

United States Nuclear Regulatory Commission

Protecting People and the Environment

# Part I: US Participation in NEA/WPDD Activities

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# Part I: US Participation in WPDD Activities (Historical Background)

- WPDD #1 was held in May 2001
- NEA invited US to participate
- US NRC & US EPA staff participated in early annual meetings
- In October 2006 (WPDD #07) US NRC Director (Larry Camper) Chaired a Topical Session on "Decommissioning Regulatory Approaches and Practices."
- Since WPDD #8 US NRC and US DOE participate effectively and became members of WPDD Core Group and other task groups (Boby Eid & Andrew Szilagyi).
- In November 2010, US DOE/US NRC hosted WPDD#11



# Part I: US Participation in WPDD Activities

### **US Key Contributions to WPDD & Task Groups**

- Decommissioning Criteria and Implementation Process for Power Reactors
- Risk/Dose Analysis for Decommissioning
- Characterization & Survey
- Disposal of Large Components
- Decommissioning & Waste Management/Minimization
- R&D for Decommissioning
- Decommissioning Lessons Learned & New Designs
- US Approaches to Remediation/Clean-up & End-state
- US Decommissioning Status & Updates (Country Reports)
- US (DOE & NRC) Hosted WPDD 11th Annual Meeting in Washington DC.
- US Participants: NRC & DOE (Core Group), EPA, EPRI, Private Consultants.

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## **WPDD Benefits**

# **Sharing and Exchange of Information Benefits:**

- US "Decommissioning Programs" are mature, accumulated valuable information based on experience, research & development, and lessons learned.
- US Decommissioning regulations are well developed, flexible, focused on safety, and implementation.
- Mutual benefits from WPDD annual meetings discussions & feedback, topical sessions, workshops, task groups, and participation in development of reports.
- Site visits to decommissioning and waste disposal facilities added value to international knowledge and experience.



# US WPDD Perspective: Suggestions, Challenges, and Future Look

#### • Suggestions:

- Continue Federal agencies participation in WPDD;
- Encourage US NGOs (e.g.; EPRI, Industry, & Consultant) participation in WPDD;
- Participate in task groups activities as much as resources allow; and
- Make use of available WPDD reports; presentations, and annual meeting records.

#### Challenges:

- Resources and travel funds for participation in WPDD activities may become sparse;
- Staff participation via teleconferences represents a challenge;
- Knowledge transfer and continuity; and
- WPDD needs staff with substantive expertise and multi-disciplinary knowledge.

#### Future Look:

- Significant increase in global decommissioning activities particularly power/RT reactors;
- Significant development in decommissioning technologies (e.g.; remote & 3D modeling);
- R&D needs in support of decommissioning & needs for training of skilled professionals;
- Enhancing national/international collaboration and exchange of information;
- Continued challenges to decommissioning of NPPs after severe accident, and Legacy Sites.
- Planning for decommissioning waste management, funding, and use of lessons learned.



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# Part II: WPDD Task Groups Other Activities

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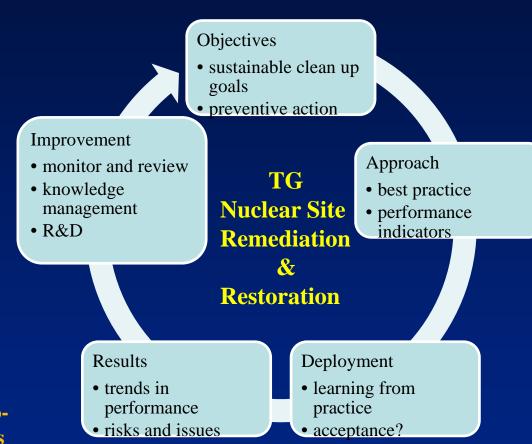
# Further Information on Task Groups (TGs) DCEG, NSR, and PFD

#### **Current WPDD TGs**



#### **TGNSR**

Provide NEA member countries with up-todate information and developing consensus regarding: objectives, approach, deployment, results, improvement on issues of Nuclear Site Remediation within a continuing learning cycle.





# DCEG Task Group

#### **DCEG Main Function & Objectives**

- Exchange information and experience gained between NEA members on decommissioning cost estimation, promote collective learning, and enhance credibility, reliability, and auditability of the cost estimation process including enhancing stakeholder confidence;
- Define best practices in the field of decommissioning cost estimation;
- Advise WPDD on major emerging issues including appraisal of the state of art in the area of decommissioning;
- Define, conduct and oversee studies aimed at improving transparency and reproducibility of cost estimations,
- Where necessary, organize topical sessions or workshops on specific topics of interest to WPDD.

#### DCEG Key Products: (http://www.oecd-nea.org/rwm/wpdd/)

- Cost Control Guide for Decommissioning of Nuclear Installations (2013)
- International Structure for Decommissioning Costing (ISDC) of Nuclear Installations (2012)
- Cost Estimation for Decommissioning: An International Overview of Cost Elements, Estimation Practices and Reporting Requirements (2010)
- Towards Greater Harmonization of Decommissioning Cost Estimates (2010)



# Task Group on Preparing for Decommissioning during Operation and Final Shutdown (TGPFD)

Just Started: Kick-Off meeting held on March 4, 2015;

### **Anticipated Issues:**

- Address issues pertaining to decommissioning during and at the end of operation (e.g.; background conditions, records of abnormal releases, incidence, waste storage, environmental monitoring & records of inspection);
- Planning for minimization of contamination, waste inventory & categorization, and review of lessons learned;
- Assessment of available funds and initial decommissioning cost estimates.
- Review of decommissioning options and future time schedule;
- Maintain and update records on infrastructures and characterization in support of decommissioning;
- Design reviews for dismantlement and moving of large components.
- Planning for communication with stakeholders.



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