



House of Commons
Committee of Public Accounts

**Nuclear
Decommissioning
Authority—Taking
forward
decommissioning**

**Thirty–eighth Report of
Session 2007–08**

*Report, together with formal minutes, oral and
written evidence*

*Ordered by The House of Commons
to be printed 23 June 2008*

HC 370
Published on 10 July 2008
by authority of the House of Commons
London: The Stationery Office Limited
£0.00

The Committee of Public Accounts

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Summary

The Nuclear Decommissioning Authority (the Authority) was established in April 2005 under the Energy Act 2004 to take forward the decommissioning of UK's civil public sector nuclear sites. The Authority, a non-departmental public body, is sponsored by the Department for Business, Enterprise and Regulatory Reform (the Department), which approves its strategy and plans. Scottish Ministers approve its strategy and plans for Scottish sites. By December 2007, 14 of its 19 sites had already shut down and were being decommissioned and parts of Sellafield, the UK's largest site, were being cleaned-up.

The Authority discharges its responsibilities through contracts with licensed operators at each site. Site licensees manage sites, including preparing decommissioning plans and performing and sub-contracting work. In turn, licensees are owned by one of four parent bodies. The Authority is aiming to improve sites' performance by putting the right to be the parent body out to competition. The competition to be the parent body for Sellafield is due to be concluded by the end of 2008.

The Authority has established decommissioning plans for clearing individual sites but there is considerable uncertainty over the costs of decommissioning. The latest plans—prepared in 2007—estimate that it will cost £73 billion to run those sites still operating and decommission the Authority's sites over the next 100 years. This is an increase of 30% since 2003, and there is a risk that costs may rise further. The Authority is dealing with a legacy of deferred decision making going back over 50 years of the UK's nuclear power programme. Some uncertainty in the cost estimates is, therefore, inevitable, but some of the escalating cost estimates should have been avoidable, including extra costs imposed by short-term changes to the decommissioning programme and the scale of site support costs.

The Authority's work has been hampered by uncertainty in the level of commercial income earned from ageing and unreliable facilities, and by emerging priorities at Sellafield. As a consequence, the Authority has had to cut, at short notice, the levels of funding it was planning to provide most of its decommissioning sites in 2007–08. This stop/start process in decommissioning has imposed additional costs on the taxpayer, with the Authority providing £31.6 million to cover the costs of early contract closure and staff training and redundancy. All these factors combine to disrupt the Authority's plans.

In January 2008, the Government announced it would allow energy companies the option of investing in new nuclear power stations. Operators will be expected to meet the full cost of decommissioning new facilities and their full share of waste management costs.

On the basis of a Report by the Comptroller and Auditor General, we examined the Authority and the Department for Business, Enterprise and Regulatory Reform on estimating the costs of decommissioning and delivering the decommissioning programme.¹

1 C&AG's Report, *Nuclear Decommissioning Authority: Taking forward decommissioning*, HC (2007–2008) 238

Conclusions and recommendations

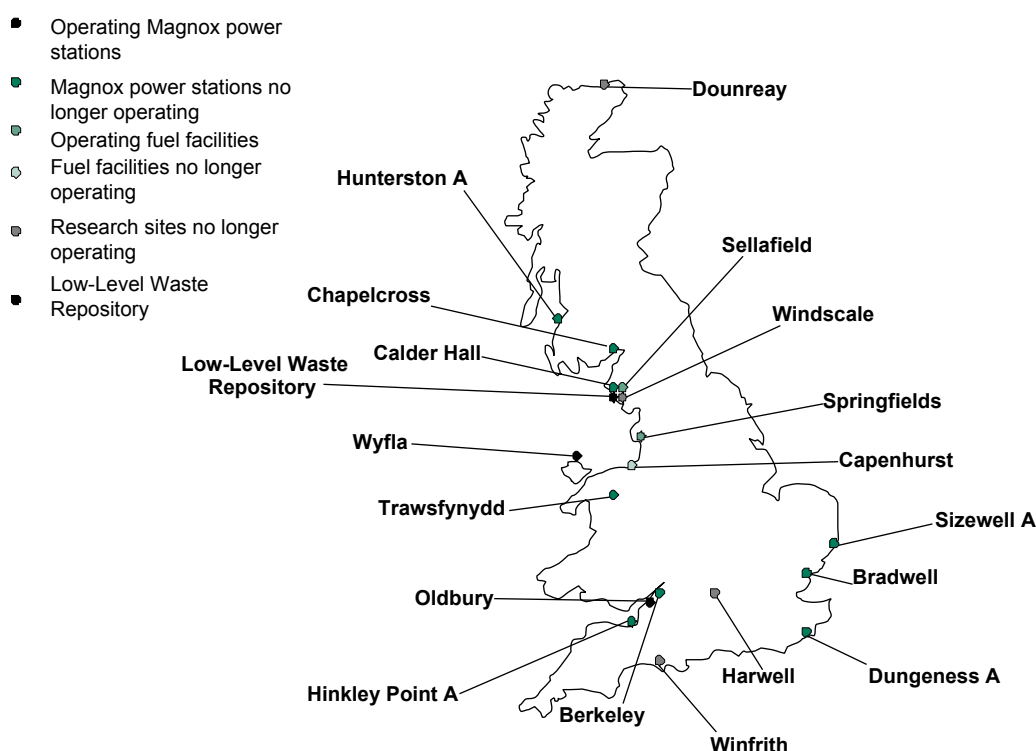
- 1. In 2007, the estimated undiscounted cost of decommissioning civil nuclear sites reached the enormous sum of £61 billion, yet despite many attempts at estimation this figure is likely to rise even further.** It has been all too easy for successive governments and the industry to push these costs onto future taxpayers. The Nuclear Decommissioning Authority is now faced with trying to get to grips with the legacy of this repeated deferral and the massive challenge of cleaning up these sites which contain waste, the exact nature of which is not known in some cases.
- 2. Between 2005 and 2007, estimates of decommissioning costs expected to be incurred by sites between April 2008 to March 2013 rose by 41%.** Uncertainty around costs far into the future is understandable. But uncertainty over the escalating costs of work due to be carried out imminently is difficult to justify. The Nuclear Decommissioning Authority should publish alongside any future estimates the likely range within which future costs may fall.
- 3. With this track record of rising costs it is surprising that the Authority only reviews the process of estimating decommissioning costs by its site licensees, but not the details of costs themselves.** The Authority has procedures to ensure estimates are prepared on a consistent basis across its sites, but needs to put in place better arrangements for challenging the underlying cost estimates themselves, for example, by taking forward its plan to commission a validation of site estimates.
- 4. It is even more surprising that, in 2006–07, around a third of the Authority's expenditure on its sites went to meet support costs.** Site support costs, including engineering support, human resources and procurement services, amounted to £826 million. The Authority should benchmark support costs between sites and encourage greater use of shared services to deliver efficiency savings. It should also expect bidders for future contracts to achieve efficiencies in support services.
- 5. Changes made by the Authority at short notice to some sites' planned programmes have increased costs to the taxpayer.** As a result of changes to decommissioning plans, the Authority has had to provide £31.6 million to its sites to cover the costs of early contract closure, as well as staff training and redundancy. The Department, working with the Authority and HM Treasury, should examine the arrangements for planning and resourcing the Authority's work. Improved arrangements could include making better use of year-on-year flexibility and building reserves to provide a buffer against unexpected demands.
- 6. There are significant variations in performance across the sites being decommissioned.** Working with the new parent bodies, the Authority should identify further ways of strengthening the supply chain for decommissioning work, for example by helping to train people and develop the required skills. The Authority should use the parent body competitions to sharpen the commercial incentives in its contracts and drive efficiency improvements.

7. **The Authority's charges for reprocessing nuclear fuel may have included inadequate allowance for the cost of decommissioning the related facility.** When agreeing new contracts, the Authority should ensure that, at a minimum, charges are sufficient to provide a contribution to the estimated decommissioning costs of facilities and, where possible, cover the full cost it is likely to incur in delivering the service.
8. **The Department is unable to provide complete assurance that the costs of decommissioning new nuclear power stations will not fall back on future taxpayers.** The Department should ensure that there are robust arrangements to ensure that operators of new stations make adequate provision. The level of contribution made by operators to the independent decommissioning funds should be based on prudent estimates that should be updated regularly. The Department must also learn the lessons of British Energy by ensuring that it regularly monitors risks to taxpayers. Before giving the go-ahead to new sites, the Department should be confident that operators can make arrangements to meet all future decommissioning costs.

1 Estimating the cost of decommissioning nuclear facilities

1. In April 2005, the Nuclear Decommissioning Authority (the Authority) was established to clean-up the UK's first generation of civil public sector nuclear facilities. The Authority is a non-departmental public body. It is sponsored by the Department for Business, Enterprise and Regulatory Reform (The Department) which approves its strategy and plans. Scottish Ministers approve its strategy and plans for Scottish sites. The Authority owns a varied and ageing portfolio of 19 sites (**Figure 1**).² The sites include: eleven nuclear power stations; four research sites, including Dounreay (Caithness); a waste repository near Drigg (Cumbria) and the fuel handling, recycling and production facilities at Sellafield (Cumbria), the UK's largest nuclear site. Current plans envisage that the decommissioning and clearance of most sites will take around 100 years.³

Figure 1: Nature and location of the Authority's sites at December 2007



Source: C&AG's report figure 2

2. The Authority discharges its decommissioning responsibilities through contracts with licensed operators, who manage each site. These operators are owned by a series of parent bodies. At February 2008, the parent bodies were British Nuclear Group Limited (part of British Nuclear Fuels Limited, wholly owned by government); the United Kingdom Atomic Energy Authority, a non-departmental public body; Reactor Sites Management

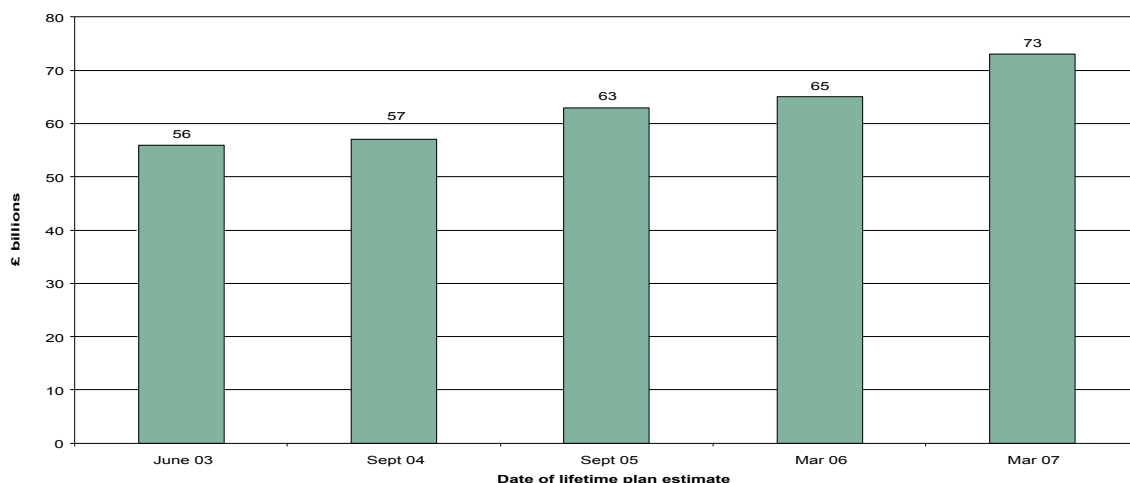
² The Authority has full ownership of 18 sites and has a lease agreement with the United Kingdom Atomic Energy Authority for that part of the Harwell site which was designated to it under the Energy Act 2004 and requires decommissioning and clean-up.

