

The Atomic Energy Authority Bill

[Bill 61 1994/95]

Research Paper 95/32

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The aim of the Atomic Energy Authority Bill is to make possible the privatisation of the commercial activities of the UKAEA, performed by a majority of the work force. These activities, covering scientific research, development and consultancy, are embodied by a division which trades as AEA Technology. Beginning with a discussion of the present day Authority and the issues facing it, this paper goes on to provide historical background as well as an outline of the Bill's main measures.

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A. Introduction

The Government's decision to privatise the commercial activities of the UK Atomic Energy Authority was confirmed in the Queen's Speech last November (HC Deb 16 November 1994 c.6). In the debate on the Address the President of the Board of Trade (Mr Michael Heseltine) stated (HC Deb 21 November 1994 c.355):

"I now turn to the privatisation of the commercial activities of the Atomic Energy Authority. As my right hon. Friend the Minister for Energy and Industry made clear last February, ownership and the safe management of the UK's atomic energy and nuclear responsibilities will remain in the public sector. The technology wing of that organisation, which deals with science, engineering and business and selling technical, environmental and safety advice, will be privatised.

The privatisation process will enable AEA Technology to realise the full potential of its commercial activities, allowing it the freedom to sell its services as it is and not as the Government see fit. It will benefit consumers and, of course, add to national competitiveness."

During the debate which ensued, many Members focused more on measures which were absent from the Queen's speech, particularly the "flagship" privatisation of the Royal Mail advocated by the Government. An exception was Mrs Cheryl Gillan who welcomed the two privatisations which were contained in the speech: the Crown Agents and AEA Technology. Mrs Gillan noted the way in which the AEA's activities have diversified well beyond their original nuclear power emphasis. Expressing concerns that perceptions of AEA Technology based on this nuclear power parentage might damage the new company's prospects, she added (HC Deb 21 November 1994 c.422):

"... I do not want the benefits and the position of the nuclear-related companies strangled by the provisions that might be deemed necessary for their parent industry."

The absence of measures to privatise the Royal Mail certainly raises the relative profile of AEA Technology. There are, however, other reasons why its proposed privatisation is significant. As the largest establishment, now with some 7,000 staff,¹ identified in the Efficiency Unit's *Multi-Departmental Scrutiny of Public Sector Research Establishments* (HMSO, June 1994), the privatisation of AEA Technology has particular significance. It is

¹ "Atomic Energy Authority Bill Published" *DTI Press Release P/95/144* 2 March 1995

also seen by some as providing a possible model for any future privatisation of the nuclear power industry,² an issue currently occupying the DTI's nuclear review.

The interest the Government has in privatising some scientific concerns has been underlined in *Realising our potential* (Cm 2250 May 1993):

5.12 The Government believes that many of the services currently provided by its research establishments could be carried out in the private sector, and that privatisation is a realistic prospect for a number of establishments. However, there are other establishments for which privatisation is not currently a realistic option. Where establishments are to remain, for the time being, in the public sector, the Government will ensure that customers are provided with a high-quality service in a way that represents best value for money. Careful consideration will need to be given to holding the level of any such capacity to the minimum necessary to meet Government's statutory responsibilities and other essential requirements.

"Essential requirements", in the context of the AEA privatisation, will include the measures aimed at securing the safe decommissioning of the AEA's nuclear facilities, including its seven defunct research reactors,³ and the disposal of the associated radioactive waste. Similar considerations have been occupying interested parties during the course of the DTI's nuclear review and the DoE's radioactive waste management review. So far as the nuclear review is concerned, Nuclear Electric has proposed the privatisation of its newer power stations (the AGRs and the new Sizewell B PWR), including their associated decommissioning and waste liabilities, as well as the operation of the older Magnox reactors. However, under these proposals, the assets and liabilities of the Magnox reactors would remain in the public sector.⁴ In a move which would facilitate any such outcome, Nuclear Electric established last autumn the Liabilities Management Division in a restructuring that parallels an earlier one at the AEA.

² "Up and atom for privatisation" *The Observer* 20 February 1994 p.3

³ "Atomic energy body to be privatised" *The Independent* 14 February 1994

⁴ *Nuclear Engineering International* March 1995 p.16

B. United Kingdom Atomic Energy Authority

The UK Atomic Energy Authority is a public corporation established by the *Atomic Energy Authority Act 1954* (cap 32). On 1 April 1994 the Authority underwent a reorganisation into three divisions. The largest of these is the Commercial Division, now known as AEA Technology, employing some 4,100 people. UKAEA Government Division, with 1,200 employees, has as its prime role the management of the AEA's nuclear liabilities. A range of supporting services, including personnel, form part of the temporary Services Division. The work of this latter division, which in 1993-94 employed some 2,100 people, is expected to have been contracted out to the private sector and, in some cases transferred into the two remaining divisions, by 31 March 1995. The UKAEA has just agreed to sell a substantial part, known as Facilities Services, to Procord, a US-owned installations management company.⁵

