



National Audit Office

Report

by the Comptroller
and Auditor General

The Nuclear Decommissioning Authority

Progress report: Terminating the Magnox contract

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Progress report: Terminating the Magnox contract

Report by the Comptroller and Auditor General

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National Audit Office

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This report examines the Nuclear Decommissioning Authority's (NDA's) management of the renegotiated contract in place with Cavendish Fluor Partnership (CFP) during the notice period (1 September 2017 to 31 August 2019) and assesses the NDA's progress against the risks highlighted in previous reviews by the National Audit Office and the Committee of Public Accounts.

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What this report is about

Background

1 In 2005, the Nuclear Decommissioning Authority (NDA) was established as a non-departmental public body under the Energy Act 2004. It is an arms'-length body of the Department for Business, Energy & Industrial Strategy (the Department), and it is responsible for operating, decommissioning and cleaning up 17 nuclear power station and research sites in the UK.

2 Between 2012 and 2014, the NDA ran a competitive procurement exercise for a parent company to manage the decommissioning of two nuclear research sites and 10 Magnox sites. The latter comprise power stations that were at, or nearing, the end of their operational life. The parent company would provide additional resources and expertise while managing a contractor – Magnox Ltd – which was responsible for carrying out the required work to decommission the sites. With an estimated value of up to £6.2 billion for the decommissioning work, the 'Magnox contract' was among the largest by value put out to tender by HM Government at that time.

3 In September 2014, the NDA awarded the 14-year Magnox contract to Cavendish Fluor Partnership (CFP). In July 2016, the High Court ruled that the NDA had wrongly decided the outcome of the procurement process. In March 2017, the Secretary of State for Business, Energy & Industrial Strategy announced that the NDA had agreed settlements totalling £97.3 million with the bidder that brought the legal claims against the NDA. He also announced that the NDA had decided, based on legal advice, to terminate the contract with CFP nine years early due to a "significant mismatch" between the work specified in the tendered contract and the work that needed to be done.

4 The NDA therefore re-negotiated the contract with CFP in the summer of 2017 to cover the five years from the contract's start in September 2014 to 31 August 2019, including a two-year notice period to enable decommissioning work to continue on the Magnox sites while the NDA made preparations to convert Magnox Ltd into a wholly-owned subsidiary of the NDA. The management of the Magnox sites and ownership of Magnox Ltd transferred from CFP to the NDA on 1 September 2019 (**Figure 1**).

Figure 1

Timeline of key events relating to the procurement and termination of the Magnox contract

In 2014 the Nuclear Decommissioning Authority (NDA) awarded a contract for the delivery of decommissioning works to Cavendish Fluor Partnership (CFP). This contract was subsequently terminated. Management of the Magnox sites reverted to NDA on 1 September 2019



Note

1 The Magnox contract was to manage the decommissioning of two nuclear research sites and 10 nuclear power stations.

Source: National Audit Office summary of key events relating to the procurement and termination of the Magnox contract

The NAO and Committee of Public Accounts's previous coverage of the Magnox contract

5 In October 2017 we reported that the failed Magnox contract had cost the taxpayer more than £122 million by the time it was announced that it was to be terminated.¹ These costs related to the settlement of legal claims with unsuccessful bidders, the cost of legal and external advice provided to the NDA, and the time spent by NDA staff on, for example, the competition, litigation and contract termination. We also found that the NDA's poor understanding of what was happening on the sites had contributed to serious problems after it awarded the contract to CFP in 2014, with its assumptions about the work required proving to be inaccurate. We concluded that in these circumstances its use of a target-cost contract, which would require a good understanding of the scope of the work, appeared inappropriate. We therefore concluded that the NDA should re-evaluate its commercial strategy and its capability to execute it.

1 Comptroller and Auditor General, *The Nuclear Decommissioning Authority's Magnox contract*, Session 2017-2019, HC 406, National Audit Office, October 2017.

6 In 2018, the Committee of Public Accounts (the Committee) published a critical report and recommended that the NDA improve:

- its understanding of the state of the sites;
- its ability to monitor work carried out on them; and
- the capability and expertise of its executive team.²

This report

7 This report follows up on our and the Committee's findings by evaluating the NDA's progress addressing the Committee's recommendations during the two-year notice period. It also assesses the NDA's performance in re-negotiating the contract and then managing it using the contractual levers it had available. We assessed performance against contract targets and considered the effectiveness of NDA oversight by drawing on our frameworks for assessing commercial and contract management good practice. We also held discussions with the Office for Nuclear Regulation (ONR) and NDA's contractor, CFP. Our approach is set out in Appendix One and our evidence base and limitations to our analysis are described in Appendix Two. A glossary of key terms is included in Appendix Three.

