

„60 years for nuclear power industry” | 6. May, 2016. Plzen

Life and its extension at the Paks NPP

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Life and its extension at the Paks NPP|

40 years in 4 minutes

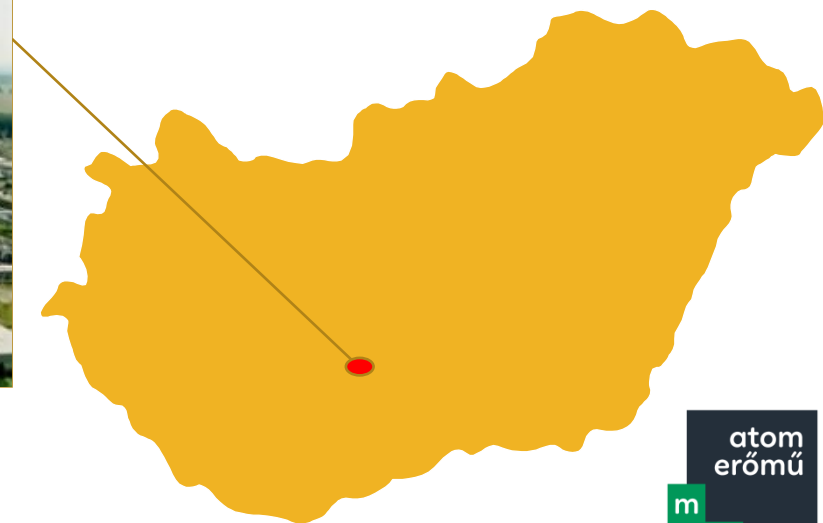
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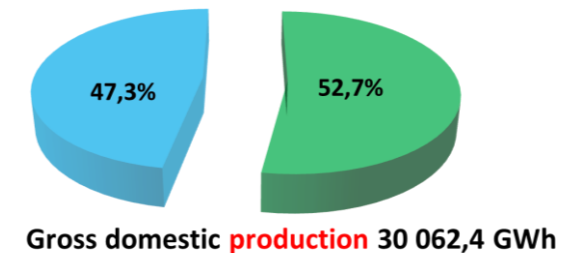
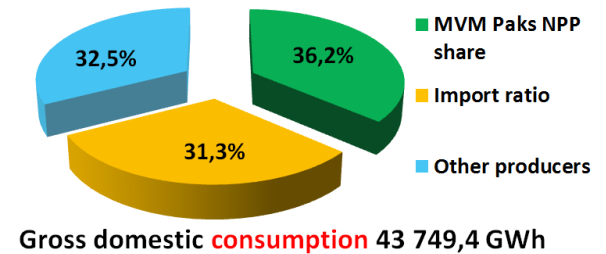
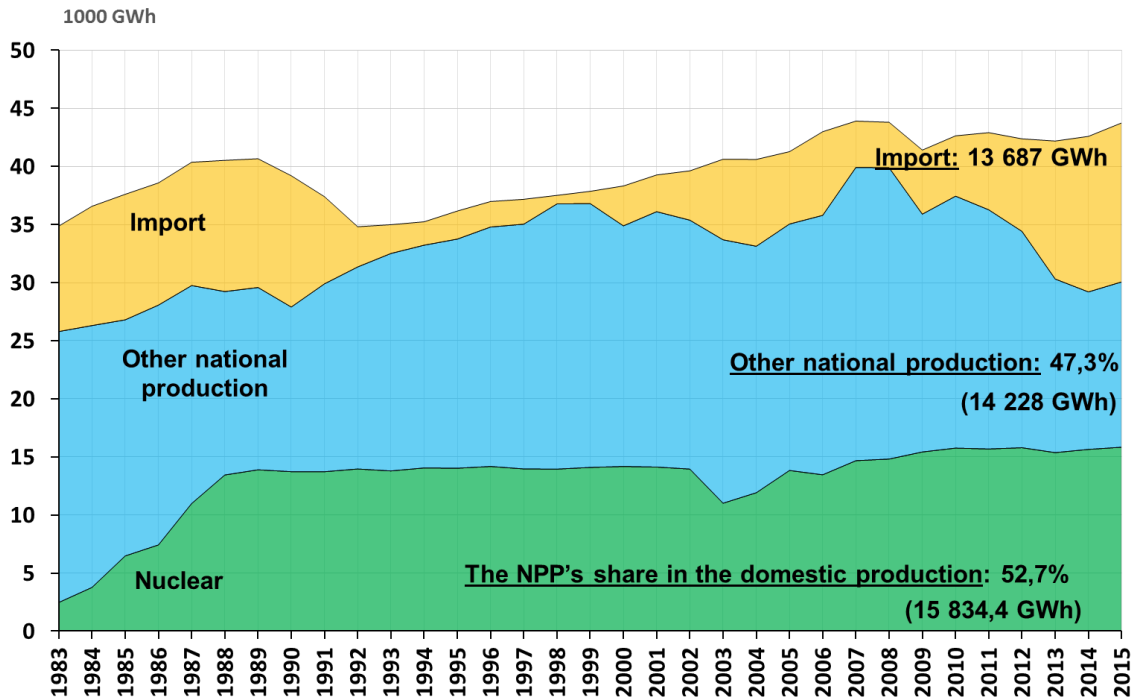
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Introduction of the plant

