9 Restructuring programme

Introduction

9.1. In this chapter we describe the development of the restructuring programme (paragraphs 9.2 to 9.14) and review the control, monitoring and initiating arrangements (paragraphs 9.15 to 9.22). We then go on to describe the costs which are borne by DEn (£113 million) and those which fall to AEA (£279 million), making a total of £392 million (paragraphs 9.23 and 9.24). Details of the make-up of total costs of the restructuring programme showing that the major element comprises early retirement and other personnel-related costs are given in paragraphs 9.25 and 9.26 and the impact of funding the restructuring programme is discussed in paragraphs 9.27 to 9.33. Our conclusions and recommendations are provided in paragraphs 9.34 to 9.38.

Evolution of the restructuring programme

9.2. As explained in Chapter 2, over the last four years Government policy towards nuclear research and nuclear electricity generation has undergone a number of changes which have resulted in a significant scaling down of AEA's nuclear activities. Some of the facilities were closed and manpower requirements declined significantly. The restructuring programme was a response to these developments, as well as to the need to create an organisation designed to achieve commercial success.

9.3. AEA said that the restructuring programme went through three related phases.

9.4. In the first phase, from 1986 to 1988, AEA sought to reflect the greater emphasis on a commercial approach implied by the new trading fund status by looking at ways of streamlining the existing organisation and reducing costs. The objective was both to improve competitiveness and profit and to match capacity and expected trends in customer demand. A number of inquiries into the organisation took place during the period, in particular the review of the Northern Research Laboratories which finally led to a decision to run down AEA's presence at Springfields. There was also a scrutiny of Harwell's overheads and the first review of CHQ.

9.5. The second phase started during 1988 when it became clear that Government funding decisions were reducing support for AEA further and faster than had been envisaged when the trading fund was set up. In addition the privatisation of the ESI raised the question of AEA's role in nuclear power development. AEA with the agreement of DEn carried out a fundamental review of objectives and strategy, as described in Chapter 3.

9.6. Decisions already taken by the Government in 1988 to cut fast reactor and fusion R&D funding gave added weight to the restructuring programme, with emphasis on cost reductions in both direct and overhead costs to compensate for the loss of income in areas which had previously been core to AEA's activities. At the same time work was continuing on defining the restructuring plans to implement the SIP report.

9.7. The process of definition was not, according to AEA, substantially complete until May 1991. The third phase of the restructuring programme is the implementation of the agreed plans and this is now under way.

9.8. The route for considering the evolving restructuring plans with DEn has been the AEA Corporate Plan and subsequent PES-related discussions. The timing of the AEA Corporate Plan has not been coincident with the restructuring programme estimating process, and AEA said that estimates in both its 1990 and 1991 Corporate Plans were incomplete. AEA has therefore given DEn a succession of updates which have shown increases in the restructuring estimates. AEA said that two factors were the prime contributors to the increases, namely:

(a) the process of refining the earlier, provisional business structure and subsequent specific planning had revealed a much more uneven restructuring pattern than originally envisaged; and

(b) the decisions in particular to close the Harwell MTRs and the Winfrith SGHWR had not been foreseen on this time-scale, nor had the significant reductions in funding for the reactor safety programme following the Government decision to transfer responsibility for that funding from DEn to HSE, and all these required a further significant downsizing of some areas of AEA.

9.9. Table 9.1 shows the restructuring costs charged in the forecast profit and loss accounts in successive AEA Corporate Plans submitted to DEn. The actual charge in the profit and loss account, where available, is given for the purposes of comparison. The table shows how widely the information submitted to DEn has varied.

TABLE 9.1 **Comparison of restructuring costs charged in forecast profit and loss accounts in AEA Corporate Plans**

£ million

Years of Corporate Plan	*Date submitted to DEn*	*1988/89*	*1989/90*	*1990/91*	*1991/92*	*1992/93*	*1993/94*	*1994/95*
1988-93	March 1989	21.1	-	-	-	-	-	-
1989-93 (revised)	July 1989	-	5.0	5.0	-	-	-	-
1990-94 funding requirements (net of grants)	March 1990	-	-	44.7	14.9	17.4	13.5	-
1991-95	March 1991	-	152.5*	66.7	(5.3)†	-	(2.4)†	(2.5)†
Actual out-turn‡		40.0	153.6	49.1				

Source: AEA.

