

CONFIDENTIAL FILING

REVIEW OF THE ACTIVITIES AND ROLE
OF THE UK ATOMIC ENERGY AUTHORITY
(AEA)

ENERGY.

MARCH 1984

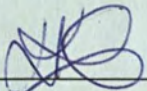
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Cabinet / Cabinet Committee Documents

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The documents listed above, which were enclosed on this file, have been removed and destroyed. Such documents are the responsibility of the Cabinet Office. When released they are available in the appropriate CAB (CABINET OFFICE) CLASSES

Signed  _____

Date 22/09/2014

PREM Records Team



Treasury Chambers, Parliament Street, SW1P 3AG

Alastair Goodlad Esq MP
Parliamentary Under Secretary of State
Department of Energy
Thames House South
Millbank
London
SW1P 4QJ

NSPm

↓

// March 1986

Dear Alastair,

UKAEA: INDUSTRIAL PAY

Thank you for your letter of 6 March.

*will request it
revised*

I agree with you about the level at which the AEA should pitch their opening offer and that we must expect a lengthy negotiation. I have two other points on your letter.

First, I note that the Authority expect the pay and working practices discussions to produce a package that is more than self-financing. Does this mean a reduction in the rate of increase of average earnings is expected? Or, does it rather mean that the paybill will fall because demanning takes place and this finances a further increase in average earnings for those who remain? If it is the latter then the increase in average earnings that is expected to ensue should be offset within the overall negotiating ceiling for this year's pay negotiations. Could you give me further details about this?

Second, I am rather concerned at the statement in your letter that the Authority believe a settlement below last year's level is impossible. By implication they may be expecting something higher. No doubt you will be raising this with the Authority but I should say that I would be concerned at any settlement above last year's level. As you say, those talks will impact on other negotiations. If the AEA industrials are awarded a "catching-up" increase in response to pressure for comparability with BNFL manuals

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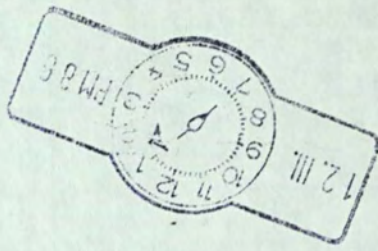
there is danger of leapfrogging between the two groups; and a high settlement with AEA manuals will present difficulties in the negotiations with civil service industrials. For all these reasons I would be grateful if you would urge the Authority's negotiators to make last year's increase their negotiating ceiling and urge them to settle below it, if possible.

I am sending a copy of this letter to the Prime Minister, E(PSP) members and Sir Robert Armstrong.

Yours ever,
JM

JOHN MacGREGOR

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AF 22/7

Treasury Chambers, Parliament Street, SW1P 3AG

Rt Hon Peter Walker MBE MP
 Secretary of State for Energy
 Department of Energy
 Thames House South
 Millbank
 London
 SW1P 4QJ

19 July 1985

AEA: CAPITAL STRUCTURE

Thank you for your letter of 19 June about the content of the AEA Bill.

Naturally I am disappointed that you feel unable to support a capital structure for the AEA including public equity capital. I still believe it would be the most appropriate basis for the AEA's move to trading fund status.

However, I accept that the case is less strong if the AEA will be a net borrower over its early years, making debt freedom a more distant prospect. Therefore, provided that the AEA's detailed financial projections for the next few years justify your expectations, I should be prepared to go along with an opening balance sheet without PEC.

Instead, I envisage that the AEA's capital structure would comprise simply debt, reserves and provisions. There would be no specific insurance reserve. Instead, the Authority would be expected to cover its own everyday losses up to the amount set aside in provisions. This would include routine third party claims. Beyond that we should have to consider claims - whether losses by the Authority or substantial third party claims - case by case on their merits.

There will still remain a possibility, however remote, that the AEA might become debt free at some point in the future. It is important that we are clear at the outset that we should guard against loss of control of the Authority's finances. We should need to consider the case for requiring payments in lieu of dividends, using the

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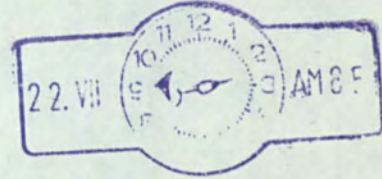
existing powers you mention, if the AEA's net debt begins to fall in real terms.

On that understanding, I should be prepared for officials to refine details of this simple outline structure for the AEA's capital base in order that the Bill may be ready for early introduction in the next session of Parliament.

I am copying this letter, as yours, to the Prime Minister, the Lord President, Members of E(NI) and Sir Robert Armstrong.

*Yours man
Peter Rees*

PETER REES



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CC NO

AT 21/6

Treasury Chambers, Parliament Street, SW1P 3AG

Rt Hon Peter Walker MBE MP
 Secretary of State for Energy
 Department of Energy
 Thames House South
 Millbank
 London
 SW1P 4QJ

19 June 1985

AEA BILL: COVERAGE

When I wrote to you on 10 June I said we would be dealing separately with the question of AEA minority equity participation in commercial companies.

Like Norman Tebbit I am conscious of the presentational difficulties we could face in giving UKAEA powers to take equity shares in non-nuclear manufacturing companies. Such investments, could easily be misconstrued as inconsistent with our commitment to disengage the public sector wherever possible.

For that reason I share Norman Tebbit's prejudice against providing an equity participation power. This should not unduly circumscribe AEA's ability to achieve transfer of their specialised skills to the private sector. They can and should continue to offer themselves for work under contract with the private sector, and to license private sector entities to draw on their expertise earning suitable royalty payments.

I am copying this letter to the Prime Minister, the Lord President, other members of E(NI) and to Sir Robert Armstrong.

PETER REES

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ENERGY : UKAEA : Mar 1984

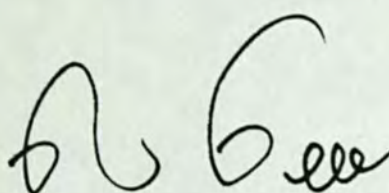
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01 211 6402

The Rt Hon Peter Rees QC MP
Chief Secretary to the Treasury
Treasury Chambers
Parliament Street
London
SW1P 3AG

19 June 1985



AEA BILL COVERAGE

Thank you for your letter of 10 June in response to mine of 9 May.

I am glad that you recognise the Parliamentary problems of inserting clauses into the Bill to facilitate partial privatisation in the medium term. For my part I can certainly agree that the new Chairman's objectives should include a requirement to manage the Authority's affairs so as to create scope for joint ventures or flotation wherever possible.

However, it seems to me that similar Parliamentary problems arise with your new proposal that we should provide for commencing equity on which dividends would be payable, and for powers to convert reserves into additional equity later. Our intention is that the AEA Bill should be ready for introduction at the beginning of the next Parliamentary session and should be well into Committee before, say, the Gas Privatisation Bill appears on the scene in December, with Royal Assent before the Trading Fund comes into operation on 1 April 1986. Thus the Parliamentary window is quite narrow and I fear that your proposal would have the effect of closing it.

While I can see that a mixed equity/debt regime has some attractions as being closer to the private sector model, I do not think that the case is particularly strong in the case of the Authority, and the analogy with the ESI is certainly false. I would expect the Authority to have to fight hard to retain its customers under a Trading Fund regime, and I would not expect it to earn large profits on its work for my Department or anyone else. Furthermore it is possible that depreciation provisions will not fully cover capital requirements over the next few years. Thus, far from becoming debt free, the Authority's debt and interest burden may actually increase.



You mention the analogy with the dividend payments from the existing Government Trading Funds. However my understanding is that the public dividend capital was only created in two out of the four cases, those being the very profitable Royal Ordnance Factories (shortly to be privatised) and the Royal Mint, where the possibility of the organisations becoming debt free could clearly be foreseen.

Furthermore, if we were to go down this path I should certainly want a number of safeguards for the Authority Board in relation to agreeing dividend payments or the conversion of reserves into additional equity. We should also need to consider what degree of Parliamentary control we could accept and what risk there would be that Parliament would insist upon more. These were, of course, key issues in relation to the proposed Nationalised Industries Bill, and I can imagine that the process of thrashing out what would be appropriate for the AEA would be neither easy nor quick.

You suggest that only small or possibly no additions to the Bill would be required, given my existing wide powers over the Authority's revenues and accounts. However I understand that doubts have been expressed about whether a change of this scale could properly be achieved without substantial provisions on the face of the Bill. It would then be clear for all to see that we were trail-blazing for the NI Bill in areas where we have yet to decide in E(NI) that it is in fact sensible to proceed, and the AEA Bill would inevitably become highly controversial.

In the light of the above I hope you can agree not to pursue these ideas. What I can offer is that if, in the remote future, the Authority were to become either extremely profitable or debt-free I am advised that I could use my powers under section 4(2) of the 1954 Atomic Energy Authority Act to claw back moneys from the Authority in lieu of a dividend if we wished to do so. These powers are, incidentally, very similar to those in section 4(4) of the Government Trading Funds Act 1973 which have recently been used in relation to the Crown Suppliers. They would therefore seem perfectly appropriate to the purpose.

I am copying this letter to the Prime Minister, the Lord President, members of E(NI) and Sir Robert Armstrong.

PETER WALKER

Smiley : AEA

3/84





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CO

10 DOWNING STREET

THE PRIME MINISTER

17 June 1985

Dear Sir Robin,

Thank you for your note 'Options for the Future of UKAEA', which I have discussed with my colleagues.

I understand your arguments for giving the AEA unfettered manufacturing powers in the non-nuclear sector, subject to a limit on non-nuclear assets to 25 per cent of the total. However, I do not think that a limit would make it possible to reconcile your approach with the Government's policy on the role of public sector bodies and private sector companies, who would see themselves as facing unfair competition.

I recognise that you would not wish to accept the chairmanship of AEA on the basis of the first option set out in your note. I fear also that we cannot offer it on the basis of the second option. I am disappointed at this outcome, but it is obviously better to have clarified the position now rather than to have appointed someone of your qualities on the basis of a misunderstanding as to the nature of the task.

Yours sincerely
Margaret Thatcher

Sir Robin Nicholson



10 DOWNING STREET

Prime Minister

I have redrafted the third paragraph to make it slightly warmer and to make it clear that Sir Robin is at heart, reluctant. I have discussed this with him and he would be happy to receive a letter of this kind.

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APPOINTMENTS IN CONFIDENCE

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Pl type
for phrasing



~~GR~~ ~~Richard~~ ~~Hartford (Co)~~
Any comments?

AT
11/6

SECRETARY OF STATE FOR ENERGY
THAMES HOUSE SOUTH
MILLBANK LONDON SW1P 4QJ

01 211 6402

Andrew Turnbull Esq
Private Secretary to
The Prime Minister
10 Downing Street
LONDON SW1

11 June 1985

New Andrew,

CHAIRMANSHIP OF UKAEA

Thank you for your letter of 5 June recording the outcome of the Ministerial discussion on this subject. As requested I attach a short draft letter for the Prime Minister to send to Sir Robin Nicholson.

Yours ever,

Geoff

G S DART
Private Secretary

APPOINTMENTS IN CONFIDENCE



Sir Robin Nicholson
Chief Scientific Adviser

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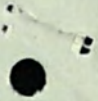
CHAIRMANSHIP OF THE UKAEA

Thank you for your note 'Options for the Future of UKAEA', which I have discussed with my colleagues.

I understand your arguments for giving the AEA unfettered manufacturing powers in the non-nuclear sector, subject to a limit on non-nuclear assets to 25% of the total. However, I do not think that a limit would make it possible to reconcile your approach with the Government's policy on the role of public sector bodies and private sector companies, who would see themselves as facing unfair competition.

I fear therefore that we cannot offer you the chairmanship of the AEA on the basis of the second option set out in your note, and that you would not wish to have it on the basis of the first. This is a disappointing outcome, but it is obviously better to have clarified the position now rather than for the appointment to have been made on the basis of a misunderstanding as to the nature of the job.

ENERGY : UKAEA Mar 84



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Treasury Chambers, Parliament Street, SW1P 3AG

Rt Hon Peter Walker MBE MP
 Secretary of State
 Department of Energy
 Thames House South
 Millbank
 LONDON
 SW1P 4QJ

10 June 1985

AEA BILL: COVERAGE

Thank you for your letter of 9 May about the AEA Bill. I have also seen Norman Tebbit's letter of 24 May.

The possibility of AEA taking a minority stake in joint venture companies has been discussed by colleagues separately.

I think there is little between us on the desirability of facilitating partial privatisation in the medium-term. My preference would have been to take powers in the Bill for you to direct the disposal of activities unconnected with nuclear safety. But I see the Parliamentary problems that might involve. I am content to leave this out of the Bill on the understanding that the objectives of the Chairman and other Board members include the requirement (set out in your paper for E(NI) last October) to manage the AEA's affairs so as to create viable areas which could either become joint ventures with the private sector or be floated off in total.

I am content with your proposals for minor provisions. It is already common ground that the remaining indemnities to BNFL and shippers should be run down as far and as quickly as possible.

Our officials have been discussing the options for the AEA's capital structure. I understand the reason for your Department's inclination towards a solely debt-based system similar to the monopoly nationalised industries. Unfortunately our experience is that this creates difficulties in the longer-term, as the value of debt declines in relation to assets

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in real terms. The impending problems faced by the ESI becoming debt free are a classic example. It is significant that the Electricity Council itself has moved voluntarily towards wanting to pay dividends on its retained earnings rather than repay more debt as part of negative EFLs. It seems to me unsatisfactory to create capital structure for the AEA Trading Fund which we know at the outset would have a major defect. Accordingly I think we should plan on the basis that AEA will make dividend payments to the Exchequer on a regular basis from distributable profit, as the Government Trading Funds do. The amount would be derived from (ie not determine) the Financial Targets we will agree for the AEA, taking account of interest and any Corporation Tax payments due. My preference would be to enshrine such arrangements in the AEA Bill by providing explicitly for commencing equity to be created (on which dividends are payable) alongside commencing debt; and for powers to convert reserves into additional equity later. That could readily be presented as akin to the private sector practice. The Government does of course already have broad powers of direction over AEA's revenues and accounts already. There should thus be at most only small additions to the Bill; it may even be that Parliamentary Counsel will advise that none are needed.

It would be important to make clear both to the AEA and the House what was intended so that there were no misunderstandings later. If you are content I suggest that officials from your Department and Treasury draw up, with the AEA, a comprehensive statement of the proposed financial structure which would serve both as a record of what was intended and a basis for public presentation.

I am copying this letter to the Prime Minister, the Lord President, members of E(NI) and Sir Robert Armstrong.

Peter Rees

PETER REES

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10 DOWNING STREET

From the Private Secretary

5 June 1985

CHAIRMANSHIP OF UKAEA

The Prime Minister held a meeting this afternoon to discuss the Chairmanship of UKAEA. Present were the Secretary of State for Energy, the Chancellor of the Exchequer and Sir Robert Armstrong.

The Prime Minister reported on her meeting with Sir Robin Nicholson. She felt that, in the light of the note he had subsequently submitted, Sir Robin did not really want the post and, given the differences which remained between him and Ministers on the way UKAEA should develop, it would be wrong to press him to take the job. This was agreed.

The Secretary of State for Energy said he would urgently consider alternative candidates and would consult Sir Walter Marshall on this. He was anxious to find an able Chairman who was both commercially minded and esteemed by the scientific community. The Government's consideration of the inspector's report on Sizewell would open up a fierce debate on nuclear questions and it was essential that the Government had high quality Chairmen for both UKAEA and BNFL.

I would be grateful if you could prepare a draft letter which the Prime Minister could send to Sir Robin setting out the conclusions Ministers have reached.

I am copying this letter to Rachel Lomax (HM Treasury) and Richard Hatfield (Cabinet Office).

(Andrew Turnbull)

Geoff Dart, Esq.,
Department of Energy.

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APPOINTMENTS IN CONFIDENCE

PRIME MINISTER

CHAIRMAN OF UKAEA

A decision is needed from this meeting. Time is getting short to find someone else if Sir Robin does not take up the post, or is not offered a basis which he feels able to accept. As far as I know, Mr. Walker has made no progress on alternative candidates.

Flag A

At your meeting with Sir Robin you offered an understanding that the Government recognised the need for technology transfer, preferred this to be achieved by licensing and royalties, but where this could not be achieved AEA would be allowed to acquire a minority stock of up to 25 per cent in joint ventures for non-nuclear manufacturing. This would be subject to Ministerial consent. Although this was further than the Treasury wanted to go and was inconsistent with the line Mr. Tebbit has been taking with BTG, it was clear that Sir Robin did not think it was enough.

Flag B

Flag C

Mr. Walker has reacted by upping the bidding, suggesting that AEA could acquire up to 50 per cent of joint ventures provided the holding would eventually be disposed of. Sir Robin, in his note, suggests that a limit of 25 per cent be placed on AEA's total non-nuclear assets. This would include its non-nuclear research as well as its stock in non-nuclear manufacturing.

Flag D

The choice remains clear: should AEA be allowed a significant role in non-nuclear manufacturing? If the answer is no, you should decide immediately to seek a different Chairman. If it is yes, a number of safeguards on the extent of AEA's activities will have to be negotiated.

AS

4 June 1985

VC3AEB



NDPM

AT

3/6

SECRETARY OF STATE FOR ENERGY
 THAMES HOUSE SOUTH
 MILLBANK LONDON SW1E 4DQ

01 211 6402

The Rt Hon Nigel Lawson MP
 Chancellor of the Exchequer
 Treasury Chambers
 Parliament Street
 LONDON
 SW1P 3AG

3 June 1985

*No trace
 with
 request*

AEA: INDUSTRIAL PAY

John Moore replied on 29 May to my letter to you of 24 May.

We must see this proposal in its proper context. The Authority have successfully negotiated a series of below-average settlements in recent years. In particular their 18-month deal last year was the lowest pay settlement in the whole of the public sector.

The cumulative result of these low settlements is, as I have mentioned, that the Authority's pay rates have become uncompetitive. They are suffering from a rising wastage rate and serious recruitment problems.

While I am naturally concerned that the AEA should settle at the lowest possible level, these factors cannot realistically be ignored.

I have in fact already said that I would press the Authority to offer only a modest increase on 5 June, and have discussed the current negotiating position with the Chairman, who accepts that it would be prudent not to offer more than 5% on 5 June.

John Moore asked for an assessment of the impact and risks of industrial trouble. The AEA have advised that there is considerable strength of feeling about the need to improve differentials with non-industrial staff and with BNFL, and believe that there is a real risk of a strike. I would not claim that a strike would have a major impact on electricity supply, but it would undoubtedly affect the AEA's financial position to the extent that the important revenue contributions from the Dounreay and Winfrith plans were lost. The Authority have given assurances that they could accommodate a settlement of up to 5.9% within their cash limits for 1985/86, but this would certainly not be the case in the event of a prolonged strike where the savings on the industrial wage bill were outweighed by the loss of electricity receipts and other income.

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I propose to reconsider the situation in the light of the 5 June meeting. I am writing separately about BNFL.

I am copying this letter to the Prime Minister and members of E(PSP), and to Sir Robert Armstrong.

A handwritten signature in dark ink, consisting of a large, stylized 'P' followed by 'Walker' in a cursive script.

PETER WALKER

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55 JUN 1965

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(door) Tue

10 DOWNING STREET

From the Private Secretary

Prime Minister

Sir Robin Nicholson has set out his views on how AEA should operate and has suggested a different mechanism to set a limit to its non-nuclear activity ie 25% of its total assets (rather than 25% equity stakes in manufacturing ventures). This would cover non-nuclear research as well as non-nuclear manufacturing.

Mr Walker suggested raising our bid to allowing 50% of equity ventures. Mr Tebbitt argues this would conflict with policy on BTG. The supplementary note from Sir Robin indicates that he is bargaining from strength. Mr Walker, on the other hand, appears to have no other candidates and only three months in which to find one.

I have arranged a meeting for Wednesday, 5 pm, with PW, CH/GC & RTA.

AT 31/5



FILE
VC

10 DOWNING STREET

From the Private Secretary

31 May 1985

CHAIRMAN OF UKAEA

Sir Robin Nicholson has sent the Prime Minister the attached note which was commissioned at his meeting with the Prime Minister last week. She will wish to discuss this with your Secretary of State, the Chancellor of the Exchequer and Sir Robert Armstrong at a meeting next week. This has now been fixed for 5.00 pm on Wednesday 5 June.

I am copying this letter to Rachel Lomax (HM Treasury) and Richard Hatfield (Cabinet Office).

(ANDREW TURNBULL)

Geoff Dart, Esq.,
Department of Energy.

A handwritten signature, possibly 'RD', in the bottom right corner of the page.



CONFIDENTIAL

W0440

MR TURNBULL

31 May 1985

UKAEA.

1. I would like to ask you to let the Prime Minister know that, as a result of an approach by headhunters, I recently saw Mr Anthony Pilkington, Chairman of Pilkingtons plc over a position in his company and I am seeing him again at the end of next week. I understand Mr Pilkington may mention this to the Prime Minister when he is her guest at dinner on Monday night and I would like her to hear about the approach first from me.

2. The Prime Minister will be aware from our discussion last Friday that, if I am lucky enough to have a choice between future careers in the private and public sectors, I shall find that decision difficult to make. Consequently I feel it is only sensible for me to assess the opportunity I might have with Pilkingtons. I have told Mr Pilkington that the 2-year renewal of my present post lasts until November 1986 but that when I agreed this, I was given to understand that the Government might not prevent my earlier departure if reasonable notice was given so that my successor could be appointed.

3. I am copying this to Sir Robert Armstrong.

RSN

SIR ROBIN NICHOLSON
Chief Scientific Adviser

ENERGY - UKAEA : M0584



COVER LETTER

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31 MAY 1985



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MR TURNBULL

31 May 1985

UKAEA.

1. As agreed in the meeting with the Prime Minister last week, I have produced a short note outlining the alternatives for the future of the UKAEA with the pros and cons as I see them. The suggestion in the second option for a 25% limit on total non-nuclear assets is new as far as I know and I have not thought it appropriate for me to discuss it with the Department of Energy at this stage. In any case I believe the initial decision has to be a political one regardless of mechanics. The first alternative obviously follows Government policy more closely but has technology penalties in the short and medium term because a technological capability can be destroyed overnight but built up only over a period of years. The second alternative is more efficient in its immediate use of technological skills but may create political difficulties, the size and importance of which it is not for me to estimate.

2. I am copyng this minute and attachment to Sir Robert Armstrong.

MSM

SIR ROBIN NICHOLSON
Chief Scientific Adviser



OPTIONS FOR THE FUTURE OF UKAEA

1. As a result of its reasearch and development work in civil nuclear energy, the UKAEA has spun off two substantial successful businesses in nuclear fuel (BNFL) and radiochemicals (Amersham); it has also contributed to a third, less successful, business in nuclear reactor construction (NCC). The Review of UKAEA concluded that the Authority's activity in the nuclear area was likely to decline due to the transfer of some activities to CEGB and BNFL, the receding timescale for fast reactor development and the uncertain future of fusion. It has been agreed that the Authority will conduct its future, still substantial, business with CEGB, BNFL and the Department of Energy on a more commercial customer/contractor basis and that it will operate as a Trading Fund.

2. Following the 1965 Science and Technology Act, the Authority has been able to carry out non-nuclear R & D but not to manufacture or market products and processes resulting from it. The work has therefore been conducted on a contract R & D basis: it currently amounts to nearly 10% of total UKAEA turnover with about one third coming from the private sector and the remainder from Government Departments. No significant new businesses have resulted from the Authority's non-nuclear R & D although the results have been valuable in developing the customers' technological capability. New business development by technology transfer is a difficult skill; modern wisdom is that the R & D contractor often needs either to initiate exploitation of the R & D himself or take part in its exploitation on a risk-sharing basis. At present the Authority is not able to do either of these for non-nuclear R & D.

3. There are two options for the future of UKAEA. In one it would continue in the same range of work as at present but operating on a more commercial basis and improving its non-nuclear transfer of technology through seeking venture capital funding of some of its inventions (as it is now doing). Under these circumstances I envisage a steady decline in the Authority's work, the rationalisation of its facilities and the dispersal of some of its people and skills to the rest of UK industry. Such an action would be in accord with Government's policy to reduce the size of the public sector wherever possible.

4. The alternative option is to balance the decline in nuclear work by an increase in size and effectiveness of the non-nuclear work. The aim would be to maximise the use of the Authority's scientific and technological assets to provide a breeding ground for new technology based businesses for the private sector. For the reasons given in paragraph 2, this requires the removal of the restraints on the exploitation of non-nuclear R & D. Inevitably it will mean some competition with existing private sector business in order to build a better private sector in the future.

5. The advantage of the second option is that it makes better use of the Authority's present capabilities especially in the short and medium term. Eventual privatisation, as the Review suggested, would also be possible although the difficulties remain quite formidable. Before privatisation, there needs to be some limit placed on the Authority's intrusion into non-nuclear business. I suggest that its non-nuclear assets (equity and facilities) should be limited in total to 25% of its total assets. In comparison with previous suggestions of limitation on each innovation, this would allow the Authority commercial freedom to exploit each innovation to maximise the chance of success.