³ C&AG's Report, paras 1.1, 1.2, 1.7

Company Limited, part of the private company Energy Solutions; and Westinghouse Electric Company, part of Toshiba Group.⁴

3. Since 2003, the estimated future cost of decommissioning the Authority's sites has risen significantly. The undiscounted cost reached £61 billion in the latest plans prepared by the Authority in 2007, an enormous figure. A further £12 billion⁵ is required to cover the cost of running the Authority's four remaining operational facilities to the end of their commercial life (Figure 2).⁶

Figure 2: Growth in estimated remaining lifetime costs of the Authority's sites



Note: Estimates are for the future undiscounted costs of sites over their remaining life. Estimates are based on the prices at the time the lifetime plans were prepared

Source: C&AG's Report, Figure 8

4. Recent increases in the estimates are partly a result of a more structured approach to preparing lifetime plans. Prior to the Authority's establishment, cost estimates had been rudimentary. When it was established, the Authority asked site licensees to prepare lifetime plans on a consistent basis. Each plan sets a schedule of the work required to take a site from its current condition until it reaches its agreed end state, such as a brownfield site, and estimates the cost of undertaking this work. As a result, the Authority has gained a better understanding of what it inherited at each site and how decommissioning work might be scheduled.⁷

5. Lifetime plans have been refined over five iterations, and will be updated again in 2008. Costs have risen after each revision. For example, between 2005 and 2007, like-for-like costs (after adjusting for inflation and expenditure at the Authority's sites) grew by £11.7 billion (18%).⁸

4 C&AG's Report, para 3

5 The lifetime plan estimate does not reflect the anticipated revenue from commercial sites.

6 Qq 2, 3, 44; C&AG's Report, paras 2.6, 2.8

7 Q 3; C&AG's Report, paras 2.2, 2.3

8 Q 4; C&AG's Report, paras 2.6, 2.8

6. Rises in cost estimates partly reflect the uncertain nature of work that will not be undertaken for many years. Even when the Authority has established full, robust plans, the estimated cost of decommissioning is likely to be subject to uncertainty. This is particularly true for work likely to be undertaken some decades ahead, with the Authority having to make assumptions about the nature and disposition of wastes, the technology available and the likely regulatory regime.⁹

7. Elements of cost that might be expected to be more predictable have, however, also risen rapidly. Between 2005 and 2007, estimates of site support costs such as procurement, engineering support and human resources, increased by almost £2 billion (9%). And cost estimates for work expected to be undertaken in the near to medium term (April 2008 to March 2013) rose by 41% over the same period.¹⁰

8. The Authority identified two reasons for these increases in cost estimates. Firstly, costs increased as site licensees filled gaps in their plans, changed decommissioning strategies and revised cost estimates. Secondly, inflation in the civil engineering sector and on some raw materials, such as steel, has been higher than in the general economy.¹¹

9. The Authority's scrutiny of site licensees' planned programmes is limited. The Authority specifies procedures that site licenses should follow in drawing up plans. Its review of plans prepared up to and including 2007 focused on ensuring compliance with those procedures rather than challenging the nature or cost of proposed work. The Authority has not had access to benchmark data, nor has it employed independent cost consultants to review site licensees' estimates.¹² The Authority is now planning to increase its scrutiny of the costs themselves. For example, between 2008 and 2011, it is planning to spend £5 million per annum on obtaining independent advice on costs.¹³

10. The Authority is unable to predict the final cost of decommissioning and clearing sites with any certainty. It expected it to take up to five years to establish a robust plan and is only part way through this programme. It has yet to provide a range within which the final figure might fall.¹⁴

11. The Authority cited the United States' experience of decommissioning, which suggests that lifetime costs rise initially, as gaps in plans are removed, and then plateau, before eventually declining as management of the decommissioning process improves. The Authority is confident that this pattern will be repeated in the United Kingdom. For example, it expects that its first competition to run a site, for the low level waste repository near Drigg, will deliver a "double digit" reduction in the cost figures for that facility.¹⁵

12. The current lifetime plans omit any estimate for the long-term cost of storing nuclear waste. The arrangements for the long-term storage of high-level waste have not been

9 C&AG's Report, para 2.5

10 Qq 5, 91; C&AG's Report, para 2.8

11 Qq 83–85

12 Qq 12; C&AG's Report, para 2.11

13 Q 12

14 Qq 3, 10–11; C&AG's Report, para 2.5

15 Qq 10, 71

finalised. In 2007, the Government decided that high-level waste, generated from the reprocessing of nuclear fuel, should be stored in a deep geological repository. The costs of storing waste will depend upon the location and design of that repository. The Government plans to invite communities to volunteer to host the repository and will launch a consultation in May 2008.¹⁶

13. In January 2008, the Government published its White Paper “Nuclear Power—Meeting the energy challenge” setting out its decision to allow energy companies the option of investing in new nuclear power stations. The White Paper proposes “that it will be for energy companies to fund, develop and build new nuclear power stations, including meeting the full costs of decommissioning and their full share of waste management costs.” Potential new operators will be required to submit a funded decommissioning programme for approval by the Secretary of State for Business, Enterprise and Regulatory Reform setting out:

- the steps operators will take to decommission their installation; clean up the site and manage waste (including spent fuel) produced during its electricity generating life;
- the estimated costs of taking those steps;
- how operators intend to meet those costs; and
- details of the financial security to be put in place to meet the costs identified.¹⁷

14. The White Paper proposes that independent funds, outside of the control of nuclear operators, will be created to accumulate and manage payments from operators to meet the cost of decommissioning and waste management. The operator-funded decommissioning plans will be subject to independent review on behalf of the Department by a new Nuclear Liabilities Financing Assurance Board. The Government expects the Board to comprise experts from relevant fields, such as current or former fund managers, pension trustees, actuaries and nuclear engineers.¹⁸

15. There are two important lessons for the Department from the current decommissioning programme. Firstly, decommissioning plans should be in place before new facilities are built. The current facilities, some of them dating back to the 1940s and 1950s, were not built with decommissioning in mind and this has complicated the task of cleaning-up sites.¹⁹ Secondly, the Department accepts that there will always be some uncertainty surrounding the likely cost of decommissioning, and hence the amounts needed to be put aside to meet this expenditure. The Department believes that the amounts set aside should be based on a prudent assessment of these costs. The Department will need assurance that these independent funds are being properly and frequently reviewed to assess the likely liability against the accumulated assets.²⁰

16 Qq 55, 78, 82; C&AG’s Report, para 1.9

17 Q 97; White Paper (Cm 7296) , paras 1, 3.51

18 Q 46; White Paper, para 3.49 and page 154

19 Q 46; C&AG’s Report, para 8

20 Qq 46, 97

16. Ultimately, however, this Committee's past reports on British Energy show that the Department cannot guarantee that decommissioning costs will not revert to the taxpayer. Avoiding such costs would depend on the effectiveness of the protections to be put in place, in particular, the quality of risk monitoring procedures established by the Department.²¹

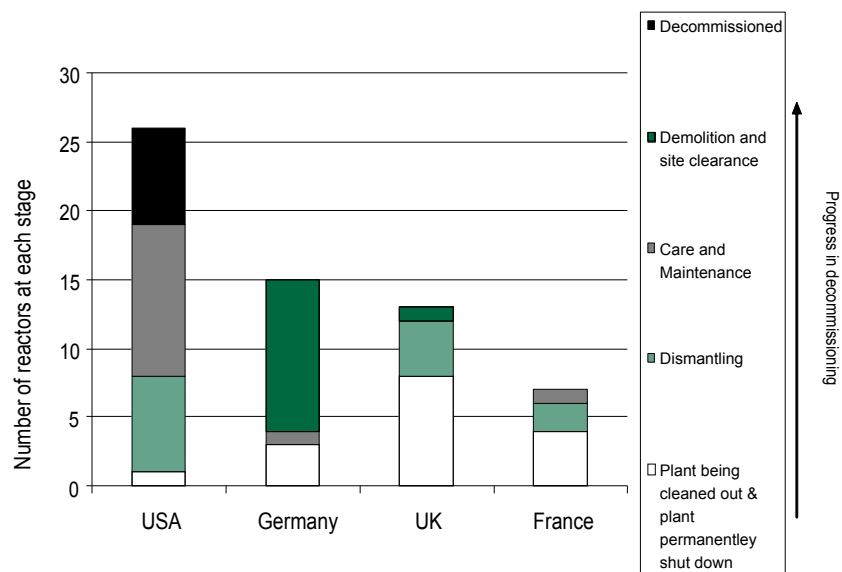
21 Qq 24, 25; Committee of Public Accounts, Thirty-seventh Report of Session 2003–04, *Risk management: the nuclear liabilities of British Energy plc*, HC 354, page 4

2 Improving delivery of the decommissioning programme

17. As well as preparing reliable cost estimates, the Authority must ensure that planned decommissioning work is undertaken in an effective and timely manner. The strategy inherited by the Authority for decommissioning individual sites differs from site to site, affecting the timetable within which sites will be cleared. The Magnox sites have adopted a 'deferred' decommissioning strategy. This allows a long period for radioactivity in the reactors to decay before dismantling them. Resources permitting, the sites at Harwell and Winfrith could be cleared more quickly, possibly in 20 years or so.²²

18. In other countries, some nuclear sites have already reached the end-stages of decommissioning. By 2004, the United States had finished decommissioning seven of their former reactors, and Germany was in the process of demolishing or clearing the majority of their shut down reactors (**Figure 3**). At the same point in time, the UK had one commercial reactor, Windscale classified as being demolished and cleared.²³

Figure 3: Shut down commercial reactors by stage of decommissioning at 2004



Source: World Nuclear Association reactor decommissioning database

Note: Not all reactors pass through each of the decommissioning stages

19. The pace of the decommissioning programme in the UK is dependent on level of resources available and the priorities faced by the Nuclear Decommissioning Authority. In 2005/06, the Authority's budget was £2,262 million. By 2007–08, its budget had risen to £2,790 million, of which £2,590 million was expected to be spent on its sites. The figure for

²² C&AG's Report, paras 1.6 to 1.8

²³ Qq 28, 33; C&AG's Report, para 1.10 and Appendix 5

2007–08 was made up of £1,420 million grant-in-aid provided by the Department and £1,370 million of budgeted commercial income.²⁴

20. In 2006/07, only 31% of the Authority's budget was devoted to decommissioning project work. Such work includes defuelling reactors, decommissioning buildings and disposing of waste. The remainder of the budget is used to meet the cost of running the Authority's commercial activities, headquarter functions and site support activities at both its operating and decommissioning sites. The Authority's expenditure on its commercial activities is broadly equivalent to the income these activities generated, so that these activities do not make a net contribution to the decommissioning budget.²⁵

21. In some cases, commercial charges may be insufficient to cover related decommissioning costs. For example, the charges levied on customers using the fuel reprocessing facilities at Sellafield may make a contribution to the cost of decommissioning those facilities. It is not clear, however, how far these charges, based on contracts signed by predecessor bodies to the Authority, reflected the likely actual cost of decommissioning these facilities.²⁶

22. Site support activities currently account for around a third of the Authority's programmed spend across the 19 sites (£826 million in 2006–07). Such activities include procurement services, engineering support, human resources and financial services. To some extent, higher fixed support costs are inevitable in the nuclear industry because of the licensing requirements to protect safety, security and the environment.²⁷ It is nevertheless possible to introduce efficiencies in support costs. The Authority plans to cut site support costs by 10% in 2008–09 compared to 2007–08 by encouraging, for example, the joint commissioning of services such as procurement and human resources.²⁸