*This is the actual figure shown in the profit and loss account; a further provision of £1.1 million was shown as an operating charge.

†Credits to the programme.

‡These items, together with the 1987/88 provision of £20 million, bring the total charge to the profit and loss account to £262.7 million.

9.10. AEA was asked to provide details of the evolution of the restructuring cost figures for each of the stages that were agreed with DEn. Table 9.2 sets out this information.

TABLE 9.2 **Evolution of restructuring cost estimates**

Event	*£ million*
(a) *Spring 1989: SIP estimate* The original estimate by outside consultants was very broad-brush, covered only early retirement costs and did not extend beyond the end of the century.	65 (gross)
(b) *Summer 1989: Revised 1989/93 Corporate Plan* Carried out on broadly the same basis as *(a)*, but with inflation added for the Plan period.	70 (gross) or 10 (net)*
(c) *Autumn 1989: Discussions with DEn* Assumed marginal phasing back of some early retirements, but more significantly a first attempt at estimating non-early retirement-related restructuring costs (about £11.5 million).	85 (gross)†
(d) *March 1990: 1990/94 Corporate Plan* With closer definition of business and site structures, there was a realisation that restructuring would be more complex than originally assumed, and that phasing would not be evenly distributed but would be more concentrated in earlier years. At the same time, a number of factors were reducing AEA's trading volume prospects, including in particular the Government decision not to order new nuclear power stations for at least five years; and a similar Government cut-back which led to AEA's decision to close both MTRs.	76 (net)
(e) *Summer/autumn 1990: Discussions with DEn* A further decision had been made by this stage to close SGHWR earlier than planned; and the likely effects had become clearer of the probable reductions in R&D funding following transfer of responsibility for reactor safety funding from DEn to HSE. At the same time, businesses in particular had refined their first shots at their likely business-driven requirements; and AEA had realised that post-Plan restructuring costs had been significantly underestimated.	150 (net)
(f) *March 1991: 1991/95 Corporate Plan* During 1990/91, businesses and sites continued their definition and refining of restructuring costs. Businesses now had fully established management teams and some experience, so that they could arrive at more confident estimates of what restructuring was needed. Sites were able to arrive at better definitions of likely `customer' demand (ie mainly the businesses), which demonstrated a need for further restructuring to get into a position to meet that demand.	190 (net)
(g) *Summer 1991: Discussions with DEn* Business and site work on their restructuring provisions had not been completed by the time the Corporate Plan was submitted. Subsequent work identified increases in estimates, mainly at Culham/Harwell and Risley, and some reassessment of how much of the restructuring was likely to be covered by grant. This was essentially the basis on which provisions were made in the 1990/91 annual accounts.	220 (net)‡

Source: AEA.

*`Net' means net of grant from DEn.

†Because discussions with DEn have concentrated on cash effects, these estimates *omit* restructuring-related asset write-downs. Total write-downs amount to £59.7 million. About £34 million of this was known by summer 1989 (included in the 1988/89 annual accounts); and another £22 million by autumn 1990 (included in the 1989/90 accounts).

‡£220 million plus the asset write-down of £59.7 million and the DEn grant of £112.7 million brings the total to approximately £392 million.

9.11. AEA explained that at the inception of the restructuring programme it did not agree a total cost for the whole programme with DEn. DEn informed us that `... the programme has developed as policy decisions have been taken over the past three years or so. Estimates have inevitably been revised to reflect the most up-to-date information available'.

9.12. At no stage as the restructuring programme costs increased were any targets fixed by either AEA or DEn for savings to be achieved from the planned expenditure. AEA told us that the process was not one where a rigorous quantitative analysis at each stage would have been possible but that each restructuring exercise was costed and broad business objectives defined before inclusion of an appropriate provision in AEA's accounts. Analysis at the time of the SIP showed that the so-called `Cut to the Core' option involved larger reductions in manpower. AEA said that this option would have incurred approximately twice the costs of the current programme, and that that, in one sense, was a measure of savings arising from following the current programme.

