NKS-B Status Report

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Introduction
The work in NKS-B is progressing well, with a number of activities now completed since the last NKS-B status report was made to the NKS board in November 2007. Delayed activities that have previously been brought to the attention of the board will hopefully be completed within the current year.

NKS-B seminars

NKS-B Status seminar
Held at Statens strålevern, Oslo, August 28-29, 2007.
Material from the seminar is accessible on the following web site but must be formally concluded with the NKS Secretariat before being made public.
https://www.gr.is/nks-b/seminar-2007-oslo/

NKS-B Lucia -Workshop
The impact of radionuclides released from hospitals to water sewage systems
Held at Statens strålevern, Oslo, December 13, 2007.
Material from seminar to be included in activity final report.

NKS-B seminar on sampling and measurement
Held in Reykjavik, January 24-25, 2008
Compilation of material from seminar ongoing.

Continued and delayed NKS-B activities

FOREST
Guidance for sampling in forests for radionuclide analysis and update of the Nordic forest radioecology network.
Activity Leader: Elizabeth Strålberg, IFE

The NKS funding for the work in 2006 was DKK 200 k

The defined milestones were:
1. Project meeting (March/April 2006)
2. Working with individual contributions according to decided division of work
3. A finalised draft of the guide for sampling in forests for radionuclide analysis and assessment of radiation exposure (before 2006-12-31)

The work was planned to be completed by 31 December 2006.

Status

REIN
Regional differences in reindeer radiocaesium contamination
Activity Leader: Lavrans Skuterud, NRPA

The NKS funding for the work was DKK 85 k

The milestones defined were:
1. Presentation of results and status of project work at the proposed NKS-B mini-seminar in August 2004
2. Report on effective ecological half-lives for Cs-137 in reindeer in the Nordic countries (manuscript to be printed as NKS report) – deadline September 30, 2004.

**Status**
Delayed activity, running under contract from 2004. Is and unfortunately will be delayed further, but planned to be completed in the course of 2008.

**URBHAND**
Decision support handbook for remediation of contaminated inhabited areas
Activity Leader: Kasper Andersson, Risø DTU

The NKS funding for the work in 2007 is **DKK 100 k**

The following milestones are defined in the contract:
1. An overall strategy for the amendment of the handbook in the light of the end-user feedback to have been defined and described in a short document (September, 2007).
2. The final fully developed print-ready amended handbook to have been delivered (December, 2007)

The work is planned to be completed by 31st December, 2007.

**Status**
Final report has been received for publication.

**NORDRISK**
Nuclear risk from atmospheric dispersion in Northern Europe
Activity Leader: Bent Lauritzen, Risø DTU

The NKS funding for the work is **DKK 230 k**

Work in 2007 was delayed and the work plan for 2007 was instead extended into 2008 with a revised work plan in a contract with the following milestones:
1. Kick-off meeting 2007
3. Short progress report April 2008
4. Assessment of key dispersion parameters for software model, obtained from statistical analysis of calculated dispersion and deposition fields (Risø, DMI). Data collected for subsequent publication.
5. Preparation of NordRisk atlas data in a format suitable for presentation in the ARGOS decision support system (DMI, DEMA)
6. Progress report December 2008 (Risø)
7. The work is planned to be completed by December 31, 2008.

**Status**
Seems to be running according to revised plan, but awaiting short progress update.
**BioDos**
Biodosimetry application in emergency preparedness
Activity Leader: Daniela Stricklin, FOI

The NKS funding for the work is **DKK 350 k**

Defined milestones:
1. Establishment of scoring criteria of rings for the PCC assay
2. Comparison of ring evaluations by each participating laboratory
3. Preparation (exposure and culture experiments) of samples for dose response curve for PCC (and dicentric assay parallel)
4. Comparison of PCC method to triage dicentric method
5. Preparation of an initial, limited PCC dose response curve
6. Final Report detailing comparisons and PCC curve and demonstrating the applicability of the method in emergency preparedness

