



Nuclear education and training in Lithuania

By: Eugenijus Uspuras

uspuras@mail.lei.lt

Lithuanian Energy Institute, Breslaujos str. 3. LT-44403 Kaunas, Lithuania

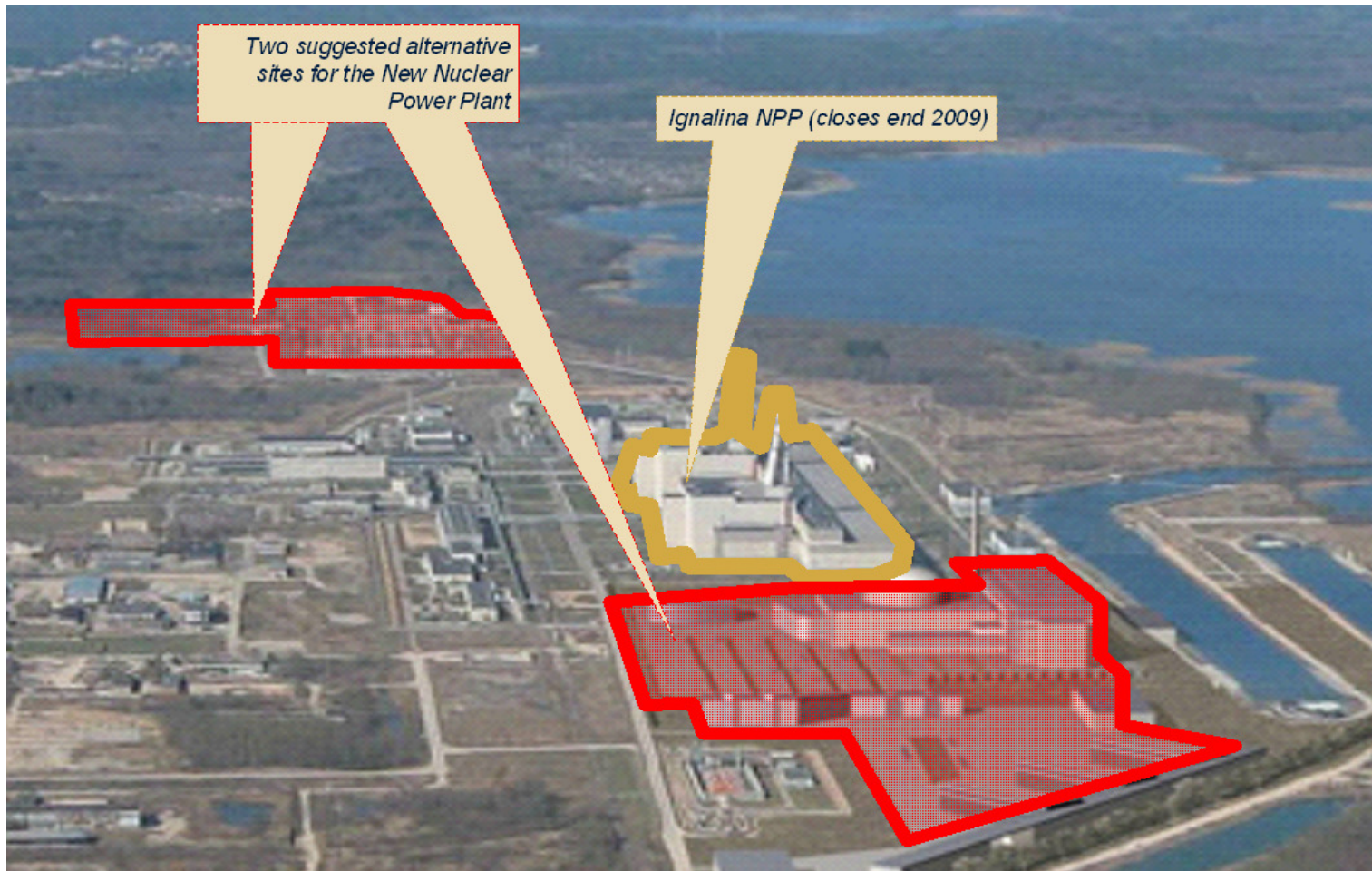
***International Conference on Human Resource Development for
Introducing and Expanding Nuclear Power Programmes***

14-18 March 2010

Abu Dhabi, UAE



INTRODUCTION



- Ignalina NPP – two units of RBMK-1500, commissioned in 1983 and 1987, shutdown for decommissioning at the end of 2004 and 2009.
- A decree endorsed by Lithuanian Parliament in June, 2007 about construction of a new NPP in Lithuania in cooperation with Latvia, Estonia and Poland.