The employment figures cited above are taken from the *United Kingdom Atomic Energy Authority Annual Review 1993-94* since when there have been additional job losses aimed at improving efficiency.⁶ In a 1994 interview for *ATOM* the chairman, Sir Anthony Cleaver, stated "... we have steadily reduced our overall staff levels, on a voluntary basis, from 10,000 in 1991 to about 7500 in April this year".⁷ Reacting to subsequent job losses, Mr Paul Foster, branch chairman of the Institution of Professionals, Managers and Specialists, has been reported as stating that "The only way they can increase profits at speed is to sack the people who have made the business successful".⁸ In the 1993-94 financial year, the UKAEA made an operating profit of £22.1 million, down slightly from the £22.8 million figure for the preceding year.⁹ The *Annual Accounts 1993-94* (UKAEA) actually show losses for the 1993-94 and 1992-93 financial years of £10.7 million and £46.9 million respectively, but these figures include significant costs associated with restructuring and reorganisation.¹⁰

1. UKAEA Government Division

UKAEA Government Division's main role is to manage the Atomic Energy Authority's nuclear liabilities, such as decommissioning redundant plant. One example is the Windscale Advanced Gas-cooled Reactor, the ongoing decommissioning of which is seen as test-bed for remote dismantling technology.¹¹ The processing of spent nuclear fuel and radioactive waste takes place at Government Division (GD) facilities at Dounreay, Harwell and Winfrith. GD

⁵ "Atomic authority division is sold" *Financial Times* 8 March 1995

⁶ "Jobs sacrificed in atomic sell-off" *The Guardian* 13 July 1994 p.13

⁷ "AEA Technology welcomes possible privatisation" *ATOM* March/April 1994 p.12

⁸ "Nuclear bidders to face vetting" *The Guardian* 3 March 1995

⁹ *United Kingdom Atomic Energy Authority Annual Review 1993-94*

¹⁰ "Atomic authority reduces losses" *Financial Times* 13 July 1994 p.8

¹¹ "WAGR waves farewell" *ATOM* January/February 1995 p.22

is also responsible for the UK's nuclear fusion research programme, specifically the contribution to the JET project at Culham. Nuclear fusion involves combining the central nuclei of two light atoms to release energy. All commercial nuclear power sources use nuclear fission, in which a heavy atomic nucleus (uranium or plutonium) is split, producing energy and highly radioactive waste products.

The total expenditure of UKAEA Government Division amounted to £286 million (with a net cost to the DTI of £204 million).¹² This comprised £13 million on core functions (including management of plant safety), £78 million on in-house operational responsibilities (including the UKAEA Constabulary and fusion) and £195 million on external expenditure via contractors. The largest contribution to the latter sum comes from the £110 million spent on decommissioning work. The cost of future decommissioning work figured prominently in views expressed by GD in its submission to the nuclear review:¹³

II Part A - UKAEA Government Division's Background and Operations

GD was set up on 1 April 1994. It is responsible for the management of a varied and complex range of nuclear facilities, the majority of which are already closed and constitute nuclear liabilities, so that GD is ahead of other UK nuclear organisations in addressing the issues of nuclear liability management.

The estimated time needed for an economically optimised programme of decommissioning GD facilities is roughly one hundred years. The estimated undiscounted costs of decommissioning, including the handling of irradiated reactor fuels and wastes, is £8bn within a range of £6-12 bn.

GD applies the following key operational principles to ensure both good value for the tax-payer and high standards of safety and environmental protection:

*use of a high-quality totally dedicated management team

*separation of planning and procurement functions from decommissioning operations, even when operations are in-house.

¹² *Organising for the Management of Nuclear Liabilities* UKAEA Government Division, September 1994

¹³ *Organising for the management of nuclear liabilities - an executive summary* UKAEA Government Division September 1994

* integrated risk-based planning to optimise value for money

*Majority of decommissioning via external contractors, maximising the proportion of the programme subject to competition

*use of contractors as managing agents to allow better control of uncertainties in decommissioning projects

*operation by and leasing to tenants of live active facilities

*rigorous safety and financial management systems

The long-term vision for GD is of a well-managed, independent, public-sector organisation recognised as the best in its field. It will be primarily an expert, lean procurement organisation providing a model for others who need to manage nuclear facilities and the organisation to which Government will choose to pass other UK public sector nuclear liabilities at the appropriate time.

2. AEA Technology

AEA Technology is the trading name of the commercial division of the UKAEA. If privatised, AEA Technology would be an internationally significant private sector engineering and science consultancy¹⁴. It is responsible for the AEA's commercial and business activities, and includes the National Environmental Technology Centre. The establishment of the latter involved a merger with the Warren Spring Laboratory, though fewer staff from WSL have transferred to AEA Technology than expected.¹⁵ According to written evidence presented by the IPMS to the Science and Technology Committees of the House of Commons¹⁶ and House of Lords¹⁷, "Only half the staff and functions moved to AEA, and they have been dispersed within the AEA rather than merged with one particular unit - the NETC as promised. A few staff have been moved to other posts in the DTI and the rest have gone on either voluntary or compulsory redundancy." One result, according to the IPMS, is that much valuable environment-related work has been lost.