23. The overall progress on decommissioning made to date by the Authority has been hampered by emerging pressures on its budget, partly due to shortfalls in commercial income, and by emerging priorities at Sellafield. In its first two years of operation, the Authority was able to increase the total amount it spent on decommissioning projects by 12%, from £612 million in 2005–06 to £686 million in 2006–07. By the end of 2006, however, the Authority had to cut back expenditure on decommissioning by £50 million in response to a shortfall in commercial income. In early 2007, the Authority also made cuts of £65 million (9%) to the provisional 2007–08 funding levels for the 14 sites no longer operating.²⁹ The Authority made the cuts to fund urgent priority work to clean-up its high hazard legacy facilities at Sellafield, and to offset a forecast reduction in commercial income for 2007–08. Most of these cuts tended to fall on decommissioning activities as these sites had limited opportunity to cut their support service costs at short notice.³⁰

24 C&AG's Report, paras 1.12, 1.13

25 Q 43; C&AG's Report, paras 1.14, 3.2

26 Qq 37–41, 43

27 Qq 15, 91; C&AG's Report, paras 2.8, 4.20

28 Qq 15, 91; C&AG's Report, para 4.20

29 The 14 sites comprised nine Magnox sites, four research sites and a former fuel facility at Capenhurst, Cheshire.

30 Qq 60–64; C&AG's Report, paras 3.11–3.14

24. Changes made by the Authority to sites' funding at short notice have created additional costs for taxpayers. For example, for 2007–08, the Authority established a fund totalling £31.6 million to help the sites bearing the largest reductions in planned programmes to meet the costs of contract closure as well as staff training, relocation and redundancy costs.³¹ In addition, contractors reported that uncertainties over the site and composition of the programme might make them more wary of investing in the decommissioning market. They also reported that uncertainty could make it difficult for them to retain staff with the skills in demand elsewhere.³²

25. There are wide variations in performance across the decommissioning sites. The Authority's current contracts reimburse the site licensees for the costs incurred, but allow sites to earn performance and efficiency fees. They are in effect cost-plus contracts. In 2006–07, the efficiency fee paid, for example, as a percentage of budgeted cost of work varied between zero and 4.6% (**Figure 4**). The Authority attributes the variation in performance to differences in culture and organisation between the sites. In its view, some sites are more innovative and worked more effectively than others, with the best using multi-disciplinary project teams.³³

26. It has also proved difficult for the Authority to confirm that ongoing efficiencies are carried forward into future years' lifetime plans. At Sellafield, for example, only seven of the 80 operating units had been able to build efficiency savings made in 2006–07 into their 2007 lifetime plans. The Authority aims to move towards setting longer-term targets in its contracts to provide a greater incentive to improve performance.³⁴

27. The Authority's contracts with site licensees give it influence over their health, safety, security and environmental performance, although the sites carry the ultimate legal responsibility for determining how to comply with regulatory requirements.³⁵

28. In 2005–06, the Authority responded to safety lapses at Sellafield and Dounreay by deducting £2 million from the performance fee payable to site licensees. It subsequently decided to give licensees the opportunity to re-earn the fee. Performance has subsequently improved. For example, the number of accidents involving lost time³⁶ at Dounreay fell from eight in 2005–06, to three in 2006–07 and looks likely to fall to two in 2007–08. Similarly, the international measure of health and safety—the Total Recordable Incident Rate—has reduced at Dounreay from three at the beginning of 2006 to a level of 0.3, which the Authority judges to be world class.³⁷

31 C&AG's Report, para 3.15

32 C&AG's Report, paras 3.16–3.17

33 Qq 34–36; C&AG's Report, paras 1.5, 4.15, 4.16

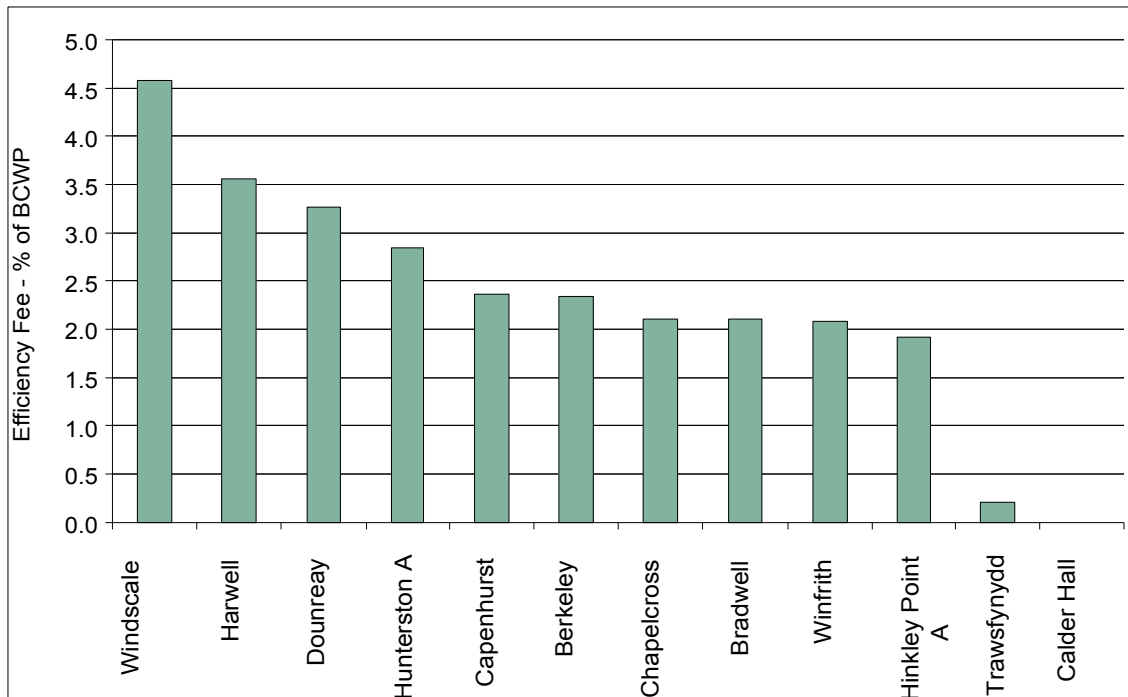
34 Q 21; C&AG's Report, paras 4.18, 4.23

35 C&AG's Report, para 1.11

36 These are accidents leading to a loss of working time.

37 Q 94; C&AG's Report, paras 3.6, 3.9, 3.10

Figure 4: Efficiency fee paid as a percentage of budgeted cost of work performed in 2006–07 by decommissioning site



Note: Sellafield, Dungeness A and Sizewell A have not been included as during 2006–07 their efficiency fee would largely have been determined by their performance in operating commercial facilities. Dungeness A and Sizewell A are both Magnox reactor sites and they ceased generating at the end of 2006.

Source: C&AG's Report, Figure 14

29. The Authority aims to improve the management and performance of its sites by putting the rights to be the parent bodies of site licensees out to competition. It also aims to bring in “world class” management teams to effect the changes needed. For example, in April 2008, the Authority announced a new parent body, a consortium led by URS Corporation—Washington Group, to run the low level waste facility near in Drigg. The Authority also expects to announce the new parent body for the Sellafield site by the end of 2008.³⁸

30. In the Authority's view, the decommissioning industry in the UK is currently where the construction industry was 10 years ago, with poor control of overhead costs and poor project management. In addition, there is no dedicated decommissioning supply chain in the UK and thus the Authority and its sites are competing for contractors with other industries such as oil and gas and civil engineering. The Authority believes that a significant change in performance can only happen through further development of the supply chain.³⁹

³⁸ Qq 4–5, 98; C&AG's Report, para 1.15

³⁹ Qq 47, 91

Formal Minutes

Monday 23 June 2008

Members present:

Mr Edward Leigh, in the Chair.

Mr Richard Bacon

Paul Burstow

Mr Ian Davidson

Mr Philip Dunne

Mr Austin Mitchell

Geraldine Smith

Mr Don Touhig

Draft Report (*Nuclear Decommissioning Authority—Taking forward decommissioning*), proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 30 read and agreed to.

Resolved, That the Report be the Thirty-eighth Report of the Committee to the House.

Ordered, That the Chairman make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Wednesday 25 June at 3.30 pm.]

Witnesses

Monday 25 February 2008

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Dr Ian Roxburgh, Chief Executive and **Mr James Morse**, Divisional Director Assurance, Nuclear Decommissioning Authority and **Mr Mark Higson**, Director, Nuclear Unit, Department for Business, Enterprise and Regulatory Reform

Ev 1

List of written evidence

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First Special Report The BBC's management of risk
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Oral evidence

Taken before the Committee of Public Accounts

on Monday 25 February 2008

Members present:

Mr Edward Leigh, in the Chair

Angela Browning
Mr Philip Dunne
Keith Hill

Mr Austin Mitchell
Phil Wilson

Mr Tim Burr, Comptroller and Auditor General, and **Mr Peter Gray**, Director, National Audit Office, was in attendance.

Ms Paula Diggle, Treasury Officer of Accounts, HM Treasury, was in attendance.

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL

THE NUCLEAR DECOMMISSIONING AUTHORITY: TAKING FORWARD DECOMMISSIONING (HC238)

Witnesses: **Dr Ian Roxburgh**, Chief Executive and **Mr James Morse**, Divisional Director Assurance, Nuclear Decommissioning Authority and **Mr Mark Higson**, Director, Nuclear Unit, Department for Business, Enterprise and Regulatory Reform, gave evidence.

Q1 Chairman: Good afternoon. Welcome to the Public Accounts Committee. Today we are considering the Comptroller and Auditor General's Report, *Nuclear Decommissioning Authority: Taking forward decommissioning*, and we welcome Dr Ian Roxburgh who is the Chief Executive of the Nuclear Decommissioning Authority. Would you like to introduce your two colleagues on either side of you, please?

Dr Roxburgh: Thank you, Chairman. On my right is Jim Morse who is the NDA's Divisional Director Assurance; he is the cement that links the NDA to its 19 sites. On my left is Mark Higson who is Head of the Nuclear Unit within the Department of Business, Enterprise and Regulatory Reform.

Q2 Chairman: Shall we start off by looking at the estimates and a useful guide to this, Dr Roxburgh, you will find on page 18, figure 8, which is a: "Growth in estimated remaining lifetimes costs of the Authority's sites". Am I right in thinking that in 2007 the latest estimate for decommissioning these sites is £73 billion?

Dr Roxburgh: Yes.

Q3 Chairman: We are talking about serious amounts of public money. This is now the fifth attempt, Dr Roxburgh. The estimates are still growing rapidly; should they not have stabilised by now?

Dr Roxburgh: There are three elements to a lifetime plan, Chairman. The first is that we need an agreed process which can apply equally to all of our 19 sites so that the numbers emerging from each of those sites are comparable one with the other. I am confident that that process is now robust. It has been

subject to significant external assurance. That makes us unique in the world in the sense that we are the only country, as far as I know, that can actually roll up its costs individually into a national figure. The second element of a lifetime plan is to actually understand what it is we have inherited at each site—the inventory of challenge—and then to schedule it in a logical way. The third element relates to cost. At one level what you say is absolutely right but at another level there is a slightly contradictory position. As the Report recognises it was always going to take a number of years to get to the final figure and in effect we have a process that everybody always recognised from the start would take four or five years. We are only part of the way through that process. In the normal course of events if somebody asks you to do something over five years you run the course and give them the figure at the end of it. However, because of our obligation under the FRS, we have to publish a number each year. It looks as though the number is rising; it was always going to rise. That is the explanation.

