

NEA Activities for the Safe and Effective Decommissioning of Nuclear Installations

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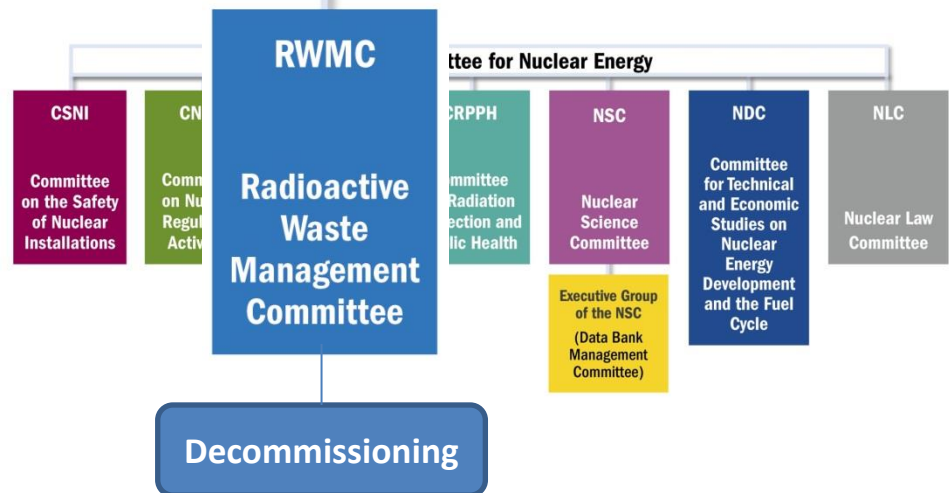
Nuclear Decommissioning Specialist

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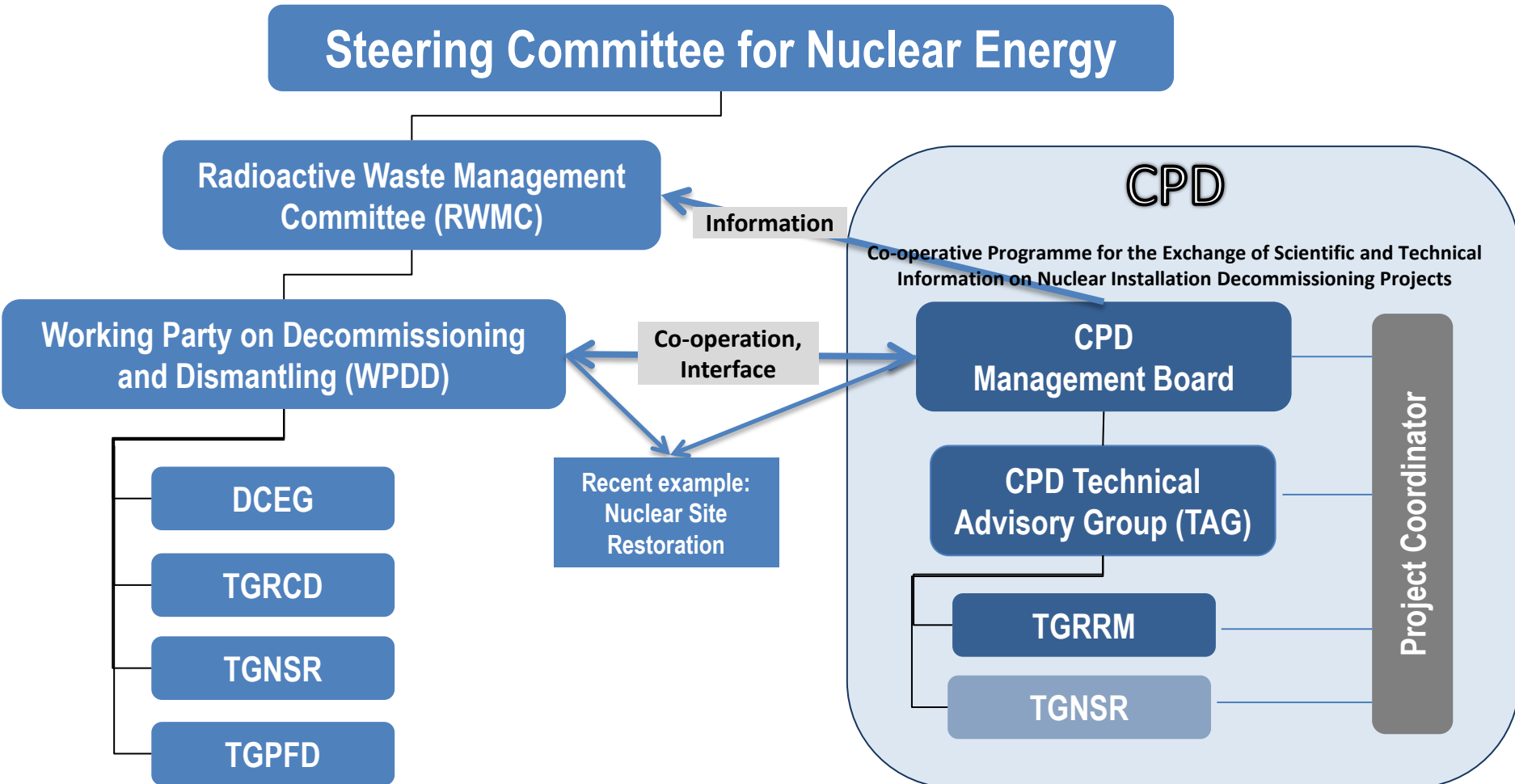
VII International Forum ATOMEXPO
Moscow, Russian Federation
1 – 3 June 2015

