

# What is needed for success in disposal regulation – Finnish regulatory expertise at your service

Director Jussi Heinonen

Nuclear Waste and Material Safeguards Regulation

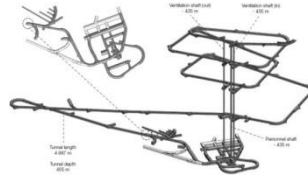
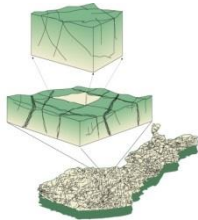
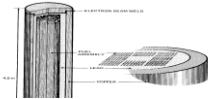
# STUK - Radiation and Nuclear Safety Authority



## Mission:

Protecting people,  
society, environment,  
and future generations  
from harmful effects of  
radiation

# Regulatory approach for disposal



Late 1970' - 2000

**Decision-in-Principle**

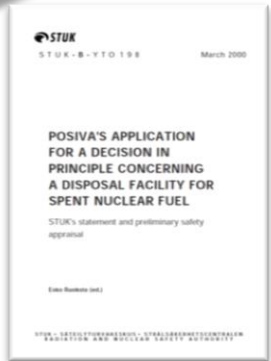
2001 - 2015

**Construction license**

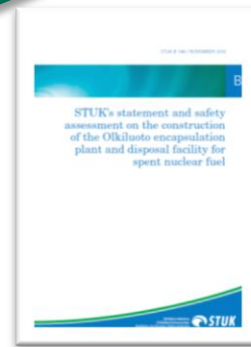
2016- 2023

**Application for the operating license**

**First safety requirements**  
**Review of developing safety case**  
**Dialogue with Posiva and stakeholders**



**License application review strategy**  
**Oversight of ONKALO construction**  
**Competence building**



**Updated safety requirements**  
**Oversight of encapsulation plant and disposal facility construction**

# Learning from experiences and changing regulatory position

Transition from idealism "discovering a geologically superior site" to realism: "selection of a societally favourable, geologically adequate site"

Transition from issue based review "we need to solve all scientific debates" to safety based review "we need be assured about safety"

From R&D to industrial process?

First safety requirements  
Review of developing safety case  
Dialogue with Posiva and stakeholders

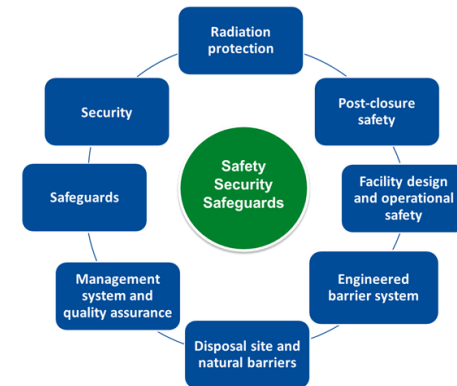
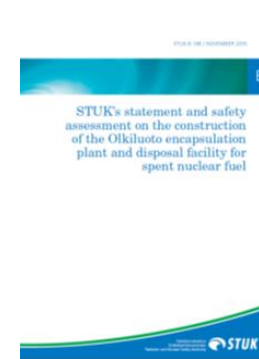
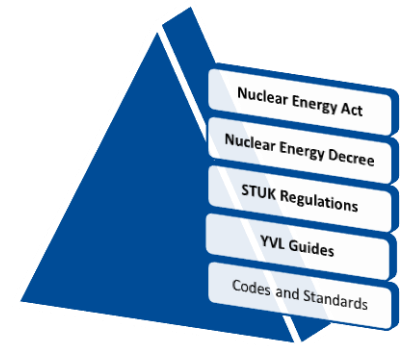
License application review strategy  
Oversight of ONKALO construction  
Competence building

Updated safety requirements  
Oversight of construction

Application for the operating license

# STUK's regulatory expertise

- Up-to-date and state-of-the-art safety regulations for disposal
- Regulatory approaches for repository licensing and oversight of construction
- In-house expertise for all safety relevant fields
- Approach for regulatory interaction and dialogue with applicant and stakeholders



# Professionals at your service

- Stuk International Ltd. develops and improves radiation and nuclear safety worldwide.
- Support in
  - Development of regulatory framework.
  - Establishment of organizational structure of regulatory body.
  - Recruitment assistance of key personnel. (advisory service - no recruitment as such)
  - Development of safeguards and physical protection standards and systems.
  - Capability and knowledge development.

*Utilization of  
STUK resources*

# Key success factors in STUK's regulatory work

## Will, Commitment & Courage

### Commitment and courage to decision making

- Commitment to national policy and strategy
- Implementation of step-wise approach

## Active regulatory work

### Active involvement, development of regulatory framework

- Clear regulatory framework
- Development of regulatory approach parallel with R&D
- Timely and focused communication with the stakeholders

## Knowledge and understanding

### Competence development

- Regular follow-up and review of the spent fuel disposal program
- Regulators safety assessment capabilities
- Active dialogue with Posiva



## **Radiation and Nuclear Safety Authority**

**Protecting people, society,  
environment, and future  
generations from harmful effects  
of radiation**

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## **STUK International Ltd**

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