Q4 Chairman: That sounds fine but, for instance, in 2005 to 2007 the costs have risen again by £11.7 billion. I think the public would understand if we were talking about something which was over a long period of time and difficult technology—we all know the difficulties you are facing—but look, for instance, at paragraph 2.8 at that first bullet point at the top of page 19. It is not rocket science; there are costs which you would expect: engineering support, human resources, financial services which are also increasing rapidly. This worries me because it

suggests that perhaps you are not really in control of what is going on. This is not very difficult stuff; this is all human resources really.

Dr Roxburgh: We share your concern and if I go back to the White Paper in 2002 the Government clearly took a view then that whilst the sites we have inherited were good in the context of winning a cold war or developing new methods of generating electricity, they were not the right vehicle to manage hazard reduction and decommissioning or indeed the management of the numbers attached thereto. At the same time the strategy said that it would not be until you brought in world class management that you would get absolutely world class numbers. I need to be quite clear, this is not a case in terms of “two legs bad, four legs good”; we have significant problems with the supply chain on the private sector side producing sound numbers as well. We have evidence of first class management already with our first competition, the low level waste repository contract; I will not give you the exact figure, but I can assure you that the figure that is formed into the contract shows a double digit decline in the lifetime figure of the low level waste repository.

Q5 Chairman: One would expect there to be quite significant variations when you are talking about this very difficult technology over a long period of time, but if you look at the next bullet point you can see that even costs incurred in the near term, where you would have thought there would be much more certainty, it says here, “Costs expected to be incurred in the near-term had been subject to significant revision. We compared the size of the 2005, 2006 and 2007 lifetime plans over the first five-year period covered by each of these plans. For this period, the latest lifetime plan had aggregate costs 41% higher than the 2005 plan.” This leads me to suggest to you that you are not really in control of what is going on and these estimates actually mean very little indeed. If we were to reconvene this inquiry in three or four years’ time we might not be talking about £73 billion but a figure far in excess of that. There is no credence that we can give to any of these figures.

Dr Roxburgh: I have explained to you that we are on our way through a process; I have explained to you that the supply chain has its weaknesses. One of the things that a world class management will bring is better management of the supply chain.

Q6 Chairman: When we return to this at the end of this Parliament or the beginning of the next we will not see near term revisions of this order, we will not see this sort of increase in human resources; all this will be under control will it? Can you give us that commitment?

Dr Roxburgh: What I can give you is a rendition of the issues. We have 18 million cubic metres of contaminated land that we know of.

Q7 Chairman: Can I just stop you there. “What I can give you is a rendition of the issues”, what does that mean?

Dr Roxburgh: What it means is that until you actually get into certain of the waste streams that we have inherited, for example we have a shaft at Dounreay which is tens of metres deep; it is back filled with waste, the exact nature of which is not known; until you get in there you cannot with certainty describe the cost of dealing with it.

Q8 Chairman: That is fair enough; it is much better to tell the truth. The fact is that you are dealing with such difficult technology or circumstances that you simply do not know at this stage.

Dr Roxburgh: That is not the case.

Q9 Chairman: This figure of £73 billion is reliable, is it?

Dr Roxburgh: Against where we are for the moment it is, yes, but as our understanding increases so the figure will.

Q10 Chairman: Could it be £10 billion out or £5 billion out? Give me a ballpark figure. We are the Public Accounts Committee and would like to have some idea. That is a staggering amount of money. We are already faced with this bill of £73 billion. We would like, as the Public Accounts Committee which is supposed to protect the interests of the tax payer, to have some idea of what this is going to cost us. I think, from what you have said so far, we have no idea because you simply do not have enough information at your fingertips yet.

Dr Roxburgh: I have indicated to you that this is a four or five year process. We are not through it yet. I have indicated with the LLWR that the strategy is working. I have already seen serious evidence that at Dounreay, for example, we might also see that same model. The model that has been imported from the States is this, that over a period of four or five years, as you understand more, your costs increase. The remit is to turn every stone, if you turn every stone you discover more by definition. The costs then plateau and then as you apply innovation and world class management they start to come down. If you ask me for confidence, I am confident that model is actually working in the UK.

Q11 Chairman: Can you help us at all about this figure of £73 billion? I am sorry to press you about this, but you can understand our concern; we would like to have some sort of idea as to whether this £73 billion bears any relation to reality.

Dr Roxburgh: We are in the middle of a process and that is the figure we have at the moment.

Q12 Chairman: Fair enough. That is an honest answer; it is much better to be honest. Would you like to look at paragraph 2.11, please? You have put a lot of time into these lifetime plans. Paragraph 2.11 says, “We found less evidence of challenge to the nature of the work content”. That of course is NAO speak for saying that you are not actually being sufficiently robust in challenging these site licensees. Is that fair?

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Dr Roxburgh: At one level it is. As I say, we focussed on getting process right; we have now committed ourselves to much greater assurance over the next three years of the CSR. Could I explain the thinking behind that? If we are turning over approaching £2.8 billion a year and if we were engaged in a £2.8 billion take over then it would not be unreasonable to spend £30 million or £40 million on doing due diligence on that. You will be aware, I know, that for want of £25 million elsewhere in our estate we are having to slow decommissioning down. I have had to strike a balance between what it is reasonable to spend, given that there are alternative dispositions for that money where that money can really deal with hazard and decommissioning, and I have judged that over the next three years £5 million per year is about right.

Q13 Chairman: So let us look at what we can now spend on decommissioning. We have had a discussion about the total bill so if we now turn to paragraphs 3.11 onwards on page 24 it says in the chapter heading—which is usually a good way of summing up the argument—“Significant resources have been allocated to decommissioning. But the progress at some sites has been hampered by emerging pressures on the Authority’s financial position.” Further on, at paragraph 3.12 at the top of page 25, we read, “So to the extent reductions are required these tend to fall on decommissioning Magnox”. So lack of money has mainly hit decommissioning projects has it not? That is the problem we face.

Dr Roxburgh: The budget that the NDA has has gone up year on year. The CSR settlement that we have negotiated with government sees a £671 million increase in hard cash and a 21% increase in grant in aid. In our strategy on pages 20 and 21 there is a very clear statement that our number one priority is hazard reduction. I very much regret that I am not able to satisfy all the demands upon our budget. The Government inevitably has that tough choice between affordability and desirability.

Q14 Chairman: You have not answered my question. You have a worsening financial position; that is now hitting your ability to deal with decommissioning Magnox which is what you are supposed to be doing.

Dr Roxburgh: The answer to that is yes, we are doing less Magnox decommissioning, potentially.

Q15 Chairman: Why did you cut support costs first then?

Mr Morse: You will see elsewhere in the Report a note that NDA have initiated a review of fixed costs across the estate out of that £2.5 billion that we applied to decommissioning, commercial operations and site support. During the course of next month that plan will come to fruition and we will be able to review plans across the estate to reduce fixed costs we hope upwards of 10%.

Q16 Chairman: Are you going to continue to use costs plus contracts? How can you justify doing so?

Dr Roxburgh: In general no we are not. In the competitions that we are currently running we are moving very much away from cost plus; they will still be cost reimbursable. At the moment the sites are paid on a performance based incentive which is a percentage of turnover assuming they deliver particular outputs. The competitions that we are currently running contractualise the winning bidders to actually deliver the figures against the lifetime plan improvements that they have proposed as part of the bidding process. If you will bear with me a moment I can take you through a schedule which I think illustrates the point very well, of how we are moving to a much more competitive environment.

Q17 Chairman: This is dealt with in paragraphs 4.24 and 4.25 of the Report. Do you want to refer me to something else?

Dr Roxburgh: No, I do not. What I want to do is share with you the incentivisation in the new form of contracts that we are currently in the process of letting. Initially we are offering a base fee because we want to attract world class teams; they come at a cost. It is part of the competitive tension when people bid in to win our contracts to let us know for how long they would want the base fee and what amount of base fee they would require. We take the view that by year four there should be no more base fee. At the same time, we are inviting the companies to rapidly move away from the current performance based incentive mechanism and move onto an efficiency fee target cost share basis. If I could put some flesh around that, again there is competitive tension; we are inviting the companies to tell us what proportion of the money saved they would want to take as part of the competitive dialogue process. At the moment if you looked at the PBI arrangement the fee paid in Sellafield, for example, in 2006/2007 was £53 million. We believe the minimum sum you might bid in at on the competition is about £30 million, the maximum will be £62 million. They have to decide whether they want to bid against that. Bearing in mind its efficiency fees which are funding the fee they should be self-funding.

Q18 Chairman: You mentioned Sellafield but you are letting the Sellafield contract first and then you are trying to get a better contract. Is that right?

Dr Roxburgh: Sorry, I do not quite understand the question.

Q19 Chairman: How are you going to do the Sellafield contract? This is dealt with at paragraph 4.25 on page 34. Are you going to try to get a firmer, more robust contract and then let Sellafield? How are you going to do it?

Dr Roxburgh: As part of the competitive dialogue process the bidders have to interrogate the current lifetime plan 2007 through something called an initiative cost base model. They have to show how they will improve on that existing lifetime plan and that forms the new base line that we will measure them against.

Q20 Chairman: The people who bid for Sellafield or get the contract will be covered by this, will they?

Dr Roxburgh: They will be, yes. Further in the contract, by the time they have been in place for 18 months, they must have scrubbed through the lifetime plan numbers and given us their own view on how they can again be improved.

Q21 Chairman: It says here at paragraph 4.18, “At Sellafield, of the site’s eighty operating units, only seven identified that they had been able to build efficiency savings made in 2006-2007 into their 2007 lifetime plan submissions”. That does not sound very impressive.

Dr Roxburgh: I will turn to my colleague in a moment, but one of the things we did from day one was to introduce an efficiency fee target for the sites, albeit the PSA target did not require us to do that until year two of our life. We have to date saved over £300 million and a significant chunk of that has actually come from Sellafield.

Mr Morse: We certainly recognise the challenge in those numbers from NAO and agree with them. There are two real explanations. One is that a number of those initiatives were one-off projects within that year. That really speaks to a longer term solution. Currently our efficiencies and our costs are on a one year ahead basis. We would like to move to something that is three to five years ahead. That is not necessarily an issue about funding but more about programme management philosophy. We see the water industry under their own programmes where they have a five year target for efficiency savings; ours are still on a one year basis. When we can get to the longer horizon then we will see those being built in by instinct by the contractors. We certainly recognise the challenge there.

Q22 Chairman: Mr Higson, we had this White Paper last month from HM Government, *Meeting the Energy Challenge*, and were told in this that the energy companies—we are hoping we are going to get nuclear power stations built—will be able to meet the full cost of decommissioning. Given the answers that I have received today about the existing estimate and its unreliability, can we be at all confident that these energy companies can possibly be able to meet these costs?

Mr Higson: I think an important point to bear in mind about the £73 billion costs estimated by the NDA is that £16 billion relate to the decommissioning of nuclear reactors. That is £16 billion on 11 sites and 26 reactors. A large part of the variation and a large part of the amount of £73 billion relates to facilities which are legacy facilities and will have no part in the future of nuclear power. For example, the silo which is featured on the front cover of the NAO Report until relatively recently there was no plan for actually cleaning it up and that is something that the NDA has brought to the party. The second point I would like to make is that going forward there has to be a clear waste management and decommissioning plan, a plan approved by the secretary of state before the power station can operate. Modern reactors are designed with

decommissioning in mind. I think the further point is that there is actually real experience internationally now accumulating on the actual cost of decommissioning reactors. If we put that together with a mechanism for ensuring that the costs of decommissioning are scrutinised regularly, there will be quinquennial reviews and there will be a duty on the company to ensure that the decommissioning fund is adequate to cover the costs, if all of those things are put together that is a very reasonable package.

