

**A field session of Seimas Committee on European Affairs
2011 04 01**

SE INPP Training Center

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Ignalinos Atominė Elektrinė



Agenda

Arrival, introductory words

11:20 – 13:05 The progress of the INPP decommissioning activity:

- 1. British law company Taylor Wessing assessment of the contracts B1 and B234**
- 2. The process of INPP decommissioning projects and implementation problems**
- 3. Actions of the INPP administration for implementation of recommendations of National Audit Office for 2005-2009 enterprise activity audit**
- 4. Negotiations on the financing of the Ignalina NPP decommissioning process in the new financial perspective from 2014 to 2020 period**
- 5. Other INPP activity issues:**
 - The enterprise capacity rates in 2010 and 2011**
 - Proceedings against non-transparent enterprise activities**
 - Changing the enterprise status, systemic reorganization**
 - Supplement of National Decommissioning Fund**
 - Other issues**

13:05 – 13:35 Discussion

13:35 – 13:45 Summary of meeting

13:45 – 14:45 Dinner

14:45 – 15:45 Inspection of B1 and B34 decommissioning projects

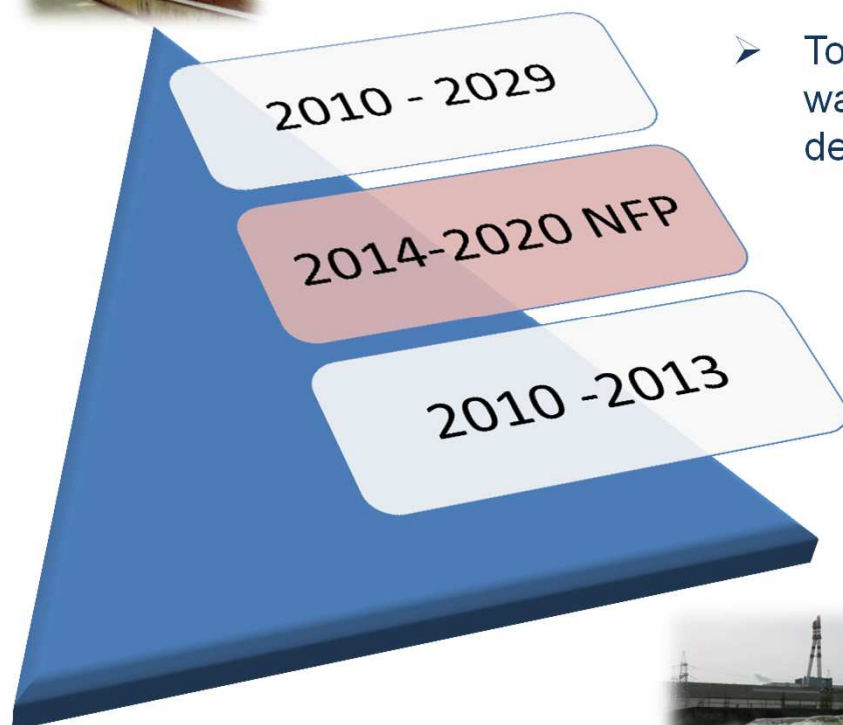
Departure



INPP STRATEGIC TARGETS IN 2010-2029



- To perform safe, timely and effective decommissioning of INPP.
- To become the services provider in the nuclear energy enterprises decommissioning market. To use existing infrastructure for business and VNPP needs.