¹⁴ "Atomic energy body to be privatised" *The Independent* 14 February 1994 UKAEA: private communication

¹⁵ *ENDS Report* 230 March 1994

¹⁶ *The Efficiency Unit Scrutiny of Public Sector Research Establishments* Science and Technology Committee HC 19-II 1994/95

¹⁷ *Efficiency Unit Scrutiny of Public Sector Research Establishments* Select Committee on Science and Technology HL Paper 5-II 1994/95

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The AEA chairman, Sir Anthony Cleaver, has identified one potential difficulty that AEA Technology might encounter in making itself attractive to potential private sector investors: "The real problem for the City is understanding what we do".¹⁸ A booklet entitled *Introducing AEA Technology* has doubtless been produced with such concerns in mind. There the type of services provided are summarised as follows:

- consultancy studies and technical assessments
- production and technical services
- design and project management
- shared benefit R&D 'club' programmes
- individually-tailored research projects
- supply of special products and equipment, including software
- training packages, workshops and information services
- joint ventures and licensing agreements

In the field of Aerospace and defence, work performed by AEA Technology includes the development and supply of propulsion units and other hardware for satellites. Electricity utilities make use of computer programming and other technical services sometimes as an alternative to performing the R&D internally. Research in the electronics field has, as an example, led to new technology being sold to battery manufacturers. Non-nuclear consultancy work includes the Energy Technology Support Unit (renewables, fossil fuels and conservation) whose main customers are currently the DTI and DoE. AEA Technology is also involved in the Heat Transfer and Fluid Flow Service, a research and design club with around 300 members, associate members and licensees. Heat transfer technology has applications ranging from the removal of heat from a nuclear reactor to the operation of a household refrigerator.

Given its nuclear power legacy, it is not surprising that AEA Technology also provides consultancy services to nuclear utilities wishing to improve the performance, lifetime and safety of their plants. AEA Technology has also been a contractor to UK Nirex Ltd, providing radiological safety assessments of the proposed underground repository for intermediate level radioactive waste.¹⁹ It is part of the Hunting BRAE Joint Venture

¹⁸ "Nuclear sell-off to split AEA" *The Observer* 24 April 1994 p.3

¹⁹ *Introducing AEA Technology* AEA 1994

Company awarded a contract to manage the Atomic Weapons Establishment. A subsidiary in the USA, AEA O'Donnell, has been established to exploit the market there for nuclear services. Details of other subsidiary undertakings, joint ventures and associated undertakings appear in the *Annual Accounts 1993-94* (UKAEA, pp41-2). The above is a sample of the type of work being performed. Fuller information is obtainable by reference to *Introducing AEA Technology* (1995) and the *United Kingdom Atomic Energy Authority Annual Review 1993-94*.

Of the 7,000 staff employed by the UKAEA, about 4,000 are attached to AEA Technology. This business has an annual turnover of around £250 million,²⁰ derived from the value of invoices issued for products and services, royalties and completed long term contract work.²¹ Last year's profits attributed to AEA Technology have been reported as being £10 million.²² Dr Peter Watson has been the Chief Executive of AEA Technology since 1 June 1994. In an interview with *The Engineer* (8 December 1994) he was reported as seeing the annual turnover rise to £400 million over the next three years. Of the present turnover, 41% comes from the UK Government, 23% from various overseas customers, and 18% from each of the UK public and private sectors.

C. History

An important development which influenced the proposed privatisation of AEA Technology was the publication, in 1992, of a Monopolies and Mergers Commission report on the service provided by the UKAEA.²³ This was described in a written answer (HC Deb 13 May 1992 cc144-5W):

UKAEA

Mr. Riddick: To ask the President of the Board of Trade when he proposes to publish the Monopolies and Mergers Commission report on the United Kingdom Atomic Energy Authority; and if he will make a statement.

Mr. Hamilton: The report is published today. The Commission were asked to carry out an extensive inquiry into the efficiency and costs of and the service provided by the United Kingdom Atomic Energy Authority (AEA).

²⁰ "Atomic Energy Authority Bill Published" *DTI Press Release P/95/144* 2 March 1995

²¹ *Annual Accounts 1993-94* UKAEA

²² "Nuclear bidders to face vetting" *The Guardian* 3 March 1995

²³ *United Kingdom Atomic Energy Authority. A report on the service provided by the Authority* Cm 1947, May 1992

The commission concludes that AEA is an organisation undergoing fundamental change, whose present structure had been in operation for only sixteen months when the inquiry started. They conclude that AEA could continue to make efficiency and quality improvements, and could generate higher net revenue. They have identified particular weaknesses in financial and project control, investment appraisal and marketing and make 58 recommendations for improving AEA's performance across all of its business.