RNSW

SIR ROBIN NICHOLSON
Chief Scientific Adviser

31 May 1985



B.F. v. C
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 and note by Sir R. Nicholson

PRIME MINISTER

As you know, I am very anxious to have first-rate people leading the CEGB, British Nuclear Fuels and the Atomic Energy Authority. I believe Robin Nicholson is such a person as well as being someone you know and trust.

Andrew Turnbull sent me a note of your discussion with Sir Robin Nicholson on Friday. Reading the notes of the meeting I wonder if we shouldn't take advantage of his opening phrase when he said he was by nature "a private sector person".

I wonder therefore if we could appoint Robin on the following basis. He would understand that transfer of technology by royalty arrangements would suit us best. But if there were examples where he could persuade us that the best route was to develop it by AEA equity participation, normally a minority holding but exceptionally up to 50%, we would be ready to accept that. There would however be a clear understanding in such cases about the point at which the Authority would dispose of its holding to the private sector, the transfer of technology having been achieved. This realisation would then help to release funds for other joint venture activity or normal investment by the Authority.

It does strike me that with such a programme, which I believe we could appropriately reflect in the legislation, we could have the prospects of spinning off further Amersham Internationals from the Authority, if usually on a smaller scale, and certainly Robin is someone I would trust to achieve this. He is right to say that was a strikingly successful example of technology transfer to the private sector.



I hope too that you will challenge Robin's picture of a stark choice between expansion and contraction for the AEA. I think it is the nature of the proposed Trading Fund that there will be both expansion and contraction, as happens in any major successful business. A good manager must be able to organise both. There are areas where the AEA should release staff and capital, just as there are areas of potential growth, such as joint ventures based on Harwell which we are now discussing.

I am naturally now most anxious to bring this matter to a conclusion and so perhaps when Robin has presented you with his paper we could discuss it very speedily.

I am copying this minute to Nigel Lawson and Sir Robert Armstrong.

A handwritten signature in dark ink, appearing to read 'J. G. Dearbairn'. The signature is written in a cursive style with a large initial 'J' and a long, sweeping underline.

SECRETARY OF STATE FOR ENERGY

29 May 1985



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20 MAY 1905

CONFIDENTIAL

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file A
SUBJECT
cc Master

10 DOWNING STREET

From the Private Secretary

27 May 1985

Dear Geoff

CHAIRMANSHIP OF UKAEA

The Prime Minister saw Sir Robin Nicholson on Friday evening to discuss the Chairmanship of UKAEA. The Prime Minister said Ministers would very much like Sir Robin to take over the Chairmanship and asked whether he wanted to do it. He replied that he was interested but that he was by nature "a private sector person". It very much depended on what he was being asked to do.

The Prime Minister said the Government fully appreciated the need to secure technology transfer. In the nuclear field UKAEA already had the right to manufacture. The only difficulty lay in the area of non-nuclear technology. The Government would find it very difficult to allow UKAEA an unrestricted right to enter non-nuclear manufacture. This would be inconsistent with its policy on the role of public sector bodies and would be bound to create difficulties with private sector companies who would see themselves as facing unfair competition. She suggested that to a large degree technology transfer could be achieved by licensing and royalties. This was the route Ministers preferred though if it were shown that in certain areas this would not work Ministers would consider giving UKAEA the right to take up to a 25 per cent minority equity stake in joint ventures, subject to ministerial consent where this involved commitment of financial resources.

Sir Robin said he recognised the political difficulties in allowing UKAEA the right to manufacture in non-nuclear areas. Friction with the private sector would be inevitable. There were two main reservations to the proposition which the Prime Minister had put forward. First, he did not believe the royalty route would secure adequate transfer of technology. All the evidence suggested that it was extremely difficult to put a research idea to outside investors and to secure backing for it. They preferred to wait until the idea had been developed to the point where a product and a market for it had been established. At that point it was much easier to find outside capital. Contract research organisations were increasingly developing their ideas through equity ventures. He doubted whether even 25 per cent minority stakes would give UKAEA the scope it needed. To be effective, UKAEA

EU

needed to be able to manufacture in its own right so that ideas could be developed to the point where private sector investors could be brought in.

Sir Robin cited two examples. In the first, the Radio Chemical Centre, the technology had been classified as nuclear, thereby permitting UKAEA to develop it. This had been successful, leading to Amersham International, a company worth £150 million. In the second case, ion implantation machines, the technology had been classified as non-nuclear. UKAEA had tried to find UK companies to take up the idea but had not been successful. Such machines were now predominantly manufactured in the US.

Sir Robin's second reservation was about the future role of UKAEA. The organisation was at a crossroads; it would either expand or contract. In the foreseeable future there would be a decline in the nuclear research placed with it; this would be accelerated as CEGB and BNFL developed their own expertise in the nuclear field. UKAEA was a relic of the past. If it were being created today, nuclear research would not have been centralised to this degree. Unless changes were made in its role, its expertise would gradually be dispersed to the private sector, to the electricity utilities and to the reprocessing industry. This was not necessarily wrong from a national point of view but he would not be interested in presiding over an orderly contraction. This would require someone with different qualities. The alternative was to allow UKAEA to expand into new areas using its accumulated expertise. This would be bound, however, to lead to complaints from private sector companies, particularly from those whose research was unsuccessful.

The Prime Minister recognised that it would be a waste of Sir Robin's talents to ask him to take over an organisation which was contracting. She invited Sir Robin to prepare a note setting out his views on the future of the organisation and why it was essential to allow it a right to manufacture. Sir Robin agreed to provide something within the next few days.

After Sir Robin had left the Prime Minister said he was presenting Ministers with a fundamental choice about the future of UKAEA. The choice of Chairman would follow from the choice made. She doubted whether Ministers could accept a role for UKAEA which would induce Sir Robin to accept the Chairmanship. A final decision would have to be taken in the light of the note Sir Robin was preparing.

I am copying this letter to Rachel Lomax (HM Treasury) and Richard Hatfield (Cabinet Office).

*Yours sincerely
Andrew Turnbull*

(Andrew Turnbull)

Geoff Dart, Esq.,
Department of Energy.

B-NO



DEPARTMENT OF TRADE AND INDUSTRY
1-19 VICTORIA STREET
LONDON SW1H 0ET
TELEPHONE DIRECT LINE 01-215 5422
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JU494

Secretary of State for Trade and Industry

24 May 1985

The Rt Hon Peter Rees QC MP
Chief Secretary to the Treasury
Treasury Chambers
Parliament Street
London SW1P 3AG

M
28/5

D Peter

AEA BILL: COVERAGE

I am grateful to Peter Walker for copying to me his letter of 9 May to you.

I do not agree that it is desirable for the UKAEA to be able to take equity shares in non-nuclear manufacturing companies. It would conflict with our policy of equity divestment for the BTG, and the exceptional nature of the circumstances in which BTG can take an equity holding. And it could give those firms enjoying a UKAEA equity holding an unfair advantage over those without this.

On the issue of privatisation, I do not think that provision should be made in this Bill to allow the break-up of the Authority. I agreed with the reasons given against privatisation in the Department of Energy's Review, and I do not think that circumstances have changed to make any of these reasons invalid. The AEA, especially Harwell, have achieved significant benefits for non-nuclear industry as a result of work deriving from their research programme, and any attempt to hinder this process could be damaging.

I am copying this letter to the Prime Minister, the Lord President, other members of E(NI) and to Sir Robert Armstrong.

[Handwritten signature]
NORMAN TEBBIT

Energy 3/84

UKAEA

28 MAY 1985



LOBACO

10 DOWNING STREET

From the Private Secretary

23 May 1985

SIR ROBIN NICHOLSON AND THE AEA

Geoff Dart's letter to me has attached to it a speaking note approved by the Secretary of State for Energy for the Prime Minister to use at her meeting with Sir Robin Nicholson. The Prime Minister would find it helpful to know whether the Chancellor is able to agree to the proposition in paragraph 5 of the note and, if not, in what terms he would advise the Prime Minister to speak to Sir Robin. Please could a note reach me by close of play tonight?

I am copying this letter to Geoff Dart (Department of Energy) and Richard Hatfield (Cabinet Office).

ANDREW TURNBULL

Mrs. Rachel Lomax,
H.M. Treasury.



SECRETARY OF STATE FOR ENERGY

THAMES HOUSE SOUTH
MILLBANK LONDON SW1P 4QJ

01 211 6402

Andrew Turnbull Esq
Private Secretary to
The Prime Minister
10 Downing Street
LONDON SW1

27 May 1985

New Andrew,

SIR ROBIN NICHOLSON AND THE AEA

In reply to your letter of 16 May I attach a Speaking Note for the Prime Minister's use at her meeting with Sir Robin Nicholson on 24 May, which has been approved by my Secretary of State.

My Secretary of State feels strongly that we must now put a straightforward and direct proposition to Sir Robin Nicholson and ask him to make a very early, if not immediate, decision on the basis of that proposition. He has now been discussing this appointment with Sir Robin since December. The appointment of the present Chairman expires on 30 September and if Sir Robin is unwilling to accept the terms offered by the Government, it is urgent to identify a suitable alternative. The chances of extracting an able man from an existing appointment by that date are obviously dwindling as the weeks go by.

It is therefore my Secretary of State's view that we should not complicate the proposition to Nicholson by making it contingent on a Deloittes recommendation, especially as this piece of Deloittes advice to an individual member of the AEA Board has no particular status and we already know that it will recommend in favour of equity shareholdings anyway. The origin of the Deloittes advise is simply that John Bullock is a Managing Partner in Deloittes as well as a member of the AEA Board and he argued at the Board that, on the basis of Deloitte's experience of venture capital arrangements, successful technology transfer required a power to take equity holdings.

The Speaking Note in the form approved by my Secretary of State has not been fully agreed with the Treasury but in the circumstances he trusts they will see no difficulty about it. My Secretary of State wrote to the Chief Secretary on 9 May proposing a power to take minority equity stakes but has so far received no reply. However his understanding of the meeting on 16 May was that the taking of that power was approved in principle.



My Secretary of State very much hopes that the Prime Minister will be able to obtain an early affirmative answer from Sir Robin.

Yours ever,

Geoff

G S DART
Private Secretary



BRIEF FOR THE PRIME MINISTER'S MEETING WITH SIR ROBIN NICHOLSON

Speaking Note

I consider, as does Peter Walker, that you would make an excellent chairman of the Atomic Energy Authority at a crucial period in its development. Of course I would be very sorry to lose you as Chief Scientific Adviser but I think you would carry valuable experience from your present job to the Authority.

2. I appreciate that you are anxious to know whether your ideas on what the Authority needs to develop its role are likely to find favour with the Government before accepting appointment. I have seen your note on this.

3. My impression is that the only real area of difficulty is non-nuclear manufacturing. I understand that the Authority already has full manufacturing freedom in the nuclear area. It also has full freedom of manufacturing when applying technology from its nuclear work to non-nuclear areas. So we are talking only about developments which have had nothing to do with nuclear energy and are to be applied to non-nuclear fields.

4. It is obviously politically difficult to give the Authority powers which might lead to charges of non-nuclear competition with the private sector. The Authority will still have access to public funds and be able to use public assets. We are pledged to reduce the public sector rather than spread it wider.

5. Nevertheless, we would be prepared to put to Parliament a proposal to allow the Authority to take a minority stake of, say, 25% in non-nuclear manufacturing companies. This would be an important extension of its present power to licence its discoveries in exchange for a royalty. There might have to be some arrangement for Ministerial consent if such a stake ever required a substantial cash injection by the AEA but I hope not where the AEA contribution was in the form of its own know-how.

① Power only used (partly) for

Power use of royalty route



6. I hope you would agree that when coupled with the complete powers which the Authority already has in all areas derived from its nuclear activity, this would go a long way to meet your point. I believe that in other areas such as the independent Government-financed nuclear research programme which the Authority would retain, there is no difference of view.

7. I hope that on this basis you would now feel able to accept the appointment where I believe you could perform a valuable service for the nuclear industry and the country.

Background

Sir Robin Nicholson's note on the future of the AEA and a Departmental commentary are annexed. The one issue of real difficulty is his request that the Authority be given the same manufacturing freedom in the non-nuclear area as it enjoys already in the nuclear field. That requires legislation in the proposed AEA Bill and might be seen by Government supporters as at odds with the policy of reducing the public sector; and as opening up the possibility of nationalised manufacturing in any area into which the AEA chose to venture - or perhaps in any area which a different Government urged them to exploit.

Mr Walker's letter to the Chief Secretary of 9 May (copy also enclosed) argued in favour of giving the Authority power to take minority equity stakes in non-nuclear manufacturing companies. The present AEA Board has asked for a power to take minority stakes but not majority interests. In doing so they have taken account of advice from Mr John Bullock, Managing Partners of Deloittes, that an equity holding could in some circumstances be the only effective way of ensuring full transfer of AEA non-nuclear technology to the private sector.

Our assessment is that Sir Robin Nicholson will continue to press hard for full manufacturing powers, but that he could be persuaded to accept with reluctance the proposed power to take minority shareholdings. A decision from him is a matter of urgency.

It is possible that Nicholson may also refer to his wish to see the objectives of Sir Walter Marshall, as Chairman of the CEGB, expanded to include more explicit reference to CEGB responsibilities in nuclear R & D. In fact a formal revision of Sir Walter Marshall's letter of objectives would probably require publication and explanation, thus giving an excessively high profile to the whole matter. Our judgement is that the present letter of objectives is wide enough already, and it has enabled Sir Walter Marshall to increase his contributions to the AEA substantially. In the last analysis however the electricity

APPOINTMENTS IN CONFIDENCE



industry must be free to make its own judgement about the commissioning of programmes from the AEA. It would be better if none of this were raised but if the Prime Minister has to respond in this area she might say that her understanding is that Sir Walter Marshall's objectives in relation to nuclear reactor R & D are already quite widely drawn.



Treasury Chambers, Parliament Street, SW1P 3AG
01-233 3000

23 May 1985

Andrew Turnbull Esq
10 Downing Street
LONDON SW1

Dear Andrew

SIR ROBIN NICHOLSON AND THE AEA

The Chancellor has seen a copy of Mr Walker's letter of 23 May.

The Chancellor is not attracted by the approach proposed by Mr Walker. As was recognised at the Prime Minister's meeting on 16 May, the Government is awaiting Deloitte's advice on whether technology transfer from the AEA requires that organisation to take minority equity stakes in private sector companies, or could be achieved by other means. This is an issue of substantial political and economic significance.

Mr Walker's latest letter makes clear that the AEA have taken a position on the basis of what appears to be some fairly casual comments by John Bullock. In view of this the Chancellor considers it all the more important to await Deloitte's considered advice. It is, of course, hard to see this contradicting Bullock but the quality of the argument may well be instructive.

In view of this the Chancellor considers there are two options. First, to delay the Prime Minister's meeting with Sir Robin until after Deloitte's advice has been received (now expected in the latter part of next week) and an agreed speaking note has been produced. Second, to speak along the lines agreed at the Prime Minister's meeting on 16 May. I attach a speaking note on this basis which the Chancellor believes accurately reflects the outcome of the meeting.

I am copying this letter to Geoff Dart (Department of Energy) and Richard Hatfield (Cabinet Office).

Yours ever
Rachel

RACHEL LOMAX
Principal Private Secretary

APPOINTMENTS IN CONFIDENCE

BRIEF FOR THE PRIME MINISTER'S MEETING WITH SIR ROBIN NICHOLSON

Speaking Note

I consider that you would make an excellent Chairman of the Atomic Energy Authority, at a crucial period in its development. Although I would obviously be very sorry to lose you as my Chief Scientific Adviser.

2. I appreciate that you are anxious to know whether your ideas on the future role of the Authority are likely to find favour with the Government before accepting appointment, and I have seen your note on this.

3. I think there is much common ground between us eg on the Authority's role as a vital source of independent policy advice and the need for some continued Government funding.

4. The only really difficult area is manufacturing, where you are arguing that the Authority should have the same freedom of action in the non-nuclear area as it already has for its nuclear activities. A smooth transfer of technology from the Authority is, of course, highly desirable but:

- there are obvious political difficulties in giving the Authority, with its access to public funds, powers which might give rise to changes of unfair competition with the private sector. There is also a risk that some ventures might turn into lossmakers;
- I understand that Deloittes are advising on the effectiveness of a variety of different approaches to technology transfer;
- we would prefer to rest on the traditional route of the Authority licensing its discoveries in exchange for a royalty. But if the advice is that this is not always effective or practicable we would be prepared to consider giving the Authority power to take a limited - say 25% - minority stake in non-nuclear manufacturing companies. Can you agree to leave the matter on this basis?

Defensive

[Nicholson may also press for Sir Walter Marshall's objectives to be expanded to include greater reference to the CEGB's responsibilities for nuclear R&D.]

The objectives are being looked at and some clarification may be appropriate. But any change will be directed to smoothing a transfer of funding from the Department to the CEGB. It will not necessarily lead to any change in the total funding available to the Authority.

Background

Sir Robin Nicholson's note on the future of the UKAEA and a Departmental commentary is annexed. The only real bone of contention is manufacturing powers, where Nicholson argues that the difference in treatment between the Authority's nuclear and non-nuclear activities should be removed. This could, it is judged, be hard to defend politically during the passage of the AEA Bill through Parliament.

Mr Walker's letter to the Chief Secretary of 9 May, which the Prime Minister has seen, argues in favour of giving the Authority powers to take minority equity stakes in non-nuclear manufacturing companies. This reflected oral advice from the UK Managing Partner of Deloitte Haskins & Sells (John Bullock) in his capacity as a member of the Authority Board, to the effect that in some circumstances an equity holding could be the only effective way of ensuring the satisfactory transfer of the AEA's non-nuclear technology to the private sector. Bullock considers that, unlike the royalty route, it would demonstrate both the Authority's confidence in the potential of the discovery and enable it to influence the approach of the private sector entrepreneurs in exploiting it. There are, however, a number of alternative approaches. Deloitte are now preparing a paper analysing these, and Ministers will be able to consider it. But it is likely to prefer the equity route.

We believe that Nicholson will press hard for full manufacturing powers but would, if pressed be satisfied with a power to take minority shareholdings. He may therefore be unwilling to give a firm answer until Deloitte's written views are to hand.

APPOINTMENTS IN CONFIDENCE

PRIME MINISTER

UKAEA

Following the meeting on the Chairmanship of UKAEA I asked the Department of Energy to prepare a speaking note, agreed with the Treasury, for you to use at your meeting with Sir Robin Nicholson. I interpreted the sense of the meeting as being that the Government favoured technology transfer but could not agree to an unrestricted power for UKAEA to establish manufacturing ventures for non-nuclear technology. It was hoped that such technology transfer could be achieved through royalties and levies, on which advice was awaited from Deloittes. Should that advice come down against royalties the Government would be prepared to allow UKAEA limited possibilities to take minority equity stakes in joint ventures.

Mr. Walker is keen that at the meeting you should land Sir Robin, but he is worried that the cautious line worked out at the meeting would leave Sir Robin prevaricating or possibly even provoke an outright refusal. The speaking note he has submitted - Flag A - by-passes the royalties route and moves straight to allowing 25 per cent minority holdings subject to Ministerial consent where this takes the form of injection of cash rather than of know-how, men or machinery.

The Chancellor still feels that you should take the more cautious line and not give too much away until advice has been received from Deloittes, though he concedes that this is likely to favour the equity route.

Do you want:

- (i) to go hard for recruiting Sir Robin while conceding straightaway minority equity stakes subject to safeguards;

APPOINTMENTS IN CONFIDENCE

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(ii) take the risk that Sir Robin may say no or delay still further while retaining the presumption in favour of royalties;

(iii) postpone the meeting until the two Departments can agree?

AT

23 May, 1985

APPOINTMENTS IN CONFIDENCE



10 DOWNING STREET

From the Private Secretary

File M

SHZAHID

APPS

16 May 1985

CL MASTER SET

Dear Michael

SIR ROBIN NICHOLSON AND UKAEA

The Prime Minister held a meeting this afternoon to discuss the Chairmanship of UKAEA. Present were the Secretary of State for Energy, the Chancellor of the Exchequer, Sir Robert Armstrong and Mr Gregson.

The Secretary of State for Energy said Sir Robin Nicholson had the qualities to make an excellent chairman of the AEA. It was essential to appoint highly regarded people to the chairmanships of UKAEA and BNFL if the Government was to prevail in the nuclear debate. He had discussed the possible appointment with Sir Robin and a number of difficulties had emerged. Sir Robin argued that if he were to take on the job he would want to be assured that UKAEA would be allowed to enter into manufacturing ventures which made use of the non-nuclear expertise which UKAEA acquired in the course of its main activities.

In discussion, it was agreed that such technology transfer was desirable but there were objections to allowing UKAEA to expand the scope of its activities into manufacturing. The possibility that some of its ventures might turn into loss-makers also had to be considered. An alternative approach was being investigated, that of allowing UKAEA to licence the exploitation of its know-how in return for royalties or levies. The Government would shortly be receiving advice from Deloitte on this. It was argued, however, that there might be situations where an equity stake would be preferable and that it might therefore be appropriate to allow UKAEA to take a minority stake in joint manufacturing ventures. A limit of say 25 per cent could be set which would give UKAEA the right to a place on the Board of the venture.

The Secretary of State for Energy said Sir Robin Nicholson had also raised the understanding between UKAEA and CEGB on what form of research CEGB would commission and finance from UKAEA. Negotiations on this issue were continuing and Sir Robin Nicholson had discussed this with Sir Walter Marshall. It would be wrong, however, to pre-empt these negotiations in the process of settling Sir Robin's terms of appointment.

SS

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-2-

Summing up the discussion, the Prime Minister said Sir Robin Nicholson was a highly suitable candidate for the chairmanship of UKAEA. Ministers could not accede entirely to his proposals. She would see Sir Robin to explain to him that, while supporting the principle of technology transfer, the Government was awaiting advice from Deloittes on whether this could be achieved by royalties and levies. The Government would prefer this route but if this was shown not to be practicable, Ministers might be prepared to consider allowing UKAEA to take a limited minority stake in manufacturing enterprises to exploit its non-nuclear expertise.

BF | I will arrange for such a meeting but would be grateful if the Department of Energy could prepare a speaking note, agreed with the Treasury, which the Prime Minister could use in speaking to Sir Robin.

I am copying this letter to Rachel Lomax (H M Treasury), and Richard Hatfield (Cabinet Office).

*Yours sincerely
Andrew Turnbull*

Andrew Turnbull

Michael Reidy, Esq.,
Department of Energy

APPOINTMENTS IN CONFIDENCE



SECRETARY OF STATE FOR ENERGY
 THAMES HOUSE SOUTH
 MILLBANK LONDON SW1P 4QJ
 01-211-6402

✓CB/BLUP

Mark Addison Esq
 Private Secretary to the
 Prime Minister
 10 Downing Street
 LONDON SW1

15 May 1985

Dear Mark

SIR ROBIN NICHOLSON AND THE FUTURE OF UKAEA

By way of briefing for the meeting of a group of Ministers following Cabinet tomorrow on this subject, you have asked for a commentary on Sir Robin Nicholson's note on the future of the UKAEA which was attached to my Secretary of State's minute to the Prime Minister of 1 May. This is enclosed.

My Secretary of State's letter of 9 May, to the Chief Secretary, is also enclosed.

Copies go to Margaret O'Mara in the Chancellor's office and Richard Hatfield in Sir Robert Armstrong's office.

Yours sincerely

Philip Evans

P R EVANS
 Private Secretary

P.S. I enclose also, for the Prime Minister only, a copy of a personal and confidential letter from Sir Kenneth Carzens, which followed a recent meeting he had with Sir Robin Nicholson.



COMMENTARY ON SIR ROBIN NICHOLSON'S NOTE - 'THE FUTURE OF THE UKAEA'

Paragraphs 1 and 2

An extra discipline is inherent in the customer-contractor relationship and the introduction of a Trading Fund, and was intended. But it is common ground that the customer-contractor relationship will have to be carefully defined and will vary from case to case. The process of defining is now being tackled.

Paragraphs 3 and 4

The letter of objectives from the Secretary of State for Energy to the Chairman of the CEGB dated 30 November 1982 is already widely drawn in relation to nuclear power, as Sir Robin Nicholson's quotation makes clear. A formal amendment to that letter might need to be published, as was the original letter. It would be regarded as a new statement of policy and would raise questions accordingly. The consumer-oriented side of the industry could raise questions about how far CEGB financing of the AEA ought on strict commercial tests to go; and indeed the purpose of the amendment suggested is clearly to pre-empt argument by the Electricity Council. It would seem a mistake to risk stirring up controversy here by an over-formal and heavy-handed approach when good progress has been made pragmatically between the CEGB and the AEA.

Paragraph 5

Nicholson says that 'similar considerations apply to BNFL'. It is not clear that they do. BNFL is not constrained in this way by a letter of objectives, nor by statute. Certainly the Chairman, Con Allday, has not requested any similar clarification of objectives and has been generally helpful, eg on agreeing to an underlying research cost element.