The NEA: A Forum for Co-operation for the Most Advanced Countries in the World


- Founded in 1958
- 31 member countries
- 7 standing technical committees
- 75 working parties and expert groups
- 21 international joint projects



Decommissioning and Dismantling at NEA



Decommissioning and Dismantling at NEA

WPDD	CPD
Working Party on Decommissioning and Dismantling	Co-operative Programme for Decommissioning
Since year of 2000	Since year of 1985
Open to all OECD NEA countries	Confidentiality, CPD Agreement
Governments	Companies
Strategy makers, regulators, implementers	Implementers from decommissioning projects
Policies, strategies	Procedures, techniques
Representatives from 21 countries + EC, IAEA: 23 Regulators/Policy Makers, 24 Implementers, 8 Research Institutes, 7 Waste Management Organisations	66 Decommissioning Projects from 25 organisations (Implementers) from 13 countries + 1 non-OECD member country + EC
	
CPD provides advice and technical input to WPDD	

Overview of Current Status and Focus of WPDD work

Working Party on Decommissioning and Dismantling (WPDD)

Decommissioning Cost Estimation Group (DCEG)

- Since 2008
- Extended mandate till 2016
- Members: ~45 (16 countries)
- DCEG Core Group
- **Current focus:** uncertainties in decommissioning cost estimations

Publications: 5 (+1)

Expert Group on Uncertainties (joint WG with IAEA) (DCEG-EGU)

Task Group on Radiological Characterisation and Decommissioning (TG-RCD)

- Since 2011
- Extended mandate till 2015
- Members: ~15 (8 countries)
- **Current focus:** strategies for optimisation of characterisation in a waste and materials end-state perspective

Publications: 1

Task Group on Nuclear Site Restoration (TG-NSR)

- Since 2014
- Mandate till 2015
- Members: ~25 (11 countries)
- **Focus:** strategic considerations for the sustainable remediation of nuclear installations during decommissioning

Task Group on Preparing for Decommissioning during Operation and after Final Shutdown (TG-PFD)

- Launched in March 2015
- Mandate till 2016
- Members: ~20 (9 countries)
- **Focus:** optimisation of activities and measures with regard to preparation of the dismantling

Optimising Management of Low Radioactive Waste and Materials

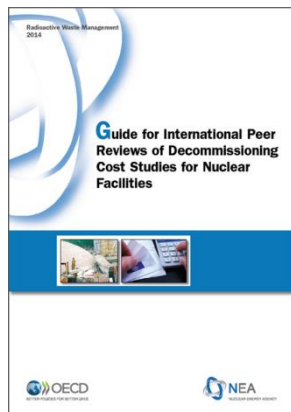
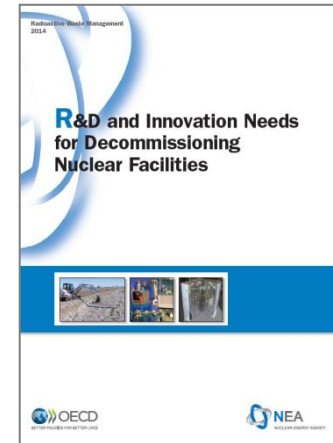
- To be decided at WPDD-16 in Nov 2015

Recent WPDD Publications (1)

R&D and Innovation Needs for Decommissioning (2014)