INPP STRATEGIC TARGET IN 2010-2013

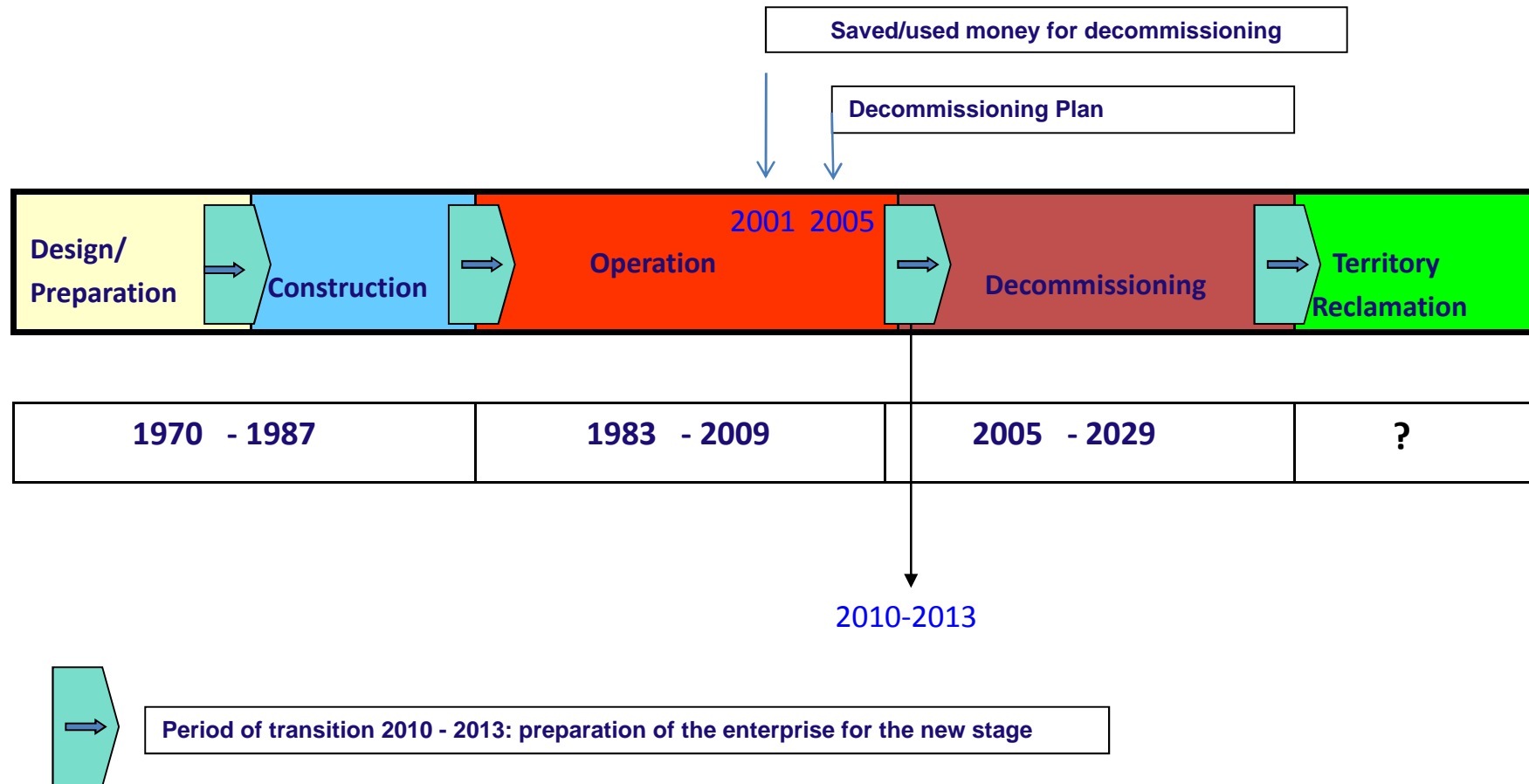
- To reorganize the enterprise's activity in the most effective way redirecting it to the next stage of activity - the decommissioning.

INPP ACTIVITY TARGETS IN 2010

- To renew the enterprise personnel with properly qualified specialists and leaders, modernize the management.
- To take measures in order to ensure the transparency and efficiency of the enterprise activity.
- To achieve the progress during the implementation of the basic decommissioning projects.



