



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Federal Nuclear Safety Inspectorate ENSI

Disposal of Radioactive Waste – the Development of Disposal Facilities

Role of the Regulator – Expectations towards the Implementer

Hans Wanner

Swiss Federal Nuclear Safety Inspectorate ENSI, Switzerland

Symposium – „Current and Future Challenges for Nuclear Power Regulators“
Brugg, 20 January 2011



The Role of ENSI (general)

ENSI is the supervisory authority for the nuclear facilities in Switzerland

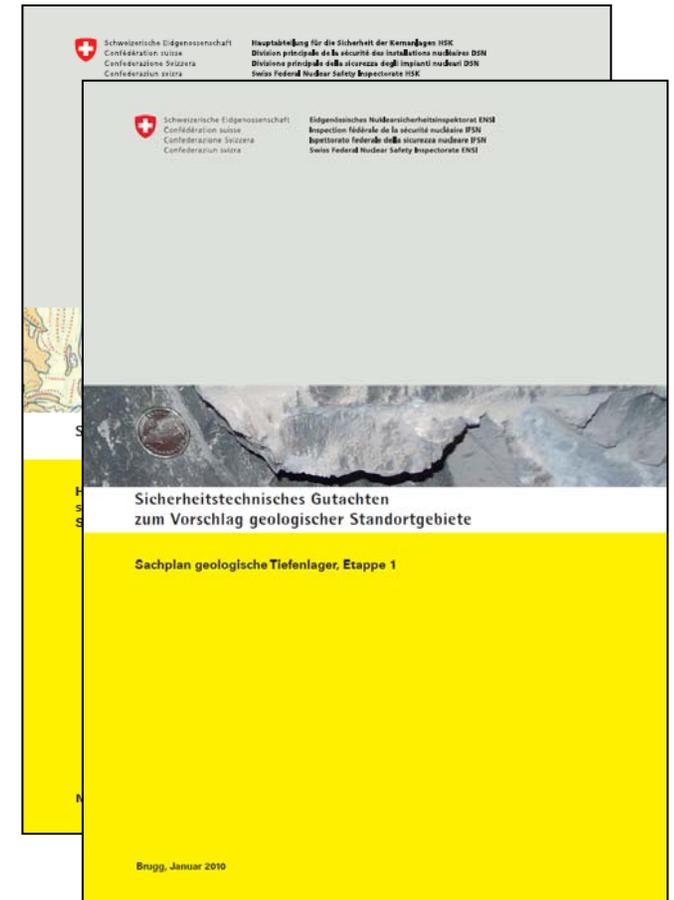
- ENSI specifies the detailed requirements in regulatory guidelines
- ENSI reviews the licence applications
- ENSI supervises the nuclear facilities, the preparations for radioactive waste disposal, and the transport of radioactive materials from and to nuclear facilities



Site Selection Process for Geological Repositories

Stage 1: Selection of geological siting regions

- ENSI specified the safety criteria to be applied by Nagra in selecting geological siting regions:
 - Properties of host rock
 - Long-term stability of geological formations
 - Reliability of geological database
 - Engineering suitability
- ENSI assessed Nagra's proposals and published a review report



