

Decommissioning Planning for Nuclear Units at the Oskarshamn Site

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OKG

Agenda

- **Introduction**
- **Decommissioning Process**
- **Present Activities at OKG**
- **Strategic Options for OKG**
- **Discussion**
- **Conclusions**
- **Near Term Future Works**

Introduction

- **Permanent shutdown**
 - **O1: 2032 → 2017**
 - **O2: 2034 → 2016**
 - **O3: 2045**



BWR Unit	Commissioned	Thermal power [MW]	Electrical power [MW]
Oskarshamn 1	1972	1 375	491
Oskarshamn 2	1974	1 800	620
Oskarshamn 3	1985	3 900	1 450

Decommissioning Process

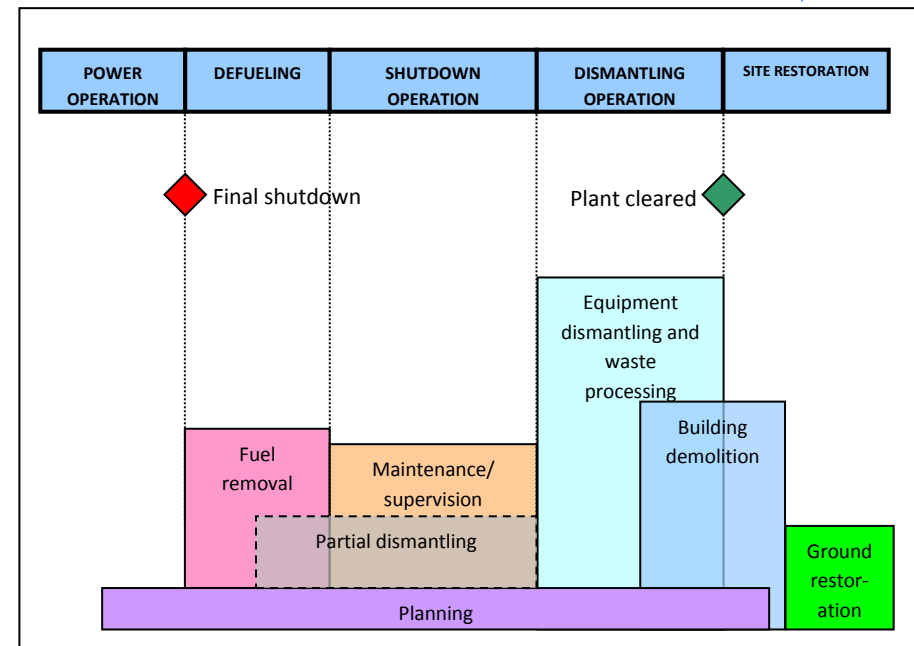


- **Regulatory:**

- EIA for Defueling op.
- SAR for Dismantling
- EIA for Dismantling
- EURATOM Article 37
- Waste Management Plan

- **Economical**

- SAR for Shutdown op.



Present Activities at OKG

- **Decommissioning Preparation Project (DPP) with subprojects**
 - Strategy and Planning
 - Licensing – Nuclear Regulator
 - Licensing – Environmental Court
 - HR
 - Decommissioning preparation activities
- **Development of decommissioning roadmap, licensing documents and identification of prioritized activities**
- **Will transit into line organisation as a new department in 3-5 months**

Strategic Options for OKG

- **The organizational model**
 - **Using utility personnel**
 - Degree of self performance
 - **Procurement strategy**
 - **Maintaining competence**
- **Timing between the decommissioning of unit 1 and 2**
 - **When to go into decommissioning**
 - **Length of defueling op., shutdown op.**