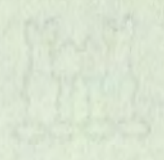
Paragraph 6

It is common ground that the Authority's role as a vital source of independent policy advice will require continued Government funding of R & D. The point was recognised in the Government statement about the implementation of the AEA Review on 11 February.

Paragraphs 7 and 8

This seems to be the main difficulty. Sir Robin wants legislation to authorise the AEA to manufacture in wholly non-nuclear areas. This would row flatly against the Government's policy of privatisation and of reducing the size of the public sector. The more limited proposal to let the Trading Fund take minority stakes in joint-venture manufacturing may be easier politically, but it is mainly a political question how far the Government wishes to go. The present AEA management is not asking for more than the authorisation of minority stakes.

conqueror

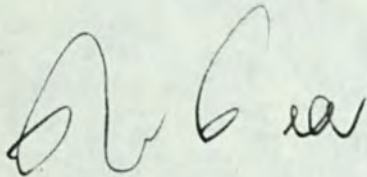


CONFIDENTIAL

01 211 6402

The Rt Hon Peter Rees QC MP
Chief Secretary to the Treasury
Treasury Chambers
Parliament Street
LONDON
SW1P 3AG

9 May 1985



AEA BILL: COVERAGE

Following consultations with your officials, Instructions have been sent to Parliamentary Counsel on the essential financial provisions required to implement the decisions we reached at E(NI) last year (E(NI)(84)7th meeting) to put the Atomic Energy Authority on a Trading Fund basis from 1 April 1986 and to allow it to borrow. Brief details of these provisions are annexed.

Two further policy issues have now emerged. First, the Atomic Energy Authority Board have requested specific provisions to enable them to take minority equity stakes in companies carrying out non-nuclear manufacturing, where the lawyers have ruled that under the current statutory framework they could be held to be acting ultra vires.

The Authority Board argue that by taking equity stakes in companies in return for intellectual property rights and possibly a small cash injection, non-nuclear inventions at Harwell are more likely to be successfully commercialised and marketed. Through such partnerships with the private sector they expect to achieve quicker and more effective technology transfer to UK industry as well as opening the door in particular cases to better financial returns on publicly-funded R&D than through licensing.

Whilst I recognise there could be some concern about the extension of public sector activity implied here I think that the potential benefits are worthwhile, and could be positively presented in the House. I could also point if necessary to my powers under the Atomic Energy Authority (Miscellaneous Provisions) Act 1981 to ensure disposal of successful investments to the benefit of the Exchequer in due course. And in the short term the measure could help to stimulate the creation of new businesses within the UK.

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CONFIDENTIAL



I am therefore inclined to agree to their request.

Secondly, I have been giving thought, as I understand you have also, to whether we should facilitate some eventual privatisation of parts of the Authority's existing business, even though this is not an immediate prospect. I think it would be wrong to include provisions whereby I could effectively direct the breakup of the Authority and hive off whole sites like Harwell with its crucial work on nuclear safety etc. This would be a major departure from what we envisaged when Alastair Goodlad made his statement in the House in February and would make the passage of the Bill much more difficult.

I have also considered provisions restricted to the non-nuclear activities of the Authority. This would be less controversial but is not in fact necessary in relation to equity investments, given my existing powers to enforce disposal. I have in addition wide powers under Section 4(2) of the 1954 Act to ensure that the financial benefits of equity holdings or the sales hereof come back to the Exchequer in one form or another. To go further and take additional powers would, I fear, expose us to criticism that we were undermining the Trading Fund even before it started and would be only a degree less difficult to defend than provisions for hiving off any part of the Authority's activities.

I hope therefore that you can agree not to pursue this aspect further.

Finally, we also need to include two minor provisions in the Bill relating to nuclear insurance arrangements. First, I propose to take powers to enable the Government to underwrite the indemnities that are given by the AEA to BNFL and third parties in respect of certain nuclear liabilities that cannot be insured commercially. It would be inappropriate for the Trading Fund to bear these third party risks in future and we will, of course, arrange for appropriate premiums to be paid into the Consolidation Fund. Secondly, a technical amendment of the Nuclear Installations Act 1965, relating to insurance cover periods, is required.

I am copying this letter to the Prime Minister, the Lord President, Members of E(NI) and Sir Robert Armstrong.

PETER WALKER

CONFIDENTIAL



DEPARTMENT OF ENERGY
THAMES HOUSE SOUTH
MILLBANK
LONDON SW1P 4QJ

01-211 4391

8 May 1985

SIR KENNETH COUZENS KCB
PERMANENT UNDER-SECRETARY OF STATE

Dear Robin

AEA MANUFACTURING

When we spoke last week about manufacturing by the AEA, following your meeting with Peter Walker, I said that I would look again at what were the possibilities under existing legislation. You continued to feel strongly that, as you put it in your letter of 30 April, the AEA should "be able to exploit its R & D in the modern way by demonstration, manufacturing and marketing of new products and processes, normally in partnership with private sector interests".

2. As far as nuclear technology is concerned, there is, as I understand it, no problem. The AEA is already authorised by the 1954 Act to participate in the manufacturing of items of nuclear technology.

3. So the problem only arises in the non-nuclear field. But even here there is considerable scope, I would have thought, for arguing that the existing powers enable the Authority to invest in manufacturing nuclear technology for application to non-nuclear fields. Certainly, Ivor Manley tells me that on a recent visit to Harwell, he was advised that two nucleonic instruments, obviously of a nuclear character but to be applied in an offshore context, were fully exploitable under existing powers.

4. That seems to leave products which are entirely non-nuclear, by nature as well as application. Here what we have in mind is to propose new powers to allow the Authority to take minority equity stakes in companies to exploit non-nuclear technologies. Such exploitation could, as I see it, include manufacturing on a joint venture basis, which is what you are seeking.

... The proposal



5. The proposal for minority equity stakes has yet to receive collective Ministerial approval. As you know, there could be political objections to extending in this way the remit of a public sector body and thus the boundaries of the public sector. But we are hopeful that, in the Trading Fund context, the case for this extra power will be accepted. To make the powers of manufacturing any more explicit would clearly increase the political difficulty.

6. What I am arguing, therefore, is that there is sufficient flexibility in the present and proposed legislative framework to go virtually as far as you wish to go. I thought I should let you know of my conclusion that to push the argument further runs the risk of coming up against a political block which, in all the circumstances, would be a disappointing outcome to these discussions.

Yours sincerely

Ker

Sir Robin Nicholson FRS
Chief Scientific Adviser
Cabinet Office
70 Whitehall
LONDON SW1A 2AS

Attachment to letter from Secretary of State for Energy to Chief Secretary , dated 9 May 1985.

ANNEX

AEA BILL : FINANCIAL PROVISIONS.

- i) powers for the AEA to borrow up to a specified limit, subject to the approval of the Secretary of State and Treasury;
- ii) powers for the Secretary of State to lend monies to the AEA out of the NLF, and for the Treasury to guarantee non-NLF borrowing;
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- iv) a requirement on the AEA to seek the prior consent of the Secretary of State before guaranteeing the borrowing of subsidiaries or giving guarantees or indemnities to third parties. (Secretary of State would expect to control their power to invest in subsidiaries or other companies through his wide powers of direction under the 1954 Atomic Energy Authority Act);
- v) power for the Secretary of State to approve the AEA's capital expenditure programmes;
- vi) power to compensate Authority Board members in the event of dismissal;
- vii) repeal of Section 1(8) of the 1954 AEA Act which requires the Secretary of State to lay statements before the House on the remuneration of AEA Board members;

APRIL 1985

THE FUTURE OF THE UKAEA

The revenue earning parts of atomic energy are CEGB, BNFL and, at a lower level, NNC and private sector companies like Amersham. The future size and scope of UKAEA must relate to, and be largely funded from, these revenues. E(NI) accepted that this would mean some transfer of funding from the Department of Energy to the beneficiaries of the UKAEA's research.

2. But several of the companies involved are not true free market organisations and hence there has to be an element of artificiality about a customer-contractor relationship between them and UKAEA. The proper definition of this relationship is important during the transfer of funding if the UKAEA is not to be impossibly squeezed between a reducing Department spend and reluctant customers who have difficulty in justifying the increased expenditure to their customers eg the Electricity Council.

3. The letter from the Secretary of State for Energy to the Chairman of the CEGB dated 30 November, 1982 requires the latter to "ensure that the Board does all possible to explore and exploit the full potential of nuclear power to contribute to the cheap, effective and safe production of electricity". A subsequent letter confirmed that this remit included responsibility for an effective nuclear power station construction industry. Clearly all this requires on-going research on many aspects of atomic energy.

4. The chairman of the CEGB has indicated that he has no intention of adding to the Board's own nuclear research facilities while the UKAEA can provide, through a customer-contractor relationship, high quality expertise and facilities on a competitive basis. But it needs to be made clear to the Chairman (and to the Electricity Council) that the remit quoted in paragraph 3 does include research in the design, operation and safety of nuclear power stations, the development of improved nuclear power facilities, novel methods of generating power from atomic energy and the underlying research associated with all these items.

5. Similar considerations apply to BNFL in connection with research on nuclear fuel, fuel element reprocessing and (together with the CEGB) on the storage and disposal of radioactive waste. Again underlying research associated with these items should be included.

6. E(NI) accepted that while the UKAEA would never again occupy a sole central position in research, development and design of nuclear equipment, it will remain a vital source of independent policy advice for HMG and the Department of Energy in particular. This function will require a continuing R & D activity, for example in safety and new reactor systems which will be the basis of a permanent vote-funded activity in UKAEA.

7. There is no rational reason for dividing science and technology between nuclear and non-nuclear activities and the many years of UKAEA nuclear R & D have resulted in it becoming a general repository of technological skills and knowledge of formidable power. In its so-called non-nuclear activities, the UKAEA has made this resource available to British industry as a whole. But it has been shackled by regulations which give the UKAEA substantial constraints in exploiting its R & D in a non-nuclear context.

8. This differential between nuclear and non-nuclear must be removed if the UKAEA's technological assets are to be effectively utilized. Then the UKAEA would be able to exploit its R & D in the modern way by demonstration, manufacturing and marketing of new products and processes, normally in partnership with private sector interests.

COMMENTARY ON SIR ROBIN NICHOLSON'S NOTE - 'THE FUTURE OF THE UKAEA'

Paragraphs 1 and 2

An extra discipline is inherent in the customer-contractor relationship and the introduction of a Trading Fund, and was intended. But it is common ground that the customer-contractor relationship will have to be carefully defined and will vary from case to case. The process of defining is now being tackled.

Paragraphs 3 and 4

The letter of objectives from the Secretary of State for Energy to the Chairman of the CEGB dated 30 November 1982 is already widely drawn in relation to nuclear power, as Sir Robin Nicholson's quotation makes clear. A formal amendment to that letter might need to be published, as was the original letter. It would be regarded as a new statement of policy and would raise questions accordingly. The consumer-oriented side of the industry could raise questions about how far CEGB financing of the AEA ought on strict commercial tests to go; and indeed the purpose of the amendment suggested is clearly to pre-empt argument by the Electricity Council. It would seem a mistake to risk stirring up controversy here by an over-formal and heavy-handed approach when good progress has been made pragmatically between the CEGB and the AEA.

Paragraph 5

Nicholson says that 'similar considerations apply to BNFL'. It is not clear that they do. BNFL is not constrained in this way by a letter of objectives, nor by statute. Certainly the Chairman, Con Allday, has not requested any similar clarification of objectives and has been generally helpful, eg on agreeing to an underlying research cost element

Paragraph 6

It is common ground that the Authority's role as a vital source of independent policy advice will require continued Government funding of R & D. The point was recognised in the Government statement about the implementation of the AEA Review on 11 February.

Paragraphs 7 and 8

This seems to be the main difficulty. Sir Robin wants legislation to authorise the AEA to manufacture in wholly non-nuclear areas. This would row flatly against the Government's policy of privatisation and of reducing the size of the public sector. The more limited proposal to let the Trading Fund take minority stakes in joint-venture manufacturing may be easier politically, but it is mainly a political question how far the Government wishes to go. The present AEA management is not asking for more than the authorisation of minority stakes.

APPOINTMENTS IN CONFIDENCEPRIME MINISTERSIR ROBIN NICHOLSON AND THE FUTURE OF UKAEA

Mr. Walker has been in discussion with Sir Robin Nicholson over the terms on which Sir Robin would be prepared to take over the chairmanship of UKAEA. Flag A sets out Sir Robin's objectives and Flag B provides the Department of Energy's comments. The issues are:

- (i) Sir Robin wants to use these discussions to tie CEGB more tightly into financing UKAEA research by widening the definition of what research it is that CEGB will buy from UKAEA. The Department are worried that the delicate negotiations with the CEGB could be upset.
- (ii) Sir Robin wishes also to increase the commitment of BNFL towards UKAEA.
- (iii) Sir Robin wishes to establish the right of UKAEA to undertake manufacturing, normally in joint ventures, to exploit its non-nuclear expertise. Ministers will need to consider whether they are prepared to concede an expansion in the scope of a public sector body. Mr. Walker supports allowing UKAEA to take minority equity stakes in non-nuclear manufacturing ventures.

APPOINTMENTS IN CONFIDENCE

-2-

You will want to ask Mr. Walker how far he thinks Ministers should go to meeting Sir Robin's demands. It should be borne in mind that there is a process of negotiation going on here and Mr. Walker will need to leave the meeting with a clear idea of what he can offer and how much latitude he has. In part this will depend on how badly he wants Sir Robin to take on the job.

HG

(Andrew Turnbull)

15 May, 1985APPOINTMENTS IN CONFIDENCE



File VB
L03AGJ

10 DOWNING STREET

From the Private Secretary

15 May 1985

CHAIRMANSHIP OF THE ATOMIC ENERGY AUTHORITY

The Chancellor and Sir Robert Armstrong are, as you know, joining the Energy Secretary at a meeting with the Prime Minister on Thursday after Cabinet to consider the Chairmanship of the AEA. I attach papers for the meeting as follows:

- FLAG A — (i) Robin Nicholson's letter to the Energy Secretary of 30 April, covering a note on the future of the Authority.
- FLAG B — (ii) The Energy Secretary's minute to the Prime Minister of 9 May, covering a letter to Peter Rees dealing, among other things, with a proposal to allow the AEA Board to take minority stakes in companies carrying out non-nuclear work.
- FLAG C — (iii) The Energy Secretary's minute to the Prime Minister of 1 May.

Before the meeting, Energy will be circulating a note setting out their response to Sir Robin Nicholson's proposals.

I am copying this letter and the enclosures to Richard Hatfield (Cabinet Office).

MARK ADDISON

Mrs. Rachel Lomax,
H.M. Treasury.

COB/OP

01-211-6402

Mark Addison Esq
Private Secretary to the
Prime Minister
10 Downing Street
LONDON SW1

15 May 1985

Dear Mark

SIR ROBIN NICHOLSON AND THE FUTURE OF UKAEA

By way of briefing for the meeting of a group of Ministers following Cabinet tomorrow on this subject, you have asked for a commentary on Sir Robin Nicholson's note on the future of the UKAEA which was attached to my Secretary of State's minute to the Prime Minister of 1 May. This is enclosed.

My Secretary of State's letter of 9 May, to the Chief Secretary, is also enclosed.

Copies go to Margaret O'Mara in the Chancellor's office and Richard Hatfield in Sir Robert Armstrong's office.

*Yours sincerely**Philip Evans*

P R EVANS
Private Secretary

P.S. I enclose also, for the Prime Minister only, a copy of a personal and confidential letter from Sir Kenneth Carzens, which followed a recent meeting he had with Sir Robin Nicholson.

COMMENTARY ON SIR ROBIN NICHOLSON'S NOTE - 'THE FUTURE OF THE UKAEA'

Paragraphs 1 and 2

An extra discipline is inherent in the customer-contractor relationship and the introduction of a Trading Fund, and was intended. But it is common ground that the customer-contractor relationship will have to be carefully defined and will vary from case to case. The process of defining is now being tackled.

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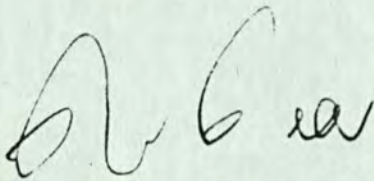
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01 211 6402

The Rt Hon Peter Rees QC MP
Chief Secretary to the Treasury
Treasury Chambers
Parliament Street
LONDON
SW1P 3AG

9 May 1985



AEA BILL: COVERAGE

Following consultations with your officials, Instructions have been sent to Parliamentary Counsel on the essential financial provisions required to implement the decisions we reached at E(NI) last year (E(NI))(84)7th meeting) to put the Atomic Energy Authority on a Trading Fund basis from 1 April 1986 and to allow it to borrow. Brief details of these provisions are annexed.

Two further policy issues have now emerged. First, the Atomic Energy Authority Board have requested specific provisions to enable them to take minority equity stakes in companies carrying out non-nuclear manufacturing, where the lawyers have ruled that under the current statutory framework they could be held to be acting ultra vires.

The Authority Board argue that by taking equity stakes in companies in return for intellectual property rights and possibly a small cash injection, non-nuclear inventions at Harwell are more likely to be successfully commercialised and marketed. Through such partnerships with the private sector they expect to achieve quicker and more effective technology transfer to UK industry as well as opening the door in particular cases to better financial returns on publicly-funded R&D than through licensing.

Whilst I recognise there could be some concern about the extension of public sector activity implied here I think that the potential benefits are worthwhile, and could be positively presented in the House. I could also point if necessary to my powers under the Atomic Energy Authority (Miscellaneous Provisions) Act 1981 to ensure disposal of successful investments to the benefit of the Exchequer in due course. And in the short term the measure could help to stimulate the creation of new businesses within the UK.



I am therefore inclined to agree to their request.

Secondly, I have been giving thought, as I understand you have also, to whether we should facilitate some eventual privatisation of parts of the Authority's existing business, even though this is not an immediate prospect. I think it would be wrong to include provisions whereby I could effectively direct the breakup of the Authority and hive off whole sites like Harwell with its crucial work on nuclear safety etc. This would be a major departure from what we envisaged when Alastair Goodlad made his statement in the House in February and would make the passage of the Bill much more difficult.

I have also considered provisions restricted to the non-nuclear activities of the Authority. This would be less controversial but is not in fact necessary in relation to equity investments, given my existing powers to enforce disposal. I have in addition wide powers under Section 4(2) of the 1954 Act to ensure that the financial benefits of equity holdings or the sales hereof come back to the Exchequer in one form or another. To go further and take additional powers would, I fear, expose us to criticism that we were undermining the Trading Fund even before it started and would be only a degree less difficult to defend than provisions for hiving off any part of the Authority's activities.

I hope therefore that you can agree not to pursue this aspect further.

Finally, we also need to include two minor provisions in the Bill relating to nuclear insurance arrangements. First, I propose to take powers to enable the Government to underwrite the indemnities that are given by the AEA to BNFL and third parties in respect of certain nuclear liabilities that cannot be insured commercially. It would be inappropriate for the Trading Fund to bear these third party risks in future and we will, of course, arrange for appropriate premiums to be paid into the Consolidation Fund. Secondly, a technical amendment of the Nuclear Installations Act 1965, relating to insurance cover periods, is required.

I am copying this letter to the Prime Minister, the Lord President, Members of E(NI) and Sir Robert Armstrong.

PETER WALKER



DEPARTMENT OF ENERGY
THAMES HOUSE SOUTH
MILLBANK
LONDON SW1P 4QJ

01-211 4391

SIR KENNETH COUZENS KCB
PERMANENT UNDER-SECRETARY OF STATE

8 May 1985

Dear Robin

AEA MANUFACTURING

When we spoke last week about manufacturing by the AEA, following your meeting with Peter Walker, I said that I would look again at what were the possibilities under existing legislation. You continued to feel strongly that, as you put it in your letter of 30 April, the AEA should "be able to exploit its R & D in the modern way by demonstration, manufacturing and marketing of new products and processes, normally in partnership with private sector interests".

2. As far as nuclear technology is concerned, there is, as I understand it, no problem. The AEA is already authorised by the 1954 Act to participate in the manufacturing of items of nuclear technology.

3. So the problem only arises in the non-nuclear field. But even here there is considerable scope, I would have thought, for arguing that the existing powers enable the Authority to invest in manufacturing nuclear technology for application to non-nuclear fields. Certainly, Ivor Manley tells me that on a recent visit to Harwell, he was advised that two nucleonic instruments, obviously of a nuclear character but to be applied in an offshore context, were fully exploitable under existing powers.

4. That seems to leave products which are entirely non-nuclear, by nature as well as application. Here what we have in mind is to propose new powers to allow the Authority to take minority equity stakes in companies to exploit non-nuclear technologies. Such exploitation could, as I see it, include manufacturing on a joint venture basis, which is what you are seeking.

... The proposal



5. The proposal for minority equity stakes has yet to receive collective Ministerial approval. As you know, there could be political objections to extending in this way the remit of a public sector body and thus the boundaries of the public sector. But we are hopeful that, in the Trading Fund context, the case for this extra power will be accepted. To make the powers of manufacturing any more explicit would clearly increase the political difficulty.

6. What I am arguing, therefore, is that there is sufficient flexibility in the present and proposed legislative framework to go virtually as far as you wish to go. I thought I should let you know of my conclusion that to push the argument further runs the risk of coming up against a political block which, in all the circumstances, would be a disappointing outcome to these discussions.

Yours sincerely

Ken

Sir Robin Nicholson FRS
Chief Scientific Adviser
Cabinet Office
70 Whitehall
LONDON SW1A 2AS

Agreed
R/B

- 1. MR. BUTLER
- 2. MRS. RYDER

- if you agree

- 1. ~~Coyote~~ CP.
Now faced for after
Cabinet on 16/5
- 2. CF. I have comminced
a role from D/En.
Met 10/5

MEETING TO DISCUSS CHAIRMANSHIP OF THE AEA

I have had a word with Andrew Turnbull about the proposed meeting with the Energy Secretary, Sir Robert Armstrong and Sir Robin Nicholson, to which the Prime Minister has agreed. Andrew and I agreed that, on reflection, the meeting might, in the first instance, not involve Sir Robin Nicholson. This would remove the awkwardness which could arise because the major issue reflecting Sir Robin's appointment as the Chairman is the extent to which the authority can adopt the role he proposes.

I have tried the idea out on Energy, and their Secretary of State is happy to play the meeting in this way. They are providing us with a note on their reactions to Sir Robin's proposals, and those two documents will form the basis for the discussion.

Would you please set up a meeting with the Energy Secretary, Sir Robert Armstrong and, I think, the Chancellor. I think we need to set aside 3/4 hr. We should try to fix it up within the next couple of weeks, if at all possible.

11.15 15/5

Mark Addison

Mark Addison
9 May 1985

SECRET



copy no 1672.

PRIME MINISTER

AEA

I have not mentioned in the attached letter to Peter Rees that there is an additional point about empowering the AEA to take minority equity stakes in manufacturing companies. It is that Robin Nicholson whom I am, as you know, trying to recruit as Chairman of the Authority, has repeatedly pressed for full manufacturing powers for the AEA in the non-nuclear field and has come close to making this a condition of acceptance. The minority share proposal is a half-loaf as far as he is concerned but I believe we could sensibly go this far to meet him.

SECRETARY OF STATE FOR ENERGY

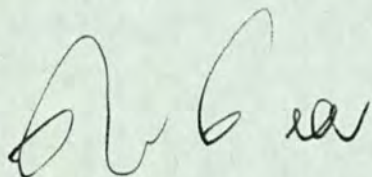
9 May 1985

SECRET

01 211 6402

The Rt Hon Peter Rees QC MP
Chief Secretary to the Treasury
Treasury Chambers
Parliament Street
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SW1P 3AG

9 May 1985



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Two further policy issues have now emerged. First, the Atomic Energy Authority Board have requested specific provisions to enable them to take minority equity stakes in companies carrying out non-nuclear manufacturing, where the lawyers have ruled that under the current statutory framework they could be held to be acting ultra vires.

The Authority Board argue that by taking equity stakes in companies in return for intellectual property rights and possibly a small cash injection, non-nuclear inventions at Harwell are more likely to be successfully commercialised and marketed. Through such partnerships with the private sector they expect to achieve quicker and more effective technology transfer to UK industry as well as opening the door in particular cases to better financial returns on publicly-funded R&D than through licensing.

Whilst I recognise there could be some concern about the extension of public sector activity implied here I think that the potential benefits are worthwhile, and could be positively presented in the House. I could also point if necessary to my powers under the Atomic Energy Authority (Miscellaneous Provisions) Act 1981 to ensure disposal of successful investments to the benefit of the Exchequer in due course. And in the short term the measure could help to stimulate the creation of new businesses within the UK.

CONFIDENTIAL



I am therefore inclined to agree to their request.

Secondly, I have been giving thought, as I understand you have also, to whether we should facilitate some eventual privatisation of parts of the Authority's existing business, even though this is not an immediate prospect. I think it would be wrong to include provisions whereby I could effectively direct the breakup of the Authority and hive off whole sites like Harwell with its crucial work on nuclear safety etc. This would be a major departure from what we envisaged when Alastair Goodlad made his statement in the House in February and would make the passage of the Bill much more difficult.

