 | M. Dowdall, J.E. Dyve, H. Klein, T. Peltonen, C. Israelson, M. Eriksson, G. Jónsson: Early Phase Source Term Estimation From Gamma Spectra (EPHSOGAM) | EPHSOGAM | View document |
|-------------|-----------|---|----------|---------------|
| NKS- 401 | Dec. 2017 | Roy Pöllänen, Sinikka Virtanen, Meerit Kämäräinen, Maria Kaipiainen, Xiaolin Hou, Per Roos, Mats Eriksson, Sara Ehrs, Anna Nalbandyan, Bredo Møller, Sofia Jonsson, Petra Lagerkvist, Annika Tovedal: Comparison of the analytical methods used to determine natural and artificial radionuclides from environmental samples by gamma, alpha and beta spectrometry | CAMNAR | View document |

NKS Young Scientist Travel Assistance

Updated information that NKS offers travel assistance for young scientists wishing to attend NKS-R and NKS-B events as well as related non-NKS events even outside the Nordic countries - under certain conditions. More information on the conditions and 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-B related events.