Q23 Chairman: You can say, on behalf of Parliament, hand on heart, “I give a commitment that the energy companies will be able to meet the full costs of decommissioning new nuclear power stations”. If you want to plead the Fifth Amendment I quite understand.

Mr Higson: The Government’s proposals are to put in place everything that is reasonable to ensure the tax payer does not pick up the cost.

Q24 Chairman: I am not sure that that is an answer to the question.

Mr Higson: You cannot get an absolute assurance.

Q25 Chairman: I put it to you that we have absolutely no assurance whatsoever given the escalating costs that we have been talking about for the last 15 minutes. You have virtually plucked a figure out of the sky and you cannot say with any degree of certainty that the energy companies will be able to meet the costs. You will long be gone and so will I but it is very likely that some future Public Accounts Committee will be discussing how the tax payers will be picking up the tab once again. That is the truth.

Mr Higson: We have put in place every possible protection.

Chairman: I am sure you have put in every possible protection but you will have to be a lot more convincing. I will let my colleagues carry on and maybe you can do better. Angela Browning?

Q26 Angela Browning: To begin with, Mr Higson, in the last Parliament this Committee took an evidence session on the subject of alternative energy and in the course of that discussion I very clearly remember asking about the possibility of replacing our nuclear reactors with new ones. At that stage everything had come to a halt because we were approaching an election and this was a very hot topic about whether there was going to be a commitment to proceed with new build. Can I just ask you, how much has that political decision to delay making such an announcement affected the decommissioning of the existing nuclear power stations?

Mr Higson: I do not see there is a connection.

Q27 Angela Browning: The reason I am asking is because whether we decided to replace or not one would have thought, knowing particularly for example that the Magnox reactors were getting to the end of their natural life, there was a very timescale—it was even debated in precise terms of

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years in this Committee and that would have been three or four years ago—and I have difficulty in understanding why you are having such difficulty in identifying the costs associated with decommissioning and giving clearer answers. You have had a lot of time to get all these ducks in a row, have you not?

Mr Higson: I am not sure that we are having difficulty with the costs of decommissioning. We set up a process, which will ensure that they are transparent and subject to public scrutiny, in the consultation document published earlier this year. We have actually set out our estimates of what the costs of decommissioning nuclear power stations will be. We have a process going forward to ensure that they are subject to the best possibly public scrutiny. I think that is a very substantial protection.

Q28 Angela Browning: Why are we not doing as well as other countries? America have decommissioned seven of theirs; Germany are making good progress. If we had all this forward planning and our costs were much better organised, as you are saying they were, why are we behind other countries?

Mr Higson: I am talking here about estimating the cost of new nuclear power stations. The issue of how quickly we decommission the Magnox stations is an issue about the priorities and the overall budget for the NDA.

Q29 Angela Browning: Is it possible that these old Magnox stations, the sites that they are on, would be used for any new build?

Mr Higson: As we said in the nuclear White Paper we do expect that focus from potential new nuclear operators to be on existing nuclear sites, so yes.

Q30 Angela Browning: How does that read across and impact on the decommissioning of the old reactor that is on site then?

Mr Higson: The decommissioning needs to proceed.

Q31 Angela Browning: If you are building on one site and you decommissioning on the site is there nothing to take into account in terms of costs et cetera?

Mr Higson: Those would be issues that the NDA will need to consider most carefully in the coming weeks and months and it will need to take a view on what is the right way of making its sites available.

Q32 Angela Browning: If you were to put a new reactor on a site of an old Magnox, let us just take Hinkley Point which I have visited a couple of times and I am looking at figure 15 on page 33 where there has obviously been some difficulty with the Ponds which has increased the cost over the expected budget. What would be the situation if you were to put a new reactor onto the Hinkley site? Would that affect the costs and the project of decommissioning in some way?

Mr Higson: I will answer as much as I can and then I will turn to Dr Roxburgh. My understanding is that the site that is available for potential construction of a new nuclear power station is

actually in large measure owned by British Energy. Dr Roxburgh might want to comment on the impact that a nearby construction site might have on the costs of decommissioning.

Q33 Angela Browning: Before Dr Roxburgh answers, could I just come back to the point I made about the comparison between the UK and other countries who clearly have been getting on with this. Has there been much contact between the UK Government and other countries knowing this was a major project we needed to embark on?

Dr Roxburgh: There are similar reactors in Japan and there are some early reactors in France with similar characteristics to our Magnox fleet. In both those countries they have a programme which is ahead of ours. The site I went to in Japan was looking to decommission over a period of 17 years and there is a policy in France that their first five reactors coming off line hopefully would be back to grass within, say, 25. The issue in the United Kingdom is not a lack of will, it is an issue of technicality. Within our Magnox fleet we have something approaching 58,000 tons of graphite which is contaminated with carbon-14. At the moment we have no disposition to that, in other words if we take it out of the reactor where it is quite safe and properly contained we have nowhere else to put it without building other concrete nuclear stores. That is at additional cost and extra dose for the workforce to take it out, put it in those new stores and in due course you will want to take it out of those stores and put it into a repository. I am optimistic that once it is clear as to exactly when and where we are to have a deep geological repository these issues can be revisited. Indeed we make the point in our approved strategy that we can only make the business plan if indeed we can find this final disposition.

Q34 Angela Browning: I wonder if I could just bring you onto page 33 and come back to this chart we have here. If we look at where efficiency fees have been paid as a percentage of the budgeted costs which the Chairman referred to earlier on, can you just give us some broader indication of why there is such a differential between the top and the bottom on that graph?

Mr Morse: In one sense it represents the different attitude on those sites towards the task in hand.

Q35 Angela Browning: Could you explain what you mean by “attitude”?

Mr Morse: Culture, organisation, structure, the number of sites still organised in a very disciplined way.

Q36 Angela Browning: Please do not tell me we have nuclear power stations on sites that are not disciplined in the way they deal with things. You surely did not mean that.

Mr Morse: No, I did not. What I meant is in functional organisation. The best performing sites are kind of project types, so a multi-discipline team addressing the single objective. That is in fair

measure of what we have seen across the sites. Of course the measure of efficiencies against our yearly targets has earned value which is an estimate of the work to be done in that year and then the cost of completing that work. Again some sites are more innovative and work more effectively than others do. They are all coming up the curtain; that is part of the process of having the lifetime plan that we get compliance and we get comparison between sites; comparison drives efficiency, aided of course by our competition principle.

Q37 Angela Browning: Can I just ask you about Sellafield? I see that is down at the bottom here. It is some years since I have visited Sellafield—I have been there twice in the past—and the last time I was there my understanding was that the facility that we have there had the potential for re-processing other countries' nuclear waste and storing it longer term. Can you enlighten us as to whether that is still the case and what the possible financial impact of that storage is? In other words, is that still being paid for by the countries of origin?

Mr Morse: You are referring to the THORP oxide reprocessing plant which has contracts running for probably about another five or six years, depending on its performance. The contracts that were set up in the late 1980s and early 1990s that funded THORP and funded that reprocessing are still flowing through.

Q38 Angela Browning: The cost of cleaning that facility up, is that calculated and recovered in the costs that we charge to other countries to reprocess or is this an unknown quantity down the track for the Sellafield site?

Mr Morse: THORP is one of the most modern facilities across the NDA's 19 sites and as such was built with decommissioning in mind. There is an estimate for that decommissioning and that estimate has been revised in the previous lifetime plan submission. As to the recovery and the accountancy around the decommissioning estimate I would have to take some further advice on that.

Q39 Angela Browning: The reason I am asking is that there seems to be a marked difference between our approach say to THORP which is clearly a very important commercial operation and in calculating and recovering in our estimates the cost of the contamination over a long period of time. You seem to have been quite clued up on doing that but perhaps not in general about the nuclear sites themselves.

Mr Morse: I am fairly sure that the THORP contracts include an element of the decommissioning cost.

Q40 Angela Browning: It would be very interesting to see what the analysis has been at the beginning in recovery costs of contamination decommissioning for one project that is going on at Sellafield because one would have hoped that same approach would have applied right across the industry; it clearly has not.

Mr Morse: There are portions of the estimate and the work which are applicable and read across to other sites but each of these are individual facilities, each with their own particular characteristics and their design and construction. A few were built with decommissioning in mind; many of the other facilities of course go back to the 1940s and 1950s where there are no parallel operations. So elements of the work yes, but as whole facilities no.

Q41 Angela Browning: I wonder if we could have a note just to have a look at what the approach has been in terms of longer term recovery of contamination costs compared to the Sellafield site generally.¹

Mr Morse: I am sure that is possible.

Q42 Phil Wilson: On page eight of the summary, paragraph eight talks about the partnerships and relationships that have been settled where you have to manage going forward with the Health and Safety Executive's Nuclear Directorate, yourself obviously and other parent bodies. How optimistic that these kind of new relationships are actually going to work going forward and what are you doing to make sure that that does happen?

Dr Roxburgh: I have made it clear to everybody who works at the NDA since day one that our most valuable asset is not our people, it is our relationship with the regulators and the world more widely. Without their confidence, trust and support the more innovative approaches that we would like to see introduced over time will not be possible. I personally enjoy very good relationships with my equivalent peers across the regulators and indeed in the trade unions. We have a number of fora where we can get together, where we can consider the more difficult issues of the day and share a common agenda. The NDA has been going through a process of becoming the intelligent client—that is the way I try to describe it—where we have been down in the weeds trying to understand the detail. I think we have now successfully become the intelligent client; we are now trying to become far more strategic and to put more emphasis behind the programme. As part of that change we have not only restructured ourselves but we are inviting the regulators and others to consider how we need to restructure the committees and the fora that we actually use to make sure we are on the same page.

Q43 Phil Wilson: On page 10, paragraph 1.3 it says that the cost for the remaining life is around £73 billion at 2007 prices and it goes on to say that this “does not reflect the anticipated revenue from these sites”. Does that mean that that figure of £73 billion could be less than that because of the potential revenue you are going to get from the sites?

Dr Roxburgh: People talk about the NDA's commercial income but in reality the cost of acquiring that income is more or less the same as the income itself. You might then say, “Well, why do

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you bother?" We bother because there would be significant remaining fixed costs attached to those assets for many years even though they were not operating and therefore not bringing in an income. That is the real answer.

Q44 Phil Wilson: So that figure of £73 billion will be £73 billion at today's costs; it will not be less than that.

Dr Roxburgh: I think that what the paragraph is saying is that you start with £73 billion and if you take off the £12 billion of operating the commercial assets it drops down to £61 billion. All I am saying is that the £12 billion of commercial income is more or less offset by £12 billion of costs.

Q45 Phil Wilson: I would like to ask one or two questions about the White Paper. With the new generation of nuclear power stations in prospect what lessons should we draw from trying to decommission the first generation of nuclear facilities?

Dr Roxburgh: I think the points that my colleague Mark was making earlier are very pertinent. New stations are being built with a view to decommissioning. It is a requirement before a station can be commissioned that the Government is satisfied that it has a plan which is practical in terms of decommissioning. In terms of the generic licensing that the regulator is currently undertaking, the ability to decommission safely and with low dose is part of that consideration. Traditionally I do not think that has been top of the priorities. We do also have the current arrangement called the Nuclear Liabilities Fund which is a fund that underpins the eventual decommissioning of the eight British Energy sites, the seven AGRs and the PWR at Sizewell. I see no reason to suppose that that fund is not well established, is not sound or that it is not capable of proper assurance when people want to draw money from it to actually commence decommissioning. We have actually got an interim stage between where the NDA is with its great mix of military and other issues through to what is now something that is planned from day one.

