
Radiation protection managers meeting

Brussels – 31 May 2016

Summary



Agenda - morning

Time	Subject	Speaker
8:30	Welcome and coffee	
9:00	Introduction and presentation of ENGIE Electrabel NPP and RP results	Benoit Lance, ENGIE Electrabel
9:20	International feedback on cavity decontamination following the EPRI-EDF workshops	Marie Michelet, EdF
9:50	RP planning processes – various approaches and benchmark	Stefan Navert, BKW
10:40	Unplanned exposure during the cleaning of internal parts of reactor in Bohunice NPP	Lubomir Dobis, Slovenské elektrárne, Bohunice NPP
11:40	Identification of an alpha risk for the plant outage	Thierry Huart and Christel Miliche, ENGIE Electrabel
12:10	Lowered dose limit to the lens of the eye - Preparations at Forsmark NPP	Staffan Hennigor, VATTENFALL
12:40	Lunch	

Agenda - afternoon

13:20	Post Fukushima radiation protection @ Forsmark NPP	Staffan Hennigor, VATTENFALL
13:50	Post Fukushima radiation protection @ ENGIE Electrabel	Benoit Lance, ENGIE Electrabel
	<ul style="list-style-type: none">- Presentation of the Electrabel NLSC trailer- Visit of the NLSC trailer- Group Picture	Geneviève Dumont, Tractebel ENGIE
14:50	Coffee	
15:10	Source term reduction successes	David Miller, American Electric Power, Cook NPP
15:40	Defining the properties of activated FME scrap and testing the gamma camera at Loviisa NPP	Miska Hirvela, FORTUM
16:10	Clearance of radioactive waste in Switzerland	Thomas Taylor, BKW
16:40	Meeting wrap up	Benoit Lance & Borut Breznik
17:00	Meeting closure	

- 18 active and happy participants !



RPM meeting summary (1)

• Introduction and presentation of ENGIE Electrabel, NPP fleet and RP results

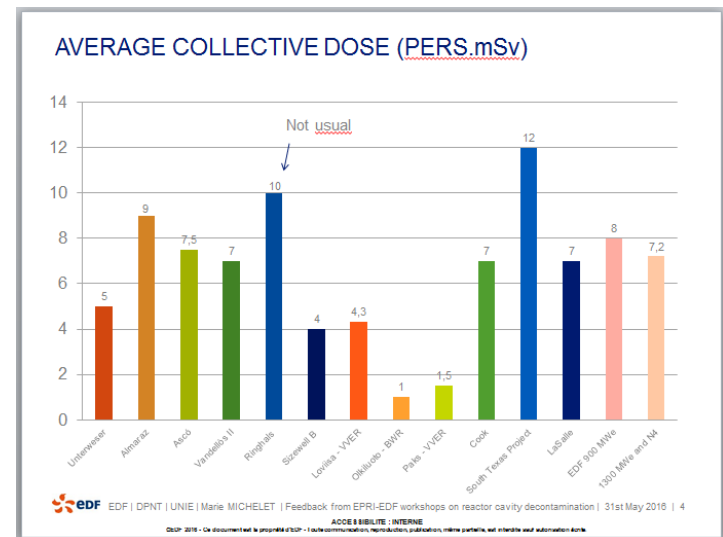
— Speaker : Benoit Lance (ENGIE Electrabel)

— **Highlight** : historically good RP results (e.g. WANO CRE) but the challenge is now to remain amongst the best quartile (LTO perspective)

• International feedback on cavity decontamination following the EPRI-EDF workshops

— Speaker : Marie Michelet (EdF)

— **Highlight** : various means to manage the decontamination of the cavity were discussed : coating, use of H₂O₂, testing of robots, etc. Methods still investigated.



RPM meeting summary (2)

- **RP planning processes – various approaches and benchmark**

- Speaker : Stephan Navert (BKW – Muhleberg NPP)

- **Highlight** : open discussion about how to implement the ALARA approach. Inputs from the participants RP managers evidence that the collective dose is not the only parameter, but account taken of individual dose, dose rate and contamination level. Innovative way of using dose budget was also presented from the US side. Shared commitment with Maintenance and Engineering department

- **Unplanned exposure during the cleaning of internal parts of reactor Bohunice NPP**

- Speaker : Lubomir Dobis (Slovenske elektrarne – Bohunice NPP)

- **Highlight** : event during which an activated foreign material has been removed by contractors. However several non respects of the rules resulted in an unexpected local exposure (hand and skin) that had to be a posteriori assessed

- → this raised the discussion about a revival of the collection of the lessons learnt from events with RP impact, to be managed by ISOE

RPM meeting summary (3)

