



STEERING GROUP MEETING
June 7, 2023

Meeting Minutes
(CRR/EAN/SG/53)

[status = final version, 30 June 2023]

Participants:

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ANDRESZ Sylvain	CEPN	France, Scientific Secretary
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MULAS-PEREZ Arturo	CSN	Spain
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O'CONNOR Barry	EPA	Ireland
STRITT Nicolas	SFOPH	Switzerland, Treasurer
SYNNOTT Hugh	EPA	Ireland
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Apologies for absence:

ECONOMIDES Sotirios	EEAE	Greece
FOLKERT Draaisma	NRG	The Netherlands
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Distribution:

- Members of the EAN Steering Group,
- IAEA and observers,
- EFOMP and EUTERP contact persons.

The [Documents XX] discussed during the meeting are available in the private area of the EAN website < www.eu-alara.net >: Activities / EAN Documents and Publication / Steering Group meeting. Member shall use the following information to log-on:

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Agenda

The Agenda [Document 0] was sent to the Members before the meeting.

Discussion on financial aspects

The minutes of the Administrative Board meeting (CRR/EAN/AB/38) and the PowerPoint slideshow prepared by Nicolas Stritt [Document 1] present the information about the 2022 validated budget and the 2023 provisional budget as they were presented.

New representative in EAN and renewal of the EAN Bureau

Hugh Synnott is stepping down from the EAN and will be replaced by Barry O'Connor who is Radiation Licence Inspector at Environmental Protection Agency (EPA), Ireland. Barry has been welcomed by the Members.

The renewal of the EAN Bureau was on the agenda. Based on a common agreement of the Members, the current positions have not been changed: Fernand Vermeersch remains Chair, Pascal Croüail the Vice-Chair, Nicolas Stritt the Treasurer and Julie Morgan the Secretary. Fernand Vermeersch has indicated that he would like somebody else to hold the position of Chair after the next renewal (June 2024).

Status of EAN workshop

The last meeting of the Programme Committee took place from 09h00 to 09h30 the very same day. The programme of the workshop on "ALARA in interventional radiology and nuclear medicine" is awaiting the confirmation of some speakers to be considered finalized. Since the last EAN meeting, an announcement 'save the date' has been disseminated in May via the EAN mailing list and added to the EAN website and a registration website¹ has been

¹ https://akademie.ages.at/alara_network_meeting__workshop

set up by AGES. The programme committee plans to send a second announcement, with the programme in a few weeks.

EAN Webinar

The 1st EAN webinar “Challenges in applying the radiation protection system for the management of NORM and radon” was held 8 December with the support of AGES for the planning and the technical matters. More than 100 participants attended the event live, and this number can be regarded as quite successful. The slideshows from the 5 speakers have been uploaded on the EAN website along with the replay stored on YouTube. A synthesis co-authored by all the speakers has also been published in the EAN Newsletter 49 (March 2023).

The EAN set foot in the field of remote conference, and it was overall a rich experience and have most probably expand the scope of the usual audience of the EAN. However, the preparation is not trivial and the technical support from AGES was crucial and paramount in the success of the workshop. It should also be indicated that AGES provided this technical support (involving meeting for preparation and an assistance during the whole webinar) in-kind. Franz Kabrt has indicated that AGES is keen to reconduct this assistance, should the EAN decide on organizing another webinar.

Topics for EAN Workshop 21

Two main options for the topic of workshop 21 have been discussed: ALARA for small modular reactor (SMR) or ALARA in transport. A workshop on SMR can investigate the operational aspects of the plant, the design, the maintenance, and it is also a ‘new’ and trendy topic. But even in 2024-2025 when the workshop might take place, no SMR will be in operation (at least in Europe) and the presentations and the working groups can only be fed with concepts. Nonetheless, several organizations (ex. NEA) have already moved forward in the field of SMR and published document, so this does not prevent the EAN to investigate ALARA at the design stage of SMR.