- the only one nuclear power plant in Hungary
- belongs to the MVM Hungarian Electricity Ltd.
- designed in the 70's, commissioned in the 80's
- 4 x VVER440/V213 reactors
- 30 years originally designed lifetime
- the largest and cheapest domestic source

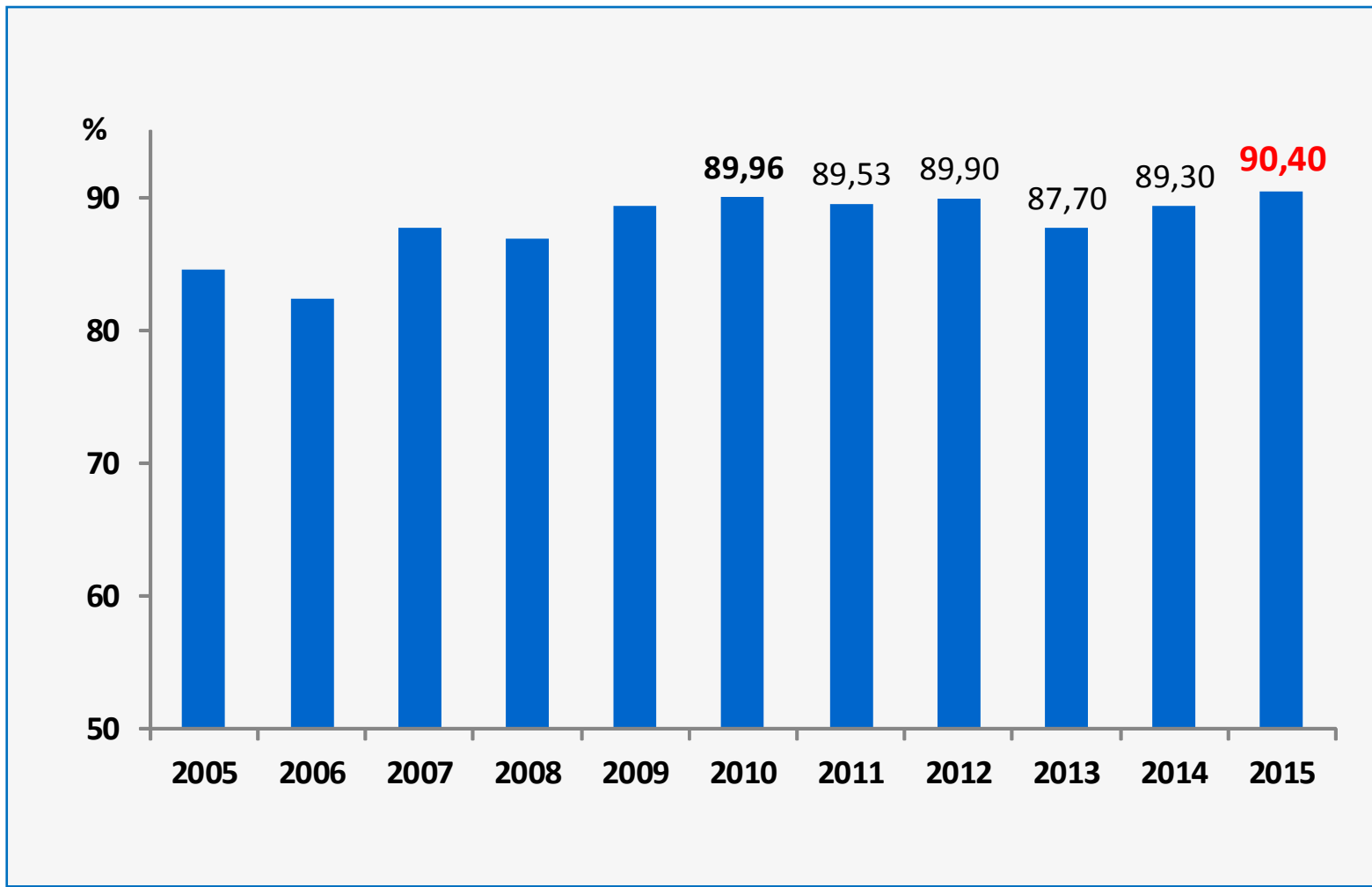


Domestic electricity production



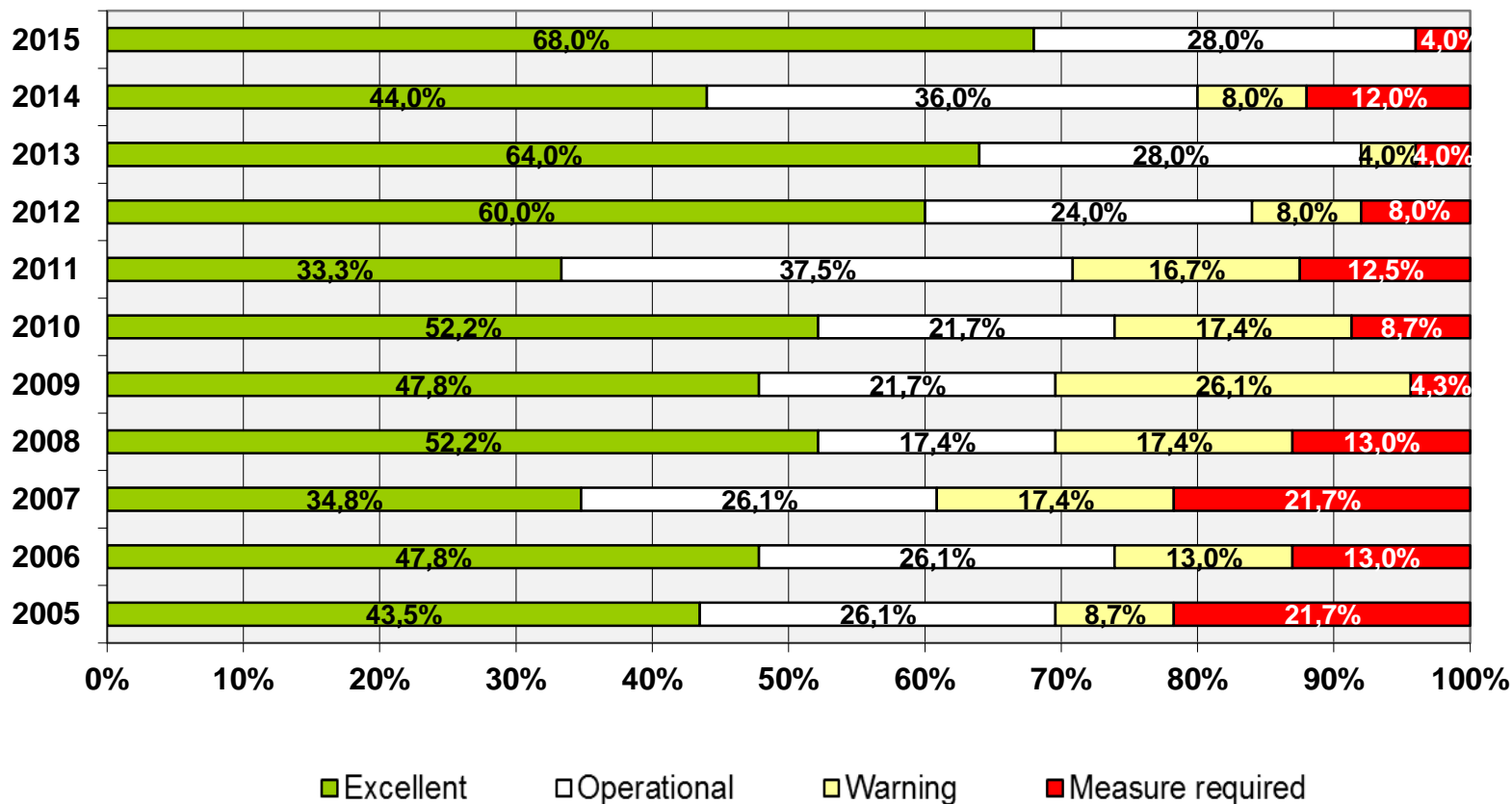
430 TWh electric power has been produced by MVM Paks Nuclear Power Plant since the date of the first connection of Unit 1 to the grid

Load factor of the plant



Overall safety performance

Distribution of Safety Indicators



Continuous safety enhancement

The enhancement of the safety of the nuclear power plant was initiated as early as before the commissioning of Unit 4 in 1987.