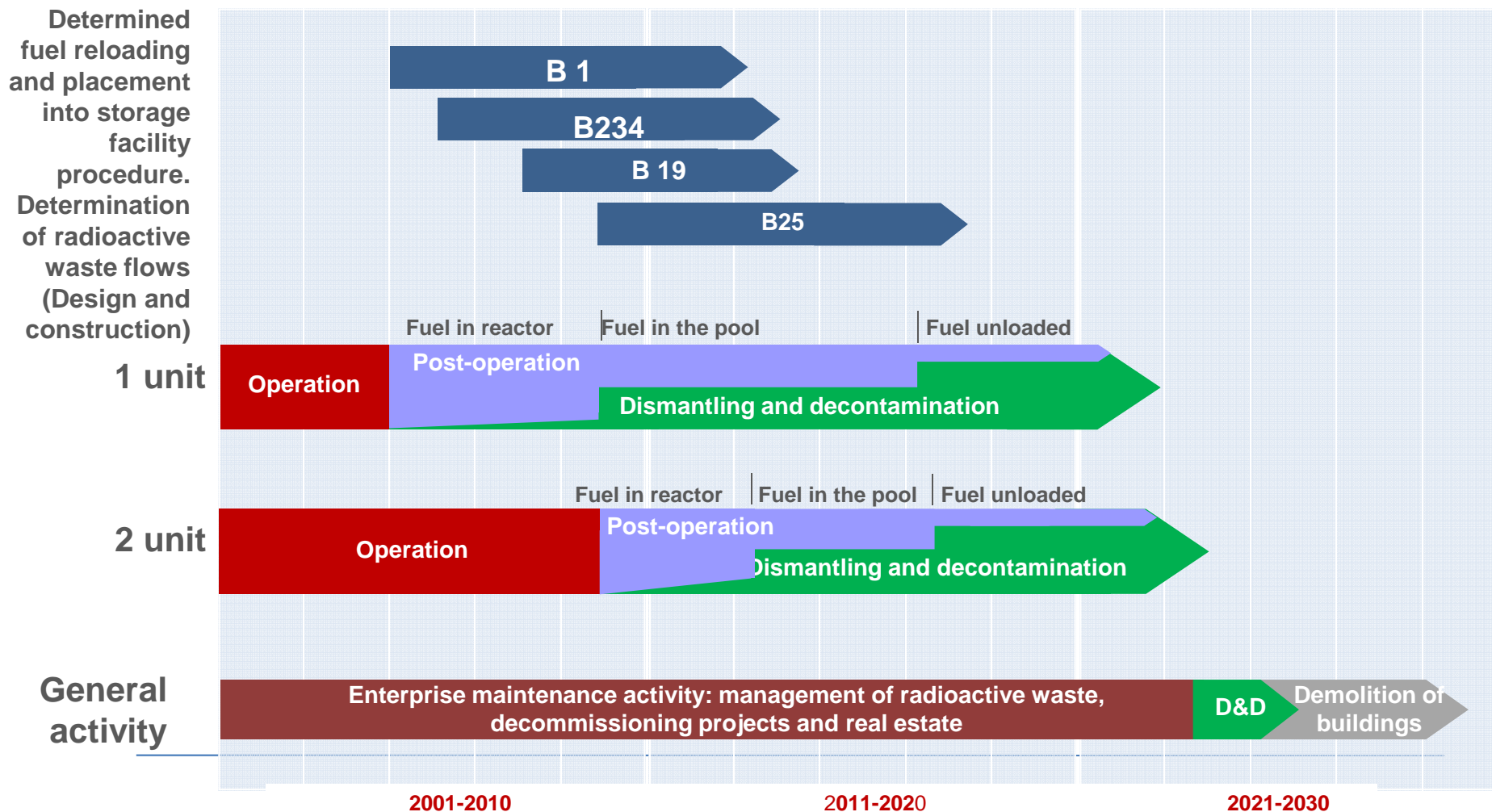
INPP LIFE CYCLE



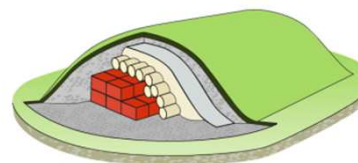
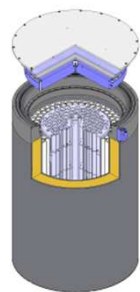
INPP is being decommissioned according to the detailed Final Decommissioning Plan formulated and approved in 2002-2005



Decommissioning Plan



Key shutdown projects before reactors dismantling



Project

**B1
ISFSF**

**B234
SWMSF**

**B19
Landfill**

**B25
Repository**

Status:

Construction
Delay 3 years

Construction
Delay 3-4 years

Design
B19/1 Buffer storage
facility being released
in 2011

Design

Price:

193 mln. Eur

123 mln. Eur

30 mln. Eur

~290 mln. Eur

Total:

