

Preliminary version as 20 February 2019

# European ALARA

## Network Workshop n°18

(jointly organized with ISOE)

11,

12

& 13 March 2019



Institut de Chimie Séparative de Marcoule ICSM UMR 5257 – CEA / CNRS / UM / ENSCM Marcoule Nuclear Research Centre, Building No. 426 BP 17171, F-30207 Bagnols sur Cèze Cedex, FRANCE



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#### Objectives

- To present the regulatory background and latest guidance and standards regarding radiation protection for decommissioning and site remediation; both in the nuclear and the non-nuclear sectors.
- 2. To examine the conceptual and the practical aspects of the optimisation (ALARA) principle in these fields for workers and the public.
  - The workshop aims at gathering an array of experience and feedback from work performed in nuclear installations, installations outside the nuclear fuel cycle (ex. research facilities) and legacy sites.
- To discuss and investigate selected key themes and overriding issues with regard to ALARA; to identify remaining needs and perspectives.

The workshop is jointly organized with the ISOE Working Group on Decommissioning (WG-DECOM).





#### Programme Committee

Mr. Sylvain Andresz

Nuclear Protection Evaluation Centre (CEPN), France

Mr. Ignacio Calavia Gimenez Spanish Nuclear Authority (CSN), ISOE WG-DECOM, Spain

Ms. Petra Hansson Swedish Radiation Safety Authority (SSM), Sweden

Mr. Marc Lahfid CEA Marcoule, France

Mr. Paul Livolsi CEA-INSTN, France

Ms. Julie Gilchrist Public Health England (PHE), EAN Secretary, United

Kingdom

Mr. Bernd Rehs, Federal Office for the Safety of Nuclear Waste Management

(BfE), Germany

Mr. John H. Rowat IAEA, Decommissioning and Remediation Unit, Austria

Ms. Caroline Schieber Nuclear Protection Evaluation Centre (CEPN), France, Head

of ISOE-European Technical Centre

Mr. Nicolas Stritt, Federal Office of Public Health (FOPH), EAN Treasurer,

Switzerland

Mr. Ludovic Vaillant Nuclear Protection Evaluation Centre (CEPN), France

Mr. Fernand Vermeersch, SCK•CEN, EAN Chairman, Belgium

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#### **MONDAY II MARCH**

7:30		BUS SHUTTLE MEETING  Boulevard du Rhône parking lot, Avignon
8:30	9:00	REGISTRATION

#### **SESSION I. SETTING THE SCENE**

Chair: Mr. F. Vermeersch; Mr. I. Calavia

9:00	9:30	Introduction  Mr P. Guiberteau, Director of Marcoule installation, France  Presentation of former EAN workshops on the theme and the reasons to organize
		a new workshop
		Mr. F. Vermeersch, SCK•CEN, EAN Chairman, Belgium
9:30	9:45	ALARA issues in decommissioning: the point of view of the ISOE WG-DECOM Mr. I. Calavia, CSN, ISOE WG-Decom Chair, Spain
9:45	10:00	IAEA recommendations and guidance with regard to radiation protection for decommissioning and site remediation  Mr. J. Rowat, IAEA, United Kingdom
10:00	10:15	Creation of NEA Committee on Decommissioning and Legacy Management: what's new for radiation protection?  (TBC)
10:15	10:30	Regulatory Requirements for Radiation Protection in Decommissioning in Germany Dr. B. Rehs, BfE, Germany
10:30	11:00	COFFEE BREAK



## SESSION 2. ALARA FOR DECOMMISSIONING AND REMEDIATION OF NUCLEAR INSTALLATIONS (1/2)

Chair: ...

11:00	11:20	Scenarios and strategy for dismantling hot cell M2 at LHMA installation, Mol Mr. Ph. Antoine, SCK•CEN, Belgium
11:20	11:40	Dose estimation and optimisation during the decommissioning of the Low Flux Reactor in Petten, the Netherlands  Mr. F. Draaisma, NRG, The Netherlands
11:40	12:00	Risk assessment of internal exposure during decommissioning of nuclear facilities at the CEA Marcoule Centre Mr. F. Petitot, CEA Marcoule, France
12:00	12:20	Radiological characterization to lay the foundation of ALARA. Experience from Mühleberg NPP Mr. E. Neukäter, BKW Energie, Switzerland
12:20	12:40	Occupational radiation protection of workers in dismantling: current and future issues at Fukushima-Daiichi NPP Mr. L. Vaillant, CEPN, France
12:40	13:45	LUNCH

## SESSION 2. ALARA FOR DECOMMISSIONING AND REMEDIATION OF NUCLEAR INSTALLATIONS (2/2)

Chair: ...

13:45	14:05	The decommissioning of research installations CIEMAT in Madrid Mr. J. C. S. Vergara,
14:05	14:25	The site remediation of the FBFC fuel cycle facility in Dessel, Belgium Mrs. C. Mommaert, Bel V, Belgium
14:25	14:45	Full system decontamination, under ALARA point of view Dr. M. Knaack, TÜV Nord, Germany
14:45	15:05	Strategies for Nuclear Site Restoration Mr. M. Emptage, EA, United Kingdom
15:05	15:15	Introduction to Working Group
15:15	15:30	COFFEE BREAK
15:30	17:00	WORKING GROUPS (1/2)

17:15



Back to Boulevard du Rhône parking lot, Avignon



#### **TUESDAY 12 MARCH**

8:00



Boulevard du Rhône parking lot, Avignon

## SESSION 3. ALARA FOR DECOMMISSIONING AND REMEDIATION OF SITE OUTSIDE THE NUCLEAR SECTOR (1/2)

Chair: ...