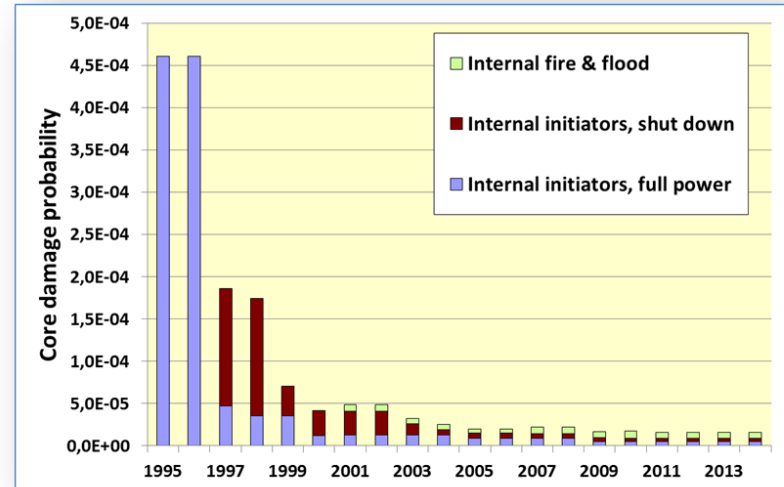
1991 – 1994 AGNES report

1996 – 2002 Safety Enhancement Measures

1998 – 2003 PRISE steam-generator blow-down

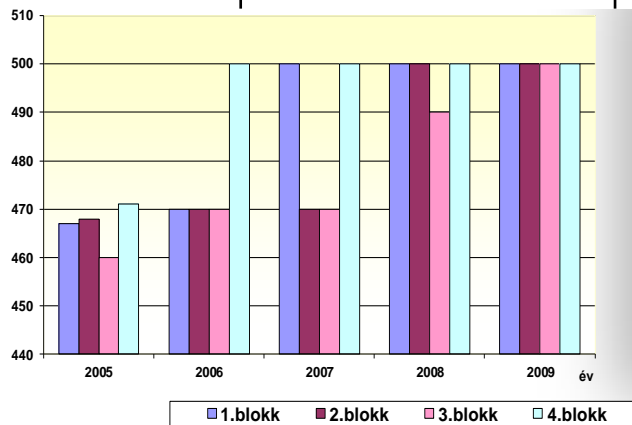
2002 – 2014 Severe accident management (SBK)

- ✓ Installation of passive autocatalytic hydrogen recombiners in the confinement
- ✓ Reinforcement of the cooling pond's cooling circuit pipe-lines and installation of quick isolation valves
- ✓ Flooding of the reactor shaft, external cooling of the RPV
- ✓ Independent electric power supply to the pressurizer safety valves
- ✓ Installation of new severe accident monitoring devices