- Areas with greatest potential for future improvements through R&D:
 1. Characterization and survey prior to dismantling
 2. Segmentation and dismantling
 3. Decontamination and remediation
 4. Materials and waste management
 5. Site characterization and environmental monitoring
- to be observed within WPDD Programme of Work

➤ **Link:** <https://www.oecd-nea.org/rwm/pubs/2014/7191-rd-innovation-needs.pdf>



Guide for International Peer Review of Decommissioning Cost Studies for Nuclear Facilities (2014)

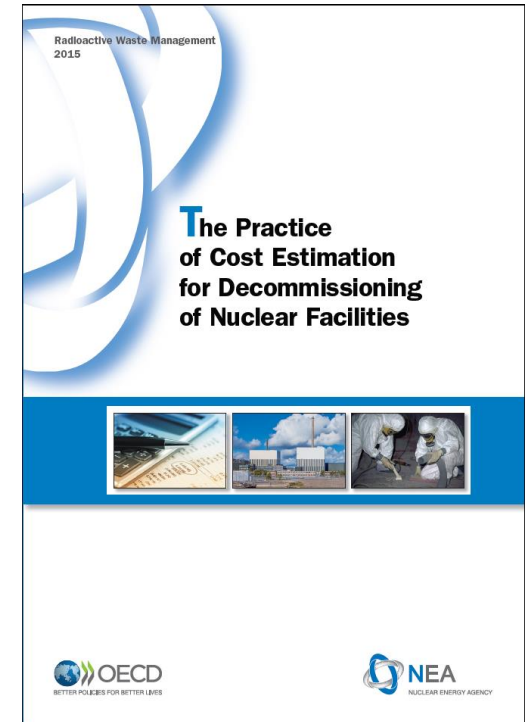
- Framework for decommissioning cost reviewers and reviewees to prepare for and conduct international peer reviews of decommissioning cost estimate studies for nuclear facilities
- Includes internationally developed checklists for attributes of cost estimates
- To promote transparency and accountability of decommissioning cost estimates

➤ **Link:** <https://www.oecd-nea.org/rwm/pubs/2014/7190-guide-peer-reviews.pdf>

Recent WPDD Publications (2)

The Practice of Cost Estimation for Decommissioning of Nuclear Facilities (2015)

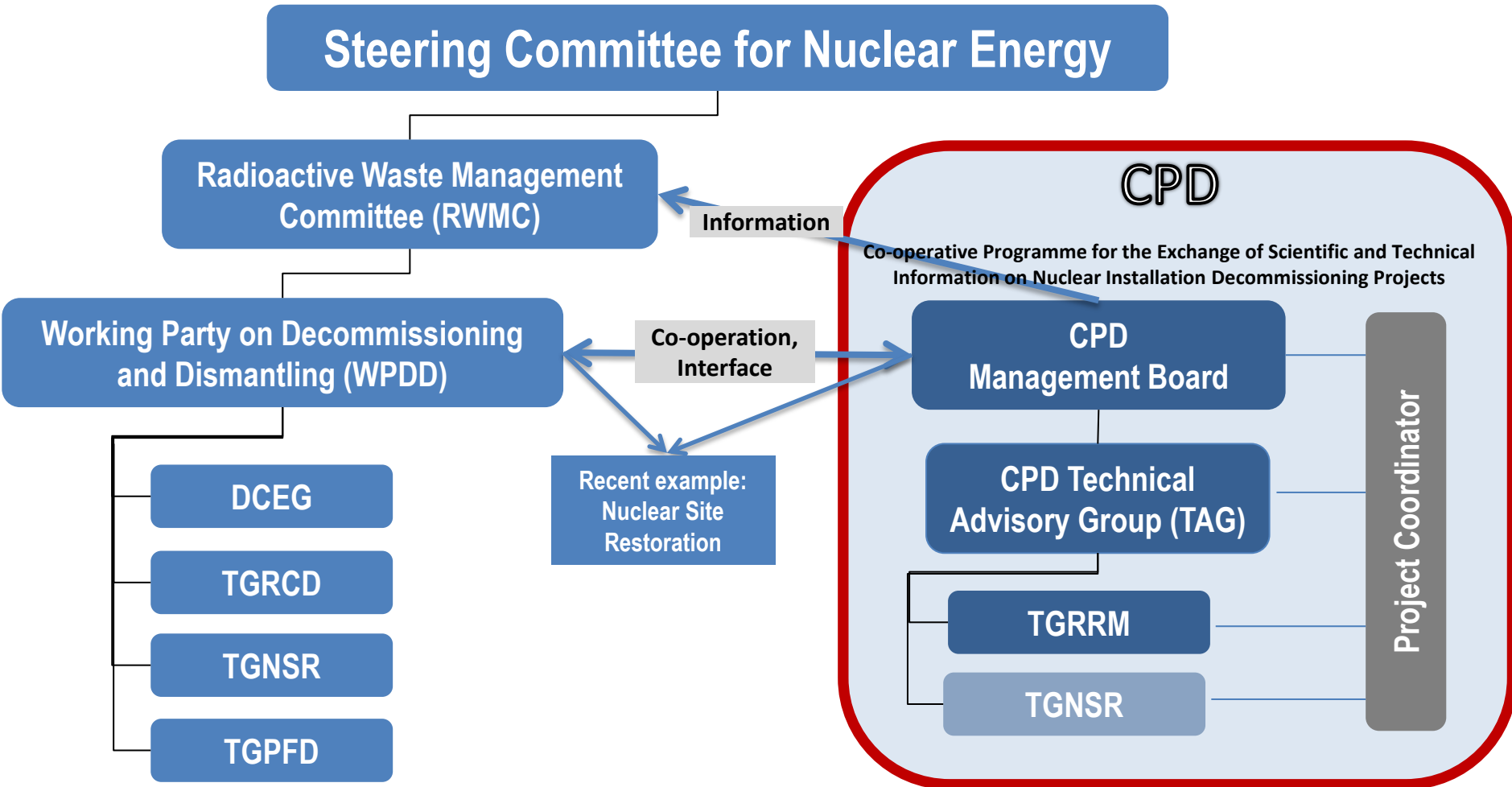
- Guidance for preparing quality cost and schedule estimates in order to support detailed budgeting for
 - securing of funding
 - the preparation of decommissioning plans (for licencing)
 - the decommissioning implementation
- To provide a detailed process to describe quality estimates in terms of cost classifications, the basis of estimates, the structure, risk analysis for cost and schedule, and quality assurance requirements
- **IN PRINT**



