NEA Workshop on Stakeholder Involvement in Nuclear Decision Making

Session 4: Radioactive Waste Management

View of the Implementer on the Swiss Site Selection Procedure

Paris, January 18th 2017
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Licensing Steps for Repositories in Switzerland

2008 - 2029 ~ 2031 LLW ~ 2045 HLW ~ 2049

- **Federal Council**
  - Feasibility Studies
  - Site selection
  - Sectoral Plan
  - General License
  - Federal Council Cantons
  - Federal Council Parliament (Referendum)

- **Construction License**
  - Federal Department
  - Operating License

LLW: Low Level Waste
HLW: High Level Waste
Sectoral Plan: Two levels

- **Surface facilities**: There is some flexibility regarding the locations, access routes and layout of tunnels and shafts

  → Regional Participation

- **Underground facilities**: There is less flexibility regarding the repository location conditioned by the host rock, as priority is given to long term safety

  → Preliminary safety analyses
Site Selection for Underground Facilities (ongoing)

Stage 1 (2008 – 2011)

- A result of systematic application of requirements of Sectoral Plan
- Considered geological possibilities in the whole of Switzerland
- Derived in a systematic, step-wise process based on safety and engineering feasibility
Selecting locations for Surface Facilities in Stage 2

- January 2012: 20 locations for surface facilities proposed by Nagra
- 2012-2013: Discussion and evaluation in the siting regions (cantons and regional conferences), requests for alternative proposals
- 2013-2014: Planning studies submitted by Nagra based upon the statements of the regional conferences.
Field Investigations in Preparation of Stage 3

Successful field operations in a densely populated area are only possible with a strong involvement of the local stakeholders.

- **Deep boreholes:** Intensive communication with the concerned cantons, communities and private land owners, explaining the exploration concepts and goals of the investigations. Only by gaining their support, we can hand-in the well proposals to be authorized by the SFOE under the Nuclear Energy Act.

- **Field investigations:** Application for the necessary operational authorizations from the cantons; permitting with the communities and private land-owners to obtain their go-ahead for performing the measurements on their land parcels.
  - 3D-Seismics: > 96% land entry permits.
A participatory approach does not guarantee the success of a project, but may promote a **better understanding** of the issues;

Stakeholders in Switzerland are in general prepared to **engage and work together** (and to accept basic rules defined beforehand) to solve an important environmental issue – **as long as the disposal project remains strictly national**;

Various stakeholders display a broad range of backgrounds and experience. **Different information channels** are necessary for efficient communication;

**Person-to-person communication** at the right level of detail and complexity helps building mutual trust;

**Sufficient resources** must be available for discussing controversial topics and explaining criteria selected and choices made;

**Field investigations** are generally well accepted;
Public involvement: Lessons learned

- on time...
  - According to the current schedule, the site selection process in Switzerland will take at least twice as long as originally planned;

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<th>Planned</th>
<th>Current</th>
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<tbody>
<tr>
<td>Stage 1</td>
<td>2.5 years</td>
<td>4 years</td>
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<tr>
<td>Stage 2</td>
<td>2.5 years</td>
<td>~ 6 years</td>
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<tr>
<td>Stage 3</td>
<td>~ 2.5 – 4.5 years</td>
<td>&gt; 9 years</td>
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- ...and money: The participation process is costly and is financed by the implementer (through the Federal Office of Energy, SFOE). It includes
  - Staff costs at SFOE
  - Cantonal expert group on safety
  - Support to siting cantons
  - The regional participation groups.
The Swiss siting process (sectoral plan) is complex, demanding and extended over a long time period;

Transparency and fairness are crucial for local stakeholders to be able to accept a repository in their community;

The process has to be able to withstand detours, disagreements and debates on basic principles …but boundary conditions have to be set and observed.
thank you for your attention