I have also considered provisions restricted to the non-nuclear activities of the Authority. This would be less controversial but is not in fact necessary in relation to equity investments, given my existing powers to enforce disposal. I have in addition wide powers under Section 4(2) of the 1954 Act to ensure that the financial benefits of equity holdings or the sales hereof come back to the Exchequer in one form or another. To go further and take additional powers would, I fear, expose us to criticism that we were undermining the Trading Fund even before it started and would be only a degree less difficult to defend than provisions for hiving off any part of the Authority's activities.

I hope therefore that you can agree not to pursue this aspect further.

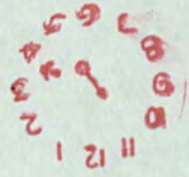
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I am copying this letter to the Prime Minister, the Lord President, Members of E(NI) and Sir Robert Armstrong.

A large, stylized handwritten signature in dark ink, consisting of a large loop on the left and a series of smaller loops on the right.

PETER WALKER

CONFIDENTIAL



-9 MAY 1985

File

T.P.M.



Secretary of State

for Energy

with AT?

To be attached to Peter Walker's
letter of 9 May to the
Chief Secretary on
AEA: Bill: coverage.

Attachment to letter from Secretary of State for Energy to Chief Secretary , dated 9 May 1985.

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- vi) power to compensate Authority Board members in the event of dismissal;
- vii) repeal of Section 1(8) of the 1954 AEA Act which requires the Secretary of State to lay statements before the House on the remuneration of AEA Board members;

APRIL 1985

A E V A

10 MAY 1965



1. PRRB

2. MRS RYDER

Meeting to discuss Chairmanship of the AEA

As you will see from the attached, the Prime Minister has agreed to a meeting with the Energy Secretary, Sir Robert Armstrong and Sir Robin Nicholson. I think we need to set aside at least $\frac{3}{4}$ hour. From Peter Walker's minute, it is clear that we should try to fix up the meeting sooner rather than later.

Not sent.

D/Rh to report back on the idea of a meeting + Ch/Ex, but not Sir R., to discuss, with benefit of a note from Energy committee re Sir R's note of 30 April.

MAA

Mark Addison

7 May 1985



yes. Pl.
involve
Sir Robert

10 DOWNING STREET Amrthang.

Robin Butler

FRB

For should be aware of
this.

Wanted for me to seek
PM's agreement to a
meeting, as suggested by S/En?

MHA

2/5-

Agents



Prime Minister. ①

PRIME MINISTER

Yes Mr

*Content for who
away a meeting with
Energy Secretary, Sir Robin
Nicholson and Sir Robert Armstrong?*

MKA 2/5

CHAIRMANSHIP OF THE ATOMIC ENERGY AUTHORITY

As you will know I have had discussions with Sir Robin Nicholson about the possibility of his taking over the Chairmanship of the Authority. We need somebody who can combine a reputation for scientific excellence with determination to improve the Authority's commercial performance and I believe that he could do the job well.

In our discussions he has raised a number of points of principle about the Authority's future role. These are set out in the attached letter. Understandably he wishes to know whether these ideas are likely to find favour with the Government before making a final decision on whether to accept the post.

I think the best way of taking this forward might be for you to convene a small gathering of myself, Nicholson, and whoever else you would like to invite, to talk through his ideas. There is some urgency, since the existing Chairman, Arnold Allen, retires at the end of September and if Nicholson declines I shall need to seek an alternative candidate without delay.

SECRETARY OF STATE FOR ENERGY

1 May 1985



10 DOWNING STREET

~~Andrew Tuntall.~~

We shall need to consider
this at the meeting to discuss
the future of AEA.

MAA 7/5

↪

PERSONAL AND CONFIDENTIAL

MR PETER WALKER

30 April 1985

Dear Secretary of State,

UKAEA.

In connection with our meeting tomorrow, I attach a revised version of my letter sent to you on 14 March. The revisions have been made as a result of discussions with Walter Marshall, Arnold Allen, Peter Hirsch and your officials. I believe that the pattern of work I describe is entirely consistent with the E(NI) discussion and is the most effective way of utilizing the Authority's technological assets to serve the nuclear power industry, your Department's policy and statutory duties, and the private sector of British industry as a whole.

I recognise, however, that what I say does pose some political problems and I welcome your suggestion to discuss these with the Prime Minister. You might also feel it appropriate to involve the Chancellor of the Exchequer or the Chief Secretary.

Yours sincerely,

Robin Nicholson

ROBIN NICHOLSON
Chief Scientific Adviser

att

THE FUTURE OF THE UKAEA

The revenue earning parts of atomic energy are CEGB, BNFL and, at a lower level, NNC and private sector companies like Amersham. The future size and scope of UKAEA must relate to, and be largely funded from, these revenues. E(NI) accepted that this would mean some transfer of funding from the Department of Energy to the beneficiaries of the UKAEA's research.

2. But several of the companies involved are not true free market organisations and hence there has to be an element of artificiality about a customer-contractor relationship between them and UKAEA. The proper definition of this relationship is important during the transfer of funding if the UKAEA is not to be impossibly squeezed between a reducing Department spend and reluctant customers who have difficulty in justifying the increased expenditure to their customers eg the Electricity Council.

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6. E(NI) accepted that while the UKAEA would never again occupy a sole central position in research, development and design of nuclear equipment, it will remain a vital source of independent policy advice for HMG and the Department of Energy in particular. This function will require a continuing R & D activity, for example in safety and new reactor systems which will be the basis of a permanent vote-funded activity in UKAEA.

7. There is no rational reason for dividing science and technology between nuclear and non-nuclear activities and the many years of UKAEA nuclear R & D have resulted in it becoming a general repository of technological skills and knowledge of formidable power. In its so-called non-nuclear activities, the UKAEA has made this resource available to British industry as a whole. But it has been shackled by regulations which give the UKAEA substantial constraints in exploiting it's R & D in a non-nuclear context.

8. This differential between nuclear and non-nuclear must be removed if the UKAEA's technological assets are to be effectively utilized. Then the UKAEA would be able to exploit it's R & D in the modern way by demonstration, manufacturing and marketing of new products and processes, normally in partnership with private sector interests.

Mr. Ian Wrigglesworth (Stockton, South): Do not the anxieties mentioned by the hon. Member for Canterbury (Mr. Crouch) exist because the country and the House are so uncertain about the Government's hopes and intentions for energy supplies from all different sources in the coming years? Will the Secretary of State make much more clear to the House and to the country how the Government see the energy mix for the future, so that better judgments can be made on such deals? What is the British Gas Corporation's reaction to the decision that he has just announced?

Mr. Walker: The British Gas Corporation must be free to make its own pronouncements. It has been fully consulted throughout and knows of the adjustments we have made with regard to capacity and also the validity of the reasons on which we have based our judgments. Obviously, having negotiated the Sleipner deal, the corporation must be disappointed that it has not been completed. I am sure that the BGC will wish to continue good relations with Norway as a potential supplier of gas in future, as it is at the present time.

On the hon. Gentleman's question about projections on a whole range of energy supplies, I remind him—although not wishing to do so—of his political past. The party of which he used to be a member published a series of projections for energy supplies over five and 10-year periods, but the only thing that can be said about them is that they were all proved to be dramatically wrong.

Atomic Energy Authority

4.10 pm

The Parliamentary Under-Secretary of State for Energy (Mr. Alastair Goodlad): With your permission, Mr. Speaker, I should like to make a statement about the future of the Atomic Energy Authority. My right hon. Friend the Secretary of State for Energy told Parliament on 28 March that he had set in hand a wide-ranging review of the role and activities of the authority. On 3 October he placed in the Library of the House a press statement which summarised the recommendations of the review. Following consultations with the interested parties, I can now inform the House of the conclusions reached by the Government.

Since the authority was established in 1954 as a vote-funded body with a high degree of statutory independence, it has made a crucial contribution to the development of the civil uses of nuclear power in this country. Today, civil nuclear power is an essential and established part of our national life. Last year more than 18 per cent. of electricity supplied in the United Kingdom was nuclear. The proportion will reach 21 per cent. when the three nuclear stations most recently linked to the national grid reach full power, with a further increase when stations now under construction are completed. The civil nuclear industry in the widest sense now provides about 100,000 jobs. All this has been achieved with an excellent safety record. The authority's work is held in high regard and it will continue to have a major role to play in both the nuclear and non-nuclear field.

The review had two guiding principles: first, that the authority should move further towards a commercial basis of operation; secondly, that a defined customer-contractor relationship should be applied as far as possible to its work. The Government fully endorse those principles.

The review recommended, and the Government accept, that the activities of the authority should be placed on a trading fund basis. The authority will be required to account for its activities in a fully commercial manner, within financial objectives set by the Secretary of State. We intend to provide the authority with a capital structure and powers to borrow as required to enable it to operate as a trading fund from April 1986, and will introduce legislation as soon as possible for that purpose.

I have considered carefully, in consultation with the authority and with its customers in the nuclear industry, how the principles of the review should apply to the funding of particular programmes at present financed by my Department. A balance is required between the application of the customer-contractor principle, which is valuable for financial discipline and a more commercial approach, and the retention of an independent capability for safety and underlying research in the authority. The electricity industry, like the Government, attaches importance to that independent capability. Although the generating boards will increase the amount of work which they pay for on a customer-contractor basis, my Department will continue to fund a substantial authority programme of thermal reactor and general safety research. The Government broadly endorse a recommendation of the review group that there should be an element in the authority's charges to customers, including the

[Mr. Alastair Goodlad]

Department, in respect of underlying research. I am discussing the application of this recommendation with those principals concerned.

The effect of the proposals will be to carry further the development of recent years under which the funding of the authority's expenditure has become more broadly based and proportionately less dependent on Department of Energy Votes. In particular, there will be a further increase in funding by the CEGB. With other changes, I expect this to result in a reduction of £5 million in my departmental Vote in 1985-86 compared with previous plans.

I have already mentioned the authority's contribution to the development of civil nuclear power in this country. It continues to give valuable support to the nuclear industry in both the public and private sectors. It is diversifying its services in the non-nuclear field, and has made an important contribution to technology relevant to North sea development.

The evolutionary changes I have just announced will put the authority on an increasingly commercial footing and will give its staff a new incentive. I am confident that the changes will enable the authority further to develop its role and contribution to the economy on both a national and international basis. I am also confident that all those concerned will join in taking full advantage of this new opportunity.

Mr. Alexander Eadie (Midlothian): The Minister's announcement is unsatisfactory on three counts. First, as the Minister said, to put the authority on a commercial basis is an evolutionary change. We believe that it is a change towards privatisation. I draw the Minister's attention to the note appended to the statement of 3 October so that the House is under no misunderstanding about the way in which the Government have clothed today's statement. Paragraph 9, entitled

"The Authority as a Trading Fund" states:

"The extension of the customer/contractor approach to the Authority's nuclear work for the Department would be facilitated by putting the Authority on a Trading Fund basis. This would require all work to be accounted for on a fully commercial basis, impose additional discipline through the requirement to meet financial objectives, create financial flexibility between years, highlight major issues which need to be dealt with in commercial terms, and facilitate possible eventual privatisation."

Secondly, does the Minister realise that the people of this country will be appalled that work connected with nuclear power, whether research or in any other area, will be on a commercial basis, in private hands? The Minister has argued that the justification for that is the saving of £5 million. That is not an argument; it is an unsafe betrayal in the interests of private profit.

Thirdly, is it not monstrous that the result of the announcement will be to take from Parliament the right to question and seek accountability for that aspect of nuclear power activity?

The Government appear not only to be preparing the way for privatisation, but to be weakening the authority of Parliament.

Mr. Goodlad: I may be able to put some of the hon. Gentleman's fears at rest. There are no plans to privatise the Atomic Energy Authority. Therefore, the fears that animated his first and second points do not apply.

On the hon. Gentleman's third point, there will be a reduction in accountability to this House because of the change to the trading fund.

Mr. John Hannam (Exeter): Does my hon. Friend agree that this decision really consolidates the existing trend on outside financing? Will he reiterate that research into the safety of nuclear reactors will still be a top priority of the Government?

Mr. Goodlad: My hon. Friend is quite right to say that the move to a trading fund will reinforce a trend that is already taking place. He is also correct to say that the resources available to the authority for thermal reactor and general safety research will not be reduced. The Department will continue to fund substantial authority programmes in that area. The Government attach paramount importance to safety, and will continue to do so.

Mr. Merlyn Rees (Morley and Leeds, South): Under the trading fund structure, will capital borrowings now cease to be counted by the Treasury in the public expenditure totals?

Mr. Goodlad: The capital structure of the trading fund has yet to be established by my right hon. Friend, and will be the subject of continuing consultations.

Mr. Rob Hayward (Kingswood): In welcoming the statement, may I ask whether the authority will continue to co-operate with its European partners in the projects that are currently operating?

Mr. Goodlad: Yes, Sir.

Mr. Robert MacLennan (Caithness and Sutherland): I accept that, after it has successfully spearheaded the development and research of the nuclear programme during about 30 years, it is sensible to move towards a recognition of the commercial possibilities of the authority. However, does the Minister realise that his statement is unsatisfactorily opaque in that, although it accepts in principle, the recommendation of a trading fund, it does not begin to define which matters will still be funded by the Department? There have been six months of consultation on this matter. Is there a risk that fundamental research will not be commissioned, and therefore, not carried out? How does the Minister propose to continue to fund the fast-breeder reactor programme?

Mr. Goodlad: I said in my statement that the underlying research of the authority will remain a priority. That will be the case. My Department will continue to provide funding to underlying research, and the industry will also contribute. The position of the fast-breeder reactor programme will remain as it is at present. The programme is proceeding through the collaborative arrangements set out in the intergovernmental memorandum of understanding which my right hon. Friend the Secretary of State signed in January last year. The resources available to the programme are not changed by this decision, but the work will be carried out on a more explicit customer-contractor relationship between the Department and the authority.

Viscount Cranborne (Dorset, South): My hon. Friend's statement will be studied with the keenest interest at the atomic energy establishment at Winfrith, which is the largest employer in my constituency. The workers there will appreciate his remarks about their work in safety

nuclear matters, and about the additional research that they have done on North sea oil. However, will he give them some assurance this afternoon as to whether the commercial implications of his statement, which I am sure will be broadly welcomed, will give undue leverage to the Central Electricity Generating Board over the authority's activities? Does he accept that many people throughout the industry, and especially in my constituency, would be most grateful for a reassurance on this matter?

Mr. Goodlad: I join my hon. Friend in paying tribute to the distinguished work that has been done at Winfrith for many years, in which I know he has taken a close interest. I assure him that no undue influence will follow this review either from the CEGB or anyone else.

Dr. M. S. Miller (East Kilbride): The Minister referred to research, notably in connection with the fast-breeder reactor. What effect will the Government's proposals have on longer-term research into changing to the fusion process instead of fission?

Mr. Goodlad: The review of the authority did not cover fusion. The position remains that research into fusion forms an integral part of the Euratom fusion programme and is a successful example of European co-operation in a high technology sector. Recently I announced that the Government's direct contribution to the United Kingdom Atomic Energy Authority's fusion work, which is carried out under a contract of association with Euratom, should be £15.9 million in 1985-86, £13.7 million in 1986-87 and £13.3 million in 1987-88. That funding, together with our commitment to the joint European Torus project under the joint understanding and the host agreement will ensure that the United Kingdom maintains a substantial fusion programme.

Mr. Michael Morris (Northampton, South): Will the external financing limit of the electricity supply industry be adjusted because of its increased contribution, which will come about presumably because of this change?

Mr. Goodlad: In principle, changes will be reflected in the EFL.

Mr. Michael Meadowcroft (Leeds, West): Does the Minister accept that nuclear power capacity is a matter of considerable political sensitivity, and that there is genuine concern that increased commercialisation is bound to impinge on control and accountability? Will he expand his previous assurance and tell us what changes are being made to ensure that, in this different perception of the authority's role, there will be genuine accountability to, and control by, the House?

Mr. Goodlad: I assure the hon. Gentleman that the Government and the House will have as much control and accountability as they have always had.

Mr. T. H. H. Skeet (Bedfordshire, North): Will the financial objectives be set out in White Papers or in specific legislation brought before the House for that purpose, like section 29 of the Water Act 1973? When is such legislation likely to appear?

Mr. Goodlad: My right hon. Friend the Secretary of State will be responsible for setting the financial objectives of the authority, with the agreement of the Treasury and after consultation with the authority. The timing of legislation will be a matter for my right hon. Friend the Leader of the House.

NHS (Theft and Corruption)

4.25 pm

Mr. Michael Meacher (Oldham, West): I beg to ask leave to move the Adjournment of the House, under Standing Order No. 10, for the purpose of discussing a specific and important matter that should have urgent consideration, namely,

"The detailed revelation that has just been made of the magnitude of theft and corruption in the National Health Service by a number of consultants who abuse NHS facilities in their practice of private medicine at a cost to the public purse of some tens of millions of pounds a year."

The matter is specific because, for the first time, after an in-depth audit of 37 district health authorities after the revelation of significant fraud at Sutton Coldfield last summer, several hospitals and consultants were named in a detailed analysis of the official evidence by a "TV Eye" programme last Thursday evening entitled "Consultants on the Make." It revealed point by point how even the recently tightened procedures adopted by many health authorities cannot prevent abuse by private medicine on a significant scale, and showed that it is now becoming endemic in the National Health Service.

The matter is of vital national importance because it reveals that the fundamental principles of the NHS are being eroded, not by the odd rotten apple in the barrel here and there, but systematically and all over the country. In Darlington, consultants destroyed 27 key forms which showed that fees were owed to the NHS. In Merthyr Tydfil, NHS patients were told that they would have to become private patients if they wanted hospital treatment urgently. In Sutton Coldfield, after the original row had been made public and a tightening-up exercise instituted, consultants' fees to the Good Hope hospital suddenly increased by £1,000 a month. In Wakefield, consultants manufactured forms to conceal evidence of having treated private patients. In Derby, NHS laboratory facilities were used for testing hundreds of animal specimens for local vets, without the knowledge or permission of the health authority, and such tests were given precedence over tests for some human patients. Yet the "TV Eye" programme shows that those examples are only the tip of the iceberg.

This matter is urgent for two main reasons. First, Ministers have a clear public duty to stop this haemorrhage of public funds from the abuses now uncovered as being of a serious and growing magnitude. The annual loss to the Exchequer is already substantially greater than the annual income to the Exchequer from the overseas visitor regulations which the Government insisted on introducing because a tiny number of foreigners were not making full payment of fees to the National Health Service.

The matter is also urgent because in any other walk of life theft on this scale would have resulted in instant dismissal and criminal proceedings, possibly involving years in prison.

Where persons are found to have been deliberately using their positions of power and prestige to defraud the rest of the community, the issue should be taken up without delay. The individuals concerned should be named and dealt with immediately. I submit that it is incumbent upon us to ensure, for the good name of the House, that that happens. For these reasons, I request that the matter be debated in the House at the earliest opportunity.

Mr. Speaker: The hon. Member for Oldham, West (Mr. Meacher) asks leave to move the Adjournment of the

[Mr. Speaker]

House for the purpose of discussing a specific and important matter that he thinks should have urgent consideration, namely,

"the wholesale evasion of fee-paying by those practising private medicine in the NHS and the consequential major loss of public revenue as revealed by a Thames Television programme entitled 'Consultants on the Make'."

I have listened with care to the hon. Gentleman, but I regret that I do not consider the matter which he has raised as appropriate for discussion under Standing Order No. 10. Therefore, I cannot submit his application to the House.

Coal Industry Dispute

4.32 pm

Mr. Dick Douglas (Dunfermline, West): I beg to ask leave to move the Adjournment of the House, under Standing Order No. 10, for the purpose of discussing a specific and important matter that should have urgent consideration, namely,

"the deteriorating situation in the Scottish coalfield which raises questions about man management relations, the future of jobs and investment prospects in the area and the survival of local communities, indicating the need for a principled and negotiated settlement of the current dispute."

The matter is specific, Mr. Speaker, because, while it is part of the miners' general dispute, it relates to a specific coalfield. The background for that coalfield is different from that for other areas of the United Kingdom, because before the present dispute there was evidence of a difference in the approach of management to safety cover. In other areas of the coal board, the British Association of Colliery Managers was called in to provide safety cover, but in Scotland that has not happened. I have made submissions previously on this issue and referred to the Bogside colliery in my constituency.

We have no doubt that management has a right to manage, but anyone who knows anything about the coal industry will recognise that this is an extremely circumscribed right because of practice and legislation. A suitable analogy is that of the safety of a ship at sea. The coalmine manager wants the right to manage, but he cannot manage properly without the co-operation of others in the industry, especially the members of the NUM and NACODS.

In my constituency and in other areas of Fife there has been a massive loss of jobs, which has made the matter extremely urgent. We have lost faces at Castlehill and at the Frances-Seafield complex. The evidence is that the men have provided safety cover when requested to do so. On the other hand, management has played a cat-and-mouse game.

There has been disagreement in the House about a principled and negotiated settlement of the dispute because of different interpretations of the NACODS agreement of October 1984. I shall quote briefly from the agreement to show that we must adopt a different interpretation from the one that has been adopted by Ministers.

Part of the NACODS agreement states:

"the Board are very ready to re-examine the Review Procedure and to adopt any amendments which will improve its effectiveness. The Association will appreciate, of course, that this must be done in a way which will meet with the approval of all the parties concerned, including NUM and BACM."

I submit that that sentence gives the lie to the Government's interpretation of the agreement. The agreement cannot be triggered, except with the approval of the NUM and the BACM. That reflects the negotiated intentions of the parties.

The matter is urgent, because we are suffering a massive haemorrhage of jobs in the coal industry in areas of high unemployment. We need to reach a settlement because of the damage to Scottish employment and the effect that the dispute is having on areas of high unemployment, such as my constituency in Fife.

I submit, Mr. Speaker, that this matter should take precedence over the Business of the House as set out on the Order Paper, and request you to grant a debate on it.



ATOMIC ENERGY AUTHORITY

1. With your permission Mr Speaker I would like to make a statement about the future of the Atomic Energy Authority. My right hon Friend, the Secretary of State for Energy, told Parliament on 28 March that he had set in hand a wide ranging review of the role and activities of the Authority. On 3 October he placed in the Library of the House a press statement which summarised the recommendations of this Review. Following consultations with the interested parties I can now inform the House of the conclusions reached by the Government.

2. Since the Authority was established in 1954 as a vote-funded body with a high degree of statutory independence it has made a crucial contribution to the development of the civil uses of nuclear power in this country. Today civil nuclear power is an essential and established part of our national life. Last year more than 18% of electricity supplied in the UK was nuclear. The proportion will reach 21% when the three nuclear stations most recently linked to the national grid reach full power, with a further increase when stations now under construction are completed. The civil nuclear industry in the widest sense now provides about 100,000 jobs. All this has been achieved with an excellent safety record. The Authority's work is held in high regard and it will continue to have a major role to play in both the nuclear and non-nuclear field.

3. The Review had two guiding principles:

- firstly, that the Authority should move further towards a commercial basis of operation;
- secondly, that a defined customer/contractor relationship should be applied as far as possible to its work.



The Government fully endorse these principles.

4. The Review recommended, and the Government accept, that the activities of the Authority should be placed on a Trading Fund basis. The Authority will be required to account for its activities in a fully commercial manner, within financial objectives set by the Secretary of State. We intend to provide the Authority with a capital structure and powers to borrow as required so as to enable it to operate as a Trading Fund from April 1986, and will introduce legislation as soon as possible for this purpose.

5. I have considered carefully, in consultation with the Authority and with its customers in the nuclear industry, how the principles of the Review should apply to the funding of particular programmes at present financed by my Department. A balance is required between the application of the customer/contractor principle, which is valuable for financial discipline and a more commercial approach, and the retention of an independent capability for safety and underlying research in the Authority. The electricity industry, like the Government, attaches importance to that independent capability. Although the Generating Boards will increase the amount of work which they pay for on a customer/contractor basis, my Department will continue to fund a substantial Authority programme of thermal reactor and general safety research. The Government broadly endorse a recommendation of the Review Group that there should be an element in the Authority's charges to customers, including the Department, in respect of underlying research. I am discussing the application of this recommendation with those principally concerned.

6. The effect of these proposals will be to carry further the development of recent years under which the funding of the



Authority's expenditure has become more broadly based and proportionately less dependent on Department of Energy votes. In particular there will be a further increase in funding by the CEGB. With other changes I expect this to result in a reduction of £5m in my Departmental vote in 1985/86 compared with previous plans.

7. I have already mentioned the AEA's contribution to the development of civil nuclear power in this country. It continues to give valuable support to the nuclear industry in both the public and the private sectors. It is diversifying its services in the non-nuclear field, and has made an important contribution to technology relevant to North Sea development.

8. The evolutionary changes I have just announced will put the Authority on an increasingly commercial footing and will give its staff a new incentive. I am confident that these changes will enable the Authority further to develop its role and contribution to the economy on both a national and international basis. I am also confident that all those concerned will join in taking full advantage of this new opportunity.