All NEA publications in Radioactive Waste Management and Decommissioning available for free.

Visit: <http://www.oecd-nea.org/rwm/public-documents/>

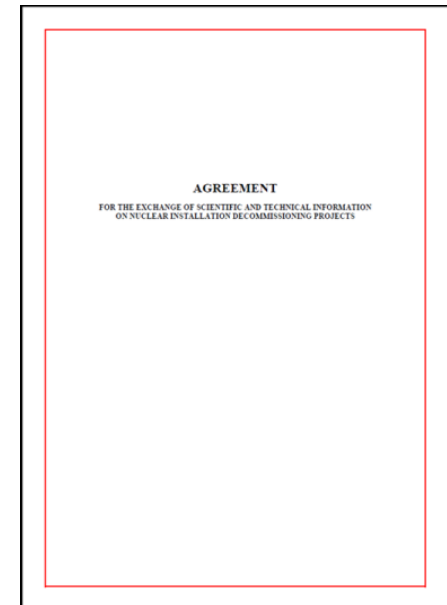
Decommissioning and Dismantling at NEA



NEA Co-operative Programme for Decommissioning (1)

Co-operative Programme for the Exchange of Scientific and Technical Information on Nuclear Installation Decommissioning Projects (CPD)

- **Joint undertaking of decommissioning projects**, set up 1985 according to Article 5 of the NEA statute
 - ✓ Planned, ongoing, dormant and terminated decom projects
 - ✓ NPPs, Research Reactors, Fuel Cycle Facilities
- The fundamental principle is that of sharing, i.e. “Give & Take” technical and scientific information.
- **Confidentiality and funding assured by an Agreement**, renewed for the period 2014-2018
- Interactions with WPDD implemented and synergies searched
- **25 Organisations with 66 decom projects from 14 Countries + EC:**
 - ✓ Chinshan NPP 1&2 (Chinese Taipei) and Danish Decommissioning recently accepted
 - ✓ Russian Bochvar Institute in the pipeline of affiliation
 - ✓ Other new entries are expected soon
- Link: <https://www.oecd-nea.org/jointproj/decom.html>



NEA Co-operative Programme for Decommissioning (2)

CPD Management Board (MB)

- Overall responsibility for the management and control of the CPD and for ensuring compliance with the scope and objectives of the Agreement
- Meeting 1x per year
- Decision on acceptance of new CPD participants and decom projects