● Identification of an alpha risk for the plant outage

- Speaker : Christel Miliche (ENGIE Electrabel)
- **Highlight** : summary of the practices at ENGIE Electrabel (Doel & Tihange NPPs) was presented, along with the summary of the answers received through the ISOE forum. This ISOE request is still open for input ; EdF provided further input during the meeting

● Lowered dose limit to the lens of the eye – preparations at Forsmark NPP

- Speaker : Staffan Hennigor (VATTENFALL, Forsmark NPP)



- **Highlight** : interesting measuring campaigns undertaken since 2013 at Forsmark NPP, kicked off by the reduced dose limit to the lens of the eye (ICRP recommendation). It is underlined that the characterization of the radiation field is a must-know parameter. The insights from other utilities are shared : EdF, Bohunice NPP (pragmatical approach), etc. The main issue is still open : will it be necessary to measure the lens of the eye for NPP workers ?

RPM meeting summary (4)

- **Post Fukushima RP @ Forsmark NPP**

- Speaker : Staffan Hennigor (VATTENFALL, Forsmark NPP)

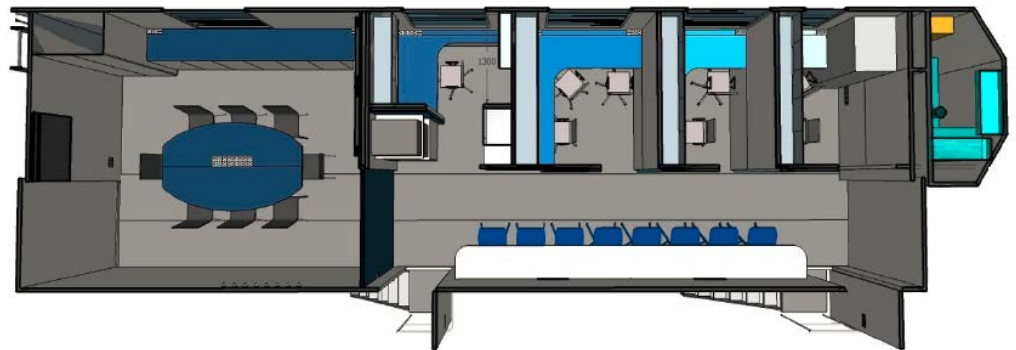
- **Post Fukushima RP @ ENGIE Electrabel**

- Speaker : Benoit Lance (ENGIE Electrabel) and Geneviève Dumont (Tractebel ENGIE)

- **Highlights**

- Agreement of the approaches developed by both utilities : additional RP material, safe storage places for the material, mutual and contractor assistance between NPPs, concept of rear base, enhanced logistics

- Visit of the emergency trailer of ENGIE Electrabel

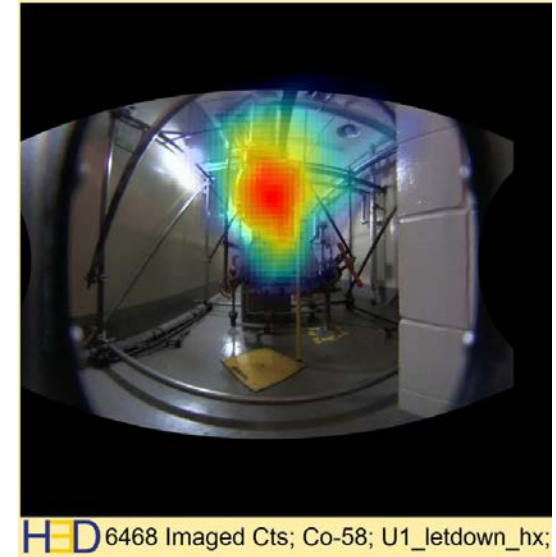


RPM meeting summary (5)

• Source term reduction successes

— Speaker : David Miller (Cook NPP, American Electric Power)

— **Highlight** : involvement of the NATC on RP education and training of Japanese students. Development on the use of CZT and gamma camera. Examples of source term management at some US plants



• Defining the properties of activated FME scrap and testing the gamma camera at Loviisa NPP

— Speaker : Miska Hirvela (Loviisa NPP, FORTUM)

— **Highlight** : presentation of the use of a gamma camera, characterization of a highly activated foreign material as a training case. Use of a camera inside the NPP to support work preparation and training : movie of the work place

RPM meeting summary (6)

- **Clearance of radioactive waste in Switzerland**

- Speaker : Thomas Taylor (BKW, Muhleberg NPP)

- **Highlight** : preparation of BKW for the coming (2019) decommissioning of Muhleberg NPP. Several issues still pending for the treatment of metal waste (cutting process, decontamination, waste conditioning, impact on the doses)



●RPM meeting summary - Conclusions

- A large variety of subjects were covered
- Open discussion – good interaction
- Revival of lessons learnt collection : AFI for ISOE ?
- Visit of the emergency trailer // WGDA meeting
- Objectives are reached !