~ 620 mln. Eur

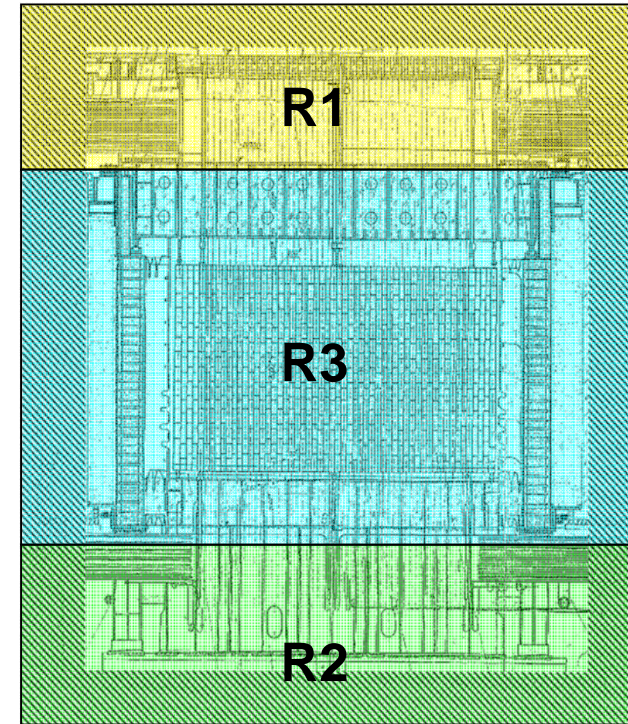


KEY DECOMMISSIONING PROJECT: ENGINEERING ON DISMANTLING OF UNITS 1 AND 2 STRUCTURES FROM THE REACTOR SHAFTS



- Internal project UP 01: dismantling and demolition of units I and II reactors, initiated international graphite management project at the IAEA, attracting the best local and international graphite stack experts.
- The opportunity to establish RBMK type graphite – moderated reactors dismantling competence center this year was presented to the European Commission and representatives of member states.
- B1 - the implementation group of this project of a critical condition was established, which unifies specialists from reactor workshop and decommissioning projects management service: radiological characterization of 20 channels will be accomplished this year

UP(unique project) - 01



Amount of spent graphite (group D)

Graphite	tons	m ³
Operational waste	55	46
Decommissioning waste: graphite bricks and sleeves for 2 units	3788	2945
Total	3843	2991



B1 – INTERIM SPENT FUEL STORAGE FACILITY



15-03-2010

ISFSF is the project intended for fuel reloading and storage:

- *cost – 667,54 million LTL:*
- *345,6 million LTL - 58 % of contract value was paid In 2005 – 31 January 2010*
- *capacity – 19 casks, 17 thousand of FC assemblies;*
- *supposed commissioning (3 years delay):*
- *March 2011 – foreseen in the Contract Amendment*
- *March 2012 – according to the schedule submitted by the Contractor (1 year delay after the signing of contract amendment in May 2009)*

- *Due to the delays material losses are about 2.5 million LTL per year (total losses are about 56 million LTL)*



12-11-2010

Project Implementation Process

	<u>2010-01</u>	<u>2011-03</u>
<i>Construction works</i>	11 %	85 %.
<i>Equipment manufacturing</i>	71 %.	98 %.
<i>Production testing</i>	0 %.	22 %.
<i>Casks production</i>	42	95



B2/3/4 – RADIOACTIVE WASTE MANAGEMENT AND STORAGE FACILITIES



SWMSF – project aimed at efficient sorting and storage of radioactive waste:

- *cost 427,9 million LTL:*
- *163 million LTL (38%) was paid in the period 2005 – 31 January 2010*
- *commercial negotiations are carried on, the Contractor hopes to increase considerably the cost of the contract.*
- *Supposed commissioning:*
 - *B3/4 September 2012 (3 years delay)*
 - *B2 July 2013 (4 years delay)*

(B3-4) 22-03-2010



(B3-4) 17-02-2011



Project Implementation Process

	<u>2010-01</u>	<u>2011-03</u>
<i>Construction works(B34)</i>	<i>6 %.</i>	<i>52 %.</i>
<i>Equipment production(B34)</i>	<i>47 %.</i>	<i>87 %.</i>
<i>Equipment production(B2)</i>	<i>0 %.</i>	<i>49 %.</i>