The second option is the transport of radioactive materials which has never been the subject of an EAN workshop so far. It is an interesting topic considering the variety of exposure situations and the balance of requirements that make it bound to discuss on the graded approach. The transport of SMR components can also be presented.

The proposal to organize a workshop on inspectorate has also been discussed by the members, who proposed many topics: training, comparison between on-the-job training and ‘paper’ training; how Covid-19 has changed practices and remote inspection; the importance of self-assessment; IAEA inspection practices and broadly “how do you inspect ALARA?”. Yet, it was noted that the perimeter of the audience for the workshop might be more limited than other EAN workshops.

In the end, no topic for the next workshop was decided and it was proposed to give time to the reflection.

EAN-ENA collaboration

Cristina Nuccetelli informed the Members that the European NORM Association (ENA) is planning its next workshop at Rome, Italy from 15 to 17 May and may host a session organized by the EAN. Cristina will check this possibility with the scientific committee of the conference and the ENA board. The focus of the session will naturally be on the application on ALARA for NORM. Examples of presentation are: operational experience (from Italy?), reflections from EAN on the graded approach and holistic approach. A EAN working group will be constituted to interact with ENA and prepared the session (see p. 5).

EAN is a PIANOFORTE Stakeholder

The EAN is identified as a 'stakeholder' in PIANOFORTE, meaning that the EAN can be consulted by the consortium and provide advice and expertise in its field. Providing the subject of the Open Call 2023 – dealing with understanding of radiation induced cancer, individualized diagnosis for optimization and risk assessment/management approach due to war/armed conflict – the input of the EAN are very limited. Pascal Croüail declared that the second Open Call will be published in 2024.

Relation with ICRP

The ICRP Scientific Secretary has send a preliminary version of the synthesis of the ICRP workshop "Review and Revision of the System of Radiological Protection: A Focus on Research Priorities – Feedback from the International Community" at Estoril, Portugal, September 2022 [Document 2] and asking for feedback from each participant. **Pascal Croüail** will feedback to the Scientific Secretary before the deadline.

The EAN will be represented at the next ICRP Special Liaison Meeting taking place in Bristol, United Kingdom on Tuesday 26 September 2023. The SLO meeting take place just before a 2-days workshop organized the World Nuclear Association (WNA)

Fernand Vermeersch is currently member of ICRP Task Group (TG) 106 on mobile activity sources and Sylvain Andresz is member of TG 127 on exposure situations and categories of exposure, but not on behalf of the EAN. However, he can use EAN productions and networking capacities if needed. The first meeting of TG127 was in April 2023 and Sylvain Andresz presented the synthesis of the EAN webinar.

Opportunities to represent EAN at event/congress

- Cristina would like to represent the network at the Italian national congress of radiation protection in September 2023. She was invited to recycle an abstract (already in Italian) that was produced for the same event in 2007².
- Michèle Coeck is looking for an EAN member to represent the network at the ETRAP conference, 27-30 June 2023, Groningen, The Netherlands. **Sylvain Andresz** will ask Sotirios Economides, member of the programme committee of the event if he will actually attend and can represent the network.

² <https://www.eu-alara.net/images/stories/EANdocuments/Presentations/airp%20vasto%20ean.pdf>

- The EAN should consider a presentation at the ALARA Saint Malo conference that will take place in 2024 (the EAN was present at the former edition of the Saint Malo conference).

Newsletters

The EAN newsletter 49 was published in March 2023 with a discussion with ChatGPT on ALARA, an article on restriction of exposure in veterinary practices and two articles introducing the EAN workshop 20 and a synthesis of the webinar.

