

vüje

Slovakia

IDN Annual Meeting

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**Division for Radiation
Safety, NPP
Decommissioning and
RAW Management**





Facilities of interest for Slovakia :

- first Czechoslovak NPP A-1 in phase of decommissioning,
- pilot RAW treatment facilities:
 - incineration plant,
 - bitumination plant.
- NPP V-1 (2 x 440 MW).

Current Status

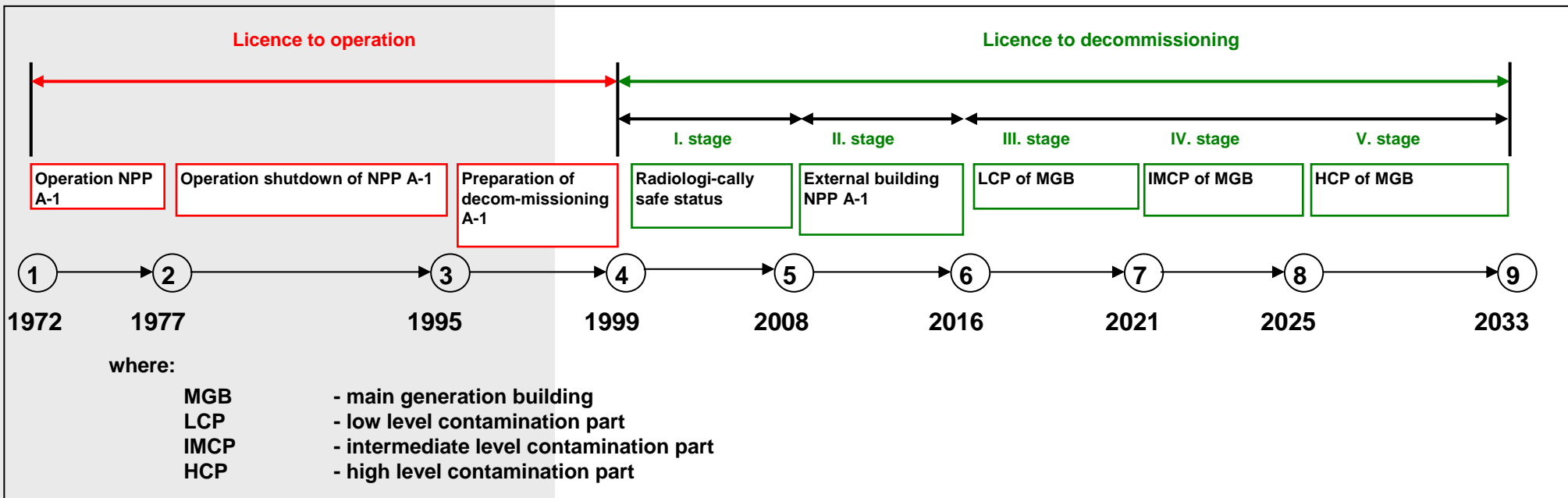
Decommissioning of pilot RAW treatment facilities was approved by Nuclear Regulatory Authority and will start from 2009.

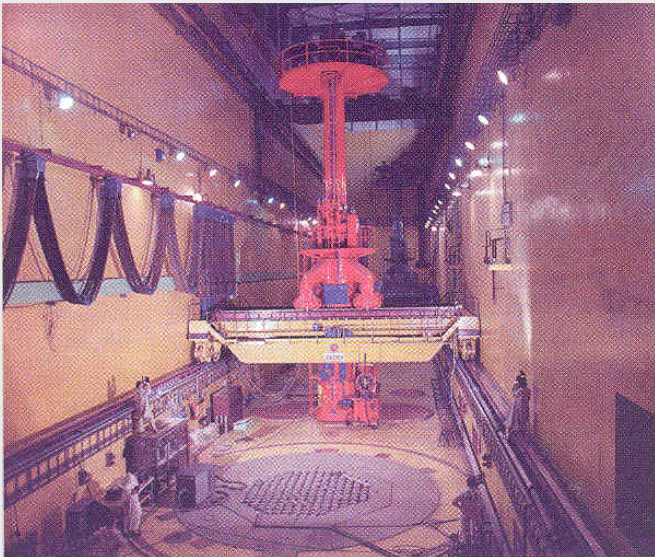
Decommissioning of 1st and 2nd units of NPP V-1 is in planning phase with finance support from BIDSF.

Decommissioning of NPP A-1 is on-going.



Decommissioning of Bohunice A1 is a long-term process





Decommissioning of Bohunice A1 – phase I

- General supply by VUJE in 1996 – 2007 including management of damaged spent fuel (1996 – 1999)
- Achieving radiation safe conditions of Bohunice A1
- Treatment and conditioning of RAW generated
- Restoration and innovation of various D&D technologies, processes and information systems providing improvement of working conditions for A1 personnel and environmental protection
- Preparation of conditions for A1 decommissioning – phase II

Costs: approximately USD 300 million

Customer: Slovak Electricity Utility, from 2006 it is state company JAVYS (Nuclear and Decommissioning Company)

Training for Operation and Decommissioning

Personnel Training in VUJE

- Development of NPP personnel training system including training for decommissioning
- Theoretical education of personnel
- Personnel training on simulators including full-scope simulator
- Development and application of technical and program tools for education and training
- Testing and certification of NPP personnel
- Performing of specialized and international courses
- Capacity of VUJE's Training Center – 14 training rooms, 325 seats for trainees, modern training equipment
- Feasibility Study of Regional Decommissioning Training Center was prepared in 2004 with support of IAEA



D&D and RAW Management

Decommissioning and Radioactive Waste Management

- Legislative support of NPP decommissioning
- Development and application of advanced technological procedures and technical tools for NPP decommissioning (dismantling, demolishing, decontamination, retrieval of RAW, physical and radiological characterization etc.)
- Development and application of RAW processing technologies
- Development and application of RAW disposal technologies



Project Management and Delivery of Investment Projects

National Disposal facility of radioactive waste in Mochovce

- General supply by VUJE 1997-1999
- Upgrading of safety level during RAW handling
- Improved protection of the environment
- Provision of monitoring of static, hydrology and radio-hygienic characteristics of repository and its vicinity
- Evaluation of safety during RAW disposal (safety analyses)

Total costs: approximately USD 6 million

International Cooperation

International Atomic Energy Agency

- Participation in research and development projects funded by IAEA
 - Obtaining support for national projects in IAEA coordinated research program
 - Organizing international courses in the field of nuclear power and decommissioning funded by IAEA
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- National TC Project SLR/4/008 „Remotely Operated and Robotic Technologies for Decontamination and Decommissioning of A-1 NPP“ (2001 – 2006)
 - National TC Project SLR/3/002 „Management of Historical RAW from the NPP A1 Decommissioning“ (2007 – 2008)
 - Leading Country Co-ordinator for the regional TC Project RER/3/005 „Support in Planning for Decommissioning“ (2007 – 2009)



International Decommissioning Network

Needs of Slovakia :

- Dismantling and disposal of large components,
- Scientific visit on D&D techniques,
- In-situ decontamination and clearance.



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Slovakia offers following services and activities:

- organization of scientific visits and other missions relevant to decommissioning and RAW management,
- expert services,
- theoretical and practical training in D&D and RAW management,
- advanced tool (OMEGA code) for decommissioning planning and cost calculations (full version for NPP or lite one for research reactors and small facilities),
- technologies for decommissioning etc.