The commission reports that it was none the less impressed by the expertise, enthusiasm and dedication of AEA's staff, and recognise the substantial progress made already with a radical change of culture. It notes AEA plans to cut its staff further, by a sixth, in order to contain costs and achieve a closer match of manpower to the needs of the businesses. It also says that future commercial viability will require significant growth and perhaps some financial reconstruction.

AEA is moving from a location-based management structure, providing a service on behalf of the Government, to a much more commercially driven business-based organisation. Its nine businesses (four nuclear and five industrial) have forecast external sales ranging from £14 million to £126 million in 1991-92. The new structure is still evolving and the commission found that it was too soon to reach firm conclusions about its success. The commission notes that AEA itself recognises that it still has a long way to go to complete its transformation into a fully commercial operation.

The commission notes two other general considerations. First, AEA's nuclear activities still account for some two-thirds of the external sales of AEA's businesses. Second, AEA's nine businesses, with activities ranging from nuclear research to petroleum services, rest uneasily in the public sector where their entrepreneurial activities are inevitably somewhat constrained. The commission has concluded that any decision on whether or not AEA's business activities should be removed from the public sector would be appropriate after completion of the review of nuclear power which the Government has announced it intends to carry out in 1994. It recognises that this would entail both some financial reconstruction and satisfactory arrangements for taking care of AEA's legacy of nuclear sites. Meanwhile the Commission have welcomed the steps AEA has taken, and is

continuing to take, to reduce its very high overheads, although they fear that under present arrangements overheads are likely to remain uncomfortably large.

The AEA will produce a preliminary response to the commission's findings within three to four months, in the light of which my right hon. Friend will make a statement.

According to Mr Richard Page (Parliamentary Under-Secretary of State for Industry and Energy) the UKAEA have now implemented almost all of the MMC's 58 recommendations and are making "excellent progress" with the remainder (HC Deb 2 March 1995 c.715W). Details are given in the UKAEA's *Third Response to the Recommendations by the Monopolies and Mergers Commission in their Report "United Kingdom Atomic Energy Authority: a Report on the Service Provided by the Authority"* (February 1995). The MMC report also included a brief summary of the history of the UKAEA which it is convenient to reproduce here:

Background

- 2.2. AEA was formally created by the Atomic Energy Authority Act 1954, at which stage it embraced all aspects of nuclear R&D. Initially it comprised three major groups—Research, Industrial and Weapons—centred on three sites at Harwell, Risley and Aldermaston. By the early 1960s the work of the Industrial Group (nuclear energy for civil purposes) had expanded substantially and AEA occupied 11 sites plus a London headquarters and had over 40,000 staff.
- 2.3. The Science and Technology Act 1965 contained a section which extended the research functions of AEA and allowed it to carry out non-nuclear R&D under contract for customers.
- 2.4. Under the Atomic Energy Authority Act 1971, AEA's isotopes production activities were separated to form Radiochemical Centre Ltd (now Amersham International plc). This Act also transferred the whole fuel processing activity, including sites and staff (except the fast reactor fuel fabrication and reprocessing plants at Dounreay), to BNFL. A further Act in

1973 transferred the Weapons Group to the MOD and modified AEA's power to undertake work on explosive nuclear devices. As a result of these changes the number of AEA staff declined to 13,000 located on six main sites.

- 2.5. From 1973 to 1986 AEA remained substantially unchanged. It was a largely vote-funded organisation working on nuclear power development, but with funding increasingly provided by the Central Electricity Generating Board (CEGB) and BNFL in respect of technical support services. AEA also developed its non-nuclear work, mainly centred at Harwell. Following a reorganisation in 1977 four main management units were created, a Northern Division (with headquarters at Risley and work at Dounreay, Springfields and Windscale), Harwell, Winfrith and Culham. The number of staff increased slowly to reach 13,900 by 1986.
- 2.6. The Atomic Energy Authority Act 1986 created an important change in the relationships between AEA and the Government and marked the start of a series of events leading to a major review of AEA's strategy. This Act put the finances of AEA on a trading fund basis, with the effect that it was no longer vote-funded but given an initial level of debt which was formally set, as were financial targets in terms of a ROCE and an external financing limit (EFL); it was required to secure its income through commercial agreements with customers. The DEN-funded nuclear programmes were to be carried out under Programme Letters.
- 2.7. The financial framework for AEA and Programme Letters is considered in detail in Chapters 4 and 14. In terms of organisation AEA initially retained its existing matrix structure with a programmes axis and a location-based management units axis. A team of Programme Directors, reporting to a Board member, was responsible for managing DEN Programme Letters, defining technical requirements and controlling the flow of money. The management units headed by directors, also reporting to a Board member, were responsible for carrying out the Programme Letter work and for seeking additional work in both nuclear and non-nuclear fields. Technical staff were 'owned' and managed by these

location-based units.

