

# Cleaning up the UK: an MPA Seminar held at the Royal Society, London on 13 May 2003

## Participants

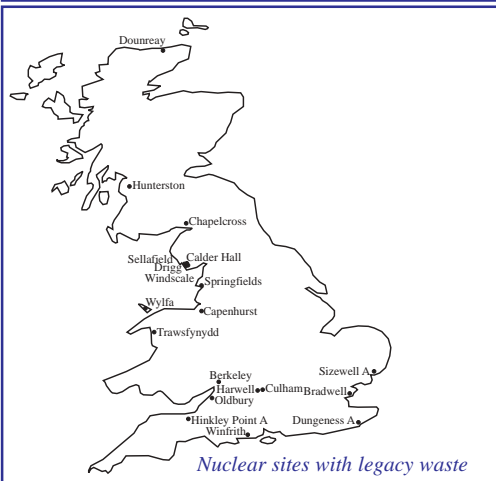
More than 60 participants attended the seminar and the following organizations were represented:

AMEC Group Ltd, Arup Group Ltd, Atomic Weapons Establishment Plc, Babtie Group, Balfour Beatty, Bechtel, Berwin Leighton Paisner, BMCE Bank, Bovis Lend Lease, British Nuclear Fuels Plc, CMS Cameron McKenna, Department of Trade and Industry, Freshfields Bruckhaus Deringer, Greenpeace, Halcrow Group Ltd, Henley Management College, Imperial College, Jacobs Ltd, Kellogg Brown & Root, Linklaters, Morgan Est, Mott MacDonald, Mouchel, NNC, Nuclear Installations Inspectorate, Ove Arup & Partners, PA Consulting Group, Partnerships UK, Risk Solutions, Rolls-Royce plc, Rolls-Royce Naval Marine, Sir Robert McAlpine, Taylor Woodrow, UKAEA, University of Bristol, Washington Group International, Willis

## Lessons from overseas: (1) Information exchange

UKAEA, which has five nuclear sites, wants to benefit from the experience of others:

- it has entered into technical exchange agreements with companies overseas
- information is exchanged on an exclusive, confidential basis
- the experience of 150,000 personnel internationally is made available in this way.



The nuclear industry has been a source of controversy for over 40 years, with wide public concern over the disposal of radioactive waste.

In the early decades of nuclear energy, attitudes towards the disposal of waste were cavalier: cleanup was seen as the problem of future generations. Waste silos and ponds filled up with solid waste, sludge and debris. Tritium, beryllium, depleted uranium, plutonium and other waste remain to be disposed of. The waste materials were often not separated out or recorded, and an unpleasant cocktail of waste now has to be cleaned up.

Government is setting up new structures to tackle the programme of cleanup, clarifying what needs to be done and how to achieve it in a safe, speedy and publicly acceptable way.

## On the history of Britain's nuclear industry

- 1945 Government decision to undertake atomic energy programme
- 1956 Britain's first commercial nuclear power station opens at Calder Hall
- 1957 Fire at Windscale, as innovative process to release the stored energy in reactor goes wrong
- 1960 Nuclear Installations Inspectorate set up
- 1940s–1960s Waste disposal not considered an issue and poorly managed
- 1970s Waste often stored again for future treatment
- 1983 Agreement to end sea dumping of radioactive waste
- 1996 Official opening of Sizewell B, Britain's most recent nuclear power station
- 1997 Plans for a deep disposal site at Sellafield rejected
- 2002 White Paper, *Managing the Nuclear Legacy*, published

## On types of waste and storage

- Waste is divided into four categories: very low level, low level, intermediate level and high level
- It has been stored in ponds and silos—in many cases the waste has not been segregated or recorded
- Waste is stored in ageing assets, which have to be actively managed, so that money is spent on care and maintenance, not cleanup
- End state and end location of waste not yet decided.

## On the new structures to deal with cleanup

- Government is to set up a non-departmental public body, the Nuclear Decommissioning Authority (NDA), to oversee cleanup
- Until NDA is created, a unit within DTI, the Liabilities Management Unit (LMU), is preparing the ground
- Existing management structures on the site will change, with competitively bid contracts being awarded for the management and clean up of each site.

### Lessons from overseas: (2) The US experience

The US has around 13 major sites to be cleaned up, at an estimated cost \$200 billion. All the sites are competed, using closure or time-specific contracts.

The US experience shows:

- competition is an efficient approach
- contractorization is linked with safety improvement
- closure can be accelerated—e.g. Rocky Flats, Colorado: original closure date was 2070, actual cleanup to be completed in 2006
- US contracts require community involvement and local buy—these “dowries” reward the areas that have housed nuclear facilities.

The downside of the US experience includes the annual voting of funds and the complex multi-regulatory environment.



*Pond at Sellafield containing legacy waste*

### Greenpeace principles

Greenpeace has set out principles to guide management of the nuclear legacy. They include:

- maintain openness and transparency
- stop creating more nuclear waste
- concentrate and contain the waste
- give future generations a choice about managing the legacy and don't cut off their choices.

*MPA events are confidential, although this summary has been compiled so as not to breach confidentiality. Full proceedings and entry to MPA events are available only to members.*

### On the cleanup programme ahead

- Cost of cleanup estimated at £50 billion
- Government favours competition as an efficient way forward: “competition—so as to make the best possible use of the best available skills” (from White Paper)
- A policy of openness and transparency underpins the whole programme and was emphasized in the White Paper
- Baselines clarifying the scope, cost and schedule of the work have been prepared for each site and will be used to prepare national baselines—note that cleanup is well under way on some sites, not at all on others.

### On the opportunities for suppliers

- There will be opportunities for companies of all sizes
- Companies can team up together in various permutations to combine their expertise and present bids (e.g. two large companies; large/small companies; incumbent licensee/new firm bringing in innovation; UK/overseas firms)
- NDA will create a level playing field and ensure that site knowledge is available to all
- The programme will also offer opportunities to tier 2 suppliers.

### On potential problems

- Having input from several regulators can be complex (as the US experience shows) and needs to be well managed
- There are skills shortages ahead and the industry will have to be proactive in graduate education and recruitment
- Public opinion is generally against contractorization, which is seen as increasing safety hazards.

### On the criteria for successful performance

- Maintaining the highest levels of safety and security
- Achieving value for money
- Improving on the baselines, notably in accelerating the pace of cleanup
- Creating value through supply-chain integration—North Sea oil & gas industry offers a model for collaborative working
- Involving the regulators at an early stage
- Implementing common practices and standards across all sites
- Involving the local community and getting the NGOs on board.



*After land remediation at Harwell, a former storage area is returned to a greenfield site*