

Unite submission to the Public Accounts Committee Consultation into The Nuclear Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear Energy Sites



1. Introduction

- 1.1. This submission is made by Unite, the UK's largest trade union with over one million members across all sectors of the economy including manufacturing, financial services, transport, food and agriculture, construction, energy and utilities, information technology, service industries, health, local government and the not for profit sector. Unite also organises in the community, enabling those who are not in employment to be part of our union.
- 1.2. Of particular relevance to this submission, Unite represents over 35,000 energy and utility workers including a number who work at the 10 Magnox energy sites.

2. Background

- 2.1. In the 1950's, Calder Hall, on the Sellafield site in Cumbria was the first in a series of Magnox nuclear power stations. The name Magnox was used because the fuel cans holding the refined Uranium were made of Magnesium alloy. Eleven stations were eventually built, producing up to 10% of Britain's electricity. Magnox-type design of nuclear power stations were also built in Italy and Japan.
- 2.2. Nuclear power stations have a limited shelf life, hence as the stations reached their end of life, the Nuclear Decommissioning Agency (NDA) was given the task of removing the spent fuel rods and any other radioactive waste from the site with the eventual aim of turning the site back to an empty field. Following the then Conservative Party ideal of competitive tendering therefore, in 2012 the NDA put out an invitation for companies to submit their competitive tenders to carry out this task. Ruling out the idea of bringing the contract back into public control, the NDA awarded the 14 year contract to Cavendish Fluor Partnership (CFP).
- 2.3. Amyas Morse, Head of the National Audit Office stated that **"The NDA's fundamental failures in the Magnox contract procurement raise serious questions about its understanding of procurement regulations; its ability to manage large, complex procurements; and why the errors detected by the High Court judgement were not identified earlier. In light of these issues, the Department must consider whether its governance and oversight arrangements surrounding the NDA are sufficiently clear and effective in providing the scrutiny and assurance it requires to meet the standards expected in managing public money"** in its report on the NDA's Magnox contract, between 2012 and 2014.
- 2.4. At the time, the Wylfa Magnox station on Anglesey was the last operational Magnox station providing power to, amongst other things, the big aluminium smelting company on the island. The

**Unite submission to the Public Accounts Committee Consultation into The Nuclear
Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear
Energy Sites**

pending closure of the Magnox station was therefore seen as not just the closure of the power station but also the loss of thousands of local jobs as the Magnox station's closure would put at risk those at the aluminium factory. And so it transpired, leaving the island of Anglesey bereft not just of two major employers but also the businesses that supported the workforce and their families on the island which also closed.

- 2.5. Unite would therefore argue that the UK Government has approached the idea of planning for and supporting the growth of, cheap environmentally sustainable nuclear energy as a political football which the parties could kick into the long grass, dooming the country to a future which was dependant upon fossil fuels. The lack of any forward thinking to have a programme of replacement nuclear stations or even alternative energy sources, doomed local communities who were reliant upon the jobs that the power station and the manufacturing bases that relied on them, provided. There was no just transition, programme of retraining, or any thought given to the workforce or their families when the stations stopped generating.
- 2.6. The lack of forward planning to ensure continuity of the nuclear industry at Wylfa has meant the loss of a very large number of highly skilled nuclear engineers to other professions in other parts, not just of the country, but to other parts of the world.
- 2.7. The £3.8 billion (later increased to £6.2 billion) contract was amongst the largest single procurement contract issued by the Government up to that point, but the awarding of the contract was botched. As stated in the report, by July 2016, following on from a lengthy series of court hearings, the High Court found that the NDA had wrongly decided the outcome of the procurement process, giving one of the bidders the right to sue for damages. In the circumstances, the NDA agreed to settle claims in March 2017 with Energy Solutions and its consortium partner at the time of the bid, Bechtel, at a cost of £97.3 million.
- 2.8. The process required all the spent fuel and radioactive waste to be consolidated and sent to Sellafield for reprocessing and holding, following a period of storage on site, to allow for the cooling and decay of fission products. The high level waste is still being held at Sellafield until a long-term disposal facility could be found. In the early days of nuclear energy production, waste was simply disposed of by dumping it in barrels onto the sea bed but due to major and understandable concerns over this practice, the Government decided to bring all high level waste into one location. Once the fuel has been sent off site, 99% of the site's radioactive inventory is removed. Of the 11 sites, all the defueling was scheduled to be completed well before the end of the contract in August 2019.
- 2.9. According to the 9th Magnox Operating Programme (MOP 9)¹ the Performance Range Schedules – Average Annual Reprocessing Performance stated the following estimated completion dates.