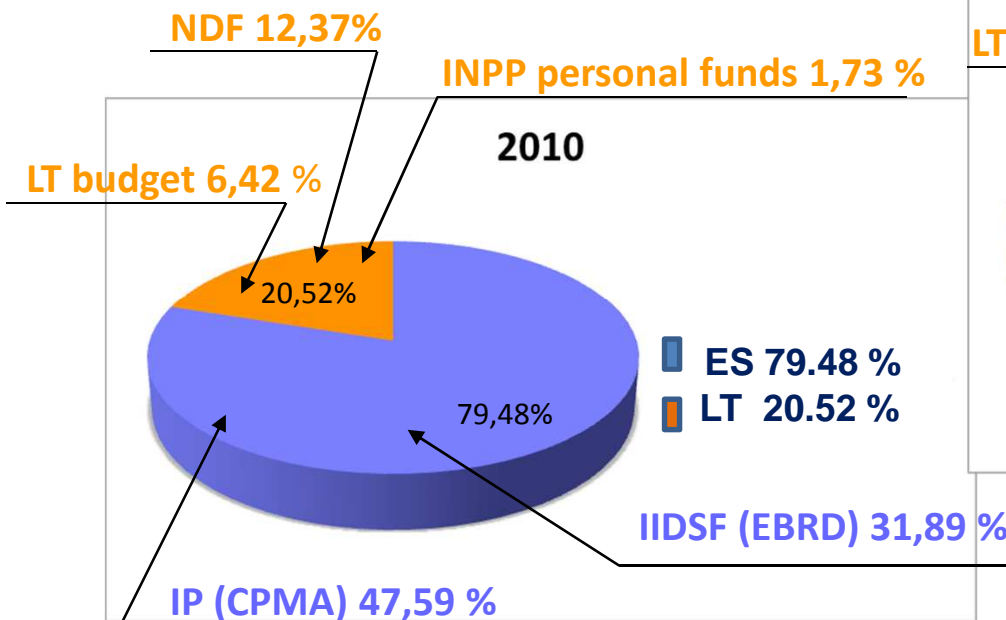


BUDGET: FACTUAL 2010 AND APPROVED 2011 ACCORDING TO THE ANALYSIS OF FIRST INPP ACTIVITY YEARS AFTER THE REACTORS SHUTDOWN



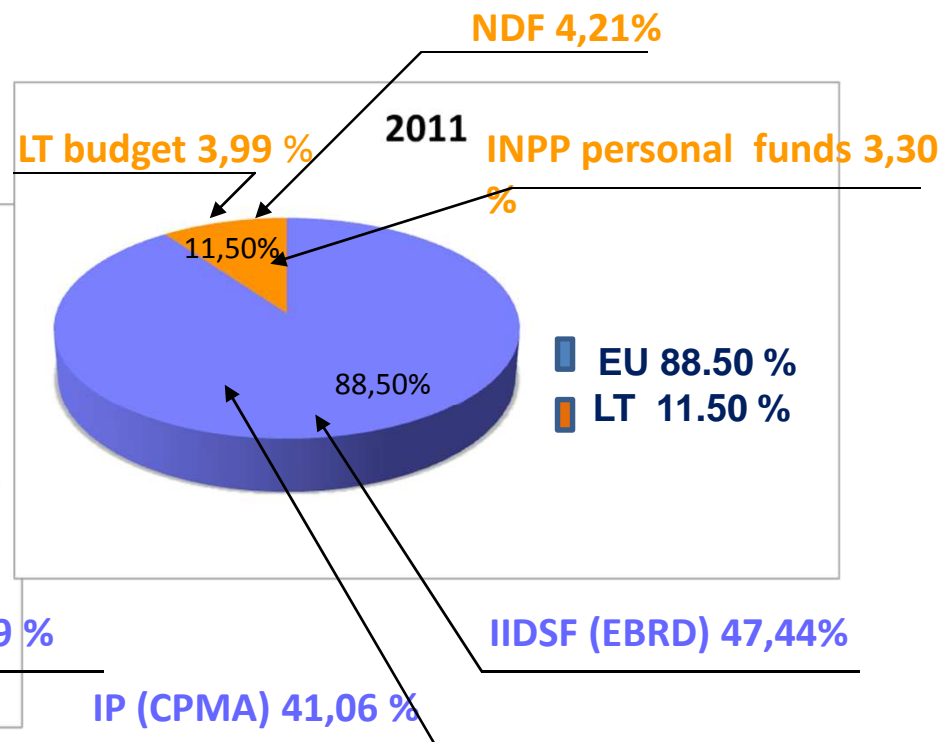
In 2010 factual/executed budget - 378 mln. litas:

Saving - 111 mln. litas or 23 % of approved 489 mln. litas budget in 2010



In 2011 approved 657 mln. litas budget:

According to the 2010 factual budget execution and concentrated attention to the key decommissioning projects implementation: over 350 mln. litas



PERFORMANCE OF CAPACITY RATES IN 2010

The main problem in the rates determination and assessment is the absence of analogues of the capacity rates system at the other NPP being closed



