

# **Project “DECOM”**

## **Decommissioning LNPP Unit 1**

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# Nuclear Safety Projects

- “ IFE has been engaged in nuclear safety projects in collaboration with Russia since the early 1990-ies
  - “ Collaboration with Kola NPP since 1993
  - “ Collaboration with Leningrad NPP since 1999
  - “ Collaboration with authorities (NRPA/FMBA) in Andreeva Bay since 2010
  - “ Collaboration with FSUE Atomflot since 2012
- “ IFE has been involved in cooperation with the Chernobyl Decommissioning Visualization Centre (CDVC), ChNPP in Ukraine since 2006
- “ In progress of starting up projects within NDT at Rovno NPP in Ukraine

# Governmental Programme 2013 - 2017

- “ Overall Strategy Plan (2013 - 2017)
  - “ First version 1995. Revised periodically.
  - “ Last revised version accomplished 2013
  - “ Document link: <http://www.nrpa.no/dav/cab6d4c350.pdf>
- “ Part Strategy Plan for Nuclear Power Plants (KNPP, LNPP)
  - “ Last revised version accomplished 2013
  - “ <http://www.nrpa.no/dav/f799485827.pdf>
- “ Part Strategy Plan for Andreeva Bay
  - “ Last revised version accomplished 2013
  - “ <http://www.nrpa.no/dav/54ba91f1d6.pdf>

# Leningrad NPP



# DECOM Project - Background

- “ In-line with Rosenergoatom (REA) program for Nordic Cooperation
  - “ Competence /experience exchange . Scientific and technical cooperation
  - “ Less equipment (HW) deliveries
- “ On the list of prioritized projects(PIS) at LNPP
- “ In-line with Norwegian Governmental Programme 2013 - 2017
  - “ Overall Strategy Plan (2013 - 2017)
  - “ Part Strategy Plan for Nuclear Power Plants
- “ Use IFE international network (HRP, 19 member countries)
  - “ Utilities, Vendors, Authorities, research organizations
  - “ Nuclear competence

# DECOM Plan LNPP unit 1

- “ LNPP unit 1 is of type RBMK. Planned decommissioning in two main steps (according to Rosenergoatom’s conceptual model).
- “ Phase one from 2012 to 2023:
  - “ Preparation of the decommission process and get license for the decommissioning of unit 1
- “ Phase two from 2023 to 2050:
  - “ Dismantling the LNPP unit 1 and removal / disposal of spent fuel and radioactive / non-radioactive waste.

# DECOM Plan Phase 1

- “ The scope of planned activities (2012-2023):
  - “ Comprehensive decommission Engineering and Radiation Surveys (CERS)
  - “ Development of design documentation for the decommissioning of unit 1
  - “ Preparation for removal and disposal of spent nuclear fuel and radioactive / non-radioactive waste
  - “ To obtain a license for the decommissioning of LNPP unit 1
- “ During the first stage 2012-2018, Unit 1 will function in normal operating mode with the production of electricity.
  - “ Planned shut down in December 2018

# DECOM Plan Phase 2

- “ The scope of planned activities (2023-2050):
  - “ Preparation for the dismantling of unit 1: Schedule ca. 7 years
  - “ Removal and disposal of unit 1 with a preservation of the reactor module: Schedule ca. 15 years
  - “ Removal and disposal of reactor module: Schedule ca. 5 years



# DECOM Project

- “ Project period 2014 . 2016: Project related to decommissioning of Leningrad NPP unit-1 with focus on basic steps within the first phase (2012-2023) related to the following three main areas
  - “ Workshops / visit / experience exchange with international nuclear organizations / power plants within decommissioning
  - “ Competence building in connection with Comprehensive Engineering and Radiation Survey (CERS); (including Radioactive Radiation Control (RC) and environmental monitoring) and the purchase of some equipment for this purpose
  - “ Development of project documentation for the decommissioning of LNPP unit 1



# DECOM Project activities

- “ Visits/workshops/competence building/exchange of experience within decommissioning processes
  - “ NUKEM, Germany (Kahl NPP, Brennilis NPP (France))
  - “ ENRESA, Spain (José Cabrera NPP on-going decommissioning)
  - “ Barsebäck NPP, Sweden where two (2) units stopped (1999 /2005)
  - “ CERS (Comprehensive Engineering and Radiation Surveys)
  - “ Development of design documentation for decommissioning
  - “ Decommissioning Technics
  - “ Planning / preparations for handling / removal / disposal of spent fuel and radioactive waste
  - “ Purchased of some equipment for characterization / measurement of radioactivity in buildings, components and dosimetry control of personnel, which is an important element in planning for decommissioning
  - “ Issues related to economic and social challenges

# DECOM Project

- “ The DECOM project will be carried out in cooperation between
  - “ Leningrad NPP
  - “ Rosenergoatom (Main office Moscow)
  - “ Swedish Radiation Protection Authority (SSM)
  - “ Subcontractors:
    - NUKEM, ENRESA...
    - JSC AEP “SPbAEP” (Saint Petersburg Research and Design Institute Atomenergoproekt)
  
- +++ other cooperating partners ã õ

# DECOM Project

- “ The DECOM project will also benefit from IFE’s other activities within environmental monitoring, radiation monitoring, radiation visualization and dose calculation at
  - “ Leningrad NPP
  - “ ChNPP
  - “ Andreeva Bay
  - “ FSUE Atomflot

**Thank You For Your Attention !!!**