NEEDS FOR NUCLEAR EDUCATION AND TRAINING AT PRESENT

Needs of specialists for new Visaginas NPP:

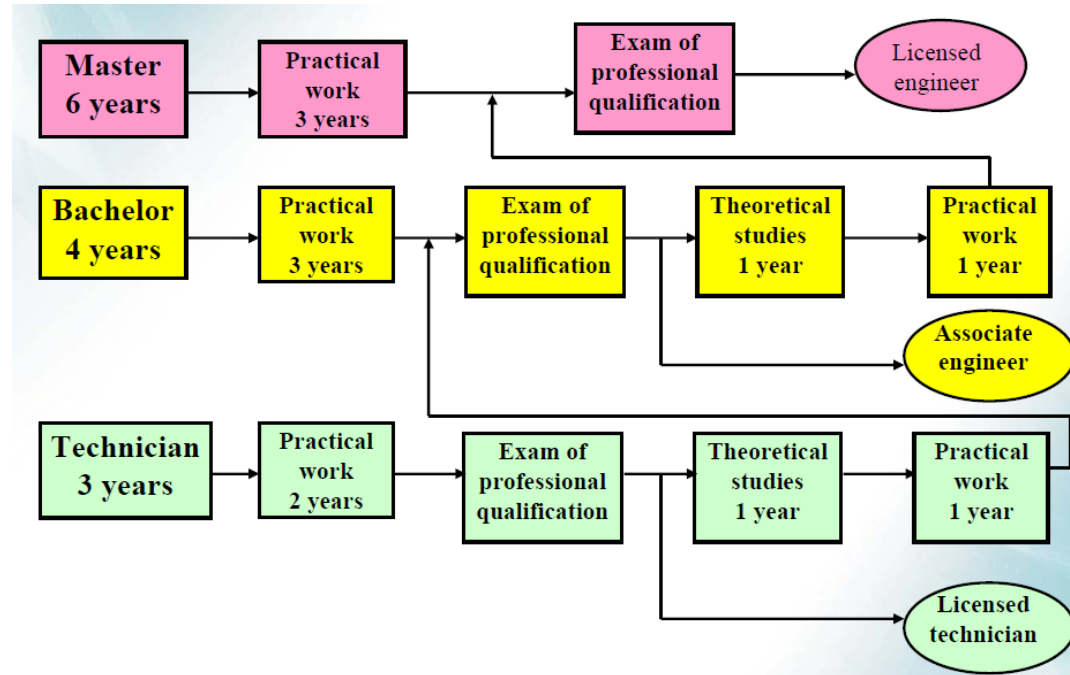
- ~5000 specialists of different fields (mostly constructors) – during construction;
- ~700 specialists for preparation of construction, installation, adjustment and other works.
- up to 900 employees for operation of the completed NPP.

National Programme for preparation of highly skilled specialists in the nuclear energy field in 2008 – 2015. Challenges:

- Establish new programs of study: 2 nuclear energy programs at KTU and 2 nuclear physics studies at VU.
- To create a high quality of nuclear energy specialists - modernization of educational and scientific laboratories in KTU, VU, IP and LEI.
- Create preconditions for Nuclear Education (NE) - adequate funding for scientific and teaching staff, improve the competence of the leading nuclear research centers and universities, to ensure mobility, new textbooks and educational books to buy.
- Create the necessary infrastructure for persons, already having a university education - establishing a training centre for new NPP.
- To promote nuclear energy and its increasing popularity among the youth.



COOPERATION BETWEEN LEI AND KTU IN NUCLEAR EDUCATION AND TRAINING



Professional
grading system
in Kaunas
University of
Technology

- LEI and KTU has united doctorate.
- The specialists of KTU and LEI together participated in process of study.
- LEI specialists provide the teaching in Faculty of Electrical Engineering and Management, Mechanical and Mechatronics, Basic Sciences.
- KTU doctoral graduates performed their internships in the Lithuanian Energy Institute.
- Students have the possibility to use the LEI experimental facilities, hardware and software.



CREATION OF REGIONAL NUCLEAR SAFETY TRAINING CENTER IN LITHUANIA

- International Atomic Energy Agency supported the intention of VATESI, Lithuania power company, universities and institutes to establish a **Regional Nuclear Safety Training Centre**.
- Purpose of this Centre to provide the specific knowledge for new people involved in nuclear safety business.
- IAEA helped with hosting a Basic Professional Training Course for the entire region.
- The two-week course on nuclear safety, based on the syllabus developed by the IAEA, were organised in Lithuania at the end of October 2008 and 2009. The main local organizer of course was Lithuanian Energy Institute.
- The total number of course participants was ~40: half of audience was composed from participants from several IAEA Member States from former Soviet Republics and East Europe and half from local Lithuanian organisations.
- The lecturers for the course were drafted from IAEA, but part lectures were from Lithuanian organisations (KTU, LEI, IP and Ignalina NPP).
- The 16 - 18 modules from the IAEA syllabus were involved into course program.
- Not only the lectures (main part), but also the group work and practical exercises were organized (technical visit of Ignalina NPP and full-scale RBMK simulator exercise were provided).



CONCLUSIONS

- The preparation for the construction of new (Visaginas) NPP showed that Lithuania lacks the nuclear energy specialists.
- The National Programme for preparation of highly skilled specialists in the nuclear energy field in 2008 – 2015 was created.
- Realizing the plan of measures for National Program's implementation, two new NE study programs developed at KTU - LEI, using the learning outcomes approach.
- Lithuania is making a training hub for the entire Baltic region (the Regional Basic Professional Training Courses with IAEA support are organising in Lithuanian).