

**ESARDA**

European SAFeguards Research and Development Association

Meeting of the Training and Knowledge Management WG, 27th May 2016, 38th ESARDA Annual Meeting – Luxembourg (24-27th May 2016)

I. NIEMEYER, 30 August 2016

Participants (24):

Kamel ABBAS	JRC ITU Ispra	EC
Oscar ALIQUE	DG Energy	EC
Jon COLEMAN	University of Liverpool	UK
Sylvain FANIELLE	FANC	BE
Alan HOMER	Sellafield Ltd	UK
Alexander ISEBAERT	DG Energy	EC
Staffan JACOBSSON SVARD (via video-conference)	Uppsala University	SE
Peter JANSSON	Uppsala University	SE
Maria-Eleni KAPETANIDI	DG Energy	EC
Krzysztof KRUK	PAA	PL
Romain MIGNOT	IRSN	FR
Lucie MILLOT	IRSN	FR
David MOUNTFORD	NNL	UK
Irmgard NIEMEYER (meeting chair)	Forschungszentrum Jülich	DE
Natacha PETER-STEIN	University of Tennessee	US
Ioanna POLIZOI	DG Energy	EC
Walid M'RAD DALI	FANC	BE
Riccardo ROSSA	SCK-CEN	BE
Mark SCHANFEIN	PNNL	US
Filippo SEVENI	JRC ITU Ispra	EC
Hamid TAGZIRIA	JRC ITU Ispra	EC
James TUSHINGHAM	NNL	UK
Clare WOOWAT	Sellafield Ltd	UK
Jozsef ZSIGRAI	JRC ITU Karlsruhe	EC



MINUTES

1. Opening of the meeting

I. NIEMEYER - chairing the session as TKM Chair Sophie GRAPE and TKM Vice-chair Veronique BERTHOU could not participate – opened the meeting and outlined the agenda. S. FANIELLE accepted to write the notes of the meeting. P. JANSSENS and R. ROSSA offered to share their meeting notes with the chair.

2. Presentation of new WG TKM members

All participants introduced themselves during a roundtable.

3. K. ABBAS - Evaluation of the 15th ESARDA course (April 11-15th, 2016 in Ispra)

K. ABBAS presented the 15th ESARDA which took place in April 2016 at the JRC in Ispra. This year, 45 participants with very different academic or professional backgrounds attended the course. While the highest number of participants came from Italy (7 participants), United Kingdom (7 participants), United States (5 participants) and Russia (3 participants), several came from outside the EU, which confirm the popularity of the course. The one-week course included lectures, practical exercises and technical visits to different JRC Ispra labs.

At the end of the course an evaluation form is distributed to the students and the lectures were mostly appreciated by the students.

The ESARDA course can be recognized by universities by passing an on-line exam and by writing an essay on a topic chosen by the student, providing ECTS credits for the course.

Suggestions were made to develop preparatory material (e.g. online modules) to introduce the students to the topic before the course.

It could be interesting to organize an informal talk to help the students to get involved in the nuclear safeguards community, discussing also potential hiring opportunities.

A question was raised whether the course includes a lecture on attended and unattended containment and surveillance measures, and whether also technical problems related to safeguards equipment are being discussed. Currently the technical part of the course was focused on some destructive and non-destructive assay techniques and instruments. The issue of how to address technical problems while using safeguards equipment will be considered for future courses.

4. K. ABBAS – Status update: Revision of the ESARDA book on nuclear safeguards and non-proliferation

After its publication in 2009, the ESARDA course book needs to be updated. In the next edition, new topics (e.g. new technologies, open source, satellite imagery, export control of dual use items, etc.) will be added. Some contributions were already sent to the editor. The revision of the existing chapters is currently on-going and the JRC is expecting to finalize it in 2017.



5. S. JACOBSSON SVARD – Presentation of the ANNETTE education and training (E&T) project: Purpose, participants, scope and timeline

S. JACOBSSON SVARD (via video-conference) introduced the Advanced Networking for Nuclear Education, Training and Transfer of Expertise (ANNETTE) Project. Started beginning of 2016, this project - which is not limited to safeguards – has the objective to first enhance the Europe-wide efforts initiated in the past decades by different organisation belonging to academia, research centres and industry, and second to maintain and develop education and training in the different nuclear areas.

