

Radioactive Waste Management in Lithuania. Regulatory Framework



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Sources of Radioactive Waste in Lithuania

- ◆ Ignalina Nuclear Power Plant (2 Units)
- ◆ Institutional Waste - from Medical, Industrial and Research Applications (~50000 radioactive sources in use)
- ◆ Maisiagala Radioactive Waste Repository (for institutional waste (built in 1963, closed 1988))
- ◆ Spent Nuclear Fuel Interim Storage Facility- Steel and Concrete Casks (CASTOR and CONSTOR type - intended for 72 items, 26 of them filled with SNF)

Historical Development of Legislation in Lithuania

- ◆ Law on Radiation Protection (1999)
- ◆ Law on Nuclear Energy (1996, am. 1999)
- ◆ Law on Management of Radioactive Waste was passed in 1999
- ◆ Law on Decommissioning Unit 1 at the Ignalina Nuclear Plant State Enterprise was passed in 2000
- ◆ Set of Additional Legislation

Regulatory Authorities

- ◆ The State Nuclear Power Safety Inspectorate (VATESI) - responsibility for nuclear safety, licensing of nuclear facilities, transportation of nuclear materials;
- ◆ The Ministry of Environment is responsible for environmental protection issues, issues single permits for transportation of radioactive materials and radioactive waste, establishes clearance levels;
- ◆ The Radiation Protection Centre - radiation protection issues including licensing activities with sources of ionizing radiation, maintaining the state register of sources and worker's exposure, state radiation protection supervision and control and monitoring of public exposure

Regulatory Authorities - Radiation Protection Centre (<http://www.rsc.lt/eng/index.html>)

- ◆ According to the Law on Radiation Protection of the Republic of Lithuania (1999):
 - The Radiation Protection Centre shall be a body coordinating the activities of executive and other bodies of public administration and local government in the field of radiation protection, exercising state supervision and control of radiation protection, monitoring and expert examination of public exposure.
- ◆ Established on 1 January 1997

Sources of Radioactive Waste in Lithuania - Ignalina Nuclear Power Plant

- ◆ Ignalina Nuclear Power Plant (2 Units) - present operator: State Enterprise Ignalina Nuclear Power Plant (under the Ministry of Economy)
- ◆ Unit 1 started to operate in 1983, Unit 2- in 1987
- ◆ Design Output: 1500 MW(el), 4800 MW(th)
- ◆ Type: RBMK (LGWR), 1661 fuel channels in each reactor, approximately 15,000 SNF elements accumulated in wet storage pools since 1984
- ◆ Options for Interim Storage for SNF: Wet storage in reactor pools or Dry storage in casks
- ◆ Three types of waste are produced: solid, liquid and gaseous - on-site Interim Storage Facilities for Solid and Bitumenized Liquid Waste are available

Radioactive Waste Management Agency

- ◆ Radioactive Waste Management Agency
- ◆ Established in 2001
- ◆ Main Task - to Manage and dispose of all radioactive waste ensuring nuclear and radiation safety
- ◆ Will be the operator of storage facilities and repositories assigned to it.
- ◆ **Strategy on Radioactive Waste Management**
- ◆ Draft document in place
- ◆ It is expected to be approved in 12/01
- ◆ Will be updated every 5 years

Disposal of HLW in Lithuania

- ◆ Preliminary statements for investigation of locations in Lithuania where HLW can be disposed of (if not sent back to the country of origin) are currently in place (some sites are candidates).
- ◆ According to Law on Management of Radioactive Waste:
- ◆ Siting, Design and Construction of Radioactive Waste Management Facilities must be proposed by Ministry of Economy
- ◆ Designs for the construction or reconstruction, upgrading, expansion of disposal facilities must be coordinated with VATESI, RPC, MoE and with other state authorities.