

KYT2022 OMT

Overall Safety of Nuclear Waste Disposal

SAFIR2022 - KYT2022 Interim webinar

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09/04/2021 VTT – beyond the obvious

Introduction

- Small steering group project
- Interdisciplinary team: natural science, engineering, social science
- Research questions:
 - Overall safety in Finnish context
 - Representation of overall safety in safety case methodology



Introduction

- Methods
 - Literature review starting from the SOTA Safety Culture and Safety Case concepts
 - Structured in-depth interviews of 17 RWM experts at VTT
- Dissemination of results:
 - VTT report series publication
www.vttresearch.com/sites/default/files/pdf/technology/2019/T364.pdf
 - Final report
 - Open seminar 25.10.2019

} <http://kyt2022.vtt.fi/>

The left side of the slide features a vertical panel with a repeating abstract geometric pattern. The pattern consists of interlocking shapes that create a 3D effect, resembling a grid of rounded cubes or a tessellation of overlapping planes. The colors are various shades of orange and cream.

Interviews

Selected findings

Safety culture

- Change in mind-set noticed at implementer during transition from research focused organisation to operating company

- Imperfection: possibility of mistakes and to admit lacking knowledge
 - honesty and speaking up when noticing a mistake is appreciated

 - proper pre-conditions for addressing mistakes? (schedules, budget)

 - redundancy of expertise necessary to discuss concerns
→ critical knowledge, compartmentalization of knowledge

Compartmentalization of knowledge

- Division and distribution of information to different contractors
- Experts working isolated and exclusively on certain topic. Often no (equivalent) redundancy of expertise
 - exchange of expert opinions with similar in-depth understanding limited
 - danger of loss of knowledge with retirement of experts (critical knowledge?)
- Confidentiality may constrain information flow between experts
- Commercial reasons may constrain Finnish-Swedish collaboration

Competence and knowledge mgmt.

- Danger of future dependence on expertise abroad
- Definition of “critical” competence desirable (knowledge transfer)
- Attractivity to work in nuclear field in Finland
 - close to solve final disposal problem
 - approx. stagnant NPP fleet
 - remote area (Olkiluoto, Hanhikivi)
 - reputation/perception of nuclear in future
- Challenges in research funding (industry, public)

Future activities?

- Idea: extension of interviews to several stakeholders
 - Finnish NWM community and institutional strength-in-depth (ISiD)
 - compartmentalization of knowledge and decision-making
 - communication of assumptions and uncertainties between specialists and generalists
 - critical knowledge: definition, preservation and transfer

- Proposal unsuccessful. Refine and try again after completion of Posiva's and TVO's current safety case work

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