No	Rate Name	Way of Calculation	Measurement Unit	Achievable values of rates	Actual value of rate	Rate performance in percent
1.	Maximum individual dose of the personnel radioactive exposure	Indications of devices	mSv per year	<18	8,87	-
2.	Quantity of events of Level 1 and above according to the international scale INES		Events per year	≤0	0	100
3.	Saving of money assigned for procurement of electricity, gas, heat and water	Not less than 5 % of the indicated sum in Ignalina Programme (IP) project	Million of LTL per year	>4,82	22,75	472
4.	Saving of money assigned for procurement of goods and services	Not less than 20 % of the indicated sum in 2010 procurements plan	Million of LTL per year	>10,51	36,69	349
5.	Income received from selling of INPP property and investment activity income		Million of LTL per year	>8,2	12,42	151
6.	Use of IP and IIDSF funds assigned for INPP decommissioning in 2010	Not less than 95 % of the implemented contracts of IP and IIDSF	Million of LTL per year	>396,15	293,26	74
7.	Dismantling schedule implementation, (sale of the scrap metal and equipment)	Not less than 80% of the planned quantity	Million of LTL per year	>1,81	2,84	126

CAPACITY RATES IN 2011 (APPROVED BY THE MANAGEMENT ON 7 February 2011) MAIN PROBLEM: ABSENCE OF ANALOGUES OF OTHER NPP BEING CLOSED



Safety rates

- Maximum individual dose of the personnel radioactive exposure – no more 18 mSv (per year);
- Quantity of significant events for safety (level 1 and above according to the international scale INES) – 0 (per year);

Economic rates

- Electricity consumption: 132,463 MWh;
- Heat electricity consumption: 204,122 MWh;
- Execution of energy resources program : 3 stages;
- Income received from selling of INPP property (selling dismantled equipment and unused spare scrap metal) and investment activity income : – 10,0 mln. Lit.

Decommissioning rates

- Accomplishment of key Ignalina NPP decommissioning projects intermediate stages- 24 stages;
- Equipment dismantling schedule implementation – 2500 tons;

Staff management rates

- Installation of administrative staff motivation system: 2 stages.

The salary for the administration and key projects specialists is determined by the following system since 01 07 2011



CAPACITY RATES IN 2011 (APPROVED BY THE MANAGEMENT ON 7 February 2011)



No	Rate Name	I quarter	II quarter	III quarter	IV quarter	Total
	Safety rates					
1.	Maximum individual dose of the personnel radioactive exposure (mSV)	18	18	18	18	18
2.	Quantity of significant events for safety (according to the international scale INES)	0	0	0	0	0
	Economic rates					
3.	Electricity consumption (MWH)	35212	31033	31363	34856	132463
4.	Heat electricity consumption (MWH)	103856	19347	4817	76102	204122
5.	Income received from selling (mln. LT)	1,9	2,5	3,1	2,5	10
	Decommissioning rates					
6.	Accomplishment of key Ignalina NPP decommissioning projects intermediate stages (number of stages)	6	6	6	6	24
7.	Dismantling volume (tons)	450	650	750	650	2500

8. Specific program for saving energy resources, projects management and other essential projects is attached by a separate plan

9. The introduction of variable part of remuneration for the enterprise administration, key projects groups and energy resources saving group (connected with set capacity rates of 2011).



CAPACITY RATES IN 2011 (QUARTERLY)

(according to SMART principles)



Annex No 1. Intermediate stages of decommissioning projects and justification of their performance

	I quarter	II quarter	III quarter	IV quarter
B1	2011-02-28 Report on project condition (according to the INPP management resolution 2011.02.03)	*1	*1	*1
B2	2011-03-15 Permission for construction RU1	2011-05-30 VATESI permission for modification RU2&RU3	2011-09-30 Completion of foundation slabs RU1	2011-12-30 Completion of walls construction RU1
B34	2011-02-28 Adjustment of work project B3 building 4 storey documents	2011-06-30 Completion of buildings design with roofs construction	2011-09-30 Installation of equipment accomplished 20%	2011-12-20 Start of equipment functional tests
B19/1	2011-03-30 INPP personnel training to work in buffer storage facility	2011-06-30 Buffer storage facility "hot" tests	2011-08-30 Buffer storage facility commissioning	Buffer storage facility pilot operation
B25/1	2011-03-31 Engineering geological (geotechnical) research of the site performed	2011-06-30 Selection of key technical solutions for disposal	2011-09-30 Approval of site acceptability	2011-12-30 Conceptual storage facility project
UP01	2011-03-31 Preparedness of SVS TK and DK removal project design documents for radiological research	2011-06-30 Preparation of evaluation program of radiological research in line with R1 and R2 zones	2011-09-30 Receipt of permission from VATESI for SVS 16 TK and 4 DK removal for radiological research	2011-12-30 Performance of radiological research

