



RP Management Recovery Plan at EDF: Indicators and Tools

ISOE International Symposium

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SUMMARY

- 1.** Context
- 2.** Recovery Plan
- 3.** Tools
- 4.** Indicators
- 5.** First results

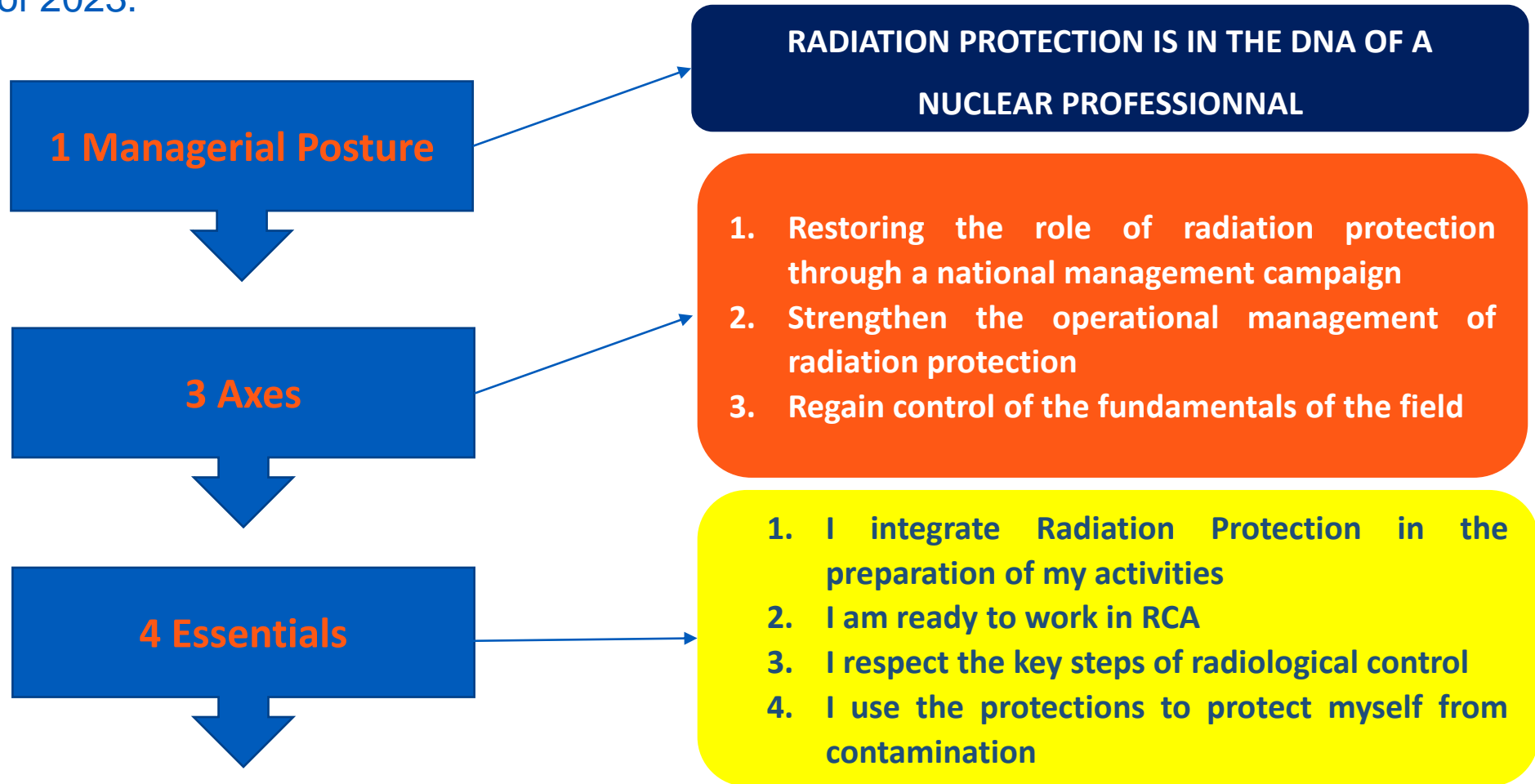


1 – Context

- Since 2017, the annual analysis of our events and results highlights **a gradual erosion of the mastery of fundamental field skills and of the radiation protection culture.**
- **Non-compliance with access or intervention requirements in RCA**, too often associated with inappropriate behavior, accounts for the majority of events characterized over four years, with more than 170 significant events / year.
- **Sensitive activities** (high dose rate areas, industrial radiography) **show a recurrence and an increase in their level of severity and potential consequences** (risk of accidental irradiation).
- **The balance sheet for contamination control is close to unacceptable** (increased skin doses and internal contamination), with no progress for several years.

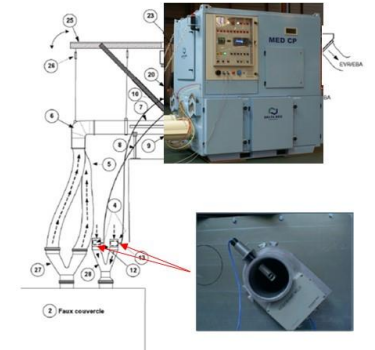
2 – RP Management Recovery Plan

- EDF’s Corporate Management decided to set up a **RP Management Recovery Plan** until the end of 2023.