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10 DOWNING STREET

From the Private Secretary

11 February, 1985.

cc PPS HMT
PPS - Charallo: Duchy
of Lancaster
PPS Employment
PPS CST
PPS Transport
PPS DTI
PPS Scottish Office

PPS Environment
Maclean HMT
R Hatfield Cabinet
J Lewis Jones Lord President
R Stoute Lord Chancellor
H Taylor Home Office
D Morris Lord Privy Seal
H Steel Law Officers
I Jack Lord Advocates
Lord Denham

Dear Michael.

AEA Review: Parliamentary Statement

The Prime Minister has seen your Secretary of State's minute of 5 February and the subsequent exchange of correspondence with the Chief Secretary. She agrees that it is not necessary in the statement to raise the question of adjusting the EFL of the electricity industry. She recognises that, other things being equal, the increase in funding of nuclear research to be borne by the electricity industry would be reflected in an increased (or less negative) EFL. Any adjustment of the 1985-86 EFL can be dealt with later when other factors can be taken into account.

The Prime Minister has noted the difference in wording proposed for the passage on charges for underlying research. While she recognises that charges will vary between customers, she feels that the words "where possible" suggested by the Secretary of State for Energy could be an invitation to some customers to argue that they are not in a position to bear any charges. The wording suggested by the Chief Secretary appears to her to provide sufficient flexibility without giving away AEA's negotiating hand.

The Prime Minister has asked that the references to legislation should be agreed with the Lord President.

I am sending copies of this letter to the Private Secretaries to the members of E(NI) and QL, and to Richard Hatfield (Cabinet Office).

Your sincerely
Andrew Turnbull

Andrew Turnbull

Michael Reidy, Esq.,
Department of Energy.

JB.

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PRIME MINISTER

AEA REVIEW: PARLIAMENTARY STATEMENT

Mr. Walker wishes to make a Parliamentary statement on Monday about the AEA Review. The general objectives of making the AEA more commercially orientated and of increasing the scope of the customer/contractor principle are not disputed. Mr. Walker and the Chief Secretary are, however, squabbling over two points.

i) Mr. Walker argues that he got Sir Walter Marshall to agree to finance more of AEA's work on the understanding that the electricity industries' EFL would be increased to cover the extra costs rather than have the industry find economies elsewhere. In 1985/86 this would imply a £4m reduction in the negative EFL from £1,128m to £1,124m. The Chief Secretary maintains that he has not agreed to an automatic adjustment, and opposes announcing a claim on the contingency reserve at this stage. He prefers to look at this as one among many influences on the EFL of the electricity industry. The two have agreed that there should be no mention in the statement. Mr. Walker wants an understanding that the EFL will be adjusted "when needed". The Treasury believe the understanding should be "if and when needed".

Agree that the reply to Mr. Walker should say that you are content for there to be no reference to the adjustment of the EFL; that, other things being equal, there would be an adjustment; but that the question should be resolved when other influences on the EFL can be taken into account?

ii) Both accept the following wording that "the Government broadly endorse a recommendation of the Review Group that there should be an element in the Authorities' charges to customers, including the Department, in respect of underlying research. I am discussing the application of this recommendation with those principally concerned."

Mr. Walker, however, points out that the report said that charges on individual contracts would have to vary with what the market would bear. To reflect this he wishes to add the words "where possible" after "there should". The Chief Secretary feels that this is an open invitation to customers to argue that they are not capable of meeting any of these costs. They feel that the reference to discussions with those concerned provides sufficient flexibility.

Agree with the Chief Secretary on this one?

Yes mt

A further outstanding issue is that Mr. Walker is seeking a place in the 1985/86 legislative programme for the legislation required to implement these recommendations. QL is finding difficulty accommodating him and opposes any specific reference to 1985/86. Agree Mr. Walker be asked to clear this part of the statement with the Lord President?

AT

Yes mt

Andrew Turnbull
8 February 1985



PRIME MINISTER

AEA REVIEW: PARLIAMENTARY STATEMENT

I am glad that the Chief Secretary recognises the value for medium term public expenditure control of the policy for the AEA which I propose to announce in Monday's Parliamentary statement; and that he will support my case for including a Bill in the 1985/86 Legislative Programme so that the Trading Fund can commence in April 1986.

On the amendments he proposes to the statement, I have little difficulty with his last suggestion, except that the Review made it clear that in some cases at least the amount recovered in the AEA charges on individual contracts would have to vary with what the market would bear. I am therefore willing to accept the Chief Secretary's amendment with one small change:

"the Government broadly endorse a recommendation of the Review Group that there should where possible be an element in the Authority's charges to customers.....principally concerned".

I fear however that I cannot accept the insertion of "at least for the time being" in the reference to funding safety research in paragraph 5 of the statement. This would be asking for trouble. It would immediately invite question about the value of our assurance that there would be an independent programme of general safety research within the AEA, with consequent damage to our whole nuclear stance. If in the future we decide to change this policy, that will be time enough to make a fresh announcement. There is no point in inviting trouble by inserting qualifications now.

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As to the question of matching adjustment of the EFLs of the electricity supply industry for amounts for which the CEGB assumes responsibility, I must make it clear that in the course of my efforts to achieve the savings required of me by my colleagues I gave unequivocal assurances to Walter Marshal and to the electricity industry that these matching adjustments would be made. It is frankly in the interests of medium term public expenditure control that there should be such an understanding, for there is no way in which we would induce the industry to sustain these transfers, let alone carry them further, without such an assurance. Provided it is understood between us that there will be specific EFL adjustments for these transfers when needed, I need not insist on the inclusion of a reference to these adjustments in the statement. But it would be contrary to all our wishes if I were to renege on my assurances and so frustrate our plans for these transfers.

I therefore propose that we substitute the following words based on the Chief Secretary's proposal, for the last two sentences of paragraph 6 of the draft of the statement:

"With other changes I expect this to result in a reduction of £5 million in my Departmental vote in 1985/86 compared with previous plans".

I think it would be misleading to add a reference to the fact that the reduction is already reflected in Cmnd 9428. The offsetting reduction in the ESI EFL is not reflected in Cmnd 9428 and it would therefore be misleading to refer to one side of the matter without the other.

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I hope it will be agreed that what I have suggested goes a long way to meet the Chief Secretary's points, consistent with the undertakings I have given to Sir Walter Marshall and the ESI, which are in any case the only basis on which we can make progress in this matter.

I am copying this minute to colleagues on E(NI) and to Sir Robert Armstrong.

Over
John G. [Signature]

Secretary of State for Energy
8 February 1985

CONFIDENTIAL

CENO



SCOTTISH OFFICE
WHITEHALL, LONDON SW1A 2AU

The Rt Hon Peter Walker MP
Secretary of State for Energy
Department of Energy
Thames House South
Millbank
LONDON
SW1P 4QJ

8 February 1985

Dear Secretary of State

AEA REVIEW: PARLIAMENTARY STATEMENT

I refer to your minute of 5 February to the Prime Minister and the draft Parliamentary statement about the review of the Atomic Energy Authority.

The draft statement refers to the additional funding by the Generating Boards and goes on to highlight the change you propose should be made in the electricity supply industry's EFL. This might prompt questions about whether SSEB's EFL is also to be changed. If so, I would be grateful if you would make clear that SSEB's EFL was set taking into account these additional costs and that no change to the EFL will therefore be made. That is the line which I propose to take if I receive any enquiries.

I am copying this letter to the Prime Minister, to colleagues on E(NI) and QL, and to Sir Robert Armstrong.

Yours sincerely

E S GOWANS
Private Secretary
Approved by the Secretary of State
and signed in his absence

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28 FEB 1985

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FROM: CHIEF SECRETARY
DATE: 8 February 1985

PRIME MINISTER

AEA REVIEW: PARLIAMENTARY STATEMENT

Peter Walker sent me a copy of his minute to you of 5 February with a draft Parliamentary statement about the Review of the Atomic Energy Authority.

2 I am generally content with the thrust of his statement. It reflects the culmination of a thorough review by his Department of the kind which is so valuable for medium-term public expenditure control. We will support Peter's case at QL for including a Bill in the 1985-86 programme so that the Trading Fund can commence in April 1986.

3 Peter's minute records a misunderstanding on whether the electricity industry's EFL agreed in November should be adjusted for the increased funding they will provide to the AEA. I circulated a minute to colleagues on 18 September proposing how we handle the AEA Review during the 1984 public expenditure round. This said - (para.4(b)) - that we should take account of added costs for CEGB when we sought to settle external finance for the electricity industry. My subsequent paper (MISC 106 (84)23) proposed detailed cost savings on electricity in each year and showed how the various elements built up by 1987-88. Paragraph 10 (i) and the more detailed explanation in Annex D (h) made it clear that I was reducing my proposed saving by amounts for the extra nuclear R & D costs resulting from E(NI) decision on the AEA Review of 15 October. The records of the various discussions subsequently do not indicate that Peter dissented from this approach at the time.

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4 To make a further adjustment to the EFL now would involve a public claim on the 1985-86 Reserve at a time when there is already market scepticism about its adequacy. I have told Peter already that, if these costs turn out to cause the ESI serious difficulties during 1985-86, I would consider afresh a bid against the Reserve then. He is also free of course to raise the possibility of an increase in the figures for the later years during the next Survey. I do not think I can go further than that.

5 These funding implications are reflected in paragraph 6 of the draft statement. I think they should anyway be linked more closely to the recent Public Expenditure White Paper; otherwise the £5 million reduction in 1985-86 Vote funding might be misunderstood as a later change. After the first two sentences: this paragraph might then read:

"With other changes I expect this to result in a reduction of £5 million in my Departmental Vote in 1985-86 compared with previous plans; the reduction is already reflected in Cmnd 9428 (Table 3.4)."

There are two other points on paragraph 5 where the draft diverges slightly from what we agreed in E(NI) on 15 October:

- (a) We decided that "at least for the time being responsibility for funding general safety research should remain with the Department". These qualifications might be reflected by including "at least for the time being" after "continue" in the fourth sentence.
- (b) Peter's paper (E(NI)(84)17) indicated that the AEA should aim to secure a contribution towards underlying research from its private sector work similar to that required from public sector customers. The draft refers only to public sector business. I suggest that the last two sentences read (changes are underlined):

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"The Government broadly endorse a recommendation of the Review Group that there should be an element in the Authority's charges to customers, including the Department, in respect of underlying research. I am discussing the application of this recommendation with those principally concerned."

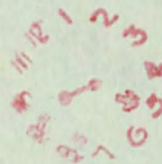
6 I am copying this minute to colleagues on E(NI) and QL and to Sir Robert Armstrong.



PETER REES

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1-8 FEB 1985



CONCURRENCE



BIP with PM
r Treasury response

CC/NO

AT 5/2

PRIME MINISTER

AEA REVIEW: PARLIAMENTARY STATEMENT

When we discussed the Review of the Atomic Energy Authority in E(NI) last autumn E(NI)84 17th Meeting I said I would circulate a draft Parliamentary statement once my consultations with interested parties had reached the right stage.

I now attach the draft of a statement which I would like to make on 11 February. It is very important for the success of the new regime on which we agreed that the Government's policy for the Authority should be announced without delay. We need to avoid prolonged uncertainty for the staff and to give the management a firm basis for working out the new system and for persuading the staff to give it their full support. It is also essential for the health of the civil nuclear industry as a whole that Government policy in this field should appear considered and firm, rather than hesitant and indecisive. For the same reason, I am asking the Lord President to agree to the inclusion in the 1985/6 Legislative Programme for the short Bill necessary to establish the Atomic Energy Authority Trading Fund. I attach a copy of the letter I have sent to him.

E(NI) also asked me, in consultation with the Chief Secretary, to discuss with the Chairman of the CEGB to what extent the Board would be willing to fund thermal reactor research. The Chief Secretary and I have done this, and Sir Walter Marshall has agreed to increase the Board's already very substantial funding of this programme (£19 million a year plus associated repayment work) by a further £2 million a year. He has also agreed to make a contribution of £2.1 million in 1985/86 rising to £2.7 million in 1987/88 towards the cost of the general safety programme of the AEA, which is at present wholly vote funded. This new contribution is helpful and I am satisfied that it will not endanger the independence of the programme, since £3½ million of work will continue to be funded by my Department.

The Chief Secretary and I are satisfied that this additional contribution represents the maximum which can be extracted from the CEGB at this stage. In particular, Sir Walter Marshall has insisted that the



remaining thermal reactor and safety programmes represent the minimum for viable independent programmes. The Chief Secretary and I differ however on the consequences for the electricity industry's EFL's for 1985/86 and subsequent years of these and other transfers of funding responsibility resulting from the implementation of the Review. All my discussions with the industry have been on the understanding that these adjustments would be made once the figures were agreed. The Chief Secretary by contrast argues that the present EFL already includes assumptions about the scale of these transfers of funding responsibility. But his papers to MISC 106 last autumn never dealt with 1985/86 or 1986/87, there was never any discussion of his vague propositions for 1987/88, and I never at any stage accepted his views. I must ask the Chief Secretary to reconsider his position: the approach proposed in para 6 of the draft statement is the only way in which I can secure these contributions from the electricity supply industry.

Much work on the implementation of the Review and on reinforcement of the AEA management to make a success of the new system will remain when the statement has been made. But making the statement is the essential first step.

I am copying this minute to colleagues on E(NI) and QL, and to Sir Robert Armstrong.

Secretary of State for Energy
5 February 1985

DRAFT STATEMENT

1. With your permission Mr Speaker I would like to make a statement about the future of the Atomic Energy Authority. My Rt Hon Friend, the Secretary of State for Energy, told Parliament on 28 March that he had set in hand a wide ranging review of the role and activities of the Authority. On 3 October he placed in the Library of the House a press statement which summarised the recommendations of this Review. Following consultations with the interested parties I can now inform the House of the conclusions reached by the Government.

2. The Authority was established in 1954 as a vote-funded body with a high degree of statutory independence to foster the development of the civil uses of nuclear power. Today civil nuclear power is an essential and established part of our national life. Last year more than 18% of electricity supplied in the UK was nuclear. The proportion will reach 21% when the three nuclear stations most recently linked to the national grid reach full power, with a further increase when stations now under construction are completed. The civil nuclear industry in the widest sense now provides about 100,000 jobs. All this has been achieved with an excellent safety record. The Authority's work is held in high regard and it will continue to have a major role to play in both the nuclear and non-nuclear field.

3. The Review had two guiding principles:

- firstly, that the Authority should move further towards a commercial basis of operation;
- secondly, that a defined customer/contractor relationship should be applied to as much as possible of its work.

The Government fully endorse these principles.



4. The Review recommended, and the Government accept, that the activities of the Authority should be placed on a Trading Fund basis. The Authority will be required to account for its activities in a fully commercial manner, within financial objectives set by the Secretary of State. [We intend to legislate in ^{as soon as possible} the 1985/86 Parliamentary Session to provide the Authority with a capital structure and powers to borrow as required so as to enable it to operate as a Trading Fund from April 1986].

5. I have considered carefully, in consultation with the Authority and with its customers in the nuclear industry, how the principles of the Review should apply to the funding of particular programmes at present financed by my Department. A balance is required between the application of the customer/contractor principle, which is valuable for financial discipline and a more commercial approach, and the retention of an independent capability for safety and underlying research in the Authority. The electricity industry, like the Government, attaches importance to that independent capability. Although the Generating Boards will increase the amount of work which they pay for on a customer/contractor basis, my Department will continue to fund a substantial Authority programme of thermal reactor and general safety research. The Government broadly endorse a recommendation of the Review Group that there should be an element in the Authority's quotations to public sector bodies, including the Department, in respect of underlying research. I am discussing the application of this recommendation with those concerned.

6. The effect of these proposals will be to carry further the development of recent years under which the funding of the Authority's expenditure has become more broadly based and proportionately less dependent on Department of Energy Votes. In particular there will be a further increase in funding by the CEGB. Adjustments will be made to the EFL of the electricity supply industry for amounts for which the CEGB is assuming responsibility. With other changes I expect this to result in a reduction of £5 million in my Departmental Vote in 1985/6 [and an adjustment from minus £1128 million to £1124 million in the 1985/6 EFL of the electricity supply industry.]



7. The AEA has already made a major contribution to the development of civil nuclear power in this country. It continues to give valuable support to the nuclear industry in both the public and the private sectors. It is diversifying its servicing in the non-nuclear field, and has made a major technology contribution to North Sea Development.

8. The evolutionary changes I have just announced will put the Authority on an increasing commercial footing and will give its staff a new incentive. I am confident that these changes will enable the Authority further to develop its role and contribution to the economy on both a national and international basis. I am also confident that all those concerned will join in taking full advantage of this new opportunity.

ENERGY: Review of UK
Atomic Energy Authority: March 1984.

15 FEB 1985

CCMO

01 211 6402

The Rt Hon The Viscount Whitelaw
CH MC
Lord President of the Council
Privy Council Office
Whitehall
LONDON
SW1A 2AT

4 February 1985

LEGISLATIVE PROGRAMME 1985/86

will request if nec.

Thank you for your letter of 31 January.

I am grateful to you for agreeing to recommend inclusion of the Petroleum Bill in the 1985/86 Programme.

I am however very disappointed that you have not felt able to recommend inclusion of the short Atomic Energy Authority Bill as well. The effect of this would be to postpone at least until 1 April 1987 the establishment of a proper Trading Fund for the Authority. Indeed, the management of the Authority could be given no assurance about the date on which such a Trading Fund could begin to operate.

The policy for this Bill has already been approved by E(NI) Committee on 15 October. I am about to circulate to colleagues the text of a statement about the future of the Authority which I intend should be made in Parliament during the next fortnight. That statement will announce our decision to set up a Trading Fund and foreshadow legislation to achieve this. The Bill would be a short and straightforward one, and a draft of instructions to Counsel for its preparation has already been prepared in my Department. We could therefore be ready to introduce the Bill very swiftly indeed.

It would be very damaging to management and staff morale in the Authority if, following a new statement of policy about their future, they were placed in limbo for what would look to them like an indefinite period. I hope very much therefore that you will on reflection be able to find room for this Bill.



I thought it right that my Private Secretary should record in his letter of 11 December two possible legislative commitments arising from the coal industry. I understand why you did not think it right to provide a place for either of the two contingent Bills in question and would indeed be ready to defer any claim for the Opencast Coal Bill. As to legislation on the finances of the coal industry, we expect that a Bill on borrowing powers will have to be enacted in the current 1984/85 session which would make it unnecessary to legislate for that purpose in the 1985/86 session. At some stage there may have to be legislation on the whole structure of the finances of the coal industry but I now think it very unlikely that we should want to cater for that before the 1986/87 session, if then.

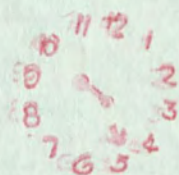
If I may, I will take up your kind invitation to attend QL on Thursday 7 February to ask for the inclusion in the Programme of the Atomic Energy Authority Bill.

I am copying this letter to the members of QL Committee, to First Parliamentary Counsel and to Sir Robert Armstrong.

PETER WALKER

ENERGY: Review of UK AEA:
March 84.

5 FEB 1985



W0743

PRIME MINISTER

12 October 1984

E(NI): REVIEW OF UK ATOMIC ENERGY AUTHORITY.

In the 30-year existence of the UKAEA we have seen

(a) the UK slide from first rank to second rank position in civil atomic energy, especially in terms of the proportion of our energy needs generated by cheap nuclear power;

(b) the main customer for civil nuclear reactors (CEGB) forced to buy reactor types other than those it would have chosen on technical, operational and commercial grounds;

(c) negligible export of reactors designed or made in the UK;

(d) the consumption by UKAEA of more than £5bn (at current prices) of taxpayers' money.

2. During most of this period the UKAEA has, by virtue of the interest of its research and its employment conditions, creamed off a significant slice of the UK's R & D talent and created a substantial technological asset. Because of the failure of the civil nuclear programme and the small amount of technology transfer to non-nuclear activities, the contribution of this technological asset to the wealth-producing sector of the economy has been negligible.

3. This is a dismal record for which the UKAEA itself and the Department of Energy under successive Governments must be culpable. The present review of UKAEA was an opportunity to take a fresh look at the situation and to create the conditions for the development of an internationally competitive nuclear power industry and the proper utilisation of the UKAEA's technology base.

4. Unfortunately the terms of reference of the review and the composition of the review Group ensured that the voice of status quo dominated (paragraph 5 of the Report) and the opportunity has, for the moment, been lost. Nevertheless the recommendations are small and tentative steps in the right direction and

you may wish to consider whether the present review should be followed at an appropriate time by one which is more broadly-based and can tackle the deep-seated problems I refer to above.

Privatisation and Trading Fund

5. I am unconvinced by the arguments against privatisation (10, 11) especially in the medium term but I accept the arguments against piecemeal privatisation (12). The UKAEA need not have monopoly status if international competition is allowed (as in MOD) and most of the other arguments are mechanics. The argument on "special status" in the public eye is circular. The public will always see atomic energy in this way while Government accords it special status rather than bracketing it with other potentially hazardous but private sector industries such as oil and chemicals.

6. I support the Trading Fund proposal (14). It makes sense in its own right and is also an essential first step if eventual privatisation is envisaged. On technology transfer (18) I disagree that the prohibition of non-nuclear manufacturing is not a problem. Private sector contract R & D companies are increasingly using pilot manufacture and test marketing of new products and even minority equity holding in joint ventures with manufacturing companies as means of better exploiting their innovations. The UKAEA will be uncompetitive if they are not allowed to act in a similar way. I suggest that the necessary legislative amendments are made at the same time as those required to set up the Trading Fund.

Customer/Contractor Relationships

7. I support the move to a customer/contractor relationship (8) but the Department of Energy's proposal to become an informed customer by engaging "2-3 nuclear experts" (9) is laughable. The result would either be the status quo or a new form of cosy relationship between UKAEA and DEn. The Rothschild transfer of MRC funds to DHSS failed because DHSS did not take steps to become an informed customer and eventually this transfer had to be reversed. While the Department will certainly want to hear the advice of the Authority on the content of its programme, it must equip itself to take its own decisions.

8. DEn could take advice from MOD on how to become an informed customer for R & D. My own view is that the Departmental experts will need to be backed by independent technical consultants perhaps drawn from the international arena.

This might cost up to £1m pa but would be money well spent if it enabled DEn to choose the right R & D programmes in their £175 spend.

Programme Issues

Thermal reactor

9. The nuclear industry is clearly the beneficiary of the Authority's work on thermal reactors and I support the Treasury line that all such work should be funded and controlled by them (6(ii)).

General Safety

10. The electricity supply industry as the operators of nuclear reactors have a responsibility in connection with their safety. Again, I support the Treasury line that projects should be funded by the supply industry on a proper customer/contractor footing, with the fall-back position that the Government could fund, if it felt right so to do, any work that the Authority felt should be done but for which it could not raise customer support from the nuclear industry. This proviso should also apply to any safety work that the Authority wishes to see done under the thermal reactor programme.

Fusion

11. While accepting that the energy policy case for the continued funding of fusion research at its present levels is weak, I do question the timing of the proposed small cut in the light of the delicate state of our negotiations with our EEC partners on European R & D. I suggest that announcement of the cut is delayed until agreement on the EEC R & D Financial Programme has been reached.

RBN

Cabinet Office
12 October 1984

ROBIN B NICHOLSON
Chief Scientific Adviser

F 01135



*Selby
Rivett*

PRIME MINISTER

United Kingdom Atomic Energy Authority Review
(E(NI)(84)17)

BACKGROUND

FLAG A In January of this year the Secretary of State for Energy set up a working group of officials to consider the future role, funding and organisation of the United Kingdom Atomic Energy Authority (AEA). Their report is attached to Mr Walker's paper (E(NI)(84)17). The main conclusions were that an authoritative, independent body not fundamentally different from the present AEA would continue to be required, but that there should be significant changes in the way in which the nuclear programmes are funded and in the AEA's relationships with the rest of the nuclear industry so as to put its operations on a more commercial basis. This would be achieved by increasing the proportion of funding by the Generating Boards and British Nuclear Fuels Limited (BNFL); and by putting the AEA on a Trading Fund basis, with such presently vote-funded work for the Department of Energy as can not be transferred to the nuclear industry moving to a customer/contractor footing. As a consequence, the AEA's customers should no longer be represented on its Board. Privatisation of either the AEA or some of its activities was thought impractical for the present, although further work on the longer term prospects was recommended.

Proposals

2. The Secretary of State for Energy's paper, (E(NI)(84)17) invites Ministers to endorse the Review's conclusions, except that he recommends that thermal reactor and general safety research should continue to be funded on the Department of Energy's vote rather than either:

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Walter Pennington





- a. funded by the Generating Boards on a non-specific basis as recommended by a majority of the review group; or
- b. funded by the Boards on the basis of specific customer/contractor projects, as favoured by Treasury officials on the group.

He suggests provisional reductions in the Department of Energy's vote of £1 million in 1985/86 and £17 million in both 1986/87 and 1987/88 to reflect the funding changes. Legislation would be needed early in the 1985/86 Session to effect the Trading Fund proposals.