- 2.8. Over the next two years the Government took a series of decisions to reduce funding for AEA's major nuclear programmes. The preparations for privatising the electricity supply industry (ESI) (which until a late stage involved the nuclear generators) influenced the level of funding from two major customers-CEGB and BNFL-while the announcement in 1989 of a moratorium on future nuclear stations until at least post-1994 further substantially reduced work for AEA.
- 2.9. In the fight of these developments, in late 1988 AEA embarked on a major review of its strategy, assisted by consultants. The broad objective of the review was to identify the best way to achieve a secure future for AEA. Phase 1 of the review was completed in May 1989 and identified three options for the size, shape and focus of AEA by the year 2000. These were described as 'Cut to the Core', 'Pushing the Limits' and 'Potential Unlocked'.
- 2.10. All three options are discussed in more detail in Chapter 3. Having considered the options, and with the support of DEn, AEA took the decision to adopt the 'Pushing the Limits' strategy, whereby it would commercialise its nuclear and non-nuclear capabilities while remaining subject to existing legal constraints. It would need to focus on a small number of businesses in which it could offer distinctive technical solutions and services. The role of the sites (location-based management units) would be adjusted to cover primarily support services meeting the needs of the businesses, thus reducing their costs substantially, while the relationship between DEn and AEA would be restructured on more commercial lines. This resulted in a major reorganisation with the focus on a business-led structure which took effect in April 1990.

One key feature of the developments outlined above is the increasing moves towards growing commercialisation of the AEA's activities, notably in the institution of Trading Fund status by the *Atomic Energy Authority Act 1986*. This had the effect of requiring AEA to operate more like a company, with a capital structure and a requirement to deliver a return on capital

employed.²⁴ The "Pushing the Limits" strategy adopted on advice from the management consultants, McKinsey, began with the transfer of nearly half the staff into newly formed business units, both nuclear-related and industrial,²⁵ at the beginning of 1990-91.

Following the appointment, in 1993, of Sir Anthony Cleaver as chairman, the UKAEA drew up plans for a further reorganisation of the Authority into three separate divisions: the commercial, government and (temporary) services divisions. These proposals were formulated as Barclays de Zoete Wedd were carrying out a DTI-commissioned consultancy study into options for the future of the UKAEA. From 1 April 1994, the three divisions were established, with the Commercial Division becoming known as AEA Technology, the name the Authority had been trading as since 1989.²⁶ Sir Anthony's work at the AEA would have been performed in observance with the broad objectives set for him by Mr Tim Eggar (HC Deb 27 July 1993 cc941-3W).

D. Privatisation

The May 1992 report by the MMC acknowledged that the AEA's statutory powers restricted its range of non-nuclear activities. In particular the AEA may not manufacture its non-nuclear inventions and currently resorts to licensing agreements to recoup its investment.²⁷ The impetus for privatisation became firmly established when Mr Tim Eggar stated (HC Deb 1 April 1993 c.407W):

"In its report on the Atomic Energy Authority published last May, Cm 1947, the Monopolies and Mergers Commission recommended a further review of strategic options for the Atomic Energy Authority, including that of removing the Atomic Energy Authority's business activities from the public sector where practicable. As a first step, I am commissioning independent consultants to consider the practicability of privatisation and to advise on the main options. I shall decide how best to proceed in the light of the report and the Atomic Energy Authority's own views."

²⁴ *A history of AEA Technology* AEA 1995

²⁵ "AEA prepares to emerge from shadows" *Financial Times* 19 April 1993

²⁶ Text of a letter from the Secretary of State to the AEA Chairman, 21 February 1991 (reproduced in Cm 1947 p.194)

²⁷ "An atomic-powered privatiser" *The Engineer* 8 December 1994

Following this announcement, BZW were asked to carry out the study which had the following terms of reference:²⁸

1.2 Terms of reference

1.2.1 The terms of reference of the study were to consider the practicability of privatising the AEA and to advise on the main options. We were asked in particular to consider:

-how the AEA should be structured with a view to early privatisation, including consideration of the extent to which existing management systems and structures (including the salary system) meet private sector needs;

-the likely markets for AEA products and services and the extent to which an assurance of medium to long term contracts with Government would be needed by potential purchasers;

-how the sale might best be structured; possible purchasers; and the likely costs and proceeds from the options identified; and

-the timing of privatisation.

1.2.2 In addition to the terms of reference, the specification to the study stated that its required output was a written report, which focused on the key issues relevant to possible privatisation, including:

-the extent to which existing activities could be carried out commercially in the private sector;

-the suitability of the present structure for privatisation, and whether and if so what changes might need to be made;

-whether there would be advantages, in terms of ease in privatisation, in transferring some of the AEA's businesses to other public sector organisations;

-to what extent could the AEA's current liabilities be borne in a private sector structure, and how might investors react to them;

-how a sale might best be structured, with a view to the prospects for competition and for maximising the proceeds of sale;

-what options would minimise the cost to the Government of its responsibilities for the AEA; and

-how the Government's interest as a customer in having a choice of supplier of services should be taken into account.