**Status**
Final report has been received for publication.

**LUCIA**
Assessing the impact of releases of radionuclides into sewage systems in urban environment - simulation, modelling and experimental studies
Activity Leader: Synnöve Sundell-Bergman, Vattenfall

The NKS funding for the work is **DKK 500 k**

Milestones defined in new contract:
1. Experimental work at sewage plants. Collecting samples of effluent and sludge from the plant and some biological samples from the recipients, and determine content of radioactivity;
2. Delivering Ecolgo software and the Ecolgo model to Risoe Natl Lab, IRPI and STUK, for running the LUCIA model.
3. Ecolgo training course (see above) at Facilia AB
4. Laboratory intercomparison of radioactivity in water and sludge
5. TLD dose measurements (Oslo sewage plant)
6. Further development and testing of the LUCIA model (Facilia AB)
7. Carrying calculations for the different scenarios (Facilia AB)
8. Further simplifications of the LUCIA model (SSI)

**Status**
Final report in process of being completed.

**HOT**
Detection, isolation, characterization and radiochemical techniques for ‘hot’ particles in the environment
Activity Leader: Ole Christian Lind, UMB

The NKS funding for the work is **DKK 230 k**

Milestones defined in new contract:
1. Planning meeting January 9th
2. Seminar at UMB (jointly arranged with the NKS Speciation project seminar)
3. Final report with seminar proceedings including a summary of known sources

**Status**
Material from seminar has been received, but the activity leader has been encouraged to provide additional information.

**NordThreat**
Nordic Threat assessments
Activity Leader: Inger Margrethe H. Eikelmann, NRPA

NKS funding **DKK 200 k**

Milestones defined in contract
1. Preparation of planning document
2. Discussion of project at NEP meeting in April 2007
3. Planning meeting at the NKS-B seminar in August 2007
4. Planning meeting at the in November 2007
5. NordThreat seminar in April 2008
6. Final report in June 2008
The work is planned to be completed by June 2008.

**Status**
Seminar delayed until autumn 2008 (Dates to be confirmed).
Seminar will cover topics including the Nordic countries threat assessments, identified sources of potential threats, experience from previous case histories and the understanding of and attitude to nuclear threats by the general population.

**SPECIATION**
Speciation analysis of radionuclides in the environment.
Activity Leader: Xiaolin Hou, Risø DTU

NKS funding **DKK 320 k**

Milestones defined in contract:
1. Initial meeting seminar on chemical speciation, April 2007
3. Meeting on the speciation techniques, progress, Nov 2007

**Status**
Final report has been received for publication.

**PardNor**
Parameters for ingestion dose models for Nordic areas
Activity Leader: Sven P. Nielsen, Risø DTU

The NKS funding for the work in 2007 is **DKK 520 k**

Milestones defined in contract
1. Presentation of the PardNor activity at proposed NKS-B seminar, August 2007
2. Report on Nordic diets, August 2007
3. Report on food import fractions and animal feeding regimes, October 2007

The NKS funding for the work in 2008 is **DKK 340 k**
Milestones defined in contract
1. Report on ingestion dose sensitivity to Nordic diets, food import and animal feeding regimes
2. Report/dataset on new LAI data/methodology
3. Report/dataset on new soil leaching rate, fixation rate, desorption rate and resuspension factor data
4. Final report

Status
Final report for work concluded in 2007 has been received for publication.
Contract received for work planned in 2008. Project meeting planned for May.

GAPRAD
Filling knowledge gaps in radiation protection methodologies for non-human biota
Activity Leader: Justin. E. Brown, NRPA

The NKS funding for the work in 2007 is **DKK 150 k**
The NKS funding for the work in 2008 is **DKK 260 k**

Milestones defined in contract
1. Milestone - Start-up meeting, June 2007
2. Deliverable - Report on knowledge gaps and strategy to fill them, August 2007 (NRPA)
3. Milestone – Autumn 2007, 1st year field activities completed.
5. Milestone – Meeting to discuss progress in the project and plan final activities - Spring 2008
6. Milestone - Presentation of data at International Conference on Radioecology and Environmental Radioactivity, June 2008.
8. Milestone/Deliverable – End of project – Report summarising the activities in the project period and providing recommendations, December 2008 (NRPA)

Status
On schedule apart from item 4, this has been delayed until autumn as the person that was scheduled to complete this task has left STUK. Deliverable from item 4 will be merged with deliverable from item 7. Contract received for work planned in 2008.