Q46 Phil Wilson: Mr Higson, with the current decommissioning estimates being so unpredictable how will you know what funds should be set aside for cleaning up any new generation of nuclear facilities? How will you make those calculations?

Mr Higson: The first point I would make is that it is the responsibility of the nuclear operator to adequately estimate and provide for the decommissioning, albeit that it has to be in accordance with a decommissioning plan approved by the Secretary of State and the Secretary of State has to be satisfied that it is funded on a prudent basis. I think the most important lesson we have learned from the past, just to emphasise the point, is that unlike many of the facilities—particularly at Sellafield—there needs to be a clear plan for the decommissioning before you even start. Secondly there needs to be a clear arrangement for funding that plan. There must be some degree of uncertainty

around the actual, precise cost of decommissioning and that is why there are provisions that the funding should be based on prudent assessment of those costs and should target, for example, a higher level of cost than the central estimate of decommissioning and that there should be arrangements regularly to update that, analogous I think to a pension fund where the liability is constantly to be reviewed and where your assets also need to be reviewed. And if the fund is showing any signs of falling behind the best estimate that is made as the years go forward then steps need to be taken to put that right. The details of how that is operating should be produced in a draft guidance which has recently been published and made available.

Q47 Mr Dunne: I feel it is unusual for this Committee to have in front of it a Report where there is so much uncertainty both around the scale of the task that you are facing and also around the manner in which the Government is supporting your efforts. You refer to the supply chain of distributors that you expect to get from the new arrangements, could you explain to us what that means in the context of decommissioning? What is the supply chain you are talking about?

Dr Roxburgh: We have discovered through our own research that there is actually no dedicated decommissioning supply chain. There are a few small specialist nuclear companies but in general at the moment in the United Kingdom you are borrowing from other people's supply chains: oil and gas, mechanical, electrical, civil engineering. We are optimistic that a world class management which is incentivised to reduce costs because that is the way it earns its money is going to focus on the supply chain. Indeed, if you look at all the really big turnarounds in sectors over the years—whether it is aircraft or cars, for example—it has not so much been at the factory where the answer has arrived (although that is important), it has been in the supply chain; it has been a strategic change in the supply chain.

Q48 Mr Dunne: How many contractors do you expect to bid for the individual facilities that we are looking to decommission?

Dr Roxburgh: We have set out in our strategy that we believe that at least three credible bidders are required for us to be satisfied that we have a genuine competition. For Sellafield we have four.

Q49 Mr Dunne: Is three the minimum you need?

Dr Roxburgh: We believe three justifies a proper competition with real competitive tension. We are conscious through constantly engaging with the supply chain that there are certain criteria that they wish to see before they will bid. Bidding is expensive and it is their money that they are spending. There are many other opportunities around the world and, as I have indicated, this supply chain can go and bid for Crossrail or a North Sea oil rig just as readily as for our work so we need to be competitive.

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Q50 Mr Dunne: Are all four of these potential bidders private sector entities?

Dr Roxburgh: They are.

Q51 Mr Dunne: Are any of them UK owned entities?

Dr Roxburgh: The leads are all foreign but there are UK companies involved.

Q52 Mr Dunne: One aspect of uncertainty is some of the plants which are within your list to be decommissioned are continuing to operate—there is a helpful table on page 11, table 2—and one of these plants is one which I am particularly interested in at Wylfa in Anglesey because it supplies power to the largest employer in my constituency. It is currently due to be decommissioned in about a year's time in spring 2009. Is it part of your responsibility to assess whether there is scope to extend the operating life of any of these facilities?

Dr Roxburgh: We have had a long conversation with the community and its representatives and indeed Anglesey Aluminium over the past year and a half on these very issues. There is currently a study going on to establish whether or not in regulator space, whether in technical terms and whether in business model terms a case can be made to continue operation.

Q53 Mr Dunne: Will you be the body that determines that?

Dr Roxburgh: Ultimately it will be the regulator. If we cannot make a safety case, even if we had a business case, then we could not press it.

Q54 Mr Dunne: What is your role in that?

Dr Roxburgh: Our role is as the owner. We would not want to invest 200 million to lose 300 million even though that kept it going. Government at one level might want to take a different view; we are always subject to direction like anybody else, we are servant of Parliament and government.

Q55 Mr Dunne: I would be very keen to pursue that, perhaps in a separate forum, because it is important to my constituency. You referred to the deep geological repositories and I believe a consultation is currently underway with local authorities seeking volunteers. Have you had any offers?

Dr Roxburgh: The actual formal process does not commence until May when a White Paper, following on from the Managing Radioactive Waste Safely Initiative, should hit the bookstands. Having said that, there are a number of local authorities who are without prejudice trying to establish whether or not subject to what the White Paper says they would want to engage in conversation with government. Government has advised on what we might call a division of labour in this. Government has kept to itself the role of finding a community. It has a reconstituted CoRWM Committee that would advise government on the technical aspects and whether or not a community volunteering has a safe and suitable site. Assuming that is the case then the NDA's role would be to design, get regulatory approval, construct and operate the repository.

Q56 Mr Dunne: If there are no volunteers forthcoming will government have the power to acquire facilities to construct?

Dr Roxburgh: The whole emphasis of the Committee on Radioactive Waste Management's findings over a number of years was that volunteerism and compensation should drive the agenda. I see no reason to suppose that that is not going to continue.

Q57 Mr Dunne: Perhaps Mr Higson would like to comment on what happens if there are no volunteers.

Mr Higson: I do not think it would be right to speculate. I think we are confident that we set up an arrangement following CoRWM aimed at working in partnerships with communities who want to come forward and we have every reason to believe that there will be one or more communities who are willing to enter into that dialogue. The whole thrust of CoRWM was that the old top down approach was actually inappropriate for this area.

Q58 Mr Dunne: Communities may well enter dialogue but once the local population become aware of what they are talking about they may cease that dialogue quite quickly in which case you will need a plan B.

Mr Higson: We have set out a process of taking this forward and I think it is very important that we should actually run with it. It would be wrong to speculate what would happen if no community came forward.

Q59 Mr Dunne: I think it is essential that the Department formulates a fallback because it seems highly likely that that may be required.

Mr Higson: I think you will appreciate the difficulty of doing that.

Q60 Mr Dunne: You may not want to tell us about it today but I urge you to think about one because I think you will need one in due course. Dr Roxburgh, could we turn to page 26? Paragraph 3.20 refers to an income shortfall which the authorities had as a result of additional work required on the Sellafield Ponds and shortage of income coming through as referred to in paragraph 3.18. The footnote of paragraph 3.20 says that as at December 2007, the Authority had submitted a request to HM Treasury for flexibility over the end year flexibility, basically to use up your reserves, in order to meet your spending commitments during the year. Have you finalised those discussions with the Treasury? In other words, have you secured the money that you need for this year?

Dr Roxburgh: You are talking in terms of the current financial year.

Q61 Mr Dunne: I am, yes.

Dr Roxburgh: I am satisfied that in the current year all necessary steps have been taken to ensure that we can balance our books and meet our obligations by the year end.

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Q62 Mr Dunne: Was it a surprise to you that you had to go cap in hand to the Treasury to meet this year's commitments?

Dr Roxburgh: In the sense that commercial income can be rather lumpy and given the age of the plant things can stop in short order. Of course it is a surprise when something like that happens; that something like that could happen would not be a surprise.

Q63 Mr Dunne: The Comprehensive Spending Review that was published in November, could you clarify for us and perhaps provide a note as to what the comprehensive spending review allocation is for your Authority for the next three years and do you feel, in light of the experience in the current year, that you have adequate resources?²

Dr Roxburgh: I can do it by way of a note but I can tell you now that the figure is 8.5 billion over the three years to the CSR period. As I indicated earlier that is a £671 million increase over CSR 2004 and a 21% increase in grant in aid.

Q64 Mr Dunne: Will it be sufficient?

Dr Roxburgh: There are always emerging challenges and, as I indicated in opening to the Chairman's questions, the more we look the more we will find. At the end of the day we have a very good dialogue with government and we will need to address the issues as they arise.

Q65 Mr Dunne: Could I finally ask you a question about the transfer of shareholding in the Authority, the Shareholder Executive. Is this a precursor to an attempt to sell the government's interests in the Authority?

Mr Higson: No, it is not. The Shareholder Executive is simply a body in government that is experienced in governance, that means both governance of commercial companies but also governance of organisations such as the NDA.

Q66 Mr Dunne: Do they have experience of dealing with nuclear facilities? Does their role and oversight of the shareholder relationship also extend to an operating relationship between the Authority and the Executive or will you continue to maintain the main relationship on operational matters?

Mr Higson: Operational matters are for the NDA; the Shareholder Executive has a governance role, it is not actually running the NDA. The Shareholder Executive in its governance role will be dealing with such items as approving the strategy and approving the budget. There is a division in the Department between that governance role and a broader nuclear policy. We see virtues in separating out the two roles so that they are clear and not muddled.

Q67 Mr Dunne: In the event that Dr Roxburgh needs more money in future years as he has this year, he will be going to the Shareholder Executive who

will have no direct responsibility for allocating that money because that would have to come back to the Department.

Mr Higson: The Shareholder Executive is part of the Department, so in dealing with, for example, the next spending round there will be dialogue between the NDA and the Shareholder Executive but in the context the Shareholder Executive will be discussing with the whole Department and the Treasury what is the appropriate budget across the whole of the Department's activity.

Q68 Mr Mitchell: You have my sympathy because in a sense you are involved in cleaning up after one of the biggest cons in British history, a con, as it were, by a nuclear industry which said it could produce cheaper power at a competitive price and that Britain would lead the world if we invested in this programme. We did and now we are lumbered with this mess. Why is it that we read in the Report that the plants were not designed with decommissioning in mind? Was the assumption that they would go on forever?

Dr Roxburgh: I cannot say because I was not there at the time. It is as simple as that.

Q69 Mr Mitchell: You are in a sense perpetuating the con because you are the reassuring face of this confidence trick and pretending that you can put a finite figure on something which is basically going to escalate each year, indeed it has escalated because the initial aggregate plan in 2003 estimated future costs at around £56 billion and in 2007 that had gone up to £73 billion. That is a huge increase which is going to go on.

Dr Roxburgh: I think as I tried to indicate in opening in answering the Chairman's question, we are in the middle of a process that everyone recognises—indeed the Report recognises—is going to take a number of years.

Q70 Mr Mitchell: Are you saying that the costs will increase as your understanding increases?

Dr Roxburgh: Yes.

Q71 Mr Mitchell: The understanding is fairly imperfect at the moment so does that mean there is going to be a substantial increase to come?

Dr Roxburgh: On the model that we predicated there is a rise as you look, that is true, but we are also seeing evidence of a plateau and as I indicated with the low level waste in our first competition contract we are contractualising a double digit reduction in the lifetime plan. As you bring in this world class management I am satisfied that the numbers will first stabilise and secondly they will start to come down. I am quite convinced of that.

Q72 Mr Mitchell: Yes, but the model does not allow for the unexpected. You have unexpectedly had to use resources from your budget, diverted them from other parts of the programme, the two key sites with problems. Did the model anticipate that?

² Ev 15

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Dr Roxburgh: Yes. If you go, as I said earlier on, to our strategy document at pages 20 and 21 we made it quite clear what our number one priority would be and the reason behind that was that we might have to make decisions as to where our funding went.

