Decommissioning
The World-wide Challenge
Dr John McKeown CEO, UKAEA
Presentation to the IAEA Scientific Forum - Nuclear Power Life Cycle Management
Liability Management

- World-wide Task
- Current Activities
- Technologies and Lessons Learned
- The Challenges Ahead
World-wide Task

World-wide, the following nuclear facilities have been retired from operation and are either awaiting or undergoing decommissioning:

- **93** commercial power reactors
- **22** research reactors
- **5** reprocessing facilities
- **14** fuel fabrication plants and
- **60** mines

Source - World Nuclear Association, Decommissioning Database, Sept 02
Current Activities

'Status' of Closed Power Reactors

Source - World Nuclear Association, Decommissioning Database, Sept 02
Current Activities

'Status' of Closed Research/Prototype Reactors

- Restricted use: 15%
- Permanently shutdown: 5%
- Dismantling: 25%
- Care and Maintenance: 15%
- Decommissioned: 30%

Source - World Nuclear Association, Decommissioning Database, Sept 02
Technology and Lessons Learned (1)

- Simple is Best
- Where possible, use commercially available equipment - adapting as necessary
- Test remote operations in a mock-up facility

- manage waste to meet existing and final disposal requirements
- Segregate waste to minimise cost and resources
Technology and Lessons Learned (2)

- Prioritise work against objective criteria to ensure programmes are optimised and ‘best value for money’
- Start decommissioning whilst facilities are in ‘good’ condition - solve tomorrows problems today
- Develop plans for waste storage and longer term waste management
- Learn from the experience of others - ‘be second first’
- Spend wisely early and benefit later
The Challenges

- Recruiting and maintaining necessary skills and expertise
- Developing robust cost effective strategies
- Gaining and maintaining public acceptance
- Disposal of nuclear waste to standards acceptable to regulators and ‘above all’ in a way acceptable to the general public
- Secure Funding to implement agreed programmes of work