The catch 22 of nuclear communities: How to create room for technical democracy if opting out is not an option?

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Observation n°1

Prevailing discourse: participation of all stakeholders as the standard
BUT

I. Remaining ambiguity / lack of shared norms about

• Who to participate?
• When to participate?
• What to participate about?
• How to organise participation?
II. Tendency to focus on siting

Voluntary siting
Consent-based siting ...
➤ Who wants the stuff?

When nimby conspirators start questioning theoretically ideal locations and long since studied solutions
Observation n°2

Siting means ... finding a place for final disposal or central interim storage (CIS)
Observation n°3

(part of) The waste is already out there
Centrales nucléaires

Usines de fabrication de combustibles, usines de retraitement

Sites de stockage, centrales de démantèlement, sites industriels ou militaires, anciennes mines
Waste is a dynamic category

Social construct
• Does not exist in itself
• Defined in relation to its context

*Matter out of place* (Douglas 1966)
• No longer wanted/needed
• Loss of function or discarded

...
Ownership of the problem

Problem = nuclear material ‘out there’ in need of safe long term management

First and foremost problem of nuclear communities

- Who has the stuff?
- What are the options?
How (if at all) are nuclear communities being engaged in DM on LT management?

In “pre-siting” stage: indirectly or as part of broader consultation

- e.g. Canada: Seaborn panel, NWMO’s ‘study phase’
- UK: CoRWM

In siting discussions: when targeted as (potential) final disposal or CIS site

- e.g. Sweden: Oskarshamn and Östhammar
- Finland: Eurajoki; UK: Sellafield; Ned: Borsele

In case of decommissioning

- Moving the waste elsewhere?
Observation n°4

Geological disposal: the ineluctable fate ?!

But in which form?
Under which circumstances?
Observation n°5

Geological disposal is not a solution, it is a technology in the making

Adapted from: hksocialinvestor.blogspot.com
A sociotechnical imaginary?

GD: an imagined (distant) future
- Vision of a good and desirable future
- Portrayed as feasible
- Portrayed as the only possible future

A global sociotechnical imaginary with national variations

Reversible GD: Emergence of a new ST imaginary?
challenging the concept from within
imagining an open ended instead of a closed future

GD as an ongoing sociotechnical experiment

A (scientifically) controlled, open-ended exploration towards a possible solution

- Final goal of passive safety cannot be guaranteed
  - Implies a long-term relationship between the surface and the underground, between the facility and its host community (near long-term governance)
  - Existing nuclear sites inevitably affected

[cf. Taebi en Van de Poel]
‘Near long-term’ governance

Siting now

- Concerns
  - Repository design
  - Barriers
  - Environmental processes
  - Local participation

Post-closure safety

- Concerns
  - Loss of containment
  - Preserving memory
  - Preserving knowledge

Easily 150 years of active hosting construction, operations and monitoring
Ownership of the ‘solution’

Creating room for technical democracy

LT NW governance as a continuous process of (P)TA

Existing nuclear communities as central and most concerned ‘stakeholders’

- Site stakeholder groups (cf. UK)
- Potential for tangible engagement in R&D

Some crucial issues

GD as part of a process, not a product

Maximum possible ‘promise’ = unfinished GD facility

Acknowledge and foster complexity
THANK YOU!

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