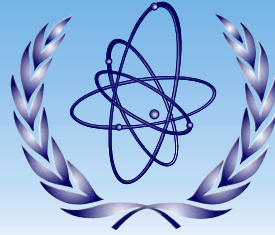


International Atomic Energy Agency

Current IAEA Decommissioning Activities

**Michele Laraia, IAEA, IDN Annual Forum
3-7 Nov 2008**



International Atomic Energy Agency

**The Decommissioning Programme of
the IAEA: Strategic and Technological
Aspects. Completed tasks
(P&B 2008-9)**

- **TR to collect information on stakeholders' involvement in decommissioning projects with a focus on countries with limited resources (approved for publication)**
- **TRS-464 (2008) on social-economic impacts of decommissioning**
- **TRS-467 (2008) on long term preservation of information for decommissioning projects**
- **TRS-463 (2008) on decommissioning of research reactors and other small nuclear facilities by making optimal use of limited resources (updated data bank for all shutdown/decommissioning RRs attached as a CD-ROM)**

**Stakeholder
report:
journalists
watching
decommissionin
g activities at
Vandellos NPP,
Spain**



- **TRS-462 (2008) on Managing Low Radioactivity Material from Decommissioning of Nuclear Facilities**

VLLW – trenches

- High volume of low activity waste
- Decommissioning waste (rubble)



Technical Co-operation Activities

- **National TC projects on Planning for and Implementation of Decom, China (RR), Georgia (RR), Latvia (RR), Lithuania (INPP), Philippines (RR), Slovakia (A-1 NPP), and Serbia (RR) etc.**

Technical Co-operation Activities (cont'd)

- **Regional Project RER/3/005 (for Europe)**
 - **Review of submissions by and/or expert missions to Bulgaria, Hungary, Lithuania, Ukraine and Uzbekistan**
 - **Third Planning Meeting for the Decom of RRs (Rez, Czech R., 3-5 Dec 2008)**
 - **Third Planning Meeting for the Decom of NPPs (Ljubliana, Slovenia, 24-27 November 2008)**

Technical Co-operation Activities (cont'd)

- **Regional Project RER/3/005 (for Europe)**
 - **Workshop on Materials Management and Clearance-Strategic Considerations and “Hands-On” Experience, Vandellos & Madrid, Spain, 13-17 Oct 2008**
 - **Workshop on Cost Estimates for the Decommissioning of NPPs, Moscow, Russian F., 28-31 Oct 2008**
 - **Workshop on Experience in Optimization of Decommissioning Activities: Application of the ALARA Principle, Karlsruhe & Greifswald, Germany, 21-25 April 2008**

- **CRP on Innovative and Adaptive Technologies in Decommissioning of Nuclear Facilities (2004-2008, 3rd and final RCM at Rez, Czech R. 3-7 Dec 2007). TECDOC summarizing CRP achievements approved for publication in 2008**

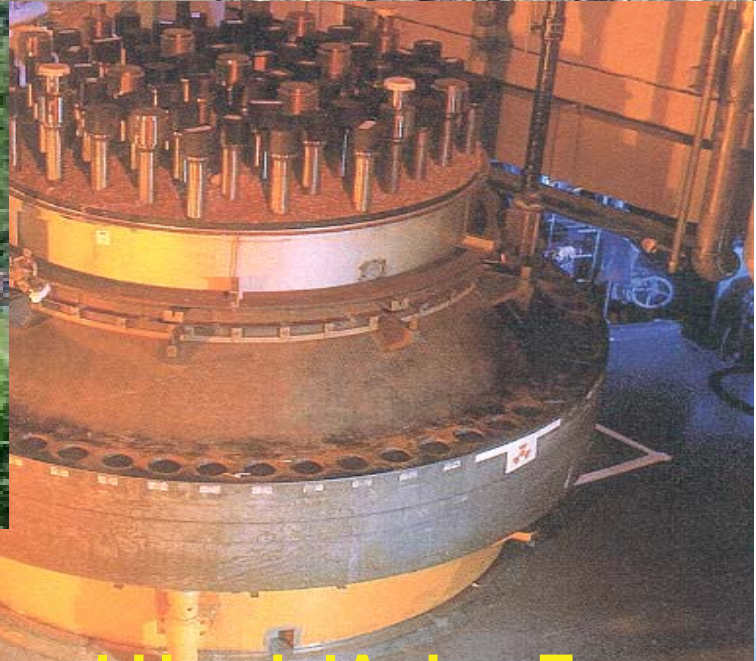
Project L.4.03 Transferring Technologies for the Near Surface Disposal of RW Based on Operating Experience