New NKS-B activities for 2008

**GammaRate**
Safe use of Portable gamma radiation ratemeters for environmental monitoring
Activity Leader: Hans Bjerke, NRPA

The NKS funding **DKK 100 k**

Milestones defined in contract
1. Workshop September - October 2008
2. Activity report to NKS - December 2008
3. Calibration of dosemeters - 2009
4. Activity report to NKS - December 2009
5. Proposal for calibration manual - September 2010
6. Guidelines for emergency measurements - September 2010
7. Final report - December 2010
**Status**
Contract received for work planned.

**BIOPEX**
Emergency preparedness exercise for biological dosimetry.
Activity Leader: Carita Lindholm, STUK

The NKS funding **DKK 300 k**

Milestones defined in contract
1. Planning of an accident scenario.
2. Sample treatment, analysis and dose estimation
3. Establishment of dose categories
4. Comparison and final judgment of assays

**Status**
Contract received for work planned.

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**Young Scientists in NKS**

**Background**
At the NKS board meeting in November 2007 it was decided that 200 kDKK (the amount which had been sought for the proposed NKS-B activity YoungRad) would be made available to ‘young scientists’ to assist the travel costs of attending NKS meetings. It was also decided at the NKS board meeting that the NKS-B program manager should enter into dialogue with the participants of the YoungRad proposal in order to discuss how to involve more ‘young scientists’ in NKS activities…

**Young Scientist Travel Fund**
The young scientist travel fund has not as yet been advertised as such due to the fact that I feel that we need to first determine a set of guidelines as to who may apply for funds for travel assistance and under what conditions could eligible candidates then qualify for travel assistance. After discussing this issue with some of the YoungRad participants I can suggest the following guidelines (Note interpretation of these guidelines will be at the discretion of Program Manager on a case by case basis if required):

**Who can apply? (i.e. who is a young scientist?)**
Eligibility will be defined on the basis of qualification or equivalent experience.
Applicants for travel assistance will be eligible up to their first 2 years of post-doctoral work or of equivalent work experience in a NKS related research area.

**When can someone apply?**
Applications for travel assistance will only be considered if the applicant intends to make an oral and/or poster presentation at an NKS meeting, unless otherwise approved by the Program Manager

**How much can someone apply for?**
Applications for travel assistance should be in line with expected travel costs. Travel assistance will only cover associated travel and accommodation costs.

**How does someone apply for travel assistance?**
Potential applicants will be asked to take contact with the NKS-B Program Manager to determine the eligibility of their claim for travel assistance. Those applicants that have their claim for travel assistance approved will be asked to submit a form to the Program Manager...
specifying the applicant’s details, reason for attending meeting (including any abstracts of presentations made), travel costs and receipts. The form will then be forwarded to the NKS secretariat for reimbursement.

Involvement of Young Scientists in NKS
The following points have been raised through our discussions as a means of involving more young scientist in NKS activities:

- By offering the chance of travel assistance it would be hoped that more young scientists would take up the opportunity to be involved in NKS seminars and that supervisors would be more willing to let their students participate in such events.
- A dedicated session (oral and/or poster session) in future NKS summary seminars for young scientists, which can be organised by young scientists. A poster/oral presentation prize could be offered and awarded at the meeting dinner.
- The establishment of NKS Young Scientist representatives (national/institute) to lead the promotion of NKS amongst their peer group and liaise directly with the NKS Program Managers. These representatives could then organise the aforementioned young scientist sessions at subsequent NKS summary seminars.
- The choice of when to hold NKS seminars in the year should be made so that young scientists can attend (e.g. so not to clash with exams).