9.13. Whilst there was thus no attempt to specify the return on the investment in restructuring costs, AEA did establish programme aims. These were:

- to reduce cost levels in areas where reductions in business had resulted from Government decisions;
- to reduce cost levels as a result of the closure of specific business segments;
- to reduce operating costs by improving productivity;
- to reorientate AEA to a business-led approach; and
- to reduce service levels in response to a changed programme of work.

9.14. In both 1990 and 1991 the Authority Board indicated to DEn that they were unwilling to endorse signature of the annual accounts without a better indication of the availability of funds to support the very large restructuring provisions in the accounts. DEn provided AEA with letters of comfort in September 1990 and July 1991 to enable the Board to approve the 1989/90 and 1990/91 accounts. These letters stated that DEn and HMT supported the restructuring programme as an effective way of reducing costs and indicated the level of funding DEn was prepared to commit for 1990/91 and 1991/92. No specific commitment to the restructuring programme for future years has been made by DEn beyond the general statement of support.

Control and monitoring procedures

9.15. The Chief Executive of AEA is the Board member with responsibility for overall control of restructuring. He has recently organised a quarterly restructuring review meeting which includes the Executive Director Finance, the Managing Director, Sites and Personnel, and Heads of Financial Planning and the Manpower Unit.

9.16. Given the evolving scale of the restructuring exercise, in order to ensure consistency of approach throughout AEA, a `Restructuring Guidance' was issued in late November 1990 by CHQ Finance. This guidance note pulled together and formalised previous instructions. It covers the definition of restructuring costs in detail, and the procedure for planning and gaining approval for restructuring costs, and for monitoring.

9.17. Costs have been agreed with DEn for the areas covered by grant. These include fast reactor work, fusion and SGHWR. Also covered are restructuring costs consequent upon the transfer of responsibility for funding nuclear safety-related work to HSE and withdrawal of Government funding of the Public Information Programme Letter. As a general principle, where a facility has been closed because of a Government decision, the restructuring costs fall to DEn. The criteria for determining DEn grants to cover restructuring costs are agreed with AEA on a case-by-case basis. Details are incorporated in a Restructuring Programme Letter. At Appendix 9.1 an extract from such a Programme Letter illustrates the kind of criteria adopted.

9.18. Powers to approve restructuring projects were delegated:

- Up to £0.5 million	Business Chief Executive/Site Director
- £0.5 million to £2 million	MD Businesses/MD Sites and Personnel, or at their discretion, AEM
- Over £2 million	AEM, or at their discretion, the Board

The Board set a deadline prohibiting the raising of further restructuring cost provisions beyond the finalisation of the 1990/91 annual accounts. Bids for restructuring costs put forward subsequent to the deadline now require the approval of AEA's Chief Executive, irrespective of size.

9.19. Regular reporting requirements have been established. At each quarter-end sites and businesses have to supplement the standard restructuring reports with a detailed commentary to Finance Branch and the relevant Managing Director to cover:

- the extent to which forecast out-turns include firm commitments of expenditure;

- the overall degree of confidence placed in the forecast out-turn prediction;

- problem areas or areas where progress is faster than previously planned;

- explanations of changes in provisions; and

- any other areas of difficulty or success.

A summary of the major variances on provisions and funding requirements is included in the quarterly accounts paper to the Board and a monthly update is also provided.

9.20. Since 1989/90 DEn has required an annual assurance in the form of an NAO audit certificate that only legitimate restructuring costs chargeable to DEn have been invoiced in the course of the year.

Initiating restructuring programmes

9.21. AEA stated that the restructuring programme had been mainly dependent on corporate initiatives with business Chief Executives and Site Directors, supported by guidance from central management, responsible for translating these into actual restructuring plans. Business Chief Executives and Site Directors are accountable for restructuring activities and costs in their area. For the sites the `Pushing the Limits' strategy and planned closures have translated into the need to provide the businesses with facilities and services at the right price. This has meant that efficiency savings over and above those matching the reductions in volume have been required. The changes needed to achieve such savings have been judged to be within the restructuring programme.

9.22. As mentioned earlier, business Chief Executives and Site Directors have had authority to approve restructuring projects up to £0.5 million. Thereafter the appropriate Managing Director's or progressively the AEM's approval is required.