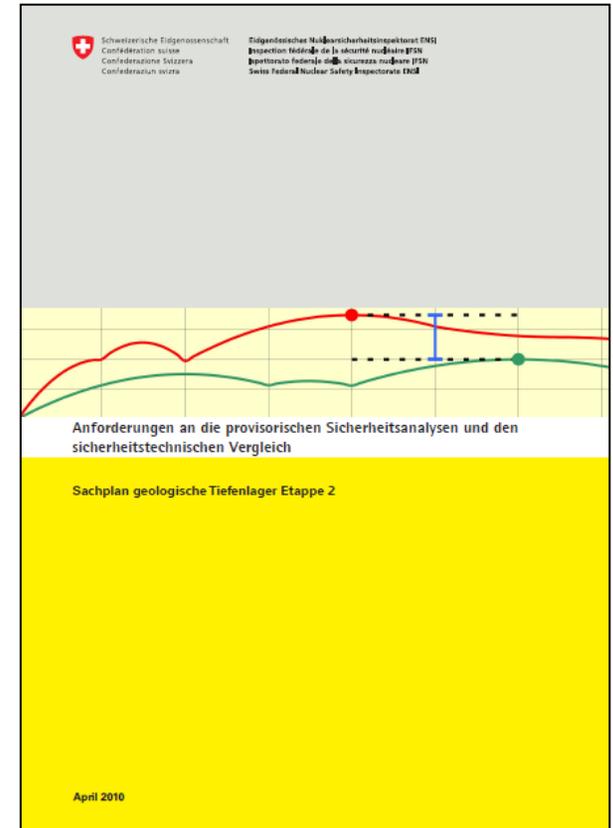


Site Selection Process for Geological Repositories

Stage 2: Selection of at least two sites

ENSI specified safety related procedure:

- Requirements for the safety analysis and for the comparison of sites
- Required data and analyses
- Instructions for parameter variations
- Method of comparison of selected sites





Site Selection Process for Geological Repositories

Expectations towards the Implementer

- To follow the instructions and to fulfill the requirements as defined by ENSI
- Sound projects and transparent procedures
- Reproducible results and intelligible reports
- High availability of the implementer for interactions with the regulator
- Public compatibility of documentation (stakeholders!)



Site Selection Process for Geological Repositories

Actors and stakeholders

- Nuclear Safety Commission
- Waste Management Advisory Council
- Cantonal Commission
- Cantonal expert group on safety
- Communes in the siting regions
- Groups and committees in Germany
- General public, journalists, politicians, NGO's





Site Selection Process for Geological Repositories

The actors and the Public want to understand:

- Why a particular site has been selected
- What the waste is like
- Why the planned repository is considered safe
- Why drinking water resources are not endangered
- Why it is possible to make long term predictions
- What if the experts are wrong



Why is the Public that important?

Because in Switzerland,
the General Licence for nuclear facilities is

1. granted by the federal government
2. confirmed by Parliament
3. subject to optional national referendum



What the Public wants

The Public wants an independent second opinion

- Is ENSI independent enough?
 - Independent competence
 - Distance to implementer, but dialogue is important
 - Independent research, but quality and guidance are important
- Nuclear Safety Commission KNS
- Cantonal expert group
- NGO's, private „experts“, politicians



Credibility and Confidence

The Public depends on credible experts

- „Experts“ are ubiquitous
- No distinction between competence and incompetence
- Credibility counts
- Plausibility leads to credibility
- Plausibility requires a certain understanding

Challenge: Simplified but correct information on complex technical matters



What the Public further wants

Some specific, safety relevant requests:

- Decisions must be reversible → The waste must be retrievable.
- Long term safety → active control preferred over passive safety
- Research should find ways to „destroy“ the waste → Wait for „better“ solutions
- Only the „safest site“ is an acceptable site.



Major Future Challenges for ENSI

How to take account of public interests while maintaining principle safety requirements?

Main principles:

- Safety comes first, public interest comes second.
- National and international safety requirements must not be violated.
- Continuous public information by ENSI is essential for confidence building.



Major Future Challenges for ENSI

How to inform the public on safety issues?

- Periodical interaction with stakeholders and the public
- Technical discussion forum (TFS)
- Information events for journalists
- Presence in electronic media (TV, radio)
- Interviews in print media
- Participation in local public information events



Summary

Key issues & challenges

- ENSI's legal task comes first.
- Satisfying public requests while maintaining high safety standards
- Communicate simplified but correct technical information to the Public
- Credibility & confidence: Positioning as a public trustee (competence, independence, availability)
- Dialogue with stakeholders (implementer, administration, politicians, NGO's, public)



thank you