Ongoing

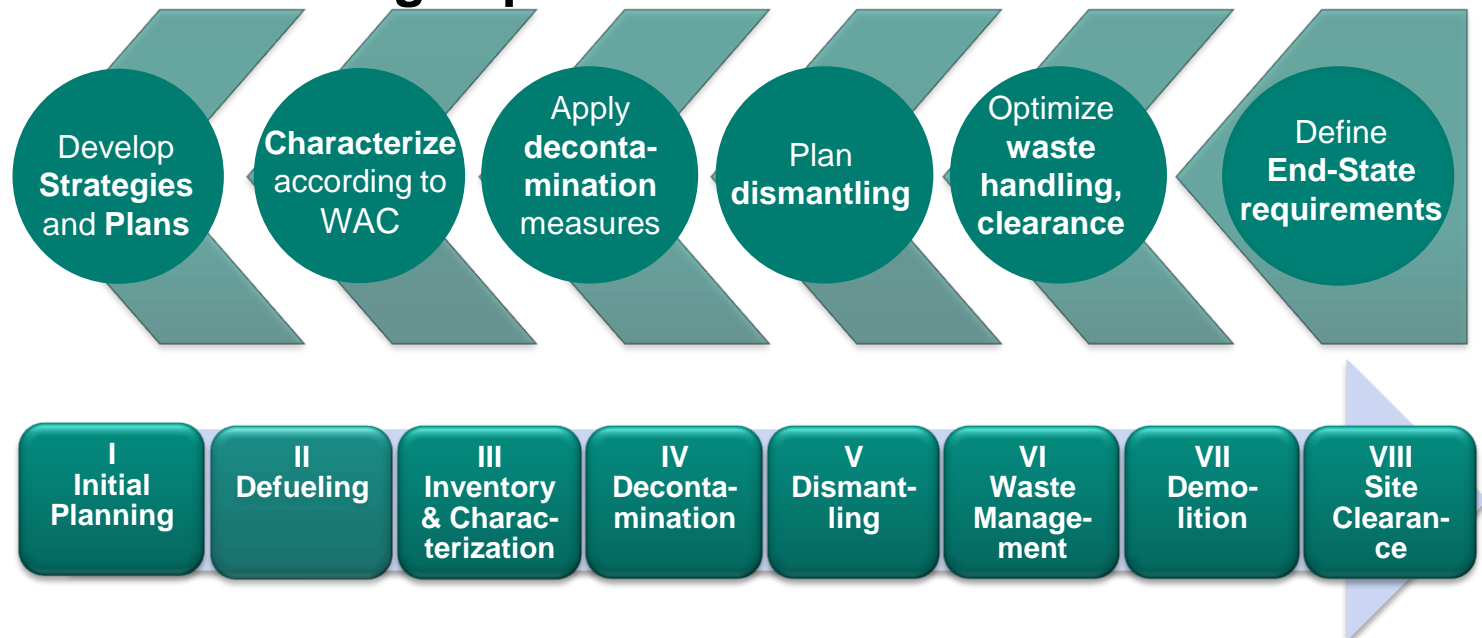
Completed

Strategic Options for OKG

- **The waste management strategy**

- Waste streams
- Waste treatment options
- Final/Interim storage options

Ongoing



Strategic Options for OKG

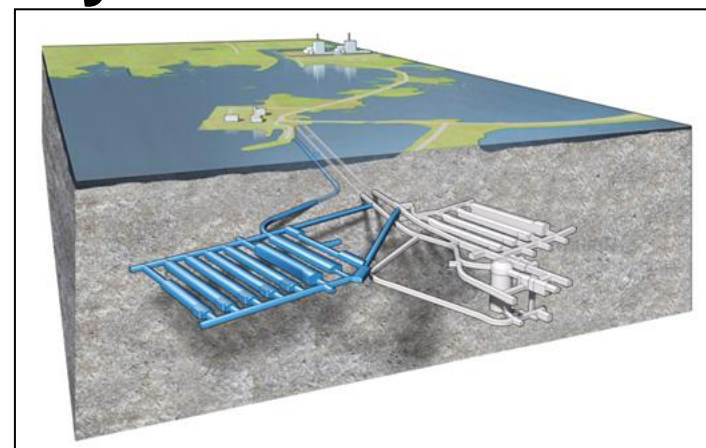
- **Decommissioning systems modification**
 - Ventilation
 - Power supply
 - Waste treatment systems
 - Free release building/routes
 - Handling systems
 - Fire protection
 - Transport routes
- **Stakeholder engagement**
 - Stakeholder communications plan

Not started

Ongoing

Discussion

- **Prioritized activities, order of planning activities**
- **Regulatory review time and approval**
- **Partial dismantling**
- **Dependency on final repository**
- **Physical separation of site**
- **Maintaining personnel, morale and critical skills**

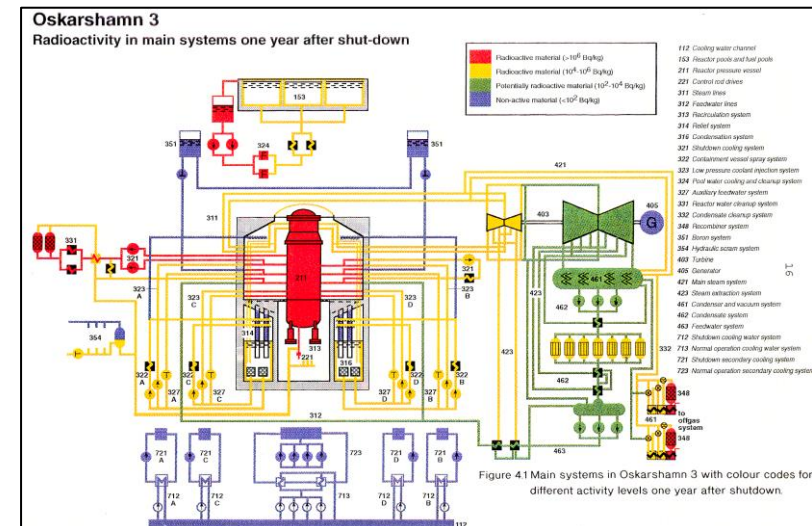


Conclusions

- **O1 and O2 as one decommissioning project**
- **Defueling O1 finished 2018**
- **Defueling O2 finished mid 2017**
- **Nuclear dismantling start 2019**
- **Plant cleared 2025**
- **Target end date 2027 → brown field**
- **Partial dismantling (flexibility) crucial for short schedule**
- **Prioritized activities:**
 - **Personnel change of mindset and critical skills**
 - **Licensing documentation**
 - **Procurement strategy**
 - **Waste management strategy**
- **Frequent and open communication with regulators and stakeholders critical to success**

Near Term Future Works

- Finalizing prioritized activities
- Decommissioning planning
- Dismantling sequences
- Radiological characterization
- Separation activities
- Physical protection
- Plant modifications for decommissioning



Thank you for your attention!