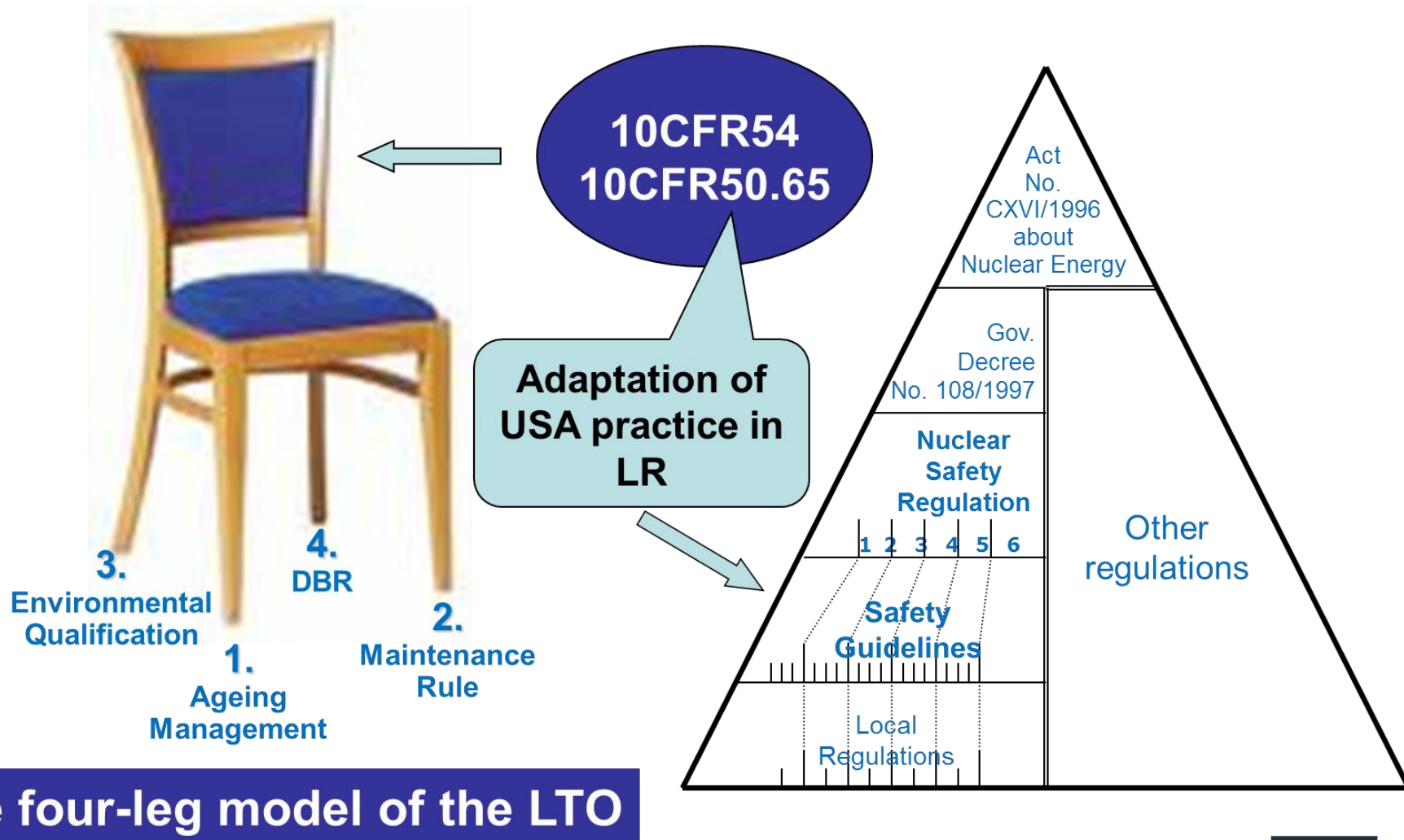


Power uprate and PLEX

	<i>Start of operation</i>	<i>30 -year lifetime</i>	<i>Power uprating 500 MW</i>
<i>Unit 1</i>	1982.12.14	2012.	July 19, 2007.
<i>Unit 2</i>	1984.08.26	2014.	December 5, 2008.
<i>Unit 3</i>	1986.09.15	2016.	November 13, 2009.
<i>Unit 4</i>	1987.08.09	2017.	September 28, 2006.