² HC Committee of Public Accounts, *Nuclear Decommissioning Authority: risk reduction at Sellafield*, Sixty-Fifth Report of Session 2017–2019, HC 1375, October 2018.

Summary

Key findings

8 Given the substantial challenges created by the failure of the initial procurement and early phase of the Magnox contract, the Nuclear Decommissioning Authority (NDA) did well to negotiate its revised contract with Cavendish Fluor Partnership (CFP), which would enable it to move to its new delivery model.³ The NDA had six months to design and negotiate a revised contract with CFP while dealing with several legal risks and planning for its new subsidiary to take over the decommissioning work from September 2019. Importantly, the NDA has managed to avoid any further legal disputes with its supplier and other parties, while at the same time agreeing a settlement at a reasonable cost which allowed it to leave its original decommissioning contract nine years early and oversee continued decommissioning work in the meantime (paragraphs 1.7, 1.8 and 2.2 to 2.4).

9 CFP completed 93% of the decommissioning work it was asked to do under the renegotiated contract. CFP undertook £2.72 billion of work over the five years of its revised contract with the NDA, representing 93% of what it was asked to deliver over that period.⁴ As part of its work, CFP succeeded in placing the first Magnox station into a safe and enclosed state, which the NDA refers to as the 'care and maintenance' stage, ready for further decommissioning in the future. CFP also largely completed the de-fuelling of the last Magnox station, significantly reducing the level of on-site hazard, as well as cleaning sites of radioactive waste, contaminated water and stored waste materials. The Office for Nuclear Regulation (ONR) says these achievements are significant and the NDA believes that the agreement with CFP helped maintain a focus on the health, safety and wellbeing of people working at sites and among local communities. Overall, the NDA reported that CFP achieved nearly all of the interim milestone targets set out in the contract. CFP's progress in reaching the expected physical states for sites at the end of the contract was less positive; out of 97 targets defining the required end-states of sites by the end of the contract, 45 were fully achieved and 25 were partially achieved (paragraphs 2.14 to 2.15, Figure 6).

³ Comptroller and Auditor General, *The Nuclear Decommissioning Authority's Magnox contract*, Session 2017-2019, HC 406, National Audit Office, October 2017.

⁴ At contract close in September 2019, the value of the programme was £2.91 billion, up from £2.81 billion in September 2017.

10 In renegotiating the contract in August 2017, the NDA agreed to pay CFP a contract fee of up to £152 million subject to its performance in managing the decommissioning work. The NDA acknowledged that this included a cost for early termination of the contract of some £20 million to reduce the risk of further legal challenge and incentivise CFP to support the smooth transition to a new delivery model from September 2019. The Department for Business, Energy and Industrial Strategy (the Department) and HM Treasury endorsed this deal, which represented a fee rate of 5.4% of the contract value, similar to the original contract terms had CFP delivered the original programme of work at target cost. In the event, the NDA paid CFP £143 million for its management of the work, 94% of the potential fee agreed in August 2017 and received additional support at CFP's cost in transitioning to the new Magnox subsidiary. (paragraphs 2.5 to 2.9, Figure 3).

11 The NDA has responded to earlier criticism of its management of the Magnox contract, but some changes took time to embed. In its February 2018 report, the Committee of Public Accounts (the Committee) concluded that the NDA did not have enough capability to manage the Magnox contract. Responding to this conclusion, the NDA strengthened its executive team by recruiting a new director for nuclear operations and a new commercial director. The NDA also took steps to increase the capacity of its day-to-day contract management team and in January 2019 it reached a final complement of 18 staff and 16 consultants, up from 18 people in June 2018. Over this period, the NDA still found it challenging to keep an up-to-date view of programme work plans and to promptly process the volume of requests from CFP to change the contracted plan. It temporarily diverted three staff from additional site monitoring work for six months to help manage the contract and to work with consultants to produce an alternative programme plan to improve the NDA's capacity to assess CFP's performance in the final stages of the contract (paragraphs 3.3 to 3.8).