Restructuring programme costs

9.23. The current total cost of the restructuring programme is estimated at £391.5 million, made up of:

(a) DEn grant-£112.7 million.

(b) To be borne by AEA-£278.8 million.

Table 9.3 shows the way in which the costs have been incurred and are estimated to arise in future years. A detailed analysis of the costs is given in Table 9.4. AEA stated that this amount of £391.5 million would account for the restructuring that could be foreseen, with possibly three important exceptions, all of which AEA would expect to be covered by grant from DEn:

(a) the closure of PFR. An estimate had been included in the restructuring Programme Letter for the current year, giving a cost for 1994/95 of £15 million. AEA told us that the figure would undoubtedly have to be refined nearer to the date of closure;

(b) the commitment to take back staff working on the JET project; and

(c) proposals for more contracting out on the DRAWMOPS programme, which could affect the level of the industrial workforce, in particular in the D&R business.

TABLE 9.3 **Phasing of restructuring programme costs**

	Borne by AEA				
	Cash costs	*Non-cash*	*Total*	*DEn grant*	*£ million*
Actual					
1988/89	1.5	33.7	35.2	11.6	
1989/90	9.8	21.9	31.7	24.8	
1990/91	40.9	4.1	45.0	23.5	
Actual total	52.2	59.7	111.9	59.9	
Forecast					
1991/92	57.4	-	57.4	19.3	
1992/93	41.9	-	41.9	6.2	
1993/94	17.2	-	17.2	4.0	
Later years	50.4	-	50.4	23.3	
Forecast total	166.9	-	166.9	52.8	
Total	219.1	59.7	278.8	112.7	
Programme total			391.5		

Source: AEA.

9.24. The forecasts included in the figures shown in paragraph 9.23 are set at price levels expected to apply when the costs are actually incurred. However, the 1990/91 annual accounts show a provision expressed at 1990/91 prices since provision at future price levels would not, in the view of NAO as AEA's auditor, properly reflect the time value of money nor comply with best practice. A contingency element of £10.8 million has been added to take into account the fact that the restructuring cost calculations are based upon assumptions that are inherently imprecise. The restructuring charges to the profit and loss account for the years 1987/88 to 1990/91 amount in total to £262.7 million but AEA's profit and loss account may well have to bear further charges to cover inflation, and adjustments to reflect amendments to underlying assumptions.

9.25. The restructuring programme cash costs are collected and monitored under the following headings:

(a) Early retirements-costs for new early retirement cases in the particular year in question.

(b) Net continuing annual payments-a continuing annual payment from the early retirement date to normal retirement age, together with any enhancement of pension after retirement age. From this are netted off lump sums refunded from the appropriate superannuation fund when normal retirement age is reached to recover the lump sums paid on early retirement.

(c) Relocation/retraining-this covers the relocation and retraining of employees, but costs of about £4.3 million are included under this heading for 1991/92 arising from installation of the new FIS.

(d) Relocation (goods and facilities)-this includes qualifying demolition and refurbishment costs as well as costs of moving assets.

(e) Under-recoveries-this broadly covers those overhead support service costs in excess of the requirements established by the businesses for such services.

9.26. Table 9.4 shows the split of restructuring costs in the categories described in paragraph 9.25, distinguishing between those costs to be borne by AEA and those costs covered by DEn grant. The totals are summarised cash of the year costs.

TABLE 9.4 **Analysis of restructuring programme costs**

			£ million
	Borne by AEA	*DEn grant*	*Total*
Early retirements	57.6	56.8	114.4
Continuing annual payments (net)	55.8	35.0	90.8
Relocation/training	28.7	1.6	30.3
People-related costs	142.1	93.4	235.5
Relocation (goods and facilities)	41.4	13.2	54.6
Under-recoveries	35.6	6.1	41.7
Asset write-downs	59.7	-	59.7
Total programme cost	278.8	112.7	391.5

Source: AEA.