- **CRP on Disposal Aspects of Low and Intermediate Level Decommissioning Waste (2002-2006); TECDOC-1572 (2007)**

US Ecology, Richland

VLLW – trenches

- Large items



PWR Vessel Head, Laube, France





International Atomic Energy Agency

**The Decommissioning Programme of the
IAEA: Strategic and Technological Aspects.
Ongoing tasks (P&B 2008-9)**

Handbook on decontamination and dismantling techniques for small medical, industrial and research facilities

- **First CS 7-11 April 2008**
- **Second CS 20-24 April 2009**

Dismantling of a contaminated sink, Dominican R.



Estimated costs for decommissioning of research reactors

- **First CS 23-27 March 2009**
- **Complementary to NEA activities and involving NEA experts**

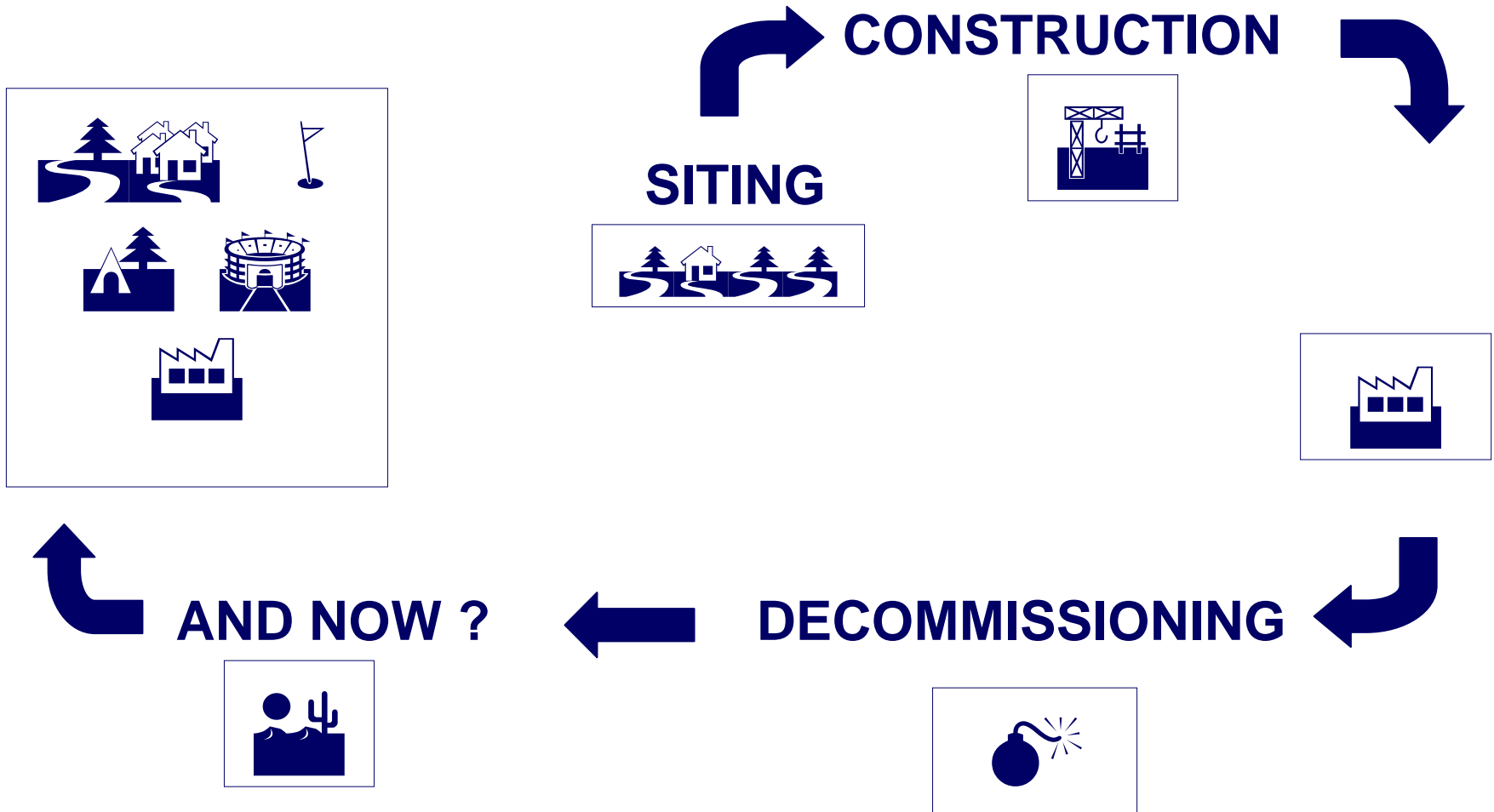
Estimated costs for decommissioning of research reactors (cont'd)