12 The NDA faces ongoing challenges in relation to the removal of asbestos from the sites. The NDA views asbestos as a widespread risk across the Magnox estate because the work required to remove it is subject to uncertainty and can be technically difficult. The NDA agreed performance milestones with CFP for the bulk removal of asbestos, with payment dependent on certification of relevant areas by independent reviewers. Informed by external advice and a review of quality assurance certification procedures, NDA officials initially delayed approval of work done against two of these milestones, worth around £3 million. This was because they had concerns about the quality of evidence supporting some aspects of the work. The NDA approved the work as complete in December 2019, three months after the end of the contract. It determined that the contractual requirement was for the bulk removal of asbestos and that the appropriate certificates had been granted. The NDA says it continues to monitor outstanding issues relating to the quality assurance of asbestos work and has the option to recoup fees from CFP for up to three years should it become apparent that requirements relating to asbestos removal were not met (paragraphs 3.11 and 3.12).

13 The NDA now estimates that the cost of the work needed to put the Magnox sites into the care and maintenance stage of the decommissioning process has increased. In its February 2018 report, the Committee found that the NDA had underestimated the scale of work needed to decommission sites when it let the original Magnox contract. Our 2017 report found that the expected costs of decommissioning the Magnox sites increased from £3.8 billion in CFP's winning bid in 2014 to £6.0 billion in early 2017. The NDA revisited this analysis in August 2017 and estimated the cost at around £5.9 billion (nominal value, **£5.6 billion** in 2018-19 money terms). In July 2019, the NDA estimated that the whole programme would cost between £6.9 billion and £8.7 billion with a best estimate of £7.5 billion (in 2018-19 money terms) to get all the Magnox sites cleared and safely enclosed, ready for what it calls the 'care and maintenance' phase. During this phase the reactors and waste stores are sealed, and the site kept secure, potentially for some 80 years, to allow radiation levels to decay over time. Costs are likely to be subject to further change, largely because of the inherent uncertainties involved in cleaning up the UK's nuclear sites. The NDA is continuing to refine its estimates (paragraphs 2.17 and 2.18).

Concluding remarks

14 In March 2017, the NDA faced a challenging set of circumstances after the failure of the original Magnox contract. Since then, it negotiated a revised contract with CFP, avoided further litigation and succeeded in maintaining a working relationship with its supplier that led to the completion of £2.72 billion of decommissioning work before the contract ended in August 2019.

15 But there has been a cost to the NDA and the taxpayer in addition to those we reported in 2017 as a consequence of the flaws in its strategy when it let the original Magnox contract in 2014. The NDA estimates that its revised contract included a termination cost of £20 million to negotiate its early exit from the contract and incentivise a smooth handover of sites without further legal challenge. The results of the NDA's recent work to update the decommissioning programme for the Magnox sites shows that there remains significant uncertainty around its cost, with current estimates ranging from £6.9 billion to £8.7 billion. With the NDA now taking more direct control over the management of its sites, it will be critically important that it builds and retains better knowledge of the condition of its sites to enable it to plan and deliver decommissioning work efficiently and effectively. The NDA considers that it will be better placed to achieve this under its revised delivery model, but it is too early for us to assess the effectiveness of these arrangements.

Recommendations

16 The NDA has moved away from a commercial model in which all site licence companies are owned by private sector consortiums with both Magnox and Sellafield now wholly owned by it. We understand that the NDA is considering the future operating model for its other sites and contracts and has recently announced plans for Dounreay Site Restoration Ltd and LLW Repository Ltd to become wholly owned subsidiaries in 2021. The NDA will still need to maintain effective relationships with suppliers, but it will also need to delegate the management of contractual relationships to its subsidiaries so that it can focus on effective strategic oversight. Our expectation is that the NDA will share and apply these recommendations with its subsidiaries, as appropriate, to support improvements across its estate.

With specific reference to the Magnox contract the NDA should:

- a** expedite its work to review the standard of quality assurance processes for asbestos and consider whether it should recoup fees from CFP.

With input from the Government Commercial Function, the NDA should:

- b** explore with its subsidiaries what contractual levers can be included in future contracts to support the timely and effective management of underperformance;
- c** ensure that its subsidiaries have the capability to design and manage complex contracts; and
- d** ensure that its subsidiaries have the capacity to test, challenge and validate supplier information in a timely way, maintaining assurance as a primary activity in the management and oversight of the work at all times.

The NDA should also:

- e** as a priority, increase its understanding of the condition of its sites and the volume and complexity of remaining decommissioning work; and
- f** through increased knowledge and experience, work to reduce uncertainty around the cost of future decommissioning work.