The people-related costs of the restructuring programme total £235.5 million or 60 per cent of the total programme. According to AEA, staff reductions from 1988/89 to 1990/91 totalled 3,960, with a further 1,500 projected for the rest of the programme. A relatively high proportion of the staff rundown was on SERT. In the SIP report the estimated redundancy costs under the `Pushing the Limits' option for the period 1990 to 2001 was put at £65 million (or a net present value, at 8 per cent, of £45 million). The staff reductions associated with that figure were 3,750, or from 11,600 in 1989/90 to 7,850 in 2000/01. AEA explained that the SIP figures were rough estimates based on a relatively slow rundown of staff and without a full projection of all likely costs. It recognised that this appeared to be a feasible scenario at the time but had to be quickly rejected as a result of the rapid rundowns and cost reductions required by the decisions described at the beginning of this chapter. A more detailed review of the redundancy programme is given in Chapter 8.

Funding the restructuring programme

9.27. Of the £279 million costs of restructuring which are to be borne by AEA, some £60 million are non-cash costs, being write-downs of capital and other assets. The balance of £219 million consists of cash costs. Some of the balance is already spent but the major part of the remainder, of which AEA said £80 million was not yet committed, is to be incurred in the three years 1991/92 to 1993/94. AEA expects that the surplus on its internally-generated funds, over and above that required to meet the normal business operations, will fall far short of the funds required to meet the restructuring programme costs. Further borrowing in the years up to 1993/94 will, therefore, be required to cover the shortfall.

9.28. AEA's current projections show that total borrowings will peak at approximately £204 million by March 1994. Some £48 million of its commencing capital debt is included in this total borrowings figure so that the borrowings arising from the restructuring programme costs netted with internally generated funding surpluses amount to £156 million at that date.

9.29. AEA carried out a `broad-brush' exercise early in 1991 to assess when it could be expected to be free of debt. The exercise indicated that this would be around the end of 2001/02, although the forecast of total restructuring expenditure has increased since the exercise was done. AEA estimated that it will be between 1994/95 and 2001/02 before it can stop refinancing loan repayments by new loans.

9.30. The achievement of the loan repayment by the target date is heavily dependent on the assumption that increased profits will meet the higher interest payments and fund the cost of restructuring. Table 9.5 sets out the projected profit and loss for the years 1991/92 to 1994/95 taken from the 1991/95 AEA Corporate Plan (March 1991).

TABLE 9.5 **Projected profit and loss account**

£ million

	1991/92	*1992/93*	*1993/94*	*1994/95*
Turnover:				
DRAWMOPS	110.1	122.9	113.3	133.5
UK private sector	47.6	49.7	59.0	70.5
Overseas	36.9	44.5	54.8	67.4
Other	264.3	271.8	274.5	226.8
Total trading income	458.9	488.9	501.6	498.2
Costs	436.5	462.1	469.5	462.7
Trading net contribution	22.4	26.8	32.1	35.5
Non-trading income	0.3	0.2	0.3	0.3
Net profit before interest	22.7	27.0	32.4	35.8
Less interest	13.7	16.2	17.4	17.0
Net profit after interest	9.0	10.8	15.0	18.8

Source: AEA.

9.31. During the period 1991 to 1995 the AEA Corporate Plan shows sales held to approximately the same level each year and costs reduced by at least the level of cost inflation. Implicit in AEA's broad-brush estimate beyond this period is the equally broad-brush assumption that the relationship between trading income and costs and therefore net trading contribution will remain broadly the same. No further non-grant-funded redundancy or restructuring is envisaged in this scenario. The last major spends in the restructuring programme are forecast for 1993/94. Further cost improvements would therefore be largely dependent on increased productivity and effectiveness. The maintenance of overall turnover levels assumes that `lost' turnover would continue to be covered by increases in DRAWMOPS work, and by expanded sales to the United Kingdom private sector and in overseas business.

9.32. Profit maintenance, let alone improvement, will be heavily dependent on AEA's ability to:

(a) raise profit margins on sales;

(b) at the same time maintain or increase turnover; and

(c) continue to reduce costs.

There is also the assumption that there will not be a withdrawal from a major business activity, or if there is that the savings from such withdrawal will cover the associated costs.

9.33. As already mentioned, AEA's broad estimate is for all loans raised to fund the restructuring programme to be repaid over the period to 2002. The calls on the funds generated by the operation of the business (ie the net profit) will include the repayment of the original loan capital, capital expenditure after offsetting depreciation and assets sales proceeds, and the repayment of the loans raised for the restructuring programme. Table 9.6 provides estimates of these funding requirements.

