

NUCLEAR WASTE IN EUROPE

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INTRODUCTION

- Jan Haverkamp
- Radioactive waste in Europe – around 100.000 tons of HLW in Europe (except Russia)
- around 3000 ton per year added
- Euratom Radioactive Waste Directive (2011/70/EURATOM)
- Euratom Nuclear Safety Directive (2009/71/EURATOM as amended in 2014 by 2014/87/EURATOM)
- Obligation to have a national radioactive waste programme
- Obligation to report every three years on the situation, including inventory to the European Commission → next report due on 23 August 2021

Important issues:

1. Nuclear power is not part of the EU, but of Euratom – it is national sovereignty and the European Institutions have only limited mandate under Euratom focusing on support of the development and protection of the public of peaceful use of nuclear energy.
2. The European Commission / Euratom is of the opinion that there is a scientific consensus that deep geological disposal is the best strategy for the management of high level wastes, but that is only an opinion and not an official policy, because not all Member States agree.
3. The European Commission / Euratom supports radioactive waste research – mainly directed on deep geological disposal implementation, under pressure of the cooperating nuclear waste implementation institutions united in the IGD-TP. NTW and MKG try together with some of these institutions to break this open and pursue a more realistic line.
4. The European currently is supporting the consideration of international storage solutions especially for countries with small amounts of radioactive waste (example: Luxembourg → Belgium), but opening the door also for international repositories for spent fuel.
5. Everywhere in Europe, there is a so far successful attempt to avoid addressing the issue of radioactive waste in decision processes that lead to production:
 - new build of reactors for the production of medical isotopes → no serious consideration of minimal waste technologies in the form of cyclotrons and linear particle accelerators for the production of isotopes
 - new build of power reactors → no official part of EIAs (UK, FI, BY, HU)
 - life-time extension of nuclear reactors → a massive attempt to prevent EIAs for life-time extension, including consideration of nuclear waste issues in the justification question (! Forsmark 40 years coming up!)

Some illustrative country issues:

- Finland and Sweden
- France: clay

- Germany: National process for site choice for deep geological disposal – taboo on other potential technologies or “rolling stewardship”
- Netherlands: temporary storage until 2130 with a decision on deep geological storage expected around 2100
- Belgium: clay... appears to thin... back to zero or international
- Czech Republic: site search for deep geological disposal in granite – initially 7 sites, all with >90% opposition from the population, 2 sites added (Trebic and Temelin) with already nuclear power stations
- UK: third attempt for site choice, this time on the basis of voluntarism, but strong feelings that there is a push towards Cumbria, Copeland municipality, because of the high level of acceptance around Sellafield

Large elephant in the room: Russia

- Reprocessing in Mayak and planned in Krasnoyarsk
- Storage of DU in Krasnoyarsk and Zelenogorsk – export from EU (France, UK, Netherlands, Germany) stopped → Technologically Enhanced Naturally Occurring Radioactive Material (TENORM)
- Attempts to expand nuclear exports with offer for reprocessing of fuel – legal ban on import of wastes (Turkey, Hungary, Egypt, Bangladesh)

Transparency

Euratom radwaste directive

art. 10

national programmes

national reports

Aarhus Convention

public participation

EIA, incl. radioactive waste → for new build and lifetime extension (Borssele, Forsmark!)

access to information