^[1] The final stages of B1 project for 2-4 quarters will be defined after the submitted finding of 2011-02-28 prepared report



Emergency Preparedness Training at INPP

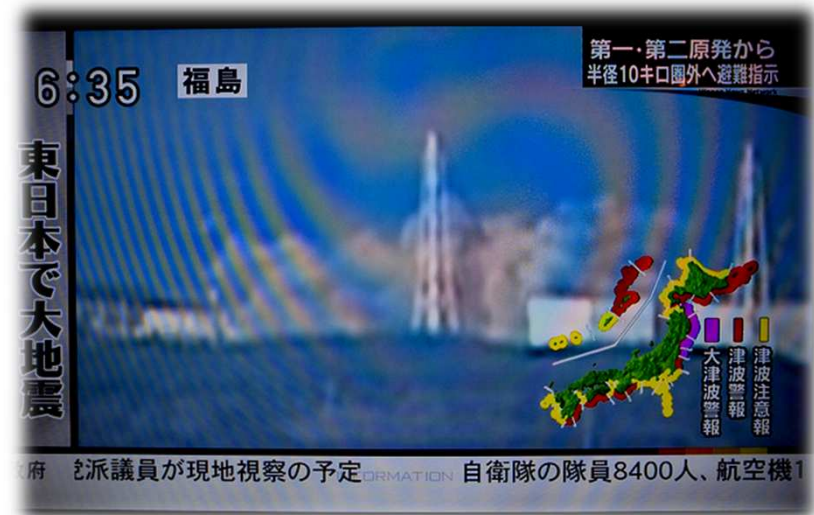


- On 24 February 2011 the scheduled emergency preparedness training happened
- 267 staff members from different INPP departments and services participated
- The new Emergency Preparedness Plan was approved that reflects the new INPP environment and organizational structure
- Training took place under the new scenario related to the downfall of spent nuclear fuel assemblies into the pool and their interaction
- Procedures "for the design-basis accidents" were approved
- Training was monitored by the representatives from Radiation Protection Centre, VATESI and other institutions: evaluation "good" and "very good"
- Accumulated experience - vulnerabilities and their improvement



Review of WANO significant operating experience report

- Availability and functionality of security systems, procedures and personnel
- Readiness to mitigate the effects of electric power supply loss
- Readiness to mitigate the effects of the flood
- Readiness to mitigate the effects of the fire



Action plan after the accident at Fukushima NPP



On 29 March 2011 the special Action plan was prepared by INPP and submitted to VATESI

- To verify if active and passive security systems are installed and operate by using tests or inspections
- To verify whether mitigation measures of the results in case of total electric power supply loss are provided in the project of an object and validate that the readiness for such regimes has been implemented.
- To verify preparedness of the object to mitigate effects of external and internal flood in consideration of the design accidents
- To check relevant security equipment locally which is required for the liquidation of fires and floods, and analyze situations relating to the breakdown of this equipment
- General security questions

Final report and implementation of measures - 2011 06 30



Communication 2010 – 2011

"If you do not tell the public and your employees about your plans and activity, opponents will cover it for you in a way they can benefit from it..."

- ❑ New INPP web site: most recent information on the projects, activity, auctions, public procurements, essential events
- ❑ Regular information of regional, national and international media about enterprise activity
- ❑ Visits to INPP:
 - IAEA Director General Yukia Amano
 - Field sessions of Seimas Committee on European Affairs, Committee on Audit, Committee on Economics and Nuclear Energy Commission
 - Heads of diplomatic missions of foreign countries
 - Media: press conferences (last - 2011 03 01)
 - EC, EBRD, Ministry of Energy;
 - **Planned visit of IIDSF donors, EU member states and Bulgaria and Slovakia representatives on 2011 07 01**

- ❑ Monthly internal newspaper "INPP news"
- ❑ Active participation in social life, exhibitions, events, meetings with target groups
- ❑ Internal communication: especial attention



**Thank you for
attention!**

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