Following this consultancy study, which was completed in the summer of 1993, Mr Tim Eggar held discussions with the AEA. His resulting decision to privatise the AEA's commercial activities (AEA Technology) was announced in a written answer on 17 February 1994:²⁹

Mr. Robert Jackson: To ask the President of the Board of Trade what decisions he has made about the future of the Atomic Energy Authority.

Mr. Eggar: The consultation study I announced on 1 April was completed in the summer of 1993. Since then I have held discussions with my colleagues and with the AEA management and staff representatives about the way ahead. I have concluded that the business activities in the AEA's new commercial division are capable of privatisation and that privatisation represents the logical next step in the AEA's ongoing commercial development. Decisions on the form of privatisation will be taken in due course, but there is no presumption that this should follow the present structure. The decisions taken will be based on performance in the market place and the extent to which the various options would meet customer requirements, enhance competition, help to improve United Kingdom competitiveness and maximise return to the taxpayer. Legislation for privatisation will be brought forward in due course.

Ownership of, and responsibility for, the safe management of

the AEA's nuclear liabilities, as well as certain other functions more appropriate to government, will remain in the public sector but contracts for decommissioning and radioactive waste management work will increasingly be put out to competition. I will be exploring how best to organise these activities in the longer term and will make further announcements when I am in a position to do so."

According to BZW their full report, which contributed to the above decision, contained a large amount of commercially sensitive information. At the request of Mr Eggar (HC Deb 14 July 1994 c.709W), BZW produced a summary of their recommendations which was deposited in the House of Commons Library.³⁰

BZW concluded that the part of the AEA which could not be privatised, the "Residual AEA", would have to retain most facilities and all nuclear site licences. This Residual AEA, which appears to correspond quite closely to UKAEA Government Division, would operate as the DTI's managing agent whose most important responsibility would be decommissioning and radioactive waste management operations (DRAWMOPS). BZW also recommended "...contracting out the UK national fusion research programme", with Residual AEA acting as a "procurer and not a deliverer of fusion R&D." As nuclear fusion research was seen as a potential distraction from the prime decommissioning objective of Residual AEA, one suggestion put forward for the longer term was the transfer of fusion responsibilities to another public sector organisation such as a research council. On the question of privatisation BZW wrote:

Privatisation issues

2.7.1 AEA Management has expressed the view that Commercial Division should be privatised as a single entity. The reasons put forward for this are that the single entity would derive maximum benefit from synergies between the businesses and that independence of the entity will be an important factor for some of the AEA's customers. We are not wholly persuaded by this argument and believe that while synergies do exist, they would not preclude a series of individual sales.

2.7.2 Given the legislative timetable that would be required, the

³⁰ *Report for the DTI on Options for the future of AEA Technology* BZW, Deposited Paper 288 (3S), 14 July 1994

earliest that any core part of the AEA can be privatised is the summer of 1995. As a result, it will be possible for the DTI to assess, by then, the extent to which Commercial Division has developed into an organisation capable of being sold as a single entity. It will be important, therefore, that the ways in which the AEA restructuring proposal is implemented do not rule out any of the recommendations set out in this report.

2.7.3 As matters stand, our preference would be for Commercial Division to be privatised as a series of separate sales, principally because there is no obvious buyer for the whole of the Division. However, interest has been expressed to us in buying parts of the AEA. In our opinion therefore, because certain individual parts could have special value to certain purchasers, greater proceeds could be raised for Government if parts of Commercial Division were privatised separately.

2.7.4 Our advice, however, is that the DTI should keep its options open until it has had a chance to judge how Commercial Division is performing. We do not believe that the lack of early Government endorsement should prevent the AEA from being able to recruit and incentivise management. There is always an element of uncertainty attaching to any privatisation. In this instance, attracting new management could be achieved whether Commercial Division is sold in whole or in parts.

The restructuring of the UKAEA to form three divisions (including AEA Technology), proposed by the Authority while BZW were completing their study, could be seen as indicative of the strong management preference for privatisation as a single entity.³¹ Sir Anthony Cleaver was reported in July 1994 as preferring a flotation to a trade sale on the grounds that the latter might deter potential clients from placing commercially-sensitive contracts. He was at the same time quoted as saying that a management buy-out was "not being discussed seriously".³² If finding a single buyer for AEA Technology was to prove difficult, perhaps on account of the size of the prospective company,³³ then this would argue in favour of either fragmentation into separate businesses or a flotation. A public issue of shares would be consistent with government policies to encourage share ownership and greater awareness of science among the general public. One is reminded of the 24.6 times subscribed

³¹ "AEA Technology welcomes possible privatisation" *ATOM* March/April 1994 p.12

³² "Jobs sacrificed in atomic sell-off" *The Guardian* 13 July 1994 p.13

³³ "AEA spells out its hopes for sell-off" *The Engineer* 8 April 1993 p.12

offer of shares in Amersham International, an offshoot of UKAEA, in February 1992.³⁴

No decisions have yet been taken about the form the privatisation will take, though maximising the proceeds from the sale, estimated as lying between £200 million³⁵ and £250 million,³⁶ will be the central consideration. Opposition to any sale has been voiced by the Transport and General Workers Union and John Billard of the IPMS union who has been quoted as saying: "The cost in lost jobs, redundancies and future charges to government will far exceed AEA's market value".³⁷ The IPMS has also criticised the privatisation proposals in a memorandum submitted to the House of Commons Science and Technology Committee:³⁸

3.14 In the case of AEA which is already a Trading Fund and operates at arm's length from government, the rush to privatise the "commercial" arm of AEA Technology and separate it from a government owned decommissioning authority requires careful review from several angles. Firstly, it will remove from government a major pool of expertise on nuclear and other energy matters other than those relating to decommissioning.

