

# NKS-R Status

May 2017

# Status for activities from CfP 2016

Activity	Partners	Final report received	Report number	Status
BREDA_RPV	KTH + 4 partners	2017-03-15	NKS-385	Completed
HYBRID	Chalmers + 2 partners	2017-04-18	NKS-387 (CTH) NKS-388 (IFE)	Completed
L3PSA	LRC + 4 partners	2017-03-21	NKS-386	Completed
SC_AIM	VTT + 3 partners	2017-01-02	NKS-381	Completed
COPSAR	LUT + 2 partners	LUT 2017-03-13 VTT 2017-04-13	NKS-382, 383 and 384 (LUT) NKS-389 (VTT)	Partly completed (2/3) KTH missing
SPARC	KTH + 2 partners	Report reviewing ongoing (LRC) Updates requested from KTH and VTT (18 April)		Not completed
ADdground	VTT + 4 partners	Update requested (April 18)		Not completed
FIREBAN	LU + 4 partners	Draft received (May 16)		Not completed

# New NKS-R reports published on website

- **BREDA-RPV**
  - NKS-385: *Barsebäck as Research and Development Platform, Extraction and Analysis of Reactor Pressure Vessel Material*
- **HYBRID**
  - NKS-387: *Development of a hybrid neutron transport solver in 2 energy groups*
  - NKS-388: *Data and visualization solutions for HYBRID core simulation method*
- **L3PSA**
  - NKS-386: *Addressing off-site consequence criteria using Level 3 PSA*
- **SC\_AIM**
  - NKS-381: *Safety Culture Assurance and Improvement Methods in Complex Projects – Intermediate Report from the NKS-R SC\_AIM*
- **COPSAR**
  - NKS-382: *Sparger Tests in PPOOLEX on the Behaviour of Thermocline*
  - NKS-383: *Mixing Tests with an RHR Nozzle in PPOOLEX*
  - NKS-384: *Preliminary Spray Tests in PPOOLEX*
  - NKS-389: *Simulation of PPOOLEX stratification and mixing experiment SPA-TI*

# Status for activities from CfP 2017

Activity	Partners	Contract sent	Contract received	Funding
COPSAR	LUT	2017-01-26	2017-03-02	493
	KTH	2017-01-26	2017-06-02	
	VTT	2017-01-26	2017-04-06	
FIREBAN	LU + 4 partners	2017-01-27	2017-05-03	393
HYBRID	CTH + 1 partner	2017-01-30	2017-03-03	493
NORDEC	IFE + 8 partners	2017-01-26	2017-03-08	524
SC AIM	VTT + 1 partner	2017-01-26	2017-03-16	279
SPARC	KTH	2017-02-08	2017-06-02	524
	VTT	2017-02-08	2017-05-29	
	LRC	2017-02-08	2017-05-30	
WRANC	Inspecta + 2 partners	2017-01-31	2017-03-09	393

Status reports have been received from all activities.  
No major deviations have been reported.

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- L3PSA seminar - LRC in Sundbyberg 14<sup>th</sup> February 2017:
    - The objective of the seminar was to present and discuss the NPSAG/NKS Level 3 Probabilistic Safety Assessment Project and to present the final conclusions in the Guidance Document that had been completed recently
    - The seminar included a workshop with discussions on purposes and benefits of the results, identifying stakeholders and how to use the results
  - NORDEC - 20-21 November 2017, Halden, Norway
    - Workshop on challenges and opportunities for improving Nordic nuclear decommissioning
  - SC\_AIM
    - 3 research workshops planned within the area of safety culture
    - 3 scientific publications planned based on outcomes from workshops
  - FIREBAN - Workshop for PRA Integration in Q4 2018

- Publication issue for ATR-2015 is solved

Background: The Editor rejected a manuscript from ATR based on a reviewer comment that the results had been published already in NKS-372. NKS removed the report to enable publication of the article.

- VTT's article has been accepted for publication\*
- VTT will submit an updated NKS report with reference to the journal article
- Open access fee: EUR 1704,41 (excl. tax) – to be split by VTT and NKS

\*Kärkelä, T.; Kajan, I.; Tapper, U.; Auvinen, A.; Ekberg, C. *Progress in Nuclear Energy*, Vol. 99, **2017**, 38–48.

- Two requests have been received from Chalmers students who will present at the *18th biennial meeting on Reactor Physics in the Nordic Countries (RPNC-2017)*, hosted by DTU Nutech, Risø on May 8-9
  - Klas Jareteg (PhD student): "*Fine-mesh multiphysics of LWRs: two-phase flow challenges and opportunities*"
  - Huaiqian Yi (MSc student): "*Sensitivity analysis in reactor noise simulations*"
  - Total request of ca 8000 DKK

- BREDA-RPV has the intention to come back with a new proposal for CfP2018
  - The work in 2017 has been focused on extracting material from the RPV at Barsebäck
  - More research focus is planned for next year



Overall the work in NKS-R is progressing according to plan

- Status for the 8 activities from CfP 2016:
  - 4 activities are completed
  - 1 activity partly completed (final reports from 2 out of 3 partners)
  - 3 activities remain not completed (one draft report received)
  
  - 9 NKS-R reports have been published
  - 1 seminar was held in 2017
- Status for the 7 activities from CfP 2017:
  - **All contracts signed!**
  
  - ..., work basically on schedule
  - Fortum & TVO support agreements were submitted on May 24