- **Contract study for the IAEA completed. Intends to start international co-operation on a model**
 - Simple
 - Possibly cost-free to users
 - For countries with small nuclear programmes and limited resources
 - Robust
 - Gradable (from simple cases to more complicated)
 - Parametric
 - In accordance with “Yellow Book” structure
 - Based on Excel spreadsheet

Operating experience and lessons learned from reuse of decommissioned sites

- Follow-up to TRS-444 (2006)
- First CS 17-20 March 2008; second CS 2-6 Feb 2009
- Emphasis on practical cases and their rationale
- Extensive use of non-nuclear examples

Closing the nuclear cycle: reuse it!



Fort St Vrain, USA: from nuclear power plant to gas – fired power plant



NPP Würgassen: conversion of the independent emergency building into waste storage facility

- **Aim: take up decommissioning waste until repository will be available**
 - **waste form:**
 - **unconditioned, partly conditioned**
 - **no repository in Germany available, no final waste acceptance criteria**
 - **waste store in operation since 2005**



**Inside the
former Vienna
gas holder:
apartments,
shops, offices**



**The former
Vienna anti-
aircraft bunker,
now a garage
and a
storehouse (too
expensive to
demolish !!!)**



Tate Modern, London downtown: from fossil-fired power station to multi-media centre



Co-ordinated Research Project on planning, organizational and management aspects for decommissioning of nuclear facilities

- **First RCM at Dounreay (26-30 January 2009)**
- **14 institutes from 13 MSs; a variety of facilities, status, decommissioning strategies, available resources**
- **Non-technological aspects only**

Performance indicators in nuclear decommissioning projects

- **First CS 4-8 Feb 2008**
- **Second CS 12-16 Jan 2009**

Decommissioning Policies and Strategies

- **A Nuclear Energy Series Level-2 doc**
- **The top-level NE Series doc specific to decommissioning**
- **Highlights non-safety-related factors (infrastructure, financial, nuclear programmes, national resources and priorities etc)**
- **First CS 20-24 Oct 2008**

International Peer Review Service on Decommissioning



International Atomic Energy Agency

MAGNOX SOUTH AT BRADWELL POWER STATION
(presented at a separate session of the Annual Forum
6 Nov 2008)

Philippines Research Reactor



Research Reactor Decommissioning Demonstration Project (R2D2P)

- Based on the Philippines reactor (a converted TRIGA)
- Hands-on experience approach
- Mutual learning club (13 MSs participating)
- 3 Workshop in Philippines and 1 in Australia
- Australia and China to join the project by offering their RRs as demonstration sites
- An active component of IDN



6 years projects (Started in 2006)

THANKS ! QUESTIONS?