The publication of the next issue is planned in Autumn 2023. A paper presenting SHAMISEN-SINGS by Pascal Croüail is already available for publication. The older proposals³ are:

- Radon at Kinsarvik (from A L Rudjord, DSA, after contact made by **Julie Morgan**);
- The new radon map in Ireland (Allison Dowdall, after contact made by **Sylvain Andresz**);
- Result of dose exposure assessment to NORM for the workers and the public in Italy (**Cristina Nuccetelli and Venoso Gennaro**);
- Tritium management in Belgium (**Fernand Vermeersch**);
- Offer to AFAN to publish (**Sotirios Economides**);
- Offer to EUTERP to publish (ex. about ETRAP conference) (**Fernand Vermeersch** will ask Michèle Coeck);
- ALARA in the licencing of RECUMO facility (Recovery of Uranium from Mo-99 Production) (**Fernand Vermeersch** for EAN Newsletter 50 or later);

New proposals:

- The follow-up of the radium action plan in Switzerland (**Nicolas Stritt**);
- The follow-up of the radon action plan in Ireland – this article can be linked with the article on the new radon map by Allison Dowdall (**Barry O'Connor**).
- A NORM incident/NORM issue in Ireland – this article can support the EAN-ENA collaboration (see p. 4), yet it is not sure the material is publishable (**Barry O'Connor**).
- Presentation of the INVEAT Plan in Spain (**Arturo Pérez Mulas**)
- Considering a special article because this will be issue n°50.

Opportunities for EAN task group

To prepare the session integrated in the ENA conference in May (see p. 3) and continue the topic of the application of the ALARA principle for NORM and to a lesser extent radon (in this case, as a “by-product” of NORM) initiated with the EAN webinar, a NORM working group will be constituted with Cristina Nuccetelli, Fernand Vermeersch and Sylvain Andresz. Furthermore, **Selma Fijuljanin** and **Barry O'Connor** will each ask a colleague in their organization and **Sylvain Andresz** will ask to Malgorzata Sneve if she (or a colleague) would like to participate.

Topical session

³ Cf. minutes of the EAN SG meeting 51, June 2022, EAN SG meeting 52 December 2022.

CEPN proposed to organize a topic session on the “holistic” (or integrated) approach relevant when applying the ALARA principle in a multi-risks environment. The floor was open for presentations from the members who can display how the concept is understood, applied and what is the place of ALARA.

The presentations were: 1. The holistic approach in a panel of UK workplace by Julie Morgan [[Document 3](#)], 2. The Management of Covid-19 in French nuclear power plant by Sylvain Andresz [[Document 4](#)] and 3. Optimisation of protection, the cornerstone of radiation protection by Fernand Vermeersch [[Document 5](#)].

Julie Morgan indicated that the word “holistic” does not appear in the UK regulation but that employers must take into account and manage the different risks and hazards encountered at the workplace via a general risk assessment and those risks can sometimes interact and overlap with radiation protection. Furthermore, the risk assessment required for work with ionizing radiation (IR) has a different format from that required for general health & safety at the workplace regulation. Julie Morgan also indicated that the assessment of likelihood and severity of radiation risk by non-specialists can often be over-conservative and it requires use of experience and judgement to ensure a reasonable approach to the restriction of exposure and therefore input from radiation protection experts is key. .

In a ‘traditional’ workplace, the protection from IR is achieved with a panoply of organisational, technical, planning and educational control measures and Julie presented several workplaces:

- Industrial radiography, where handling of big heavy components or the presence of O₃ present other risks,
- Gauge and measurement in industrial facilities, paper and plastic fabrication: the source is located at height (control necessitate scaffolding) or in unpleasant place (heat, small place, ...) , making access and maintenance quite challenging. In some case, the source of radiation is caged to prevent unplanned access or theft, making the access even more difficult. Control and inspection can be more hazardous for an inspector not used to the facility where he/she is working.
- Portable gauge on road construction site can potentially be destroyed (by machine) or stolen (security is an issue).