TABLE 9.6 **Estimated average annual funding requirements**

	£ million
Repayment of the original loan capital	4.0
Capital expenditure-difference between spend less sales of assets and depreciation, say*	5.0
Working capital†	-
Average annual repayment of balance of loan after deducting the starting loan capital-£156 million over the 8 years 1994/95 to 2001/02	19.5
Total	28.5

Source: MMC from data supplied by AEA.

*Estimates based on 1991/92 to 1994/95 Corporate Plan.
†It is assumed that working capital requirements will remain constant.

The interest charge, which is deducted before striking net profit, will fall as the loan repayments occur. An estimate of the average reduction in interest over the years from 1994/95 is £6 million average per annum. Although this will help a net profit increase, the target average of £28.5 million in Table 9.6 is over three times the 1991/92 budget net profit. In a very rough and ready way this illustrates the task facing AEA in paying off past and future debts.

Conclusions and recommendations

Economy, efficiency and effectiveness

9.34. The restructuring programme is an essential part of AEA's `Pushing the Limits' strategy. At present AEA estimates that the total cost of the programme will amount to £391.5 million of which £278.8 million will be borne by AEA and £112.7 million covered by a grant from DEn. It believes that additional restructuring costs may arise from the proposed closure of the PFR, the commitment to take back AEA staff seconded to the JET project and increased contracting out. As over 60 per cent of the programme, or £235.5 million, is accounted for by people-related costs, the handling of this tranche of costs is crucial to the assessment of `the economy, efficiency and effectiveness' of AEA's implementation of the programme. The SERT brought in by AEA to facilitate restructuring are discussed in Chapter 8. AEA argued strongly that the restructuring programme showed substantial notional savings over the only feasible alternative strategy of `Cut to the Core', which would necessarily have required greatly increased people-related costs. However, this argument does not address the question of the economy, efficiency and effectiveness of the implementation of the existing restructuring programme.

9.35. We are concerned that, although the associated costs of each segment of the restructuring programme have been reviewed against broad business objectives, there is little evidence of costed options having been prepared prior to decisions on restructuring spend. We appreciate the problems, inherent in any appraisal, of developing accurate estimates, for example the comparative costs of the use of voluntary as against compulsory redundancy terms (see Chapter 8). Nevertheless we believe even broad-brush costings of available options would have provided some useful data on which to base decisions involving such significant levels of expenditure. The disciplines which such appraisals would have enforced may be expected to have ensured that all available options were fully and properly considered. Moreover, although corporate management has had some involvement, for example by way of general guidance and some initiatives, much of the responsibility for the development of the restructuring plans has been placed on site and business management, with the focus on sites and businesses to the possible neglect of the overall corporate position.

9.36. We recommend that before June 1992 costed options be prepared for the £80 million which AEA says is not yet committed under the restructuring programme to establish that future spend is directed in the most profitable way.

Debt burden

9.37. AEA's broad-brush estimate that it would be free of restructuring debt by 2002 is dependent upon achieving net profits of around £28 million a year over the period 1994/95 to 2001/02, ie three times its 1991/92 forecast net profits. This is against a background of the ending of the restructuring programme in 1993/94 and the concomitant ending of savings from large reductions in manpower. The repayment of restructuring debt by 2002 thus depends critically on AEA's ability to achieve increased productivity to offset increasing costs and to make up its loss of traditional nuclear business by increases in DRAWMOPS work and particularly by expanded United Kingdom private sector and overseas sales. This seems unduly optimistic. We conclude that, as argued by AEA, the debt burden stemming from the cost of restructuring AEA Technology is inhibiting the realisation of AEA's full commercial potential. The rising interest burden, the accumulated deficit and heavy borrowing have resulted in an unsound financial position and reinforced our concern over AEA's ability to repay the restructuring loans within the planned time-scale.

9.38. We recommend that at the time the Government looks again at AEA (see paragraph 2.61) the possibility should be considered of a financial reconstruction, with existing restructuring-related borrowing being wholly or partly written off. Meanwhile any additional restructuring driven by Government decision regarding AEA's nuclear activities should be grant-funded in order to avoid any further distortion of AEA's financial structure.