



Licensing Geological Disposal: A Single License or Several Licenses

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Key Development Stages

- Site Characterization (pre-licensing)
- Construction (licensing decision)
- Operations (licensing decision)
- Post Closure (licensing decision)

Site Characterization (continual learning)



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Site Characterization Stage



- Supports authorization to construct a repository (development of initial concepts of safety case)
- Public interactions among developer, regulator, and stakeholders

Construction Stage



- Begins with construction authorization
- Application should address all safety relevant aspects through permanent closure
- Continue to collect information during construction

Operational Stage (emplacement of waste)



- Decision to receive and emplace waste
- Final plans for operations are necessary at this stage
- Information continues to be collected during operations

Post-Closure Stage



- Begins with decision to permanently close repository based on all information obtained throughout operational period
- Final plans for post-closure necessary at this stage
 - final safety case
 - institutional controls and markers
 - monitoring plans



Summary

- Single license versus several licenses is a matter of national preference
- Regulatory structure for continual learning
 - continual collection and use of information
 - clear understanding of assurance needed to move forward at each stage
- Continual learning ensures high quality information