



REGULATORY ASPECTS OF RELEASE OF SITES AND BUILDING FROM REGULATORY CONTROL IN UKRAINE

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RELEASE OF SITES AND BUILDING FROM REGULATORY CONTROL.

STATUS OF WORK:

- No practical experience, no completed projects,
- Development of rules and regulations for release of sites from regulatory control for:
 - **Chernobyl NPP** (under decommissioning),
 - **Other NPP`s and Research Reactors** (all facilities are under operation)



Chernobyl NPP Decommissioning

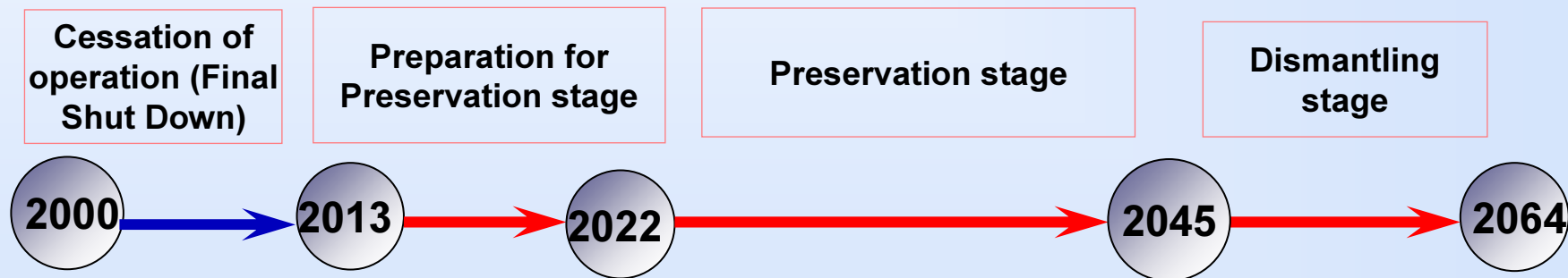




ChNPP Decommissioning Programme (=Final Decom Plan)



ChNPP Decommissioning Stages



Decommissioning strategy –
deferred dismantling (SAFSTOR)



“End Point” of Chernobyl NPP Decommissioning (1)



- “End Point” (2064) – “Restricted Release Option” - “**Brown Field**” (Special case)
- The main idea of “**Brown Field**” – contamination levels of the site (in the end of Chernobyl NPP Decommissioning) can not be higher than contamination levels of surrounding territories and should correspond with Rehabilitation Strategy of 30 km Exclusion Zone (under development)



“End Point” of Chernobyl NPP



Decommissioning (2)

- Establishment in 2008 by Ministry of Health and State Nuclear Regulatory Committee of “Levels for Restricted Release of ChNPP Site (incl. Buildings, Structures) and Materials from Regulatory Control” (Radiation and Sanitary Criteria for the End State of Chernobyl NPP Decommissioning)”
- Three groups of levels (criteria):
 - for ChNPP industrial site (territory be covered by Decommissioning Programme of ChNPP, except Cooling Pond and Shelter Object)
 - for Buildings and Structures
 - for reuse of materials and equipment inside Exclusion Zone and industrial site of ChNPP



Other NPP`s and RR`s



Decommissioning Plans

- Future Decommissioning of existing NPP`s - “End Point” – “Restricted Release Option” **to reuse the site for industrial purposes** (for example, new unit)
- Future Decommissioning of Research Reactor in Kiev – “End Point” – “Unrestricted Release Option” (“Green Field”)
- Decommissioning of Research Reactor in Sevastopol – decommissioning strategy is not defined yet. It is expected it will be “Unrestricted Release Option” (“Green Field”) also.
- ***The problem*** – lack of regulation with requirements for procedure for Restricted and Unrestricted Release of Sites (incl. Building and Structures) from Regulatory Control. (For existing NPP sites there is only one general requirement – “to reach conditions (as a result of decommissioning work) to allow the reuse of the site”)



Release of Materials from

Regulatory Control in Ukraine (1)

- August 2010 – revised version of regulation with requirements for release of materials from regulatory control (clearance and exemption options) was approved by Ministry of Health and State Nuclear Regulatory Committee (SNRCU):
 - **SNRCU** - review and preparation of conclusion (regulatory decision) about possibility of implementation of activity - release of materials - for different license holders,
 - **Ministry of Health** – development of clearance and exemption levels (adopted the RS-G-1.7 Safety Guide - "VALUES OF ACTIVITY CONCENTRATION FOR RADIONUCLIDES OF ARTIFICIAL ORIGIN IN BULK")



Release of Materials from



Regulatory Control in Ukraine (2)

- **Ministry of Health and SNRCU (together)** – review and approval of procedures (methodologies) for different options of release for different license holders
- **License holders** – development of procedures (methodologies) for concrete options of release of concrete materials, preparation of documents to have positive regulatory decision for proposed option of release.



Release of Materials from



Regulatory Control in Ukraine (4)

■ *The problems:*

- lack of experience of practical implementation of regulation with requirements for release of materials from regulatory control (clearance and exemption options) to make conclusion about its efficiency.
- potential need to establish procedures for coordination of activity of SNRCU and Ministry of Health to clearly define their responsibility in regulation of release of materials.



Conclusions



- The urgent need to use the international experience and international standards (approaches) in the area of release of sites, structures, building from regulatory control to develop national regulations in this area:
 - To establish criteria for unrestricted and restricted release of sites,
 - To establish licensing (permission) procedures for Regulatory Body(s) in the context of licensing of decommissioning activity,
 - To develop criteria for safe technology for clean-up of sites,
 - To provide requirements for proper plans for future decommissioning of nuclear facilities