The project is composed of 25 participating organizations, including four ESARDA parties. It is composed of 8 work packages, 3 of which include nuclear safeguards aspects:

- Work package 1 (survey on state of the art in E&T and vocational education and training for professionals);
- Work package 2 (design and implementation of coordinated E&T efforts) via proposals to, on the one hand, develop a nuclear safeguards course within an advanced master programme and, on the other hand, include nuclear safeguards content for a summer school;
- Work package 3 (generational transfer of expertise: promoting knowledge, skill competencies preservation in front of personnel turnover) via a comprehensive course material development on nuclear safeguards.

The main outcome from ANNETTE and the various work packages will be a European Master programme for continuous professional development (CPD) in nuclear science and technology and a European Summer School in nuclear disciplines. In addition, course material will be produced for the full range of nuclear disciplines and will be accessible to a wide audience.

Safeguards has been considered in the survey of WP1; in addition, a safeguards course will be developed in WP2 during the European CPD master programme. The ESARDA course book will be part of the background material for ANNETTE, also related to WP3, and will be adapted to the project. The intellectual properties rights to the content of the course book will stay with the respective contributors. Contributions from ESARDA WGs will be appreciated.

In 2017 the programme for the European CPD master programme and the summer school will be defined, and 2017-2018 are devoted to the development of the course materials. The pilot courses are foreseen in 2018-2019. Aalto University in Helsinki will host the summer school, which is expected to last for about 2 weeks. Nuclear safeguards could have 1-2 days in the summer school.

A paper in the next ESARDA bulletin can help in promoting the ANNETTE project.

ACTION (SCK-CEN): Send a reminder to fill the questionnaire.

Discussion: How can we make the best of ANNETTE and the earlier suggested new strategy on E&T for ESARDA?

At the last ESARDA Annual Meeting, S. GRAPE presented the vision “Building a Strategy for ESARDA - Education, Training and Knowledge Management”, including a task force in order to further investigate the proposed strategy and its implementation, and to collect their findings in a written report.



So far, not much has progressed beyond that initial presentation. Only a few WG have nominated representatives for the task force, as proposed by the strategy initiators. (Besides, the TKM WG being a horizontal WG generally aims at comprising representatives from all other ESARDA WGs.)

It was suggested to (better) disseminate information about the task force on the ESARDA and the NuSaSET web pages. Also, instead of having representatives of the other WGs within TKM, it was proposed to regularly attend the meeting of the other WGs, report on TKM issues and ask for feedback.

The strategy initiators were encouraged to continue building the strategy as presented.

6. New on NUSASET and training and education in nuclear safeguards between INMM, ESARDA and IAEA

6.1. Activities with INMM

N. PETER-STEIN reported on the 8th INMM-ESARDA Joint Workshop, which took place in Jackson Hole (US) on 5-7 October 2015. Four WGs were organized, including one WG on education and training. Lots of aspects were discussed during the workshop including:

- The maintenance of a lifelong education and training on safeguards aspects
- The establishment of Master level and post-graduate specialized courses in safeguards

A summary and outcomes from the joint ESARDA-INMM meeting (WG 4: Education and Training) in October 2015 will be presented at the upcoming annual meeting of the INMM in Atlanta.

6.2. Updates on NuSaSET

Andrea DE LUCA (JRC ITU Ispra), the administrator of the NuSaSET portal, is currently implementing a web stream functionality to follow lectures online. The broadcast of the meetings of the TKM WG could also be beneficial and will be further discussed.

7. Planned course activities during 2016

The 16th ESARDA course will take place in during the first quarter of 2017. The exact dates are still to be determined.

K. ABBAS informed that Safeguards course will be organized by JRC in many countries worldwide under the support of JRC to DG DEVCO.. The programme of course will be similar to the ESARDA course held in Ispra, although some adjustments would be made considering specificities of the beneficiary country. The organisation of these is very luckily to start shortly (within few months).

The following events were announced to take place in 2016:

- International Summer School on Nuclear Decommissioning and Waste Management (12 -16 September 2016) in Ispra and organisation by JRC. This course is opened for registration at <https://web.jrc.ec.europa.eu/rem/>
- EURATOM Member States Training 2016: European Nuclear Safeguards Training Seminar (5-8 December) in Luxembourg.

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More information at <https://ec.europa.eu/energy/sites/ener/files/documents/flyerMST2016.pdf>.

Deadline for applications: **12 September 2016**.

8. Next meeting

The next TKM WG meeting may take place in November 2016 in Ispra. However, no preference for a video or in-person meeting was expressed by the meeting participants. Item remains open.