¹ See MOP 9 at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/457808/The_Magnox_Operating_Programme_MOP9_.pdf

Unite submission to the Public Accounts Committee Consultation into The Nuclear Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear Energy Sites

Site	Upper Bound 740 tU/year Forecast Completion Dates	Lower Bound 450 tU/year Forecast Completion Dates
Chapelcross	Mar 2013	Nov 2013
Sizewell	Jun 2014	Oct 2015
Oldbury	Oct 2014	Feb 2017
Wylfa	Dec 2016	Jul 2019
Calder Hall	Mar 2017	Mar 2019
Reprocessing Complete	Mar 2017	Dec 2020

2.10. In reality, the last of the nuclear spent fuel did not leave until September 2019, after the contract ended.

2.11. During consolidation, the expected costs of decommissioning the Magnox sites increased from £3.8 billion, Cavendish Fluor Partnership (CFP)'s winning bid in 2014, to £6.0 billion in 2017. The NDA attributes £0.7 billion of this increase to a revised understanding of the volume of waste and asbestos on the sites, which it says could not be quantified before work under the contract began. Another £1.0 billion of the increase was expected by the NDA when it awarded the contract, but £0.5 billion was not expected.

2.12. Unite believes that the Holliday Report² into what happened with the bidding process and subsequently suppressed by the Government as it shone too powerful a light, not just on CFP but also Ministers and the NDA, and subsequent failures and a lack of understanding have made the issues worse, increasing the bill to the tax payer.

3. Evidence

3.1. Unite would contend that not only did CFP appear to have no clue when they started the process as to the true cost, but they made assumptions that they could cut staff wages in half to save money on the eventual bid that was submitted. Clearly, this plan was doomed to failure even before CFP won the bid. Furthermore, toward the end of the contract, Unite would contend that CFP's interest was in achieving as many easy wins as possible before the deadline, to justify themselves leaving their main task only partly completed.

3.2. Unite believes the content of the National Audit Office (NAO) report into the handling of the contract³, is justified in being critical of the NDA's understanding of the state of its nuclear sites. The role of CFP should not be ignored either, in the way it was allowed to re-negotiate the work required and in the way it was allowed to operate during the contract.

² Announcement of the inquiry <https://www.gov.uk/government/speeches/nda-settlement-contract-termination-and-inquiry>

³ <https://www.nao.org.uk/report/terminating-the-magnox-contract/>

Unite submission to the Public Accounts Committee Consultation into The Nuclear Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear Energy Sites

- 3.3. Unite feels that CFP should never have been awarded the contract in the first place. Their submission was essentially a lowest-cost submission for work to be carried out. Through conversations with senior CFP personnel, they did not expect to be awarded the contract and were more surprised than anyone when they did .
- 3.4. Unite agrees that this is contra to the view given by Simon Bowen⁴ on 23rd November 2017, to the Committee on Public Accounts. It was widely known at Magnox centre and based on comments made by CFP employees working at OTC, that CFP were extremely surprised when they were awarded the contract, to the extent they were not prepared and had a significant resource issue initially.
- 3.5. The general view held by Magnox employees is that a professional project management company made a deliberate low bid in order for them to find fault and were then given the opportunity to re-negotiate it.
- 3.6. One example of how CFP were able to produce a bid document for £3.8 billion and the next closest bid was for £4.1 billion, within the CFP bid⁵ was their head-count for Asset Management positions. This head-count did not include any provision for Quality Assurance (QA) or Safety Case resources, so that when they set up the Asset Management programme staffing, QA was bought in through the use of agency supplied staff and a new position was made for Safety Case work⁶.
- 3.7. Any such contract will be a difficult cost to estimate, especially one relating to the decommissioning costs, as the parameters are constantly changing. However, It should be remembered that when CFP took over, Magnox Limited as a business entity, was supposed to terminate operation in 2028, when the last station entered 'Care and Maintenance'(C&M). Currently, under the new management and following current NDA arrangements for Magnox Limited, the company is now viewed as having a positive future past 2028. This is supported by the announcement that EDF Energy's Advanced Gas cooled Reactor (AGR) sites will be taken into NDA ownership through Magnox Limited when they are defueled and that there is the current investigation into reactor demolition. This would imply that the Care and Maintenance approach will probably not be applied to any other sites and Bradwell will be the first and last to enter C&M. Unite would further contend that the other Magnox sites are not as yet, empty fields where a power station once stood, nor will they become empty fields any time soon as there is still a considerable amount of work to be completed which CFP were supposed to have managed.
- 3.8. A major hurdle in the defueling process was the lack of flasks, storage and reprocessing capacity, making the transport of the spent fuel from the site one which clearly was underestimated with no room for error. CFP abandoned the use of the Ductile Cast Iron Containers (DCICs) at the commencement of the contract, as in their view DCIC's could be replaced more cost effectively by

⁴ <https://publications.parliament.uk/pa/cm201719/cmselect/cmpubacc/461/461.pdf>

⁵ **Cavendish prepared a low bid. Document "Volume 3 – 106.1 Asset Management:Asset Management Control, Magnox Limited & Research Sites Restoration Limited, – Parent Body Organisation Competition"**

⁶ See Appendix 1

**Unite submission to the Public Accounts Committee Consultation into The Nuclear
Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear
Energy Sites**

design approved concrete boxes. In reality, the concrete box design was only achieved after the CFP contract was terminated.