3.1 5 Second, there is a risk of early business failure for the privatised part of AEA, which would cause extra cost and difficulty for the Government. This is because increasing profit projections for Commercial Division rely on exploitation of monopoly situations that currently exist, for example in the areas of decommissioning and waste management. Without the guarantee of long term Government contracts after flotation, the future of the Division would be at risk. In addition many of the potentially commercial activities assigned to Commercial Division risk failure since they are based on synergies with part of Government Division that would no longer be available to them. They would be unable on their own to demonstrate profitability at a sufficient level in the early stages and, under private sector criteria, would be closed down. Even if it does survive the privatised commercial division is likely to have to change its character to do so-doing consultancy rather than R&D and potentially

³⁴ *Privatisation* House of Commons Library Research Paper 93/85, 11 August 1993

³⁵ "Nuclear sell-off to split AEA" *The Observer* 24 April 1994

³⁶ "Nuclear sale gets mixed reaction" *The Guardian* 18 February 1994

³⁷ *ibid.*

³⁸ *The Efficiency Unit Scrutiny of Public Sector Research Establishments* HC 19-II 1994/95. Similar evidence was also presented to the House of Lords Select Committee on Science and Technology, HL Paper 5-II 1994/95

moving out of the nuclear field all together.

It has also been argued that environmental groups will be opposed to placing the NETC's work, which includes monitoring and abating pollution, in the private sector.³⁹ As noted earlier, the National Environmental Technology Centre is part of AEA Technology and includes functions once performed by the Warren Spring Laboratory.⁴⁰

E. The Bill

The purpose of the *Atomic Energy Authority Bill* is "to make provision for the transfer of property, rights and liabilities of the United Kingdom Atomic Energy Authority to other persons..." (HC Deb 1 March 1995 c.1048). Its publication on 2 March was greeted with hostility by both the Labour Party, whose Trade and Industry Spokesman (Dr Jack Cunningham) was reported as saying that the privatisation lacked any justification,⁴¹ and the IPMS union which has some 2,700 members involved.

Even if one accepted the rationale for privatisation, discussed in earlier sections, then a question has been posed as to whether any legislation is strictly necessary to achieve this. A brief news article in the December 1994 issue of *Nuclear Energy*⁴² claimed that the *Atomic Energy Act 1954* (cap 32) allows the UKAEA, which it established, to have a wholly-owned subsidiary. The core nuclear activities would have to be kept at the UKAEA, with the commercial activities transferred to a separate company. This reference to the 1954 Act is probably a reference to the fourth provision of the first schedule which states "It shall be within the capacity of the Authority as a statutory corporation to do such things and enter into such transactions as are incidental or conducive to the exercise and performance of their functions under this Act." If, so the argument goes, AEA Technology were to become a subsidiary company, wholly owned by the UKAEA, then this would allow greater commercial freedom to the former. However, the subsequent sale of such an integral part of the UKAEA's present activities to the private sector would seem to require legislation. This contrasts with the case of an executive agency like the Laboratory of the Government Chemist.

³⁹ "Atomic energy body to be privatised" *The Independent* 14 February 1994

⁴⁰ *Introducing AEA Technology's National Environmental Technology Centre* AEA (1994)

⁴¹ "Nuclear bidders to face vetting" *The Guardian* 3 March 1995

⁴² "Privatisation without legislation" *Nuclear Energy* December 1994 p.327

According to a DTI press release,⁴³ the main features of the *Atomic Energy Authority Bill* (Bill 61 1994/95) are:

- to allow the commercial activities of the Authority to be moved by transfer scheme to private ownership;
- to enable the Authority to prepare itself for this privatisation;
- to ensure that employees' pension rights are protected on transfer to the private sector

The Bill is also styled as containing "largely standard form privatisation provisions", leaving open a variety of options for the ultimate privatisation of AEA Technology: "as a single whole or in parts; by the Authority or by the Secretary of State; by flotation or by trade sale; incorporated or unincorporated."

