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## Transition from operation to decommissioning of NPP units in the Russian Federation on the example of units 1 and 2 Leningrad NPP

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1. Introduction

In Russian Federation in operation -11 NPPs (36 power units), Total - 30.5 GW. NPP produced over 20% of all power generated in Russian Federation. At 2022 –9 power units are shut down for decommissioning, of which: 2 NPP –at decommissioning stage (decommissioning license granted); 7 NPP–at decommissioning preparation stage. By 2032, 17 power units are to be shut down for decommissioning.

- 2. Regulatory Framework
- Federal Law on the Use of Atomic Energy No. 170-FZ ( $\Sigma$  ~ 16 Federal laws and decrees)
- Safety Rules for Decommissioning of a Nuclear Power Plant Unit, NP-012-16 ( $\Sigma$  ~ 19 Codes/ Rules and Safety Guidelines)
- "Rosatom" Concept of Nuclear Facilities Decommissioning
- "Rosenergoatom" Concept of Power Units Decommissioning
- Leningrad NPP Concept of Power Units Decommissioning
- Programs of Leningrad NPP Power Units Decommissioning (individually for each Unit)
- 3. DECOM Preparation Stage

Rationale for "immediate dismantling" selection:

- · Lower costs
- Higher radiation and technical safety
- Possibility for the NPP workforce retention
- 4. Prospects
- Development, try-out, implementation and improvement of new technologies for uranium-graphite reactors decommissioning;
- Extension to other NPPs;
- Personnel training in new technologies and techniques;
- RW interim storage and processing;
- Waste decontamination, fragmentation and conditioning facility.

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