- 3.9. This lack of containers was just one issue that delayed the process and meant that although Bradwell was supposed to enter C&M in 2015, this was not declared until November 2018⁷. Even then, this declaration was also incorrect as some £30m of decommissioning work was still required and was not completed until March 2019.
- 3.10. The impact of this had an effect on the Life Time Plan as this money needed to be funded from elsewhere.
- 3.11. Unite would question the suggested upper cost of £8.7 billion as being way off the mark for what will eventually be required if the current decommissioning approach is adopted throughout the remaining sites. Although there may be some economies of scale, Unite would contend that internally, Magnox is suggesting figures of £1 billion per station as being an estimated ballpark figure. This is because reactor demolition will require specialist handling to cope with the highly radioactive materials involved.
- 3.12. Unite believes that if each of the sites are to be raised to the ground and returned to nature, the process will create a considerable amount of radioactive waste. Unite would therefore, press the NDA for swifter action on the creation of a deep storage facility which can accommodate high level radioactive waste materials. Whilst a site's location may well be the subject of considerable NIMBY protests, this needs to be in place to provide the facilities for the demolition rubble. Without this, all the remaining facilities will need to have a C&M programme put into place at least and until such a deep storage facility comes online, adding to the final bill.
- 3.13. Unite thinks there can be little doubt that the NDA did not know the totality of the work required when it awarded the contract. Equally, given the circumstances that unfolded, the initial awarding of the contract to CFP, presented Cavendish with an almost once in a lifetime opportunity to re-negotiate the contract on their terms, given they had made such a low and unrealistic bid initially. Cavendish are a profit making organisation answerable to their shareholders, hence it was not going to be a situation where they would work on a not for profit basis. The NDA were never going to be able to negotiate at the same level, as they have always been in a weak bargaining position when compared to the expertise in CFP.
- 3.14. Problems have been compounded due to the much published amalgamation of Magnox and Research Sites Restoration Limited (RSRL). This was supposed to include the introduction of a single management system. CFP claimed this had been achieved. Unite believes incentive payments were made for this achievement, indeed, Unite members have stated that there still exists a parallel management system⁸ and there is no appetite to change this currently within Magnox.

4. Conclusion

⁷ See Appendix 2

⁸ A situation where two management teams remained employed, to do the same role, within the organisation, one for each of the parent companies.

**Unite submission to the Public Accounts Committee Consultation into The Nuclear
Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear
Energy Sites**

- 4.1. Unite believes that there were a catalogue of errors around the end of life decommissioning of the UK fleet of nuclear power stations. Unite believes:
- The NDA did not have a clue as to the true cost of the decommissioning and was left to re-negotiate the contract from a position of weakness.
 - Cavendish chanced their arm by putting in a bid which they hoped would be the lowest and that the Government would rather this, than a company with a proven track record and experience of dealing with such dangers. Unite believes they hoped that should they get the agreement, they could increase the price later, by quoting unforeseen costs and delays.
 - CFP wrongly abandoned the proven DCIC in favour of a concrete box alternative to move the spent fuel and continued to pursue it even though there was little chance they could bring in the idea within the window of the contract.
 - CFP also obtained payments for achieving incentivised goals within a time limit, when in reality these goals were not achieved and some still remain out of reach.
- 4.2. Unite therefore believes, that had this remained in the public sector, a better understanding of the challenges could have been achieved and costs could have been absorbed. Unite feels that the mismanagement of this contract was a criminal waste of public resources that could have been better used elsewhere.
- 4.3. Unite further contends that no blame for this fiasco can be levelled at the staff of the Magnox facilities, who have worked throughout to the best of their respective abilities, to fulfil the whims of CFP and their efforts to bring about the decommissioning of these locations.
- 4.4. Unite believes that if each of the sites are to be raised to the ground and the site returned to nature, that the process will create a considerable amount of radioactive waste. As stated earlier Unite would therefore press the NDA for swifter action on the creation of a deep storage facility which can accommodate high level radioactive waste materials. To reiterate, the location of the high level waste storage site's location may well be the subject of considerable NIMBY protests but this needs to be in place to provide the facilities for the contaminated demolition rubble. Without this facility in operation, all the remaining facilities will need to have a C&M programme put into place at least and until such a deep storage facility comes online, adding to the final bill.

