

Working Group 3

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The holistic approach:

***How to be ALARA
in the context of
other risks?***



Holistic Approach

Multi-risks situations: deconstruction +
remediation, radioactivity + chemical

Taking into account sustainability as well



Challenges

- How to evaluate the risks and put them into balance to identify priorities? (and given the uncertainties)
- 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?



Evaluate the risks and put them into balance to identify priorities

- “Everyone wants to go home safely” (decom process) – “Everyone wants to stay in a safe home for now and in the future” (site)
- integrated (risk) approach from the perspective of the operator, regulator, public

Hazard Identification (HAZID) – Rank hazards (risk matrix) – Graded approach to mitigate the main risk

Evaluate the risks and put them into balance to identify priorities

Q: How to evaluate (quantify) risks and compare to other risks?

- Stochastic versus deterministic effects (prevent deterministic effect, keep stochastic effects as low as reasonably achievable, both in RP as in Industrial Safety)
- Workers versus public

Hazard Identification (HAZID) – Rank hazards (risk matrix) – Graded approach to mitigate the main risk

Can one risk overwhelm the others?

- See previous – HAZID and ranking
- Can the management of one risk be in contradiction with the management of others?
YES, e.g. asbestos
- Accept the extra 10 microSv if working on the scaffolding is performed safer”
- “Extra 10 microSv is not justified for a less relevant check”
→ apply optimisation principle



Key points

Optimisation (ALARA) is a case-by-case process

CONCLUSIONS

- STATEMENTS:
- “Everyone wants to go home safely” (decom process) – “Everyone wants to stay in a safe home for now and in the future” (site)
- Requires integrated (risk) approach from the perspective of the operator, regulator and public
- Regulator determines legal boundary conditions
- Team work with all stakeholders is needed to have an overview of / to assess the hazards and risks
- Adjust your process (dynamic way to the ‘fixed end state’) along the way as new insights pop up – e.g. PDCA cycle / STAR-principle (Plan – Do – Check – Adjust and Stop – Think – Act – Review)
- Hazard Identification (HAZID) – Rank hazards (risk matrix) – Graded approach to mitigate the main risk