PLEX regulations

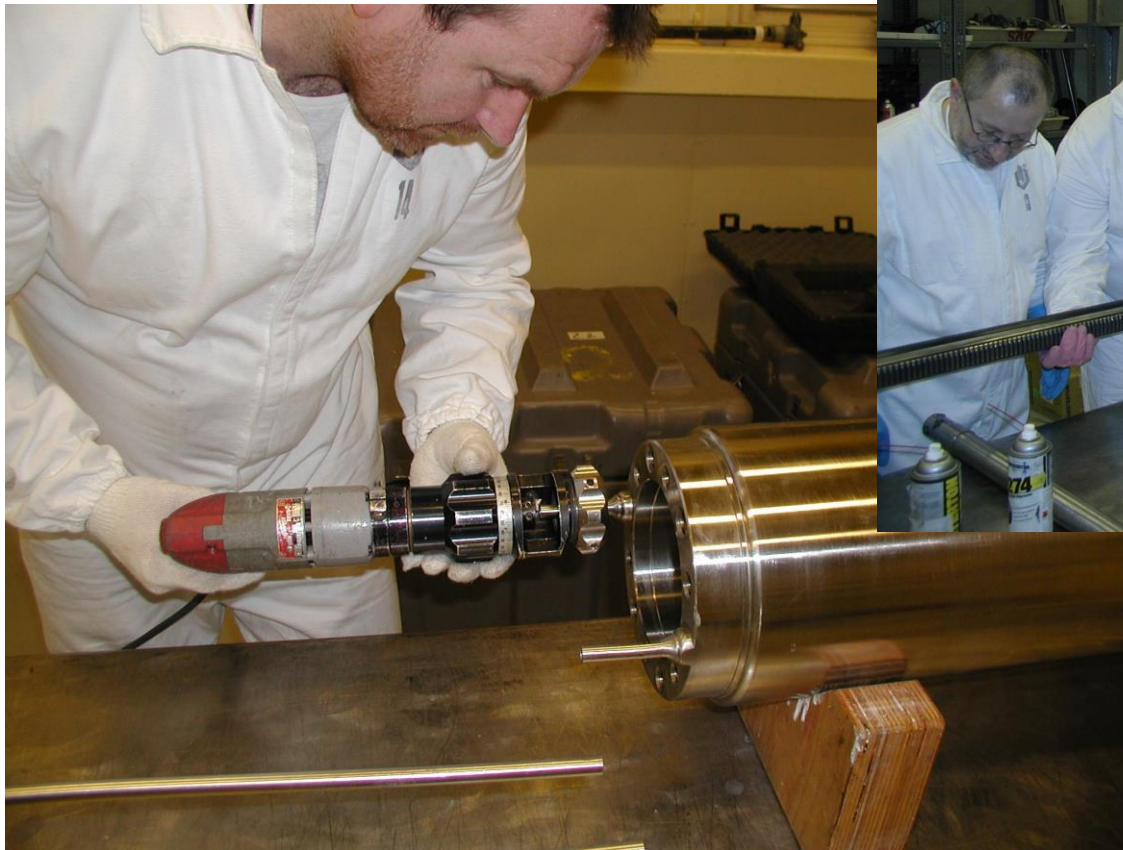


Preconditions of PLEX

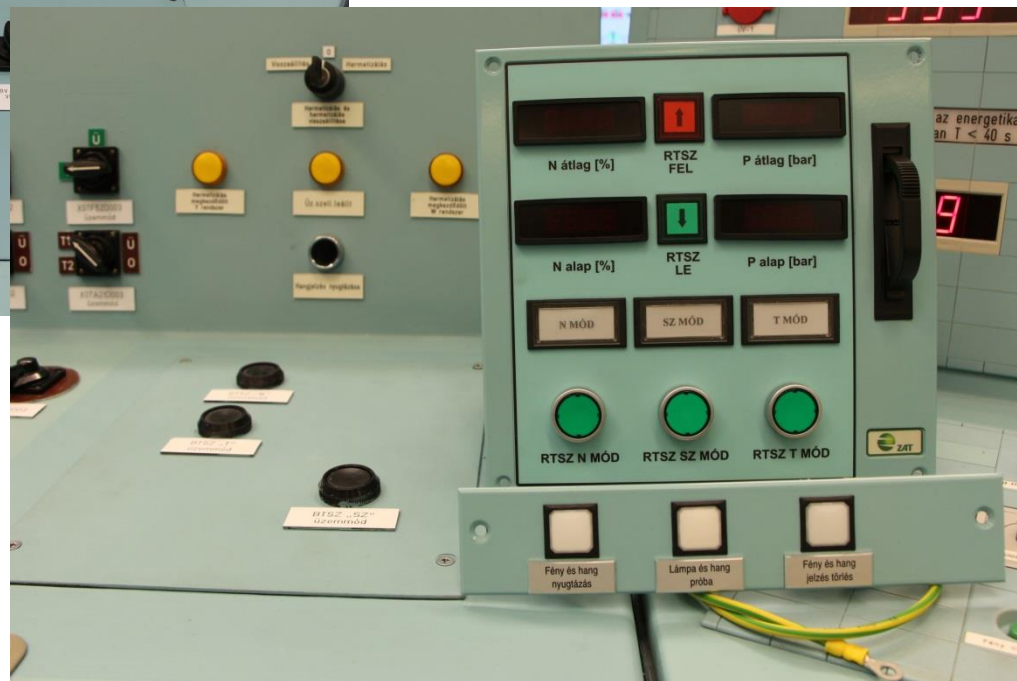
- To ensure long term goals the utility was willing to step forward to a higher level of defence
- Developed and devoted to implement a severe accident management program



Modernisation programme



New area of cooperation



The near future....



Thank you for your attention!