Peter McIntosh
National Officer for the Energy and Utilities Sector
Unite the Union, Transport House
128 Theobalds Road
Holborn London
WC1X 8TN

29th September 2020

For further information please contact Colin Potter, Research Officer in the Unite the union Research Department on 020 7611 2591, colin.potter@unitetheunion.org

**Unite submission to the Public Accounts Committee Consultation into The Nuclear
Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear
Energy Sites**

**Unite submission to the Public Accounts Committee Consultation into The Nuclear
Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear
Energy Sites**

Appendix 1 Support information concerning CFP bid

Asset Management: Control

5.1 Scope Summary

“This Basis of Estimate (BoE) has been prepared by Cavendish Fluor Partnership (CFP) to cover the scope of Asset Management Control. Asset Management provides support to all assets that are required on the Authority estate at a condition which optimises their maintenance and care costs to safely meet the operational delivery programmes up to and including the Care and Maintenance (C&M) period. **The Asset Management Control team will provide the central management team,** site specific management and coordination teams for the management of all activities associated with assets and facilities across the entire Magnox/RSRL portfolio.”...

5.4 (a) (b) Estimating Methodology and Justification

“CFP used a variety of techniques to evaluate the appropriate size and structure of the Asset Management Control team. We considered the approach to the management of multi-site assets in both of our parent organisations and compared the delivery and operational models that the companies operate, the types of facilities and assets being operated and the regulatory frameworks and regimes which must be adhered to in the delivery of the asset management works.”

“From the vast experience of the Cavendish Nuclear and Fluor partner organisations as owner, operator and contractor (Tier 1, 2, 3) in technical decommissioning delivery across the UK and wider international decommissioning markets.

This includes our experience being the current PBO incumbent at both RSRL and Dounreay and our current and historical contractual delivery relationship with Magnox in a number of technical delivery areas (e.g. Trawsfynydd ACTUS alliance). This experience has principally been obtained from utilising key individuals from these organisations with this experience to directly develop this approach, supported by data gathering activities and strategy workshops involving other key technical and engineering resources.”

**Unite submission to the Public Accounts Committee Consultation into The Nuclear
Decommissioning Agency's Management of the Magnox Contract to Decommission 10 Nuclear
Energy Sites**

Appendix 2 Support information. Extracts from NAO Report Relating to Bradwell

NAO Progress Report: Terminating the Magnox Contract

“Contractor performance...”

2.14 Over the 5-year contract period, CFP undertook £2.72 billion of work, representing 93% of what it was asked to deliver, taking into account further additions to the programme during the contract period. The Office for Nuclear Regulation (ONR) regards the work completed as a significant landmark in reducing the degree of hazard on the sites and preparing the way for their future restoration. Notable successes include:

- the removal of nearly all spent fuel from the last of the Magnox stations, storing it on site before transporting it to the NDA's Sellafield site for reprocessing. According to the NDA, the removal of this fuel takes away the last of the remaining significant nuclear hazards on the Magnox sites and is critical to the eventual closure of the reprocessing facility at Sellafield;
- the Bradwell site moving to the 'Care and Maintenance' phase in November 2018, the first of the Magnox stations to do so; and;
- cleaning of two ponds of radioactive waste, highly contaminated water and sludge; and the consolidation of interim level waste storage so that three stores were no longer required, saving capital costs of around £45 million and asset management costs.

The NDA also believes that the agreement with CFP helped to maintain a focus on the health, safety and wellbeing of people working at sites and amongst local communities...

3.16 During the event, the NDA issued CFP with four defective performance notices between March and August 2019. CFP's opinion was that these notices were without clear evidence to substantiate them. The NDA had a range of processes for monitoring, reporting and escalating underperformance. However, in some cases these did not, from the NDA's perspective, result in the required improvements. In our view, the NDA's ability to use these notices constructively to address performance was undermined by:

- their late issue – three of the four notices were issued in August 2019, the final month of the contract, by which time there was no realistic opportunity for CFP to respond;
- the time gap between their issue and the alleged underperformance incident – the defective performance notice the NDA issued for work at Dungeness, for example, related to activity undertaken more than one year before, and;
- issuing the notices with a limited description of defects, giving CFP grounds to reject them. The NDA acknowledges that the first notice it issued for Bradwell in March 2019, was a summary of the defect description, and that it took nearly two months for it to re-issue the notice in May 2019, before issuing it a third time in August 2019. CFP also felt it had strong grounds to refute the claims made in the defective performance notices”.