Q73 Mr Mitchell: That is a common sense provision. No model can anticipate that, nor can it anticipate the scale of problems you may well find which you do not know about at the present moment. DBERR is complicit in this because you want a finite figure put on this which you can accept because you want to say that the new programme, carefully costed, will not incur this kind of decommissioning cost, that the industry itself can pay for it. That, too, is a myth.

Mr Higson: I think it is important that the NDA should continue its work of identifying what the costs are. It is extremely important and I think it is worth bearing in mind that prior to the NDA's existence both work on clean-up and indeed estimating and drawing up plans was pretty rudimentary.

Q74 Mr Mitchell: The lessons from this disaster are that the costs are going to be huge and I doubt that you can make confident predictions that the industry will carry them. Can you assure us that the industry will carry them and there will not be anything falling back on the tax payer?

Mr Higson: We have put in place all the arrangements that can reasonably be put in place—or are proposing to put them in place—to ensure that new nuclear operators pay for the costs of decommissioning. Again I would like to re-emphasise the point about the £73 billion costs of cleaning up the legacy which is that the majority of this relate to facilities of which there is no parallel in the new nuclear programme.

Q75 Mr Mitchell: The Nuclear Decommissioning Authority told us it put in place in 2003 reliable estimates for the costing and then they went up to £73 million by 2007, so what have you got in place?

Mr Higson: Dr Roxburgh may want to add to that but I do not think a claim was ever made that the initial estimates of the costs were the last word. For the future going forward what will be different is that there is a requirement that there should be a clear plan of decommissioning even before the power stations start to operate. That is what is different.

Q76 Mr Mitchell: You are complicit, are you not, in this confidence trick of pretending that a finite figure can be put and that can be held because you want that to happen for the new stations.

Dr Roxburgh: I am confident that a finite figure can be obtained. As I have indicated, we have already got emerging evidence for that but if I could give you a couple of other examples, large numbers are made up of aggregating many small exercises. At Sellafield there is a process for taking liquid high level waste, evaporating it and then mixing it with glass. It is then put in stainless steel containers—Mrs Browning,

you might well have seen this when you were at Sellafield—and then they are placed in a passively ventilated store.

Q77 Mr Mitchell: That sounds marvellous but you have not yet got any idea of the costs of getting rid of this high level waste. You cannot tell us where you are going to put it, you cannot tell us how much it is going to cost, whether you are going to have to dig an enormous hole in the ground or whether you are going to export it and sink it in the Atlantic or whatever. You cannot tell us, can you?

Dr Roxburgh: I think we have a reasonable idea.

Q78 Mr Mitchell: Where is it going to go?

Dr Roxburgh: The Government policy is that in due course we will have a deep geological repository for our high level waste.

Q79 Chairman: Remind us where that will be.

Dr Roxburgh: Where the repository will be?

Q80 Chairman: Yes.

Dr Roxburgh: I indicated earlier that is a process of government.

Q81 Mr Mitchell: Yes, but you had that process in the 1990s. I remember Nirex coming to Grimsby and reassuring us it would be absolutely marvellous to welcome this low level nuclear waste and it would provide jobs and interesting use for the land. I sat outside that site for three months, picketing it to try to stop the stuff coming in but it never came because Nirex was wrong. Nirex spent all that money and all those calculations on trying to find sites; it did not find them and we still do not have them. You do not know the costs and therefore you cannot estimate the costs of decommissioning these plants.

Dr Roxburgh: As my colleague said earlier on the fundamental change of policy is moving from what is called DAD—Decide, Announce, Defend—to a policy of consult widely, look for volunteers and recognise that those volunteers may well require an element of infrastructure investment by way of compensation.

Chairman: Are we going to volunteer for this stuff? Which MP wants to put his hand up?

Q82 Mr Mitchell: I think you can count my area out. We could go round the room but you will find a massive rejection. What I am emphasising is not where you are going to put it but what is the cost going to be? You just do not know.

Dr Roxburgh: As far as the repository goes until we have identified a location and we understand the geology and technical challenges there can be no cost.

Q83 Mr Mitchell: You are not being exploited and conned by the site licensees, are you? As I read the Report they tell you what needs to be done, they estimate the costs, they employ the contractors not on the same cost basis that you are paying them and therefore they have access to as much money as they want.

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Mr Morse: Can I just step back and look at the process of forming a lifetime plan? The first period of the NDA's existence has been about establishing compliance and compliance to the processes that underpin that plan to make sure that we have no gaps and scope; to make sure that across the sites things are counted and estimated in the same way and they are underpinned by the same levels of technology. As Ian said right at the beginning, that is the first time in the nuclear area in the UK that that has been established. I might say that that is a process that a number of other companies across Europe have looked at and recognise that actually the NDA does that quite well. So it is the lifetime plan underpinned by those processes which contains the scope as we see it and there are some uncertainties about that scope, but there is also a lot of fairly firm and certain knowledge. It contains the timing and ultimately the cost and it contains the methods and processes. In our first period we have established a compliant baseline. We must now move on as is indicated by the NAO Report to using that baseline effectively to unlock the opportunities so we can see the uncertainties and the certainties.

Q84 Mr Mitchell: I am sorry to interrupt, you say there are some uncertainties—you do not know what they are or how much it is going to cost—and there are some certainties. That is true of any forethinking planning. Here we are bequeathing an enormous debt and responsibility to our future generations because you cannot imagine that this government is going to pay it and I cannot imagine the next government is going to pay it, can you give us a forecast of how much it is going to cost year by year on this kind of basis, what the accumulative cost overall is? You cannot, can you?

Dr Roxburgh: What you can do is to define the scope and you can define the logic around which you should do the scope so that if you do this today you are not going to backend load additional cost tomorrow. That is important in itself. We have a thing called inflation; if we look at inflation in one of our supply chains, the civil engineering sector, it is actually significantly more than RPI. If you look at one of the main products required in our programmes, stainless steel, that has been inflating in double digits annually because of demand in China.

Q85 Mr Mitchell: If you have all those uncertainties about prices, about inflation, the cost of steel and so forth, which are then compounded by the uncertainties arising from what you are doing—because there will be areas where you have unanticipated problems, where you cannot dispose of the stuff, where a lot more has to be done than you thought was going to be done—you are entering into a long and limitless obligation, are you not?

Dr Roxburgh: What we are entering in on is history. They are there now, whatever we do. Our job is to characterise them, come up with the best value for money solution, whatever that ultimate cost is for dealing with them. We are not creating the waste. We are trying to get a grip where, for 50 years, the

nation has conveniently compromised backend loading, looked the other way, however you want to describe it.

Q86 Mr Mitchell: The problem then is that you will find that no government is going to provide you with the money.

Dr Roxburgh: I do not think that is an issue. The regulator would insist that things are done. The Government is, in my view, firmly committed to the Energy Act, there is cross-party support, it has a profound strategy behind it; I think it is a seminal piece of legislation and marks a remarkable shift in Britain's attitude to these things.

Q87 Mr Mitchell: I see from illustration 6 on page 15 that the Americans are well ahead both on decommissioning and on general issues and site clearance. What indications do we have about their costs and are they going to be comparable?

Dr Roxburgh: The model that I described earlier is based on their experience that as you start to look you find the cost goes up, it then plateaus and as you apply new innovative thinking to dealing with the issue the cost starts to come down.

Q88 Mr Mitchell: Where does responsibility lie in the States?

Dr Roxburgh: With the United States Department of Energy.

Q89 Mr Mitchell: Not with the individual contractor?

Dr Roxburgh: The individual contractors are employed by the US DoE to undertake the decommissioning work and we have quite close links with the US DoE. As you would expect we are trying to work from lessons learned and not to repeat their mistakes.

Q90 Mr Mitchell: It is funded by government.

Dr Roxburgh: Yes.

Q91 Keith Hill: I wonder if I could begin by asking Mr Morse a question about costs which ought to be controllable and to revert I think to a question which the Chairman raised earlier in this discussion which is to reflect on the fact that estimates and support costs in real terms rose by 9% in two years to 2007. Why is it so difficult for you to control your sites' procurement and human resources costs?

Mr Morse: The cost structure of this industry is one where there is a high portion of fixed costs, cost that is fixed for a number of years out. There are 20,000 employees in the industry directly and several thousands as agency workers behind that. The employment conditions restrict any movement across sites and that is something that we are looking at. There is a high proportion of fixed costs so in the near term it is very difficult to address that. If I remind you of what I said half an hour ago, we have an initiative to address fixed costs and to see those reduced progressively from the first of April 2008 onwards. Part of that fixed costs initiatives is also around shared services so the belief that starting

with economy of scale purchasing power across the 19 sites we can again drive further efficiencies. The overhead fixed cost structure of the industry is really quite high as you would imagine. You would expect to see a higher fixed cost where you have such intense licensing arrangements to protect safety, security and the environment.

Dr Roxburgh: The nuclear industry in the UK is very much where I think the construction sector was perhaps ten years ago: large conglomerates without individual cost centres which are disciplined. There is still a habit of placing overhead where it can be borne rather than where it occurs. There is good experience both here in the United Kingdom with Aldermaston and from the States that you can take significant costs out of the fixed cost element when you bring in contractors of world class pedigree. I am confident that we will see that happening at Sellafield once the new PBO arrives.

Q92 Keith Hill: Let me ask you about contractors and draw your attention to paragraph 2.11 or the Report where the NAO says that you do not have benchmark data and you do not routinely employ cost consultants. The question therefore arises how do you know your contractors' cost estimates are reasonable?

Dr Roxburgh: You do that in the first instance by requiring them to increasingly compete the work they would otherwise have done in house into the market, what they call the make buy decision. Traditionally there has been the tendency to make rather than buy and one of our first duties was to force the pace and to insist that over a two year period what otherwise one might call comfortable arrangements were challenged in the market. That is the first point. The second point is that increasingly we are to engage with our resources. When the site wishes to embark upon a major project they cannot just go and do it even though they are the controlling mind; they have to bring that proposal as a business plan to our expenditure review panel and we will interrogate it in the way that any other plc would interrogate a subsidiary wishing to make an investment on its behalf. Quite a few of those cases are sent back summarily or for improvement so there is quite a high degree of assurance and interrogation.

Q93 Keith Hill: Nevertheless you are in a situation where, as we have seen with these cost escalations, the base estimates remain very unstable and they are your comparators in the situation. In these competitions that you are anticipating how are you going to judge the cost and price elements of the bidders' proposals against the instability of those base estimates?

Dr Roxburgh: As I indicated earlier we have now allocated a sum of £5 million per annum to engage third parties who are expert in these processes to actually interrogate on our behalf and to advise.

Q94 Keith Hill: Let me ask two or three further questions somewhat at random, but issues which have already been raised in discussion or have come

out of the Report. You impose fines for safety events—this is brought out in paragraphs 3.9 and 3.10 at pages 23 and 24—and then allow sites to re-earn the money. Does this not encourage sites to focus on correcting the problems you identify rather than preventing the problems in the first place? Mr Morse, you will have to be very careful about body language; I saw a very heavy nod there so I thought you might like to come in on that.

Mr Morse: If we take the two sites at Dounreay and Sellafield we do of course operate across management and operations contracts so there is a contract between the NDA and the site operator but of course NDA owns the site and its infrastructure. That contract is almost entirely reimbursable. The contract conditions are such that if the contractor is prevented from making progress in a particular area we are allowed to reassign the fee and that is simply what we did this time around. Had this been a contractee in private industry the contractor may well have reached for an equitable adjustment and extension of time, a variation of claim and so to avoid all of that expenditure around contract administration we simply reassigned the fee to other areas. I think reassignment of fee is just the same as equitable adjustment in any form of contract. The fact that we recycled it is really a circumstance within the year's funding.