3 – Tools

- **A pedagogical and practical national booklet**
- **A new one-day on-site RP course for the managers** (EDF and contractors)
- **A new training module for service providers in charge of logistics, on "worksite containment"**
- **New E-Learnings:** radiological cleanliness, High Rad Area (2-100 mSv/h), High Rad Locked Area (> 100 mSv/h)



4 – Indicators (1)



- **RP Management:**

- Total Significant Events
- Significant Events « non-compliance with RCA access conditions »

- **Exposure:**

- Collective dose
- Individual doses: average, number of workers > 14mSv/12 months, number of workers 10-14 mSv/12 months
- Hourly Dose index

4 – Indicators (2)

■ Sensitive activities:

- Significant Events « Industrial Radiography »
- Significant Events « orange area » (2-100 mSv/h)
- Significant Events « red area » (> 100 mSv/h)
- Significant Events « Radioactive sources »



■ Contamination Management:

- Significant Events « skin doses »
- Significant Events « radiological cleanliness »
- Triggering rate « whole body monitoring C2 » (RCA exit)
- Number of triggers « whole body monitoring C3 » (site exit)
- Monitoring of the radiological cleanliness of the site's roads

5 – First Results (1)

SIGNIFICATIVE EVENTS					
	2018	2019	2020	2021	mai-22
TOTAL	170	171	173	168	64
"non-compliance with RCA access conditions"	48	34	51	49	14

	Unité	2019	2020	2021	2022	2022 Objective	Trend
Average Collective Dose	H.Sv/Unit	0,74	0,61	0,71	0,28	≤0,80	
Individual Dose 10-14mSv	Nb	151	73	189	131	≤200	
Individual Dose >14mSv	Nb	0	0	0	0	0	



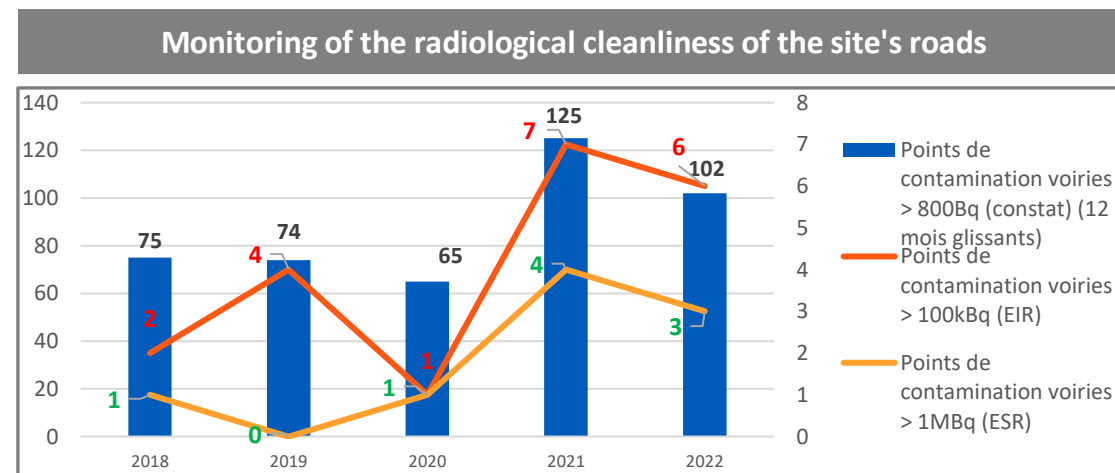
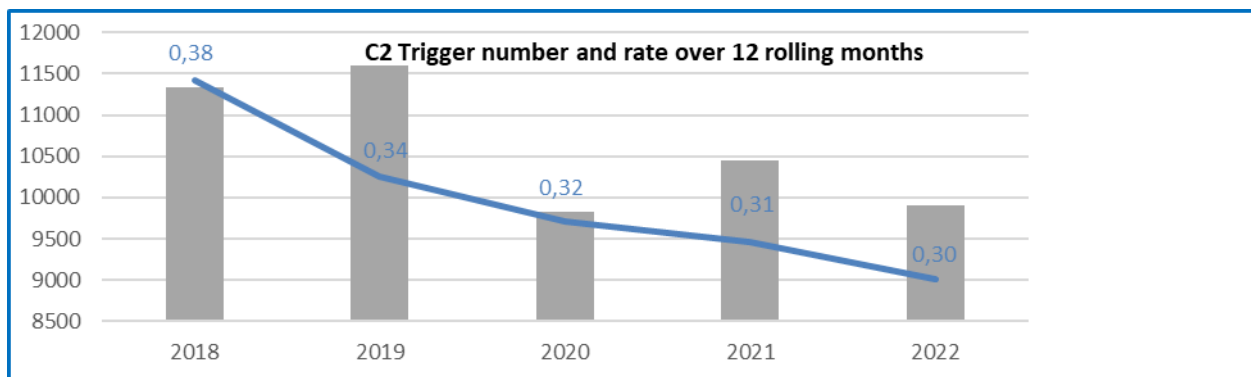
Events							
	2018	2019	2020	2021	mai-22	2022 Objective	Trend
SE "Industrial radiography"	6	9	9	4	5	≤10	
SE "Red Area"	2	4	8	1	0		
SE "Orange Area"	36	44	35	28	8	≤25	
SE "Radioactive Sources"	25	8	7	13	10	≤ 10	

5 – First Results (2)



Contamination Events							
	2018	2019	2020	2021	mai-22	2022 Objective	Trend
SE "Skin Dose"	2	7	8	5	1	≤3	
SE "Radiological Cleanliness"	25	35	20	17	7	≤20	

	2018	2019	2020	2021	avr-22	2022 Objective	Trend
C3 (nb)	59	75	64	75	12	≤60	





**Thank you for your attention
Questions ?**