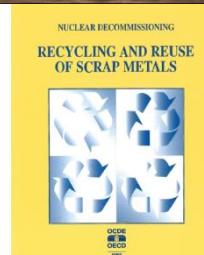
Technical Advisory Group (TAG)

- Senior specialists from decommissioning projects
- 2 meetings per year (May and October), hosted by CPD members
- 2014: UK / Italy; 2015: Germany / Slovak Republic; 2016: Belgium



CPD Task Group on Recycling and Reuse of Material

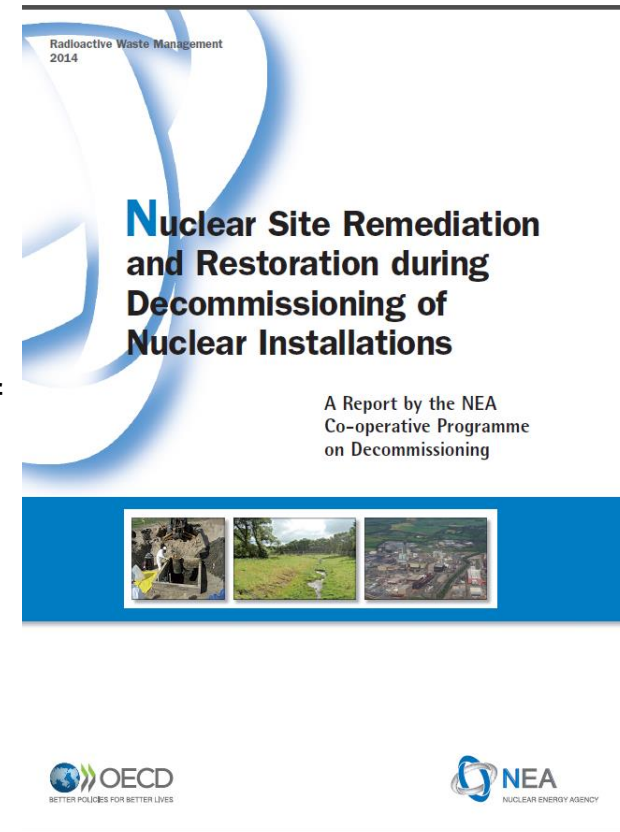
- 15 experts from CPD member organisations from 9 countries
- Objective: Update of the 1996 report on “Recycling and Reuse of Scrap Metals”
 - to cover all materials (mainly) from decommissioning
 - to provide an overview of the various approaches being made by international and national organisations to the management of slightly contaminated material arising in nuclear decommissioning
- Report to be published in late 2016



Recent CPD Publication

Nuclear Site Remediation and Restoration during Decommissioning of Nuclear Installations (2014)

- Addresses technical aspects of nuclear site remediation
- Highlights lessons learnt from remediation experiences of NEA member countries that may be particularly helpful to practitioners, regulators and site operators.
- To provides observations (including case studies) and recommendations to be considered in the development of strategies and plans for efficient nuclear site remediation that ensures protection of workers and the environment.
- **Basis for the work of the WPDD Task Group on Nuclear Site Restoration** with focus on strategic considerations for the sustainable Remediation of Nuclear Installations during Decommissioning



- **Link:** <https://www.oecd-nea.org/rwm/pubs/2014/7192-cpd-report.pdf>

Events in Decommissioning with NEA Engagement

- **International Conference** **10-12 Nov 2015**
"Decommissioning of Nuclear Facilities: Strategies, Practices and Challenges"
in the framework of the AtomECO (Moscow, Russian Federation)
 - Session 1: Strategy – government, industry strategy and business strategy for the decommissioning of nuclear power plants
 - Session 2: Practice – experience and future challenges for the decommissioning of nuclear energy
 - Session 3: Challenges – different roles and expectations for renewable energy stakeholders

<http://www.oecd-nea.org/rwm/workshops/decom-installations2015/>

- **Workshop** "Sampling and Characterisation" (Montpellier, France) **17-19 Nov 2015**
<http://fr.amiando.com/Sampling-and-Characterisation-2015.html>

- **Symposium** „Preparation of Nuclear Facilities for Decommissioning“
(Lyon, France), initiated by WPDD TGRCD and TGPF, co-organised with IAEA, EDF, Areva, CEA and Studsvik
<http://predec2016.scientific-event.com/> **16-18 Feb 2016**

- **IAEA Conference** "Advancing the Global Implementation of Decommissioning and Environmental Remediation Programmes" (Madrid, Spain) **23-27 May 2016**

Thank you for your Attention!

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