Dr Roxburgh: One of the reasons we did it was the incident at Dounreay was a function of a poor culture. We put the money back in on the understanding that they would improve the culture and if I look at the evidence that has flowed from that re-investment and that change in culture, there has been quite a marked change. If I look at loss time accidents at Dounreay in 2005/06 there were eight, in 2006/07 there were three and this year to date there are two. If I look at the international measure of health and safety, the Total Recordable Incident Rate, if I go back to the beginning of 2006 Dounreay was at a figure of three, as of today it is down around 0.3; 0.3 is world class. To put that in context, the American construction industry consider a TRIR of six as being average. If I look across our estate it was not just the measure that you sent Dounreay, individuals in management lost bonus so that sharpened their attitude and everybody took notice. We have five sites at the moment who, over the past 12 months, on a rolling 12 month basis, have a TRIR of zero. So there has been a profound change. It is stick and carrot and I do believe the policy has borne fruit.

Q95 Keith Hill: That is impressive and reassuring. On this issue of poor culture, let me just seek reassurance on a reference you made, almost an in-passing reference, at an earlier stage which is this thing about contaminated graphite in UK Magnox reactors. You drew the contrast with France and Japan which do not have them. Why is this? Why did this occur in the UK? Presumably it is unlikely to be repeated.

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Dr Roxburgh: I think I perhaps misled you. The carbon is contaminated as a result of the processes in the reactor and it is just as prevalent in Japan and in France as it is here. One of the reasons we have embarked upon a memorandum of understanding with those two countries is because they too are looking for a final disposition for their C-14 contaminated graphite. It is not something that has happened as a result of poor practice.

Q96 Keith Hill: That is reassuring also. Mr Higson, you made the observation which other colleagues have remarked upon, that the modern reactors are designed with decommissioning in mind. You have talked a little bit about a plan and Dr Roxburgh pointed out that there would no authorisation for a future nuclear reactor without a plan. What are the contents of the plan?

Mr Higson: The bill currently before the House requires new nuclear operators to have produced a funded decommissioning plan which is subject to the approval of the secretary of state. We have issued draft guidance, last week in fact, setting out what the secretary of state on a provisional basis would expect to be in that plan, the level of detail and the nature of the financing arrangements. That is to give potential operators a very clear idea of what the secretary of state would be minded to approve so that they can factor that into their considerations when they come forward in due course with a plan for approval.

Q97 Keith Hill: Give me three key points.

Mr Higson: I think the most important point is that there has to be a clear plan. The second point is that it has to be funded on a prudent basis and that basis has to include, for example, protection against the event of insolvency; the trust has to be managed by people who are competent to do so. A point I was trying to get across earlier is that to live with the degree of uncertainty that necessarily attaches to any estimates of future construction or decommissioning, this is a process that constantly assesses and reassesses the costs to ensure that at all times action is being taken to ensure that the funded decommissioning programme is prudently funded and that the funds are sufficient to finance the decommissioning and waste management.

Q98 Keith Hill: I am glad I gave you the opportunity to clarify that since you were trying to get it across earlier. Finally, Dr Roxburgh, you have referred repeatedly to what appears to be your determination to introduce world class standards into the way in which we operate decommissioning. What are the conditions of acquiring world class standards and management in the UK?

Dr Roxburgh: World class managements have choices as to where they go and work. I have indicated the type of world class project manager that we would require at our sites could equally go and work in the oil and gas sector, aviation, tunnelling, wherever. You have to pay the going rate and one of our skills is to pay the rate but not leave too much on the table. That is why I was indicating to you earlier that as part of our competitive dialogue tension between the four bidders, whilst we believe we are leaving enough money within the contract to attract those world class teams, we want them in turn to be competitive with each other to actually define the smallest amount that we leave on the table, in other words we do not pay more than we have to.

Q99 Chairman: Dr Roxburgh, that concludes our hearing. I personally have no prejudice against nuclear power, indeed it is not the job of this Committee to look at the policy implications but I do think we have a right to look at what this is going to cost the tax payer and I think any tax payer listening to this inquiry would have been worried about the uncertainty surrounding this figure of £73 billion, already an enormous figure. What particularly worries me is that these costs are continuing to escalate even on work about to begin. The decommissioning relies on income from increasingly unreliable plants; unforeseen expenses—which are no fault of yours—continually pop up; we have to meet urgent commitments at places like Sellafield. These factors it seems combine to disrupt plans. We have or have had a stop/start process in decommissioning. All this is extremely worrying and adds to the bill of the taxpayer. I do not think this is your fault, Dr Roxburgh. We have many witnesses coming in front of this Committee, they all have a very difficult job to do, some are very competent and some less so; I think you have a far more invidious position. You are obviously an extremely competent person doing an impossible job. I wish you well.

Dr Roxburgh: You are most kind in your remarks.

1. Letter from Sir Brian Bender, Permanent Secretary, Department for Business Enterprise and Regulatory Reform

BERR & NDA BUDGETS—SPRING SUPPLEMENTARY ESTIMATES

I am writing to you to provide further information on the Spring Supplementary Estimates being published today, particularly in relation to the funding of the Nuclear Decommissioning Authority. In view of the fact that the Public Accounts Committee has a hearing on the NAO report “The Nuclear Decommissioning Authority: Taking Forward Decommissioning” scheduled for the 25th February, I thought it would be helpful to provide you with more detail than that set out in the Estimate to assist the Committee’s understanding. The timing of the publication of the Estimates has dictated the timing of this letter.

The Spring Supplementary Estimate shows that BERR is drawing down significant sums of End Year Flexibility and also making a claim on the Reserve to meet funding pressures this year. This action is necessary mainly to meet a shortfall in Nuclear Decommissioning Authority budget in 2007/08 and it is on this that this letter will concentrate.

An issue has arisen concerning the budgeting treatment of income received by the NDA, particularly that relating to Waste Substitution. There had been an understanding that proceeds could be recognised when income was invoiced and receivable. It is now clear that this income should have been treated under standard Treasury budgeting rules for commercial income which align with the accounting treatment under FReM (UK GAAP). The standard accounting treatment for income recognised under long-term contracts is that it should normally be recognised over a period of time as the service is performed for the customer, rather than in a single year.

There was an expectation that proceeds from Waste Substitution this year could be used to meet expenditure commitments in 2007/8. These proceeds have now been received. However, the potential requirement to spread the revenue over a number of years, would only allow a proportion of these proceeds to be recognised in the NDA budget this year.

This treatment of the Waste Substitution Income has contributed in large part to a £400m shortfall between the NDA's forecast expenditure and forecast income in 2007/8, for which it has been necessary to draw down EYF and make a claim on the Reserve in the Spring Supplementary Estimates.

It is obviously regrettable that such a situation should arise and also so late in the financial year. We have looked across BERR budgets to realise any underspends that might be put towards the shortfall but, at this late stage in the year, the options available to us are limited.

The Department is reviewing how this situation arose and what lessons need to be learnt for the future. This work involves the Department, Shareholder Executive, HMT and the NDA. We are also looking at the forecast figures for future years to ensure that we have a full understanding of the effect of the revised accounting and budgeting treatment in future years.

I am copying this letter to the Clerk of the Business and Enterprise Select Committee and Tim Burr at the National Audit Office.

19 February 2008

2. Supplementary memorandum submitted by the Nuclear Decommissioning Authority

Question 41 (Angela Browning): *What the approach has been in terms of longer term recovery of contamination costs compared to the Sellafield site generally.*

In regard to estimates for decommissioning of each of the NDA designated sites, it is the responsibility of the SLC to produce a technically feasible and costed plan for remediation of all the facilities, infrastructure and land on the site to an agreed end state. The end state for each site, which has been consulted on with stakeholders, may differ and as such the extent of the remediation required may well vary. NDA does not proscribe how the end state is achieved but examines as part of the Lifetime Plan assurance activities the approach proposed by the SLCs and the adequacy of provisions made.

In regard to Sellafield, an exercise is currently underway within the SLC to gain a more refined understanding of the decommissioning costs for the key facilities and potentially contaminated land, with the results of these studies informing future Lifetime plans and thus overall UK civil nuclear liabilities. The majority of the facilities at Sellafield and the other sites are unique and first of a kind with the historic facilities, dating back to the 1940s and 50s, not built with decommissioning in mind. As such whilst opportunities do exist to develop generic decommissioning approaches and tools and techniques on one facility and deploy them elsewhere, translation into a prescriptive national approach is considered over simplistic. The sharing of good practice is achieved by technical baseline sharing and industry wide working groups, sponsored by NDA. Given the diversity of approaches required across the UK sites a simple parametric approach to cost estimating is not possible. As such the decommissioning estimates are subject to significant uncertainties.

Question 63 (Mr Philip Dunne): *What the Comprehensive Spending Review is for your Authority for the next three years?*

NDA Summary Income and Expenditure SR04 and CSR07

	05/06	06/07	07/08	08/09	09/10	10/11	Total	Total	% Change
	Actual	Actual	Budget	F'cast	Estimate	Estimate	Total	Total	
	SR04	SR04	SR04	CSR07	CSR07	CSR07	SR04	CSR07	
	£ million	£ million	£ million	£ million	£ million	£ million	£ million	£ million	
Berkeley	31	39	50	68	47	47	119	162	36.2%
Bradwell	49	41	32	30	30	30	122	89	-26.9%
Dungeness A	51	51	44	42	37	36	145	115	-21.0%
Hinkley Point A	57	55	37	40	40	40	148	120	-18.8%
Sizewell A	50	52	39	41	37	37	142	115	-18.6%
Magnox South Support	–	–	28	29	30	29	28	87	206.4%
Chapelcross	57	63	57	55	49	48	178	152	-14.3%
Hunterston A	45	37	38	52	51	54	120	157	30.5%
Oldbury	57	66	69	81	73	74	193	228	18.1%
Trawsfynydd	50	53	51	62	57	64	155	183	18.4%
Wylfa	85	90	105	93	88	92	280	274	-2.2%
Magnox North Support	–	–	18	18	18	19	18	55	209.7%
Electricity Trading	94	67	77	53	55	52	238	159	-33.1%
Harwell and Winfrith	96	99	95	60	60	60	291	180	-38.1%
Dounreay	146	147	158	152	157	160	451	468	3.8%
Sellafield and Calder Hall	990	1,174	1,208	1,296	1,281	1,301	3,372	3,879	15.0%
Capenhurst	24	21	24	27	19	7	69	54	-22.6%
Windscale	22	34	36	35	32	34	92	100	8.6%
LLWR	19	29	38	37	29	18	86	85	-2.1%
Springfields	262	245	267	322	328	357	773	1,008	30.4%
Culham	1	1	0				3	–	-100.0%
Non site expenditure (includes DRS)	232	317	334	299	340	268	882	908	2.9%
Total Expenditure	2,420	2,679	2,806	2,893	2,857	2,827	7,905	8,577	8.5%
Commercial Income	1,341	1,250	1,221	1,110	1,247	1,121	3,812	3,478	-8.8%
Waste Substitution Income	–	–	160	250	–	–	160	250	
Total Income	1,341	1,250	1,381	1,360	1,247	1,121	3,972	3,728	-6.1%
Grant in Aid & EYF	1,168	1,450	1,371	1,535	1,609	1,705	3,989	4,849	21.6%
End Year Flexibility (EYF)	–	89	110						
(Surplus) / Deficit	(89)	(110)	(56)	(2)	1	1	(56)	(0)	