Clause 1 requires that the UKAEA, on direction by the Secretary of State, "make a scheme or schemes providing for the transfer to any person or persons" of specified property, rights and liabilities. Any such transfer scheme may not include a nuclear site licence or the freehold interest in land associated with such a licence. In other words, responsibility for complying with the safety requirements of the HSE's Nuclear Installations Inspectorate will continue to rest with the statutory UKAEA. Under **clause 1(4)** "The person or persons to whom anything is transferred by a transfer scheme may be or include one or more companies formed or acquired by the Authority or the Secretary of State for that purpose." Detailed provisions with respect to transfer schemes appear in Schedule 1.

Schedule 1 includes a requirement that certain debts owed to the Secretary of State may only be transferred to a company which is either wholly owned by the Crown or a subsidiary of the Authority. It further provides for transferred employees to be covered by the provisions of the *Transfer of Undertakings (Protection of Employment) Regulations* SI 1981/1794, under which their terms of employment will initially be the same as those in the UKAEA. Entitlements for the compensation of third parties affected by any transfer and measures identifying the property which may be subject to such transfers are two of the other details dealt with by the Schedule.

⁴³ "Atomic Energy Authority Bill" DTI Press Release P/95/144 2 March 1995

Research Paper 95/32

The powers of the Secretary of State to direct the Authority to make transfer schemes are detailed in **Clause 2**. No transfer scheme could take effect without the approval of both the Secretary of State and the Treasury, and the former may introduce modifications or, if dissatisfied, make his own scheme. The UKAEA would have to be consulted whatever the Secretary of State's action [**clause 2(7)**]. A transfer of properties, rights and liabilities to a person could be made without that person's consent if it "appears to the Secretary of State to be made for purposes that are no more than supplemental or incidental to the other provisions of the scheme" [**clause 2(6)(b)**]. The "person" referred to could be construed as being a reference to nuclear companies which are not wholly owned by the Crown or the Authority.

Clause 3 provides the UKAEA with powers "to do anything which in their opinion is appropriate" for facilitating privatisation.⁴⁴

Clause 4 would allow the Secretary of State or, with his consent, the Authority to enter into transfer agreements with third parties, such as private sector purchasers. The consent of the Treasury would be required for all such agreements which would, in particular, involve payments to the UKAEA or Secretary of State.

Clause 5 requires that the Authority cooperate with the Secretary of State in connection with transfer schemes. This would also impose an obligation on the Authority to secure, "as far as practicable", the assistance of any of their subsidiaries, including the provision of relevant information.

Schedule 2, referred to in **clause 6**, provides details of the financial arrangements for and controls on successor companies while they are publicly owned. Following the vesting in a successor company of properties, rights and liabilities, the Secretary of State may direct that company to issue shares and other securities to him, the Treasury or the Authority. The Government would also be able to acquire, at any time, securities of a successor company. The Schedule also deals with statutory accounts, arrangements for the definition of profits and the payment of dividends, and temporary restrictions on borrowing by the companies. Government loans to and Treasury guarantees for other loans obtained by successor companies wholly owned by the Crown will have an overall limit of £100 million.

⁴⁴ "Atomic Energy Authority Bill Published" *DTI Press Release P/95/144* 2 March 1995

Clause 7 would prevent the Authority from disposing of shares in successor companies, except with the consent of the Treasury and Secretary of State. In reaching a decision to dispose of shares, the Secretary of State would no longer be bound to consider the impact on the development of atomic energy, presumably a reflection on the growing proportion of non-nuclear work performed by the UKAEA.

Clause 8 gives effect to **Schedule 3** which deals with pensions. Existing Authority pension schemes would continue to apply to employees of successor companies for so long as the companies remain in the public sector. When a successor company is sold to the private sector, then staff would be required to leave the Authority's pension schemes. However, employees will be entitled to exercise an option of joining another scheme whose overall provisions, in combination with other benefits arising from new conditions of employment, "are no less favourable" [**paragraph 7(1)(b), Schedule 3**] than the Authority scheme at the time of the transfer of ownership. Employee representatives would have to be consulted on these matters.

Clause 9 would allow the Secretary of State to make an order, with Treasury consent, to extinguish the Authority's National Loans Fund debts and those of a successor company while publicly owned. Any such order would be exercisable by statutory instrument subject to annulment by either House.

Clause 10 amends section 1 of the *Atomic Energy Authority Act 1954* which specifies the membership of the UKAEA. The minimum number of members would be reduced from seven to four. The clause would also remove the requirements in section 1 of the 1954 Act that the Authority's members should have experience in certain areas (atomic energy, administration and finance, organisation of workers). The motivation for this may be to provide greater flexibility in the appointment of the members of a "core" Authority resembling the present UKAEA Government Division.

F. Glossary

AGR	advanced gas-cooled reactor
BZW	the merchant bank, Barclays de Zoete Wedd
IPMS	Institution of Professionals, Managers and Specialists
JET	Joint European Torus, an experimental controlled nuclear fusion "reactor"
NETC	National Environmental Technology Centre
PWR	pressurised water reactor
R&D	research and development
ROCE	return on capital employed

G. Further reading

United Kingdom Atomic Energy Authority Annual Review 1993-94

Annual Accounts 1993-94 UKAEA

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