FLAG B

3. The Chief Secretary, Treasury's minute of 12 October, covering an exchange of correspondence with Mr Walker is primarily concerned with public expenditure considerations. The Chief Secretary suggests that greater savings should be made by

- transferring funding of thermal reactor and safety research to the Generating Boards; and
- transferring certain costs to the AEA's customers in 1985/86 rather than 1986/87.

This (together with some other minor adjustments) would result in reductions in the Department of Energy vote of £20 million in 1985/86, £25 million in 1986/87 and £37 million in 1987/88.

4. The precise relationship between the Secretary of State for Energy's and the Chief Secretary's figures, particularly in the middle year (1986/87) is not clear. This need not prevent the Sub-Committee from discussing the broad policy issues but the expenditure implications of any policy decisions will need to be worked out in more detail.



MAIN ISSUES

5. So far as we know, it is unlikely that any member of the Sub-Committee will dispute the broad thrust of the Review's recommendations, namely that the AEA should become primarily a contract Research and Development (R & D) organisation operating through a Trading Fund. But there is likely to be disagreement about some of the details. The main issues are:

- i. should thermal reactor and safety research be largely funded by the Generating Boards or remain vote-funded;
- ii. should the AEA's non-Department of Energy customers contribute to the cost of underlying research, and, if so, on what basis;
- iii. the future level of the fusion programme;
- iv. the timing of the changes;
- v. the public expenditure consequences of i.-iv.;
- vi. the need for, and direction of, further work on the AEA's future.

Thermal Reactor and Safety Research

6. Transferring funding of this work to the Generating Boards on contract as favoured by the Chief Secretary would increase the savings on the Department of Energy vote by about £18 million a year, assuming that the Generating Boards were willing to fund all of the projects. (If the AEA could not find a customer for a particular project, it could approach the Department of Energy on a case-by-case basis, but this could reduce the savings). Mr Walker assumes that public expenditure would not be affected,



3400 m.
210 billion

because the Chief Secretary has agreed that the extra costs to the Generating Boards and BNFL should be "taken into account" in settling their External Financing Limits (EFLs). There might however be savings if the Chief Secretary has in mind that this argument be subsumed within the wider question of squeezing the electricity industry's EFL.

7. Mr Walker argues that the AEA should continue to undertake nuclear safety research of its choosing out of funds provided by the Department of Energy, on the grounds that to place safety research solely under the control of the Generating Boards would play into the hands of the anti-nuclear lobby. There is also doubt about the ability of the Department of Energy to act as an informed customer for any residual safety projects which the nuclear industry are unwilling to fund.

8. On the other hand the research in question is for the direct benefit of the Generating Boards, and it could be seen as inconsistent with the logic of the proposed changes for it to be funded by the Government. A possible compromise, recommended in the officials' report, would be for the AEA's work in this area to be funded by the Generating Boards on a non-specific basis. They are against this, but the Sub-Committee might wish to probe the strength of their feelings; there is some evidence that Sir Walter Marshall could be persuaded to accept it if suitable Parliamentary Statements were made about the Government's philosophy. There might be scope for the Generating Boards to provide funding on a partially contract and partially non-specific basis.

Underlying Research

9. The aim of the proposed changes is to put the AEA on a commercial basis. This cannot be achieved solely by charging customers the cost of specific pieces of research (the present system for non-Department of Energy customers),



since the AEA's expertise rests on its body of underlying research. At present this is funded entirely by the Department of Energy, who are effectively subsidising the AEA's other customers by over £23 million a year. The Review proposes that £12 million should be shifted to other customers by 1987/88 by treating half these costs as overheads in determining contract prices for specific research. One result will be to increase the cost of AEA research commissioned by Government Departments - mainly Environment, Employment, Defence, and Trade and Industry. It is assumed, but Mr Walker and other Ministers will wish to confirm, that this would be offset by increases in Departmental Estimates for the PES period: the Chief Secretary's minute (paragraph 4) appears to accept the point for 1985/86.

10. The Generating Boards and BNFL are opposed, and there could also be resistance from the AEA's other customers (about 8 per cent, £26.8 million, of the AEA's expenditure is on non-nuclear research). But it seems unlikely that much work would go elsewhere as a result.

Fusion Programme

11. Mr Walker wishes to reduce expenditure on fusion, which is unlikely to be needed in the foreseeable future. European Community (EC) commitments, particularly on the Joint European Torus (JET), mean that there is little room for manoeuvre before 1990, and Mr Walker proposes savings of £1 million in 1985/86, £2 million in 1986/87 and £3 million (out of £14.3 million) in 1987/88. This follows consultation with the AEA and the Advisory Council on Research and Development for Fuel and Power (ACORD), and is unlikely to be controversial.

Timing

12. Mr Walker proposes implementation of the main changes in 1986/87. The Chief Secretary suggests that the funding



of thermal reactor and underlying research could be transferred to a contract basis by 1985/86, in advance of the setting up of the Trading Fund in April 1986, thus accelerating some of the potential reductions in the Department of Energy's vote. Mr Walker believes this would prejudice discussions with the AEA's customers on the changes and is strongly opposed to it.

13. The Sub-Committee may wish to probe the scope for introducing the changes piecemeal, although clearly they will need to be announced and discussed with affected parties as a whole. It may be that, whilst not conceding the principle, Mr Walker will be prepared to agree to aim for extra savings in 1986/87 and 1987/88. If no agreement is reached, the precise figures could be remitted to the Chief Secretary and Mr Walker for further discussion, perhaps following more talks with the AEA and its customers.

14. Mr Walker also appears to be seeking the agreement of E(NI) to legislation in the 1985/86 Session. That, of course, will be a matter for QL and then Cabinet to decide in due course.

Further Work

FLAG C

15. Dr Nicholson's minute of ¹²~~10~~ October suggests that a further, wide-ranging review might be undertaken at an appropriate time. Mr Walker's paper and the Review itself point to the need to monitor the working of the new arrangements and to do further work towards possible future privatisation. The Sub-Committee might wish to return to this at a later date, when the impact of the present changes has become clearer. There is no dispute that the present moves to put the AEA on a commercial basis are an essential first step to privatisation.



HANDLING

16. You will wish to invite the Secretary of State for Energy to introduce his paper. The Chief Secretary, Treasury will wish to comment on the public expenditure implications. The Secretaries of State for Employment and Defence, and the Ministers of State for Trade and Industry and the Environment all have an interest as customers of the AEA. The Minister of State, Foreign and Commonwealth Office will be able to advise on EC aspects of the fusion programme.

CONCLUSIONS

17. You will wish the Sub-Committee to reach conclusions on the following:

- i. whether thermal reactor and safety research funding should largely be transferred to the Generating Boards, and if so whether on a customer/contractor or non-specific basis;
- ii. whether the AEA's non-Department of Energy customers should contribute to the cost of underlying research;
- iii. whether to make at least some changes, as proposed by the Chief Secretary to take effect in 1985/86;
- iv. whether to approve the proposed reduction in the fusion programme.

18. You will no doubt wish to remit the detailed public expenditure arithmetic to the Secretary of State for Energy and the Chief Secretary.

PLG
P L GREGSON

12 October 1984

CONFIDENTIAL

PRIME MINISTER

12 October 1984

THE FUTURE OF THE ATOMIC ENERGY AUTHORITY

Robin Nicholson has reminded us that some of the best scientific brains of a generation have been squandered on misdirected work on civil nuclear power. Since our scientists are among the ablest in the world, the finger points to political misjudgements and intervention over a long period. Can we do better over the next 30 years?

Our priority should be to develop a framework for nuclear research which allows the maximum role for the market and little at all for political interference. The best solution would be to privatise the AEA. There is an answer to most of the objections in the report:

"Public sensitivities." The anti-nuclear lobbies which are immune to reasoned argument about nuclear risks are not impressed by the AEA's public status. Maintaining the AEA in the public sector sustains the belief that nuclear power is a uniquely dangerous beast, rather than a clean, proven energy source with demanding, but manageable, safety requirements.

"The AEA would still be a monopoly." It would, but it would face some powerful customers, notably the CEGB, who could in any case look abroad for alternatives.

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"Net assets are less than book values." They often are (Sealink's were, for example), but this does not inhibit flotation.

The other difficulties - liabilities for decommissioning existing facilities, pensions, working capital requirements - are privatisation mechanics.

The real problem with privatisation, which is not addressed in the paper, is: who would want it in its present form? The only conceivable purchaser would be the CEGB, but this would be unwelcome. AEA needs to be independent of CEGB for political/environmental/safety reasons; and if the CEGB acquired the AEA, it would be even more difficult to split and privatise the CEGB.

We have thought about the option of partial privatisation now. There are, undoubtedly, viable sub-businesses within the rambling AEA organisation. The report argues that the AEA research centres are so inter-related so as to make hiving off impossible. This may indeed be the present position, but once a new Board adopts a more commercial approach, costing each activity to each contract in a commercial way, viable sub-businesses will emerge.

The trading fund proposal is a useful first step towards privatisation. But it is worrying that, firstly, no timetable is envisaged even for considering further

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progress; secondly, that Peter Walker proposes to continue a £18 million block grant to the AEA to spend on thermal research as it pleases. This will sustain precisely the habits of mind we want to change. The AEA should be encouraged to look for new business and to sell off viable operations, to finance itself.

The Department of Energy has no expertise in this area, and no need to acquire it. If we want research to be funded independently of the nuclear industry, then the NII or the Department of the Environment should do it. They have statutory responsibilities. It would be more convincing politically if the funding were their responsibility. The Department of Energy is publicly committed to nuclear power.

We recommend that you:

- (1) welcome the trading fund solution as a first stage along the road towards privatisation;
- (2) question the need for the Department of Energy to fund thermal nuclear research at all;
- (3) press Peter Walker to give the new Chairman of the AEA Board a firm steer on privatisation.

Nicholas Owen
NICHOLAS OWEN

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FROM: PETER REES
DATE: 12 October 1984

PRIME MINISTER

THE AEA REVIEW

I have just seen Peter Walker's paper on the Review of the Atomic Energy Authority (E(NI)(84)17) which we are to discuss on Monday.

2. I was surprised by his rejection of the Review's recommendation that funding for thermal reactors and most general safety work should pass to the nuclear industry. As you will see from the attached correspondence, Walter Marsahll left the door open to picking up these costs if suitable Parliamentary statements could be made about the Government's philosophy. I cannot see that need by an obstacle.

3. The Review Group concluded (paras 30 and 36) that the Generating Board (and British Nuclear Fuels) are the beneficiaries of all the research on thermal reactors and much on general safety; and that they should therefore, in principle, pay for it. For Government to continue to provide block grant of £18m a year, as Peter now proposes, would run contrary to customer/contractor principles.

4. As Peter's paper indicates, his officials and mine have provisionally estimated that a total of £37m could be transferred to customers by 1987-88. On that basis I have proposed savings of:

| 1985-86 | 1986-87 | 1987-88 |
|---------|---------|---------|
| 20 | 25 | 37 |

These figures, which allow for his Department to fund a small amount of safety work were only £5-7m higher in the last two years than Peter's own figures. His latest proposals are much lower. The gap is £19m in 1985-86. I accept that the Trading Fund will have to await legislation, but there is no practical obstacle

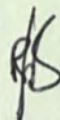
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transferring some funding in 1985-86. My proposals to MISC 106 take account of the additional costs that would fall to the CEGB (though I believe there to be offsetting savings available). The cost to Scottish Electricity has already been taken into account in my discussions with George Younger. Only a small sum - under £2m in total - would fall to other colleagues programmes (Defence, Trade and Industry, Employment and Environment). Since most of their figures have already been settled, I am prepared to agree increases in their 1985-86 Estimates for the amounts involved.

5. Figures for the later years could be verified during next year's public expenditure exercise. If E(NI) could agree to the principles of how to proceed, then I would hope that Peter Walker and I could settle the detailed figures for his Department.

6. A copy of this minute goes to other members of E(NI), Michael Heseltine and Keith Joseph and to Sir Robert Armstrong.



for PETER REES

[Approved by the Chief Secretary]

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Treasury Chambers, Parliament Street, SW1P 3AG

Secretary of State for Energy
Thames House South
Millbank
LONDON
SW1P 4QJ

9 October 1984

Dear Secretary of State

AEA REVIEW: FINANCIAL IMPLICATIONS

Thank you for your letter of 5 October about the AEA Review.

2. I am grateful to you for pushing ahead quickly with consultations on the Review so that colleagues can reach a view on it before the end of this expenditure round.

3. It was only to be expected that the nuclear industry would be cautious about taking on additional funding commitments. But, as you say, there is no reason to drop the report's recommendations for transferring funding of thermal reactor and underlying research.

4. As you will know from our discussion in Cabinet last Thursday we still face a very difficult position on public expenditure. I shall, therefore, need further savings if I am to meet the targets we agreed in July. There are two points about your analysis that worried me:

(a) Analysis by our officials indicates that some £37m should be transferred to customers by 1987-88. This figure allows for a small amount of continued funding of safety work by your Department if this proves necessary. It must be right to plan public expenditure on the full savings, otherwise the customers will not think we are serious.

(b) There is no reason why two major components - thermal reactor and underlying research - cannot be transferred by 1985-86. The figures are already known. Assuming colleagues endorse the recommendations it is little more than an accounting exercise to arrange the transfers over the next five months. If AEA will be busy later with setting up the

Trading Fund, it is surely sensible to get this out of the way now.

5. I have already said that we can take account of the extra costs to CEGB in setting their EPL and Financial Target. It would avoid the need for later adjustments - which they always dislike - if we decide the transfer now. Officials have discussed how any minor variations will be coped with subsequently. I am content with the form of words they agreed.

6. Your letter did not mention the other savings I sought on fusion and efficiency, or the bids you have made for the fast reactor and BNFL's pre-1971 wastes. So that we do not have to trouble colleagues with these details, I will not press further for a net reduction for these items if you would agree savings on the AEA Review of:

| 1985-86 | 1986-87 | 1987-88 |
|---------|---------|---------|
| 20 | 25 | 37 |

That would then avoid our having to go over all the figures at the meeting in the week of 15 October to discuss your paper on the Review.

7. I am sending a copy of this letter to Sir Robert Armstrong.

Yours sincerely
Richard Broadbent

for PETER REES

[Approved by the Chief Secretary]



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Chief Secretary
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London SW1P 3AG

5 October 1984

Rees
AEA REVIEW: FINANCIAL IMPLICATIONS

Thank you for your letter of 2 October about the state of play following our two bilaterals on this department's programmes.

As regards the AEA Review, I have now considered the proposed savings in nuclear R&D which your officials were discussing with mine last week - £20m, £28.5m and £37m in the three PES years.

As you will know I have now held discussions with the Generating Boards, the Electricity Council, BNFL and the Authority about the Review. The Treasury representative at the meetings will confirm that, though there was a fair amount of qualified support for the main thrust of the Report in terms of extending customer/contractor relationships to the whole of the Authority's work, and setting up a Trading Fund, there was stiff opposition from most quarters to the proposals on thermal reactor and underlying research funding, although unanimity on the need for the work to be undertaken.

I was also impressed by Arnold Allen's forceful argument that, while an early Government statement on the principles of the Review is desirable, a very large amount of work lies ahead and that a successful outcome would be more likely if this were targeted on full implementation in April 1986, when the Trading Fund would come into effect, rather than piecemeal.

I see no reason to drop the recommendations on thermal reactor and underlying research. Walter Marshall left the door open to picking up the bill if suitable Parliamentary statements could be made about the Government's philosophy in this area, while Philip Jones' principal concern seemed to be that the ESI's EFL should be fully adjusted to reflect any additional costs and Don Miller for the SSEB appeared to accept the proposals. Doubtless the Authority could also be persuaded to fall into line if arrangements could be reached which were acceptable both to their principal customers and to my Department as the sponsoring Ministry. However Arnold Allen has

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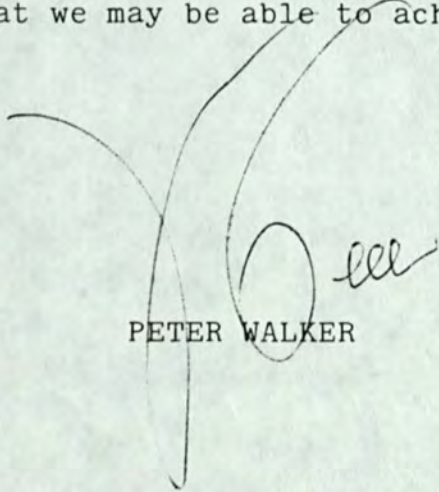
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a wider concern that, even if this could be achieved, the Authority would be unable to earn an additional surplus on other contract work, and that therefore the present level of underlying research could not be sustained.

All this suggests that a long period of delicate negotiation lies ahead, that excessive haste would be counter-productive, and that the eventual outcome is likely to be something less than the full transfer of funding suggested by the Review. Against this background while I should welcome a Treasury assurance that, if implementation of the Review led to a different outcome than that assumed, adjustments to the nuclear R & D vote would be made, I think it would be very dangerous to assume the figures suggested by your officials which are frankly incredible.

Indeed, even in public expenditure terms, I cannot see the need for greater haste, since the major transfers of funding that you are suggesting we assume can be made from the vote to the customers will be offset by increases in the customers' EFLs.

I therefore have it in mind for my paper to colleagues to suggest reductions in the nuclear R & D vote of £1m, £20m and £30m in the three PES years, as representing a more realistic, though still perhaps optimistic, assessment of what we may be able to achieve.

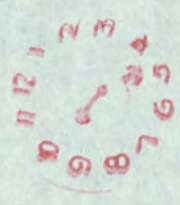

PETER WALKER

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Energy

Review of ATR March 84

11 OCT 1984



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REVIEW OF THE UK ATOMIC ENERGY AUTHORITY

Report by a
Departmental Working Group

August 1984

Department of Energy

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REPORT OF THE WORKING GROUP TO REVIEW THE AEA

- I. Terms of Reference (paras 1-2);
- II. Summary of Conclusions and Recommendations (paras 3-20);
- III. Background information on the Authority (paras 21-23);
- IV. Analysis of programmes (paras 24-58);
- V. Customer/Contractor Relationships (paras 59-68);
- VI. Privatisation, in whole or in part (paras 69-81);
- VII. The Authority as a Trading Fund (paras 82-94);
- VIII. Technology transfer and the full exploitation of the Authority's assets (paras 95-99);
- IX. Role and composition of the Authority Board (paras 100-107).

I. Terms of reference and Introduction

The Secretary of State set up the Working Group in January this year under the chairmanship of Mr I T Manley, with representation from the relevant Divisions of the Department and, with the agreement of the Chief Secretary and Sir Peter Hirsch, from the Treasury and the Atomic Energy Authority. The Group's terms of reference were:

- "(i) to examine the main programmes of the AEA, with reference to the character, funding of and accountability for these programmes and their bearing on the role of the AEA;
- (ii) to consider, in the light of this review and of other factors, whether changes are required in the role and accountability of the AEA, and in its relationship with Government;

and to make recommendations to the Secretary of State for Energy.

In conducting its enquiry, the Group is asked:

- (a) to take full account of recent and current reviews of particular AEA programmes undertaken in Government or in the Authority;
- (b) to pay particular attention to the implications of developing customer-contractor relationships in the programmes of the Authority for the role of the Authority;
- (c) to take account of the Department's review of the present arrangements for allocating R & D resources across the whole field of the Department."

2. Two AEA representatives have been present throughout, and have provided much information and advice to the Working Group on AEA programmes and financial and other issues, and the AEA Board have commented on a summary of its preliminary conclusions. However, though the Group has taken the AEA comments into consideration in its further deliberations, its conclusions as set out here have not been put to the AEA Board, who therefore do not necessarily agree with them.

II. Summary of Conclusions and Recommendations

3. It is the Government's policy that the UK should have a significant nuclear power programme for the foreseeable future, and this had to be the Group's starting point. On this assumption a continuing research programme of some kind will be required. Our programmes analysis has confirmed that there is still a large amount of nuclear R & D to be done in the coming decades.
4. As to how this research should be done, the Authority has the advantage of already undertaking a wide range of work for a number of nuclear and non-nuclear customers, all of whom value the effective way it uses its highly qualified, multi-disciplined and motivated staff with their access to unique facilities. It is also clear that the unique nature of nuclear power and public perceptions of it will require a continuing Government interest in key programmes beyond the commercial interests of the nuclear industry.
5. The Group has concluded that an authoritative body of independent expertise not fundamentally different from the Authority in its present form will therefore continue to be required, and that it would be wrong, for instance, to "hand over" the Authority to the Generating Boards and BNFL.
6. We do however consider that there should be significant changes in the way in which the nuclear programmes are funded, and in the Authority's relationships with the rest of the nuclear industry, as summarised below:
 - i) Fast reactor. We have not attempted to re-examine the basic strategic decisions which have only recently been taken, but the Generating Boards will be the owners and operators of the eventual UK lead reactor and subsequent reactors and should therefore assume greater responsibility for funding R &

D as the programme approaches that stage (paras 26-27).

- ii) Thermal reactor. The Generating Boards are the beneficiaries and should therefore in principle pay for this research in its entirety. However the majority of the Group believe that it is right for the Authority to be able to undertake some work independently and that the best solution would be for this work to be wholly funded by the Generating Boards on a non-specific basis provided that arrangements can be agreed which ensure independence, NII access and continuity. The majority of the Group therefore recommend that further discussions should take place between the Department, the Authority, the Generating Boards and the NII with a view to securing this objective. The remainder of the Authority's thermal reactor research should be both financed and controlled by the Generating Boards (paras 28-35). The Treasury, on the other hand, consider that all funding in this area, as in others, should be on a specific project basis under a customer/contractor relationship;
- iii) General safety. The Generating Boards and BNFL are primary beneficiaries, but there are some areas where the Government also has an interest and a responsibility, as does the NII. The majority of the Group consider that further discussion should take place between the Department, the Authority and the Generating Boards to determine the extent of the work which the Department should continue to fund (para 36). The Treasury considers that specific projects in this area should be funded on a customer/contractor basis. This would automatically disentangle the present

funding.

The cost of the Authority team responsible for its own safety policy and for inspecting the safety of all Authority reactors and other facilities should be treated as an overhead and charged out to the other programmes, including those funded by the Department (para 37).

- iv) Radioactive waste and nuclear materials management. Departmental funding should continue for work which relates to the Authority's own waste from past vote funded programmes, although the nuclear industry should make a substantial contribution to the cost of WAGR decommissioning. It is also conceivable that, given the significance of radioactive waste issues for energy policy generally, the Secretary of State should from time to time fund some longer term research to be carried out independently of both the DoE and the nuclear industry (paras 39-42).

Some continued vote funding of other nuclear materials management R & D is justified in relation to the AEA's own operational requirements and perhaps also for other projects on an occasional and specific basis. However there are a range of beneficiaries other than the Department and the programme should be reviewed in detail to determine which elements are appropriate for continued Departmental funding and those which other beneficiaries should fund if they wish them to continue (para 43):

- v) Underlying research. A programme should be

maintained, to retain intellectual vigour, underpin the other programmes, and maintain the organisation's ability to secure future business. The Authority is the best judge of its detailed content. All the Authority's customers have benefited from the programme and should as proxies for future customers contribute to its cost. Using the present programme size as the starting point we consider that its cost should be recovered from all customers as part of the overall costs of the Authority's activities. The approach to cost recovery would however need to vary between customers (paras 44-46).

- vi) Fusion should be treated as a special case and is in any event the subject of a separate review (para 47).
- vii) Other minor nuclear programmes. Some of the work quite properly falls to the Department to fund; other aspects appear to benefit the nuclear industry and its regulatory agencies. Each element should be reviewed in detail, as for other nuclear materials management (paras 48-49).
- viii) Non-nuclear work (paras 50-51). We have sought the views of the DTI about the value of this research and the desirability of an external review. They have, however, expressed themselves well satisfied with the quality of work undertaken by the Authority for the Requirements Boards and have endorsed the Authority's present approach, as does the Group (para 52). We also consider that the Authority's recent proposals for private sector venture capital funding for the application of

selected research results should be encouraged (para 53). The wider question of constraints is dealt with below (paras 95-99).

7. The result of these recommendations, if fully implemented, would be to transfer substantial additional funding to the nuclear industry. There should also be significant reductions in the Department's planned PES allocations. The Department will however remain a very major customer for the Authority's services, to the tune of 40% or more of its total expenditure in 1987/88 (paras 54-58).
8. Customer/Contractor relationships (paras 59-68). The Group consider that there would be benefit in terms of a more disciplined approach by both parties, more meaningful monitoring and control and a desirable degree of commercial tension, in putting the Department's relationship with the Authority on to a customer/contractor footing, with each programme being the subject of a specific contract or contracts. Given the disparate nature of the programmes undertaken for the Department or to which it contributes, different contractual approaches will be required for different work areas with a varying degree of detail according to circumstances (paras 59-62). At one end of the spectrum, in the case of the fast reactor, the aim should be to secure the substance of a contract in terms of accountability through a jointly-agreed programme statement, the development of general and specific targets, cost details, and arrangements for improved financial and technical reporting and monitoring (para 63). At the other end of the spectrum, the small Safeguards programme should be put on a full contract basis at once (para 64).
9. In order to help it formulate and operate these various contracts the Department would need to engage perhaps 2-3 nuclear experts. The increased monitoring responsibilities might also require the strengthening of

AE Division in other ways (para 65).