It was apparent from the presentation that IR is only one (and not always the major) risk in the workplace and highlighted that in all these circumstances the balancing of all the risks is necessary via a suitable risk assessment. This assessment should also incorporate the reasonably foreseeable accidents and potential consequences to be more realistic. The holistic approach generates a lot of questions of ethical, regulatory and economical natures.

Sylvain Andresz based his presentation on an analysis of several documents produced by the French nuclear power plant utility EDF published at the beginning of the Covid-19 pandemic. The idea was to see if the introduction of a new risk (contamination of the worker with Covid-19) and a new health and safety objective (limit the spread of contamination from Covid-19) had affected in any way the application of radiation protection. Five sequences were discussed: the activities performed in controlled area, the washing machine service, the exit from controlled area, the emergency exit and the cleaning of exit monitor.

It appeared that after the risk from Covid-19 was introduced in the risk evaluation, the result can be:

- That the procedure already in place was compatible with Covid-19 so was not modified: the washing service process, the PPE - masks, gloves -in place for other risks.
- The procedure was not compatible with the extra risk, so was modified in line with the general principles of prevention, meaning avoiding the risk, adapting the work plan (limiting the activities, the number of staff, ...) and behaviour (maintaining a 1 m distance between the workers).
- The normal procedure is not compatible and was modified but this bring a new risk: the surgical mask has the potential to catch contamination with radionuclides, conceal it and increase the risk of internal contamination. The disinfection of exit monitor performed with UV lamp brought other risk to the workplace (artificial optical risk from UV) and required extra-protection.

These experiences show the constant trade-off between the risks which were often sorted with qualitative arguments ("*efficient*", "*optimized*", "*significant*", "*prime risk*") with the support of consultation of different parties (physicists, workers, ...) and sometimes by decision techniques (advantages/disadvantages).

In the end, it was not totally evident to decide if the described approaches totally fit with the ALARA principle. Although in line with the concept of ALARA and the risk prevention methodology, some decision could have seemed over-cautious.

Fernand Vermeersch based his presentation on what was presented at IAEA international conference on occupational radiation protection in September 2022 and a synthesis was already published in *EAN Newsletter* **48**, November 2022 p. 7-11. The key idea is that he application of the optimization principle set a reference frame and the conditions that all have a positive influence not only on ALARA but also on the holistic approach:

- Involve multiple stakeholders and support management commitment;
- Act in a responsible and ethical manner;
- Use forward-looking risk evaluation and balanced judgements for optimal use of resources;
- Give room to education and training and instillation of a culture;
- Support feedback and continuous improvement.

Overall, optimisation promotes a structured approach, transparent on the risk and the acceptable level and balanced judgement on the risks and the benefits allowing an optimal use of the resource, therefore supporting safety and safety culture.

Several topics of discussion were raised during the discussion time. In echo to Julie's presentation, Thierry Schneider declared that is it difficult to follow an 'holistic' scheme if ionizing radiation is not the main risk (ex. management of indoor air quality, including radon). Furthermore, it can be questioned what is the added value of applying ALARA for other risks, especially because minimizing one risk often mean shifting issues to another risk.

When it comes to PPE wearing, the procedures are not always followed, and they are examples where workers exposed to asbestos or lead/polonium (in clinker oven) just did not wear their mask. This has to do with training, understanding the risks and applying procedures.

Fernand Vermeersch indicated that the procedure against Covid-19 was somewhat different at SCK CEN nuclear facilities with more pragmatism, for example monitoring of contamination was performed with frisk (rather than exit monitor) and insisted that it is also important to understand people to avoid over-complication. Following on this, Thierry

Schneider informed that the Nuclear Energy Agency is planning a Third Stakeholder Involvement Workshop with focus on optimisation for decision making in September 2023, at NEA premises.

Next meetings: date and place

The next Administrative Board and Steering Group meetings are planned **15 December 2023**.

The next ones will be planned at the occasion of the ENA conference (so just before or just after the 15-17 May 2024), in Rome, Italy.