9:00	9:20	The Radium Action Plan in Switzerland Mr. G. Di Tommaso, SFOPH, Switzerland
9:20	9:40	Remediation of a former gas mantle factory contaminated with radioactive <sup>232</sup> Th Mr. A. Lowe, PHE, United Kingdom
9:40	10:00	Radiation protection in the management of radioactive geological material in private buildings  J. Amoudruz, IRSN, France
10:00	10:20	The specificities of the management of waste coming from non-nuclear site clean- up (Pargny-sur-Saulx, France) TBC
10:20	10:50	COFFEE BREAK

## SESSION 3. ALARA FOR DECOMMISSIONING AND REMEDIATION OF SITE OUTSIDE THE NUCLEAR SECTOR (2/2)

Chair: ...

10:50	11:10	Remediation and release of the Randstad uranium mining and milling site Mr. H. Efraimsson, SSM, Sweden
11:10	11:30	A holistic approach and supportive role of radioecology in the remediation process: example of NORM legacy mine in Norway Mrs. J. Popic, DSA, Norway TBC



#### SESSION 4. TRANSVERSAL AND OVERRIDING ISSUES (1/2) Chair: .... Radioactivity and Asbestos at EDF/DP2D 11:30 11:50 Mr. G. Ranchoux, EDF/DP2D, France Risk Management at Legacy Sites and Facilities: Implications for Proportionate Risk 11:50 12:10 Management and a Graded Approach to Risk Assessment Mr G. Smith, United Kingdom Choosing a strategy for waste: recycling? disposal? And how to avoid accident. 12:10 12:30 Experience from an Italian agency. Mrs. M. R. Rosella, ARPA Lombardie, Italie 12:30 13:45

#### **SESSION 4. TRANSVERSAL AND OVERRIDING ISSUES (2/2)**

LUNCH

Chair: ....

13:45	14:05	Decommissioning of non-nuclear facilities: insight into the process Mr. A. Bloot, Applus RTD, The Netherland
14:05	14:25	Restricted Clearance - PAHs leading to challenge in dismantling Mrs. S. Fleck, VKTA Rossendorf, Germany
14:25	14:45	The Local Commission of Information of Marcoule: An Example of Public Involvement in the Decommissioning Mrs. Ch. Mouchet, CLI Marcoule, France
14:45	15:00	COFFEE BREAK
15:00	17:00	WORKING GROUP (2/2)

17:15

BUS SHUTTLE MEETING

Back to Boulevard du Rhône parking lot, Avignon



#### **WEDNESDAY 13 MARCH**

8:00



Boulevard du Rhône parking lot, Avignon

#### **WORKING GROUPS REPORTS**

9:00	9:20	WG1 - How to apply ALARA for workers in decommissioning and remediation? WG1's Rapporteur
9:20	9:40	WG2 - How to apply ALARA for workers in decommissioning and remediation? WG2's Rapporteur
9:40	10:00	WG3 - The holistic approach in risk management: how to be ALARA in the context of other risks? WG3's Rapporteur
10:00	10:20	WG4 - The challenges raised by waste and how to overcome? WG4's Rapporteur
10:20	10:50	COFFEE BREAK
10:50	12:00	Conclusions and recommendations of the workshop Farwell and next workshop EAN Representative(s)
12:00	13:00	LUNCH

13:00



#### **BUS SHUTTLE MEETING**

Back to Avignon TGV, then to Boulevard du Rhône parking lot, Avignon

#### **VISIT**

13:00 Transfer to Marcoule Centre, access and technical visits subject to last minute modification with regard to participation and work on-going on the installations

17:00



**BUS SHUTTLE MEETING** 

Back to Avignon TGV, then to Boulevard du Rhône parking lot, Avignon



#### Working groups

A significant part of the EAN Workshop program is devoted to discussions within working groups Each participant can participate to one working group, to be chosen at the registration stage).

The workshop conclusions and recommendations will synthetize the main points of the presentations and the discussions held during the working groups.

## > Working Group 1: How to apply ALARA for workers in the decommissioning and remediation?

- Decommissioning: right now, or wait?
- Status of the workers: occupationally exposed or not? Does it depend on the situation? Why?
- How to manage low dose rate and long exposure time?
- Do we need specific training?
- Etc.

#### > Working Group 2: How to apply ALARA for public in the decommissioning and remediation?

- How to decide the end-state of the installation (the process) and how low is too low?
- The best way to select the end-state/the radiological criteria? Does it depend on the situation? Why?
- Public concern and media attention vs. the expert point of view
- Etc.

#### > Working Group 3: The holistic approach in risk management: how to be ALARA in the context of other risks?

- Examples of multi-risks situation
- How to evaluate the (different) risks and put them into balance?
- Can one risk overwhelm the others? Can the management of one risk be in contradiction with the management of others?
- What are the key points to implement a successful holistic strategy?
- Etc.



#### > Working Group 4: The challenges raised by wastes and how to overcome?

- Choosing the strategy considering the amount of waste, the disposal routes and ...?
- Radiological characterization of waste: what is the best strategy?
- The concept of clearance level: examples and comparison
- How to manage mixed wastes: radiological + chemical
- Etc.



#### ABSTRACTS

(to be completed)



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## 18th workshop of the European ALARA Network [joint with ISOE]

# ALARA for Decommissioning and Site Remediation



II-13 March 2019
CEA-Marcoule Nuclear Centre, France

http://c.planetReg.com/EANworkshop18









#### **BUS SHUTTLE PICK UP POINT AT AVIGNON CITY**