10. Privatisation of the Authority (paras 69-81). A number of major considerations arise:

- the Authority's monopoly status in the core nuclear programmes, particularly the fast reactor, which means that there is no early prospect of competition and the operation of market forces;
- although the Authority's net assets have a book value of £154m, their sale value would probably be lower;
- the Authority has major continuing liabilities, for example in radioactive wastes and decommissioning;
- the Authority's statutory pension schemes, at present notionally funded. A cash transfer of £500m from the Exchequer might be required or, if the scheme continued, there would be a bringing forward of the date at which payments from the scheme exceeded contributions;
- the need for significant working capital;
- public concern over nuclear issues which might make it inappropriate to seek to launch this key element of the nuclear industry into the private sector at this time;
- security and AEA Constabulary implications.

11. The Group has concluded that, taken together, these factors imply that privatisation of the Authority as an entity, while possible in principle, is not in practice a

realistic option at present. Nevertheless, as the proportion of Departmentally funded work falls and the percentage of the Authority's work being undertaken on a commercial contract basis increases further, and as the fast reactor draws closer to fully commercial application, very different circumstances might emerge; prospects for privatisation as a longer term option should therefore be kept under review (paras 69-71).

12. The Group has also examined the feasibility of privatising individual establishments or the Harwell "business centres". The key issues are:

- the very highly integrated nature of the Authority's activities as a whole;
- the resultant weakening of both any privatised establishment and of the remainder of the Authority through the loss of staff and technical interchange and through the inefficient use and potential duplication of resources;
- the "business centres" appear to be viable only as an integral part of Harwell's overall work and organisation.

Taken together these make privatisation of single sites or business centres difficult to envisage and likely to lead to substantial diseconomies (paras 72-80).

13. Nevertheless our examination has not been exhaustive and, as with full privatisation, the situation may change over time. The need to keep the scope for partial privatisation under review should therefore be made a specific part of the remit of the Authority's management (para 81).

14. The Authority as a Trading Fund (paras 82-94). Possible eventual privatisation, and the extension of the

customer/contractor approach to the Authority's nuclear work for the Department, would be facilitated by putting the Authority on a Trading Fund basis. This would require all work to be accounted for on a fully commercial basis, impose additional discipline through the requirement to meet financial objectives, create financial flexibility between years, highlight major issues which need to be dealt with in commercial terms, and facilitate possible eventual privatisation. The absence of a competitive trading situation in certain areas, asset valuation, treatment of provisions and the setting of a realistic financial target, should not be insuperable problems (paras 82-87).

15. Within the Fund all contracts, including those for the Department, should be on a with profits basis as providing the maximum commercial incentive to increased efficiency (paras 88-90).
16. The move to a Trading Fund could be managed in such a way as to ensure the overall consequences are PSBR neutral, except for a small increase in own resources payments to Brussels. However overall public expenditure would technically increase and Ministers would need to consider how these issues should be handled (paras 91-93).
17. Putting the Authority on a Trading Fund basis would require an amendment to the 1954 Act, to enable the Fund to borrow as required (para 94).
18. Technology transfer and the full exploitation of the Authority's assets. The present financial and end year accounting constraints should be eased by setting up the Authority as a Trading Fund. We believe that the prohibition on non-nuclear manufacturing and the Authority's links with Civil Service pay and conditions are not major problems (paras 95-98).
19. We consider that a careful balance must continue to be struck between the extent of non-nuclear work and the core

nuclear programmes, and that this requirement should be drawn specifically to the attention of the Authority's management (para 99).

20. Role and composition of the Board. The Group conclude that, in the new circumstances which would result from implementation of its recommendations, the Authority Board should not include senior executives from its major customers, the Department, the ESI, BNFL or NNC. Appointment of Members with recent experience of these bodies should, however, not be precluded. The new circumstances would also increase the importance of the contribution and role of the independent part-time Members (paras 100-107).

III. Background information on the Authority

21. The Authority was created out of the then Ministry of Supply by the provisions of the Atomic Energy Authority Act 1954, at a time of rapid expansion in nuclear activities. Its original objectives encompassed all aspects of nuclear energy in the UK, both civil and military, and at its peak in 1961 it employed over 40,000 people. A significant reduction took place in the 1960s, followed by the hiving off in 1971 of fuel production/reprocessing to BNFL and of radiochemicals to what is now Amersham International (reducing the strength at that time by a third), and two years later by the transfer of weapons research and production at Aldermaston to the MoD (reducing strength by a third again). On the other hand, the 1965 Science and Technology Act enabled the Authority, at the request of Government, to carry out non-nuclear R & D, which now accounts for about 8% of overall expenditure.
22. The Authority remains a very large R & D organisation with a total staff of some 14,000, operating at nine geographically dispersed locations ranging from Dounreay on the north coast of Scotland to Winfrith in Dorset - see Figure 1. Total gross expenditure currently runs at around £380m in cash terms, with nearly £200m coming from the Department's nuclear vote and the balance from the Department's non-nuclear work with the Authority and from contracts with the Generating Boards, BNFL, DoE, DTI, MoD and a variety of other customers, including some in the private sector - see Figure 2.
23. The proportion of the Authority's nuclear programmes funded by the Department has fallen in recent years, and the reduction is expected to total nearly 30% in real terms by 1987/88 as compared with 1981/82. Because some costs have shifted from the Department to the nuclear industry* the cut back in the Authority's total expenditure has been smaller - see Figure 3.
- Nevertheless, total staff numbers are on a declining trend

* As used in this Report the term comprises the Generating Boards, BNFL and NNC.

- see figure 4. Although compulsory redundancies have so far been avoided, the Authority is incurring substantial expenditure on early retirements (about £4.5m in 1984/85).

IV. Analysis of the programmes

24. As required by our terms of reference we start with an examination of the Authority's current activities, bearing in mind that it is Government policy that the UK should have a significant nuclear power programme for the foreseeable future and that on this assumption, a continuing research programme of some kind will be required. The principal research areas are:

- i) the fast reactor;
- ii) thermal reactors;
- iii) general safety;
- iv) radioactive waste and nuclear materials management;
- v) underlying research;
- vi) fusion;
- vii) other minor nuclear programmes;
- viii) a range of non-nuclear contract work.

25. Table 1 sets out the expected expenditure in each area during the current financial year, broken down between funding from the Department of Energy's nuclear vote and from contract customers. Each of the main programmes has been examined, with particular focus on whether the current balance between the Department's vote and other customer funding, and therefore control of the programmes, is right. Section ix) draws some general conclusions.

i) Fast Reactor

26. The programme was thoroughly reviewed in 1982 following a proposal from the Authority and the nuclear industry that

a definite decision should be taken to move towards the construction of a demonstration or "lead" fast reactor in the UK. The Government concluded that, although the strategic justification for the research and development programme remained valid, the time when series ordering of fast reactors would be required was further ahead than previously thought, and that Government funding should therefore be scaled down as soon as possible by about one-third to around £70m pa at September 1981 price levels, with international collaboration if practicable. It was subsequently agreed that the best prospect lay in co-operation with other European countries, and an inter-Governmental Memorandum of Understanding was signed in January 1984, subsequently backed by a series of inter-organisational agreements. The intention is that there should be an integrated European programme of 3 lead reactors, with construction of the UK reactor starting not before 1993, but the details remain to be worked out. Meanwhile the Dounreay facilities will continue to operate and act as a test bed for components, fast reactor fuel and the fuel cycle. Although the CEGB, BNFL and NNC are all involved in the collaboration, the Authority is its pivot and significant Government funding will continue for a lengthy period.

27. The Group has taken account of these basic strategic decisions, which imply vote funding in cash terms of £88.4m in 1987/88. However, the Generating Boards will be the owners and operators of the eventual UK lead reactor and subsequent reactors, and we consider that the Boards should assume greater responsibility for funding as the programme approaches that stage.

ii) Thermal reactor

28. The Authority's gross expenditure on AGR and PWR research in 1984/85 is expected to be about £46m, with a net cost to the vote of around £17m. Ministerial initiatives in the last two years, and subsequent discussions between the Department, the Boards and the Authority, have led to new

working arrangements. A major shift in the burden of funding to the Boards has already taken place and by 1987/88 the net vote contribution is expected to be down to about £13m cash.

29. The Generating Boards and the NII have confirmed the importance of these programmes. The AGR work is essential to make the best use of the UK's existing stock of AGRs and of those under construction, for example by improving the life and performance of plant and fuel, and allowing restrictions adopted for initial operation to be removed progressively as knowledge builds up. The PWR work produces information independently from the CEGB which assists the NII's assessment of the CEGB's safety case for Sizewell B. If a number of subsequent PWRs are constructed a continuing safety and general back-up programme will be required.
30. The Authority has argued that continuing vote funding is in the public interest. It believes that some work on thermal reactor safety issues should be undertaken independently of the Generating Boards as commercial operators of nuclear installations, and that there should be some forward-looking work on issues with a longer term horizon than commercial customers need have regard to. However the Group considers that the Generating Boards are the direct beneficiaries of the research and therefore in principle should pay for it. The rate at, and arrangements by which, responsibility for funding what they do not already fund should pass to the Boards would clearly need to be discussed with them. They would naturally wish to put the work on a formal customer/contractor footing and control it to a greater extent than now.
31. The difficulty comes in the extent to which the commercial interests of the Boards may cause them to be unwilling to fund areas of research in the safety field or outside it which appear to the Authority to be of long-term importance. The present PWR work, for instance, which is

now accepted as being fundamental support for the CEGB's case at Sizewell B, was originally initiated by the Authority despite CEGB opposition. The Government's continuing strategic interest in the UK nuclear programme, and the sensitivity of the safety issues, are relevant here.

32. Also relevant is the role of the NII. The UK regulatory regime places the onus for establishing and proving a nuclear safety case to the satisfaction of the NII on its proponents (ie the operators of the proposed installation), who are expected to sponsor any necessary supporting R & D. There are no written regulations governing the licensing process, which depends upon a continuing dialogue between the NII and the owner. Under this system the NII spend only limited sums on R & D or technical support (some £2m pa currently), which are designed principally to assist their understanding of safety cases put forward by the owner. NII would prefer not to have to initiate and direct large safety R & D programmes.
33. Some would also see a danger that a large programme might lead the NII to suggest design changes themselves, and individual inspectors to become advocates of particular design solutions. The success of the present regulatory approach is seen as depending in part on the existence of the Authority as an expert body undertaking safety R & D independently of the nuclear industry. The NII currently enjoy good relations and direct access to Authority staff, and are able to influence the scope and direction of its safety work and draw on its expertise and independence of view. It is important that this position should not be jeopardised.
34. The Group believe that it would therefore be right for the Authority to be able to undertake some work independently of the Generating Boards. Currently some £17m of work is being undertaken by the Authority on the vote, reducing to £13m in 1987/88. Detailed analysis would be required to

determine what proportion should continue to be undertaken on an independent basis. The work could be financed in one of a number of ways - by the Generating Boards on a non-specific basis and with guaranteed access by the NII to the results, by some expansion of NII funding (although this could only cover the safety work) by the Department with NII advice where relevant, or by some combination of these.

35. The Group consider that the best solution would be for this work to be wholly funded by the Generating Boards on a non-specific basis, provided that arrangements can be agreed which ensure independence, NII access and continuity. We therefore recommend that further discussions should take place between the Department, the Authority, the Generating Boards and the NII with a view to securing this objective. The remainder of the Authority's thermal reactor research should be both financed and controlled by the Generating Boards.

iii) General Safety

36. Research into general reactor safety and acceptability is expected to cost £5.3m in the current financial year and £5.6m cash in 1987/88, funded entirely from the vote. About £4m of the current programme is designed to provide generic understanding of issues relating to the safety of nuclear plant, covering such matters as accident conditions in the reactor core, and consequences of accidental releases of radioactive materials. The Group considers that the Generating Boards and BNFL are primary beneficiaries of this work. However, here too there are some areas - such as studies relevant to the possible effects on the UK of a French PWR accident - where the Government clearly has an interest and a responsibility, as does the NII. It would be necessary to disentangle these threads in further discussions between the Department, the Authority and the Generating Boards before coming to a final view about the extent of the work which the Department should continue to fund.

37. The programme also covers the cost of the Authority team responsible for its own safety policy and for inspecting the safety of all Authority reactors and other facilities (about £1m per annum). The Group consider that these costs should be treated as an overhead and charged out to the other programmes, including those which are funded by the Department.
38. The Treasury does not agree with the recommendations in paras 35 and 36 above. These represent a retreat from one of the Report's major themes - namely that projects should be funded on a specific basis by their potential beneficiaries under a customer/contractor relationship. More particularly:
- (a) the recommendation in para 35 for non-specific funding is based on an assumption that specific funding by the potential beneficiaries would not produce the "right" level of activity in this area. The Treasury sees no basis for this assumption. There is nothing in the case-by-case approach involved in specific funding to suggest that worthwhile projects would not be funded. At the same time the approach does provide an important discipline on the parties concerned which is lacking with non-specific funding;
 - (b) the recommendation in para 36 is unclear. It is expressed in terms of the need to "disentangle" the threads of funding. The application of the customer/contractor principle to specific projects in this area would automatically disentangle the funding. It would leave projects to be funded by their potential beneficiaries while projects which attracted no backer would not be pursued;

(c) in both areas the Treasury considers that an appropriate safeguard would exist to protect the national interest. It would be open to the Department of Energy to be a customer for a specific project which it considered valuable but for which the AEA was unable to attract a customer from within the nuclear industry.

iv) Radioactive Waste and Nuclear Materials Management

39. Gross expenditure is expected to rise from £38m in 1984/85 to £48m in 1987/88 and net vote funding from £19.5m to £28.8m cash. It comprises, however, a number of distinct though inter-related component parts:

(a) the operational programmes, whose net cash cost is expected to rise to nearly £16m by 1987/88. This is expenditure, some of it on capital works, which is required for the safe handling, treatment, transport and storage of the Authority's own waste arisings from past vote funded programmes. As such it is both essential and, in the Group's view, a proper call on the Department's resources. The only area of doubt relates to the programme for decommissioning the Windscale AGR beyond normal safety requirements to a "green-field" site by 1993 as a demonstration project. The Authority is clearly liable for the decommissioning of its own reactors, but Generating Board contributions to the cost have been sought, as they will benefit from the knowledge and technical advances gained through the work. However, as a matter of policy, the Boards do not at present wish to participate, as decommissioning to a

"green-field" site for commercial reactors is not contemplated until some decades after station closure if at all.

Nevertheless the Boards (and BNFL) will clearly derive benefit from the programme if it increases the public acceptability of nuclear power and the Group therefore consider that they should make a substantial contribution to its cost.

(b) R & D judged necessary by the nuclear industry and the Authority to support the safe conduct of their own waste management operations, and to meet regulatory requirements in a cost-effective manner. This work is expected to cost £15.3m by 1987/88 (£5.4m net) of which:

- some £8m will be on repayment terms for nuclear customers;
- £3.1m will be for NIREX, the body set up by the AEA, BNFL, CEGB and SSEB for the disposal of low and intermediate level radioactive wastes from the partner organisations and, with appropriate charges, from other organisations. Of this £1.9m will be repayment work and £1.2m operational expenditure;
- £4.2m will be in support of the Authority's operational programmes. The Authority will continue, on commercial terms, to make available results from this research which have wider application to the rest of the nuclear industry.

(c) R & D funded and directed by the DoE in

support of their policy and regulatory responsibilities based on the Government's response in 1977 to the Sixth Report of the Royal Commission on Environmental Pollution (the Flowers Report) and the 1982 White Paper on Radioactive Waste Management. DoE funding is currently running at £3½m pa, including contracts with BNFL which have been sub-contracted to the Authority. DoE will clearly continue to have a major interest in R & D in this area.

- (d) other work which, in the Authority's view, is important to the long-term acceptability of nuclear power in the UK.
This amounts at present to about £0.4m pa.

40. The analysis referred to in para 39(b) is complicated by differences of view between the DoE, the Authority and the Department about their respective roles following the Government's response to the Flowers Report. This gave DoE responsibility for nuclear waste management policy and for control of the waste management element in the total expenditure on nuclear R & D which the Authority is authorised to incur (Cmnd 6820 para 17). Whilst recognising that there is a grey area between operational work on the one hand and R & D on the other, DoE argue that they can only exercise such control if they have complete responsibility for research and development relating to the Authority's own wastes, for funding the Authority's contribution to NIREX R & D, and for commissioning longer term research.
41. By contrast the Department of Energy and the Group believe it is impracticable to draw a rigid line between operational work and R & D, and that since the Authority has responsibility for the safe operation of its own sites and the safe disposal of wastes final judgement on whether research to support these operations is necessary cannot

rest with DoE. The Secretary of State for Energy has ultimate responsibility for the Authority's discharge of its functions and must therefore be in a position to judge whether such R & D is required and to fund it if necessary. We also believe that mixing the DoE's regulatory role with sponsorship of R & D necessary to fulfil NIREX's obligations to meet regulations carries potential problems. Finally, the Group agree that, given the sensitivity of radioactive waste issues, it is conceivable that the Secretary of State for Energy might from time to time wish to fund some longer term research work to be carried out independently of both the DoE and the Generating Boards/BNFL. However, it considers that the work which the Authority currently believes should be in this category has not yet been sufficiently scrutinised for the Secretary of State to make a judgement on funding.

42. Discussions to resolve the Department's difference of view with the DoE continue, and the Group's conclusions in this area should therefore be regarded as subject to their outcome, which will be reported to Ministers separately.

e) Other nuclear materials management & R & D

43. This is the other main component part of the programme, comprising R & D related to the handling of radioactive materials, their transport and reprocessing. It is expected to cost £12m gross (£8m net) in 1987/88. Some continuing vote funding is clearly justified, to cover work in support of the Authority's own operational requirements. Also political and public perceptions in this area - for example on the safety of irradiated fuel transport flasks - mean that the option of Departmental funding of specific projects on an occasional basis should be retained. However there are a range of beneficiaries of the programme other than the Department, and the Group is not convinced that the present balance of funding between the vote and other customers is right, or that it is appropriate for the Authority to continue to fund R & D assistance to UK equipment manufacturers through its

active handling programme. We consider that the programme should be reviewed in detail to determine which elements are appropriate for continued Departmental funding and those which other beneficiaries should fund if they wish them to continue.

v) Underlying Research

44. The programme is planned to run at a fairly constant level in real terms, with net vote funding of about £23m (cash) in 1987/88. The Group consider that any research organisation must undertake some underlying research independently of its contracted work in order to retain intellectual vigour, to underpin the other programmes, and to maintain its ability to secure future business. Otherwise it is unlikely to survive in the longer term. The Authority is no exception to this requirement.
45. However, by the same logic, the Group consider that all the Authority's customers, both nuclear and non-nuclear, have benefited from underlying research and should, as proxies for future customers, to a greater or lesser extent contribute to its cost, whereas at the moment it is virtually entirely vote funded. This does not mean that the programme should be controlled by the customers. While the present consultations with interested parties should continue, only the Authority itself can have a fully informed view of the most appropriate content of the programme. Regarding its total size, the 1971 Rothschild Report considered that about 10% of R & D expenditure should be in "seed corn" or "blue skies" research, although this was no more than a rough rule of thumb which few research organisations have in fact achieved. In developing the approach recommended below it is suggested that the present programme should be taken as the starting point, although its future size will largely depend on the resources the Authority have available to deploy on it. There should also be no increase in its scale without prior consultation with the Department who, as the biggest customer for other Authority programmes, will continue to

make the largest single contribution to its cost.

46. The Group recommend therefore that the guiding principle should be that the costs of the underlying research programme - at present about 10% of other research expenditure - should be recovered as part of the overall costs of the Authority's activities, and incorporated in charges to all customers be they the Department's programmes, other Departments, the nuclear industry or non-nuclear customers. The approach to cost recovery would however need to vary between customers:

- i) for nuclear work Government Departments who, given the Authority's largely monopoly position, require a degree of transparency in their quotations, would have to accept that a cost element of about 10% as a contribution to underlying research was reasonable and in their long-term interests. There should be a smaller contribution from non-nuclear work;
- ii) the Department would use its good offices to overcome the likely reluctance of other parts of the public sector - principally the Generating Boards and BNFL - to adopting a similar approach;
- iii) for its private sector work, or where the approach above is not accepted, the Authority should aim to secure on average a similar contribution for underlying research; the amount recovered on individual contracts would vary with what the market would bear.

vi) Fusion

47. The plasma physics and fusion programme is costing £35.5

gross and £17.1m net this financial year. The present financial provision is for £35.8 gross and £18.8m net in 1987/88, but the Department's Strategic Review of the UK fusion programme recommends some scaling down. The Review is being handled separately and is therefore not further discussed in this Report. Whatever the eventual outcome it is clear that the UK's treaty obligations in relation to the JET project, and the remoteness of the programme from commercial application, make it something of a special case.

vii) Other Minor Nuclear Programmes

48. The Authority undertake a number of other small nuclear programmes on the nuclear vote, together totalling £3.2m net in 1984/85, which have not been separately considered by the Group. They include:

- a radiological protection and measurement programme (expected to cost £2.6m net in 1984/85) comprising safeguards work in support of the non-proliferation objectives of the International Atomic Energy Agency, R & D on nuclear instrumentation, and radiological protection research;
- a small assessment programme (£0.6m in 1984/85) concerned mainly with internal Authority economic and environmental policy planning;
- operation of the Winfrith reactor (cash surplus £0.15m in 1984/85).

Additionally there is a modest capital programme (£0.15m in 1984/85) for the maintenance/refurbishment of Harwell's two materials testing reactors. These might require major refurbishment or replacement towards the end of the decade, involving substantial expenditure of the order of £20-£30m in total.

49. Some of this work quite properly falls to the Department to fund - eg the Safeguards programme, which is discussed in Section V as a candidate for a full customer/contractor relationship between the Department and the Authority. However, the nuclear industry and its regulatory agencies would appear to be beneficiaries of the radiological protection research programme, and the capital provisions for the two materials testing reactors can only be justified as support for the other programmes, which should be charged accordingly. The Group therefore suggest that each element should be reviewed in detail to determine where the Department should remain the customer and where other beneficiaries should fund if they wish the work to continue.

viii) Non-nuclear Work

50. Although not specifically referred to in the Group's terms of reference non-nuclear work has become, as mentioned in para 21, a significant part of the Authority's total activities. Receipts in 1984/85 are forecast to be £28.6m, giving a cash surplus of about £5m which is used to reduce the net vote funding. The figures break down as follows:

£3.1m Oil and oil-related work for the Department.

£5.5m Harwell's management fee for the supervision by the Energy Technology Support Unit (ETSU) and by the Marine Technology Support Unit (MaTSU) of the Department's contracts with industry, principally for offshore work, renewable energy, and energy efficiency research.

£0.4m Other ETSU contracts.

£7.1m DTI industrial support through the Requirements Boards.

£3.5m Work for other Government Departments, particularly MoD.

£9m A large number of other contracts, mostly with the private sector.

Total £28.6m

51. The Authority's approach to non-nuclear repayment work was considered in detail by the Department in 1982. It is intended as a spin-off from the nuclear programmes, not as an independently-initiated activity. It enables the Authority to utilise the resources required for the nuclear programmes more effectively and economically, while at the same time making the Authority's expertise available to Government Departments and British industry. The costing arrangements are designed to ensure that the Authority does not subsidise the non-nuclear work from the nuclear vote.
52. In the context of the need for efficient technology transfer from the AEA to UK industry, the Group has sought the views of the DTI about the value of this research and the desirability of an external review. The DTI, as the Department principally concerned, have however expressed themselves well satisfied with the quality of work undertaken by the Authority for their Requirements Boards, and confirm that they regard the Authority as a public sector body which most effectively secures commercial exploitation of its work. They do not see the need for an external review. They endorse the Authority's policy of undertaking contract R & D work as the best means of achieving information and technology transfer to industry. So does the Group.
53. The Group has noted recent proposals by the Authority Board to try and obtain private sector venture capital

funding for the commercial exploitation of research results in selected cases. This seems likely to lead to a modest improvement in the Authority's record of technology transfer, and should therefore be encouraged. The wider question of constraints on the Authority's non-nuclear work and the most effective exploitation of its undoubted assets and commercial potential is dealt with later in the Report (paras 95-99).

ix) Conclusions from Programmes Analysis

54. A main theme of this analysis is that the nuclear industry, as the primary beneficiary of most of the Authority's work, should play a major part both in determining what R & D it requires and in paying for it under normal contractual arrangements. Scarce Government resources should be used strictly to support strategic and policy ends, not as a hidden subsidy for the nuclear industry. Similarly the willingness or otherwise of commercial customers to increase their funding can often be a decisive test of whether the work is likely to be worthwhile.
55. However a second major theme is that there remains an important range of nuclear R & D which Government should continue to support. First, projects which the Government wishes to see undertaken but which the industry considers do not satisfy its commercial requirements. This would include projects like the fast reactor where any benefits are very long term and uncertain. Second, projects which relate directly to Departmental responsibilities such as both DoE and Department of Energy concerns with waste management. Additionally there are areas such as thermal reactor and general safety where the Group believe (Treasury excepted) that the nuclear industry should fund, but on a non-specific basis.
56. These considerations, reinforced by the unique nature of nuclear power and the problems of public perceptions, seem to us to require an authoritative body of independent

expertise such as the Authority now represents.

