Development and Engineering of Deep Geological Disposal

ÚJV Řež, a. s. provides a main research and engineering support to the deep geological disposal (DGD) project for SÚRAO (Radioactive Waste Repository Authority) in the Czech Republic. A scope of works includes a development of the design and safety issues, R&D projects and project management.

R&D areas and testing laboratory:

- Development and testing of barriers:
  - Corrosion, diffusion, chemical interactions
  - Anaerobic conditions
- Radionuclides migration
- Hydrogeology models, modelling
- Safety assessment, safety scenarios, WAC development
- Support of SÚRAO (RAWRA, Radioactive Waste Repository Authority) for existing L&ILW Repositories
  - Long-term stability of the matrixes

Significant references:

- Complete revision of the Reference design and Feasibility study of the DGD (2009-2012)
- R&D project on barriers´ quality for disposal of RAW and development of methods for their assessment (2009-2013)
- Participation in many EURATOM 5-7th Frame programs´ projects, e.g. NF-PRO, FUNMIG, BIOCLIM, PAMINA, ARGONA, RECOSY, FORGE, IPPA, BELBAR, CROCK, ARCAS, PLATENSO, SAFEST, CAST, DOPAS, CEBAMA
- Independent review of the SAR of the Mochovce Repository (2010, 2014)
- Base study for the revision of the SNF and RAW Strategy in the Czech Rep. (2011-2012)
- Feasibility study of the Slovak DGD (for JAVYS, 2013-2016)
- Research support for safety assessment of DGD (2014-2018)

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