57. Although major steps in transferring funding from the Department to the commercial customers have already been taken in recent years, application of these principles suggests that substantial additional funding might be so transferred. Full implementation of the Group's recommendations could result in savings in the Departmental vote of £26.5-£28.1m by 1987/88, and examination of the £16.1m of presently forecast Departmental expenditure recommended for further analysis should yield significant additional savings. There could also be additional savings beyond the end of the PES period as key programmes such as the fast reactor move further along the spectrum towards commercialisation and industry funding. On the other hand these figures make no provision for the Authority's share of BNFL's pre-1971 waste costs, which could amount to £2-3m per annum.
58. These changes would inevitably increase the influence of the nuclear industry over the content of the Authority's programmes. However they would not in themselves result in a reduction in the total volume of R & D (although this is a possible outcome), or undermine the requirement for a body like the Authority to do it. The Department will remain a very major customer for the Authority's services, to the tune of 40% or more of its total expenditure in 1987/88. Hence one key issue is what relationship between the Authority and the Department is most likely to make the Authority responsive to Government's requirements and give best value for money.

V. Customer/Contractor Relationships

59. The Authority is already a major contract R & D business. About 30% of its income comes from a range of informed customers whose relationship with the Authority is commercial and contractual. Our programmes analysis suggests that this proportion should be increased by a shift from Departmental funding to funding by the nuclear industry. The Department's relationship with the Authority, and the Authority's financial basis, should therefore be such as to facilitate this evolution.
60. With this in mind the Group has considered the extent to which it might be practicable and desirable to put the Department's work with the Authority on a formal contractual basis. The potential benefits are:
- a more disciplined approach by both parties, with work better defined and costed;
 - more meaningful milestones for monitoring and control purposes;
 - a desirable degree of commercial tension given that contracts and hence funding will run out and require re-negotiation on a regular basis.
61. The precise nature of such contracts would vary between different areas of work. All would set out such things as objectives, timescale, cost, resources and milestones. However the degree of detail would vary from area to area. For example specification of objectives would necessarily be less precise in the areas where a broadly based programme of research is required than at the other end of the spectrum for specific development of a component for a defined project. Continuing projects would usually move along this spectrum during their life, although by the end of the process the contracts might well be with the

nuclear industry rather than the Department. In the initial stages at least it would not be appropriate for most Department of Energy contracts to be legally framed, given the flexibility required and the unproductive effort which would be involved in their negotiation and drafting.

62. This approach would place a clear responsibility on the Department for the formulation of policy, for the overall formulation of a programme to implement that policy, for the choice of the AEA as contractors for the work and for monitoring its subsequent progress. The AEA would advise the Department, in particular on the detailed programme required to implement policy, and would remain responsible for its own performance as a contractor and for its general efficiency, effectiveness and economy. In essence, the programme formulation would be an iterative process between the Department and the Authority with other parties having an important input.

63. At one end of the spectrum the Group has given special attention to the nature of the relationship for the fast reactor programme, which currently and prospectively accounts for about half the nuclear R & D carried out on behalf of the Department and has major strategic and international significance. For some time to come, the Authority will have a major role in proposing the work to be done, negotiating with international collaborative partners, and making technical decisions. We believe that, while the Department would have ultimate policy and financial responsibility, it would need to prepare a jointly agreed programme statement on which the Authority would act, rather than a legally framed contract. This would give the substance of a contractual relationship in terms of accountability via the general and specific targets, cost details, and arrangements for financial and technical reporting and monitoring. An indication, based on present knowledge, of the type of statement which might result from an iterative discussion with the Authority is at Appendix 1. We would expect increasing precision, especially about cost and time targets, as the programme

nears commercialisation.

64. At the other end of the spectrum one example of work which might be put on a full contract basis at once is the small Safeguards programme in support of the non-proliferation objectives of the International Atomic Energy Agency in Vienna. Here the Department already has the necessary technical expertise and monitoring capacity in AE Division's Safeguards Office and the objectives relate specifically to the Department's own activities and direct responsibilities. An indication of the type of fully commercial contract which might be envisaged for this programme is at Appendix 2.
65. In order to help it operate this relationship and formulate the documents the Department would need to engage perhaps 2-3 nuclear experts. Their purpose would not be to second-guess the Authority technically, but rather to assist in the determination of meaningful programme targets and, by their ability to probe technical questions, to enhance the Department's informed customer capability. The increased monitoring responsibilities might also require the strengthening of the administrative resources and accounting expertise available to AE Division.
66. One additional source of advice on the Authority's activities would also be available to the Department. As announced earlier this year it has been decided that all the Department of Energy's vote funded R & D, both nuclear and non-nuclear, should be incorporated in a unified budget from 1985/86, and that the role of the Advisory Council on Research and Development for Fuel and Power (ACORD) should be expanded. Under these arrangements ACORD will in future review the Authority's programme annually, advising on its broad balance, the way it fits into the wider context of energy R & D as a whole, and its relationship to national energy policies.
67. Auditing of the Authority by the National Audit Office

(NAO) would also continue. Financial accountability under the new relationship would need to be settled with Treasury formally. New letters of appointment as Accounting Officer would be needed to make it clear what the Department's Permanent Under Secretary and the Authority Chairman would answer for to Parliament (eg the Public Accounts Committee). Broadly, the Department would answer on policy and overall programme specification, and the Authority on its technical advice and efficiency of programme execution. The balance would depend on the nature of the programme. For example, in the case of the fast reactor programme the Department would have to make it clear that the overall specification of the programme resulted from discussions with the Authority and the other interested parties, and that it could not take responsibility for technical detail. It would be important that the Department did not move further down the path towards more detailed technical control than the nature of the programme justified.

68. Subject to these important reservations the Group conclude that it would be both practicable and desirable for the Department's relationship with the Authority to move onto a customer/contractor footing, with each programme being the subject of a separate contract or contracts, but with a varying degree of detail and formality according to circumstances.

VI. Privatisation of the Authority in whole or in part

69. Government policy is to reduce the size of the public sector and to privatise wherever possible. The Group has therefore examined the possibility of privatising the Authority in whole or in part, particularly as its success in increasing the commercial component of its business and the recommended extension of customer/contractor relationships might anyway appear to point in this direction.

A. Full Privatisation

70. A number of major considerations arise:

- a) Monopoly Implications. The programmes analysis suggests that a small number of large Departmental programmes will continue to make up the core of the Authority's work for some years to come, with the fast reactor predominant. A key factor is the continuing monopoly status of the Authority in these activities. There is no realistic prospect of, for instance, the fast reactor work being opened up to competition in the immediate years ahead and, accordingly, privatisation could not, in these areas, lead to increased efficiency by exposure to market forces.
- b) Asset Values. The Authority's net assets have a book value of £154m, but their sale value would probably be lower. For example, potential purchasers might value stocks (eg of fissile materials) at disposal levels rather than replacement costs as in the AEA Accounts.
- c) Liabilities. The Authority has substantial liabilities for radioactive waste treatment facilities to deal with wastes currently accumulating in storage, the costs of management of spent oxide fuel from AEA reactors, and the

future costs of decommissioning its nuclear facilities. Rough estimates are that these liabilities could amount to some £200-300m over the next 15-20 years, with a discounted present value of £140-210m. Annual expenditure could be of the order of £15-20m. Appropriate arrangements to cover these liabilities would be required before any transfer of responsibilities to the private sector could be contemplated.

- d) Significant working capital (a rough estimate being £100-125m) would have to be injected by the purchaser or by Government, to cover the likely change in the timing of payments for Departmental work from monthly in advance to quarterly in arrears. (However, to the extent that a privatised Authority was being funded by Departmental contracts, this could be managed in a PSBR neutral manner).
- e) Pensions. At present the Authority's statutory schemes are notionally funded, with the excess of contribution receipts over pension payments going to the Exchequer. After privatisation (which could include the AEA pension office) a new funded company scheme would probably be set up. If responsibility for the existing schemes (which would probably be closed to new entrants) were transferred to the new organisation, a cash transfer from the Exchequer of £500m in respect of existing liabilities for AEA staff would be required - and a further £500m if (as would be likely in such circumstances) the new organisation took over all the liabilities of the schemes, including staff from BNFL, and some staff from Aldermaston, Amersham International, NRPB and SERC. Alternatively the scheme could remain as a Government responsibility, with immediate Exchequer costs limited to transfer costs for those employees who wished to join the new company

fund and, in the longer term, some bringing forward of the date at which the pension payments from the scheme exceeded contributions.

- f) Public Perceptions. Public concerns over nuclear issues suggest that now is not a good time to seek to privatise a key element of the nuclear industry, and that to do so might undermine wider policy objectives.

There might also be particular concerns in relation to the role of the AEA Constabulary, which has responsibility for both Authority and BNFL sites and is permitted to carry firearms to protect nuclear materials in store or in transit within the UK. Security aspects, for example in relation to a private sector body handling and generating classified material, would also require careful consideration.

71. The Group has concluded that, taken together, these factors mean that privatisation of the Authority as an entity, whilst possible in principle, is not a realistic option at this time. Nevertheless, as the proportion of Departmentally funded work falls and the percentage of the Authority's work being undertaken on a commercial contract basis increases further, and as the fast reactor draws closer to fully commercial application, very different circumstances might emerge. Prospects for privatisation as a longer term option should therefore be kept under review..

B. Partial Privatisation

72. The Group has also examined the feasibility of privatising individual establishments, or "business centres", particularly those engaged on non-nuclear work.

73. Individual Site Privatisation

The key issue is the nature of the Authority's work which requires it to organise its professional staff in terms of disciplines rather than on a programme or project basis, bringing together the various disciplines, expertise and facilities as required for individual projects. Each of the various component parts of a programme are handled at the establishment best equipped with the appropriate expertise and facilities. Would this highly-integrated approach and the interdependence of the Authority's establishments make partial privatisation of an individual location inefficient?

74. The Group has looked in most detail at Harwell as the most obvious candidate, given its high proportion of contract and non-nuclear work and favourable location. The nature of the Authority's work and the integrated approach are illustrated at Appendix 3 using an example from the fast reactor programme. The illustration highlights the key role of Harwell in the solution of the problem.

75. The illustration is also not untypical. Harwell covers 3 main areas of work. The nuclear power R & D embraces gas and water-cooled reactors, the fast reactor, safety and reliability, radioactive waste management and fusion. The underlying research programme underpins the totality of the nuclear programmes at Harwell and elsewhere. Harwell staff are thus very closely integrated with each of the main programmes efforts, and the site contains major facilities which are all employed on a variety of different vote funded and contract programmes. The non-nuclear work ensures the most cost-effective use of staff, expertise and facilities already required for the nuclear programme. It is interwoven with the nuclear work both at Harwell and elsewhere, with staff being employed for proportions of their time on various different programmes and using a range of laboratory and capital equipment.

76. To overcome, or at least limit, these problems, given the nature of the work and the integrated approach it demands,

would require a complex series of contracts between Harwell and the rest of the Authority in both the underlying research and applied areas. It is likely that Harwell would lose business, certainly with the rest of the Authority, putting at risk its present expertise and facilities and reducing its commercial attractiveness to potential customers. The opportunity for ready staff and technical interchange between establishments would be lost. In addition, measures would have to be taken to ensure retention of Harwell's key staff - its major asset.

77. Privatisation of Individual Business Centres. The Group has further considered whether privatisation of the Harwell "business centres", such as the Metals and Chemicals Technology Centre or the Non-Destructive Testing Centre, might be possible.
78. These Centres have been established to exploit particular areas of expertise or to serve a particular market by selling research services. However, whilst each Centre has a Manager, it does not have permanent resources. It must compete with other programmes for staff resources, equipment and services for each contract. Most contracts require an input from a range of scientific and engineering disciplines. The team will comprise some staff working full time and others part time whilst continuing to work on other programmes also. The staff mix and numbers working for the Centre will thus change as a contract progresses. The Centre will have first call on some capital equipment, experimental rigs and instruments, but will often also utilise those "owned" by other nuclear and non-nuclear projects. The Centres rely on Harwell's central engineering services for design, manufacture and engineering projects expertise. Appendix 4 gives an example of how a Harwell Business Centre draws on diverse inputs in undertaking work for its clients.
79. The Group has concluded that the very highly integrated nature of the Authority's activities as a whole, both between its nuclear and non-nuclear work and between

individual establishments, makes single site privatisation difficult to envisage and likely to lead to substantial diseconomies. The potential benefits of privatisation would be unlikely to outweigh the inevitable weakening of both the privatised establishment and the remainder of the Authority through the loss of staff and technical interchange and through the inefficient use and potential duplication of resources.

80. The Group has also concluded that the "business centres" as presently operated are viable and effective organisations only as an integral part of Harwell's overall work and organisation. They derive their expertise and strength only by drawing on the Authority's mainstream expertise. There must be doubt as to how long they would survive if hived off from the rest of the organisation.
81. However, in each case, and as with full privatisation, the situation may change over time. The Group has also not looked at the other sites in the same detail as Harwell, although it is clear that similar considerations apply. The assessment of the balance between the costs and benefits of privatisation turns largely on an assessment of the factors listed above which can only sensibly be done by AEA management. The need to keep under review the scope for partial privatisation should therefore be made a specific part of its remit.

VII. The Authority as a Trading Fund

82. Whilst not immediately practical, possible eventual privatisation would be facilitated by putting the Authority on a Trading Fund basis. This, and the Group's view that the customer/contractor approach should be extended to the Authority's nuclear work for the Department, has led us to consider other possible advantages of a Trading Fund. This would build on the existing situation in that the Authority already operate fully commercial accounts, and part of their work is already undertaken on a "trading basis".

83. The key features of Trading Funds are:

- a capital structure based on treating the value of assets at vesting day as a loan from Government. The Fund pays interest on the capital to the Exchequer;
- a profit and loss account and ability to carry surpluses/deficits forward from one year to the next;
- subject to an External Financing limit (EFL) and a limit on total indebtedness, the Fund can borrow as necessary from the National Loans Fund (NLF) to finance capital investment, existing debt or working capital;
- the responsible Minister sets financial objectives for the Fund with the agreement of the Treasury.

84. The principal advantages of making the Authority a Trading Fund are:

- (a) it should have a positive effect on attitudes. At present some 30% of the

Authority's work is undertaken on a trading basis, rising to about half if all the Group's recommendations are implemented. A Trading Fund would require that all work be accounted for on a fully commercial basis;

- (b) it would be the most appropriate financial vehicle for the extension of the customer/contractor regime to the Department's work;
- (c) it would impose an additional discipline through the requirement to meet financial objectives;
- (d) it would create financial flexibility between years. At present the Authority cannot carry over revenue surpluses/deficits, and has only limited powers of capital carryover;
- (e) it would highlight, via the requirement for a capital structure and opening balance sheet, major issues such as the provision for long-term liabilities, and ensure that such issues are faced in commercial terms;
- (f) it would facilitate possible eventual privatisation, as the Authority's major programmes move down the path to commercialisation.

85. The Group recognise that the benefits which might be expected to flow from a Trading Fund in the short term are circumscribed. Despite recommending an extension of the customer/contractor regime, the Group accept that some key programmes - particularly fast reactor and fusion research - would have to be handled on a contractual basis which would, at least initially be neither arm's length nor legally framed. Furthermore, in these areas the

Government would have effectively nowhere else to turn, so that there would not be a competitive trading situation. Nevertheless, to the extent that the programmes migrate over time towards full legal contracts, these constraints might be expected to diminish. Also, the Department's monitoring arrangements for these programmes would require "full disclosure" on the Authority's part and would be designed to encourage maximum efficiency.

86. There would additionally be many detailed issues to be settled before a Trading Fund could be established. For example, asset valuation, treatment of provisions, and the establishment of realistic financial objectives would all require careful study.
87. Nevertheless the Group conclude that the advantages of a Trading Fund are clearly greater than its limitations and that the Authority should therefore operate in future on this basis.
88. Once established as a Trading Fund the Authority would no longer receive Grant-in-Aid. Its income would come from contracts with commercial customers and from payments by the Department for its "contracts" placed with the Authority. A key point is whether Departmental "contracts" should contain a profit element. If they did not, it might encourage two distinct classes of Authority work, with priority attention being given to the profit-making areas at the expense of the Department's non-profit making programmes.
89. The Group therefore consider that a full Trading Fund in which all contracts, including those for the Department, would be on a with profits basis, so as to give a return on assets, is the right approach and would provide the maximum commercial incentive to increased efficiency.
90. The idea of the Authority making a profit out of the Department's nuclear vote might give some presentational difficulties. But since the Authority already make

profits on work done for other Government Departments, they should not be insurmountable.

91. The consequences of the change to a customer/contractor relationship between the Department and the Authority and the operation of the Authority as a Trading Fund would include the payment by the Department of a margin to the Authority and the payment of VAT on contracts. The Group consider that these transactions should be arranged to be PSBR neutral but it was noted that they would generate a small additional payment to European Community own resources. Preliminary calculations suggest that this would initially be of the order of £3m per annum net (after taking account of the rebate negotiated at Fontainebleau). The calculation of our contribution to own resources in any given year involves both the total VAT collected in that year, and the weighted average rate of VAT paid by final consumers in the UK two years previously. Customs and Excise are therefore being asked to investigate the likely effect on own resources of the additional VAT payments after the first two years.
92. PES savings would result from the other recommendations of the Group on future arrangements for non-departmental funding of work done by the Authority. The change to the customer/contractor relationship and the establishment of the Trading Fund would not increase the volume of the Department's nuclear programme but, through the payment of the margin and of VAT, would increase public expenditure. No consequential savings arise to offset this increase and it is normal practice for PES and Estimates to allow for the payment of VAT.
93. Ministers would therefore have to take a view when considering the Report as a whole on:
- (a) how any net increase in liability to the EC should be funded;
 - (b) adjustment of the PES and Estimates

provision to accommodate the technical increase in public expenditure flowing from the switch to a customer/contractor relationship and the establishment of a Trading Fund.

94. Putting the Authority on a Trading Fund basis would require an amendment to the 1954 Atomic Energy Authority Act, not to establish the Fund itself but to enable it to borrow as required. However, provided that the intention to take legislative powers is clearly announced in the Parliamentary statement on Ministerial decisions arising from the Review, it might be possible to establish a Fund on an interim basis in such a way as to avoid any early requirement to borrow.

VIII. Technology Transfer and Full Exploitation of the Authority's Assets

95. The Authority's multi-disciplinary skills and facilities have been built up over the years largely at public expense as part of the UK's long-term strategy for the development of nuclear power as an electricity supply source. In this the transfer of technology is a continuing and major task of the Authority which should, however, not be affected by the Group's proposals.
96. The Group has considered ways in which technology and information transfer to industry in the Authority's non-nuclear work, including the application of nuclear techniques to non-nuclear areas, might be further encouraged. The activities in question fall into three basic categories: the sale of technical services, research contracts for customers, and development of specific products for commercial exploitation. As noted above (para 51), DTI endorse the policy of contract R & D for industry as the best means of achieving information and technology transfer, and have welcomed the Authority's proposals for private sector venture capital for commercial exploitation of selected innovation products.
97. The Group has considered particularly possible constraints on the realisation of potential. There are financial constraints on the Authority's freedom systematically to exploit the contract research market, where substantial initial outlays are involved. These would be eased somewhat if the Authority was on a Trading Fund basis, although the NLF does not provide risk capital. A Trading Fund would also overcome the present restrictions imposed by year end accounting. The prohibition on non-nuclear manufacturing causes some limited problems, but the Authority Board feels that some progress can be made without removing the legislative constraint. Furthermore the Group consider that removal of the constraint might lead the Authority into competition with its present customers and that it would not be in line with the

overall drive to transfer R & D results to industry, who are best placed to ensure commercial exploitation and manufacture. The Authority's links with civil service pay and conditions entail some inflexibility compared with some private sector organisations, but are not seen as a major constraint in most areas.

98. The Group conclude that the foregoing are not major constraints on realisation of the Authority's potential or on information and technology transfer to the nuclear and non-nuclear industries.
99. Nevertheless the Group is conscious of the need for a continuing careful balance between non-nuclear work and the core nuclear programmes. Accepting that non-nuclear and applied nuclear work is undertaken only as a result of firm contracts, and that to this extent the market decides the level of work undertaken, the Group nevertheless consider that it should not be an automatic response for the Authority to seek to offset a decline in nuclear work by an increase in non-nuclear work, although this may sometimes be necessary to maintain a viable team. Nor should it be presumed that all non-nuclear activities initiated within the Authority should continue to be undertaken in-house; the Authority's role here should be as initiator and innovator, with the ideas and activities being spun off to the private sector for full exploitation and development. Current policies with regard to concentration on contract R & D, and the proposed developments in respect of use of private sector venture capital, are judged to be in accord with these concepts, but the continuing need for a careful balance should specifically be drawn to the attention of the Authority's management.

IX. Role and Composition of the Board

100. The Group consider that the recommended changes in the role of the Authority and its relationships with the Department also have considerable implications for the role and composition of the Authority Board.
101. The 1954 Act requires that there shall be a Chairman and 7-15 other members of 'The Authority', appointed by the Secretary of State. (The Chairman and Members together are normally referred to as 'the Authority Board'). It further stipulates that 3 must have had wider experience of, and shown capacity in dealing with problems associated with atomic energy, one in administration and finance, and one in the organisation of workers.
102. The present composition of the Board is as below:

Sir Peter Hirsch Chairman (non-executive).
Has overall
responsibility for the
Authority and is
concerned primarily with
the Authority's
scientific and technical
programmes.

Mr A M Allen Deputy Chairman and Chief
Executive with
responsibility for the
day-to-day affairs of the
Authority.

Dr T N Marsham)
Dr L E J Roberts) Full-time members, with
executive
responsibilities for the
major management units
and for all research
programmes excluding

fusion and general
reactor safety research.

Part-time members:

| | |
|-------------------|--|
| Mr C Allday | Chairman and Chief Executive, BNFL |
| Mr F E Bonner | Deputy Chairman, CEGB |
| Sir John Boyd | Former General Secretary, AUEW. Appointed as the member with experience in the organisation of workers |
| Mr John Bullock | Managing Partner UK, Deloitte Haskins and Sells |
| Sir Alan Cottrell | Master, Jesus College, Cambridge |
| Dr N L Franklin | Former Managing Director, NNC |
| Mr I T Manley | Deputy Secretary, Department of Energy |
| Mr R E J Roberts | Managing Director, G.K.N. Group. |

103. The Secretary of State has recently announced that Sir Peter Hirsch is stepping down from the chairmanship at the end of September, although remaining on the Board as a part-time Member, and that Mr Allen will succeed him as Chairman for a one-year period.
104. The Board sees as its role the formulation of nuclear R & D programmes for submission to the Department, advice on nuclear issues of concern to the Government, and the management of the Authority's activities including the approved programmes. The presence on the Board of senior executives from the CEGB, BNFL, NNC and the Department has reflected the view that, despite differences of emphasis, the close relationship between the Authority and these component parts of the nuclear industry should be reflected at the highest level, and that these Members

have important contributions to make by virtue of their experience and expertise on the wider issues of policy before the Board, including the overall strategy for nuclear R & D.

105. If the Group's recommendations are accepted the Authority would become primarily a contract R & D organisation, financed on a commercial basis through a Trading Fund with financial objectives, although a number of its principal "contracts" would still be programmes carried out for the Department. It would remain a key source of advice on the content of those programmes and one of a number of sources of advice on nuclear issues generally. However, the executive and commercial role of the Board would assume a greater significance than it does now. It is difficult to see how in this changed situation senior executives from the Authority's key customers could continue to sit on the Board without potentially serious conflicts of interest and the inhibition of free discussion.
106. The Department would, of course, remain in a special relationship with the Authority as being not merely a major customer but also its sponsor or quasi shareholder. Membership of the Board has undoubtedly facilitated Departmental communications with the Authority in the past, as it has for the nuclear industry Members. However, alternative arrangements could be made without great difficulty.
107. The Group conclude that, in the new circumstances which would result from implementation of the Report's recommendations, the Authority Board should not include a member of the Department or senior executives of the electricity supply industry, BNFL or NNC. This should, however, not preclude the appointment of members with recent experience of these bodies who would not have the same conflicts of interest. The new circumstances would also increase the importance of the contribution and role of the independent part-time Members. It would be essential that they continue to bring to bear their wider

external experience on the executive and commercial challenges facing the Authority, especially in their areas of particular expertise, and to provide assistance and support to the full-time Members of the Board.

United Kingdom Atomic Energy Authority Establishments

FIGURE 1

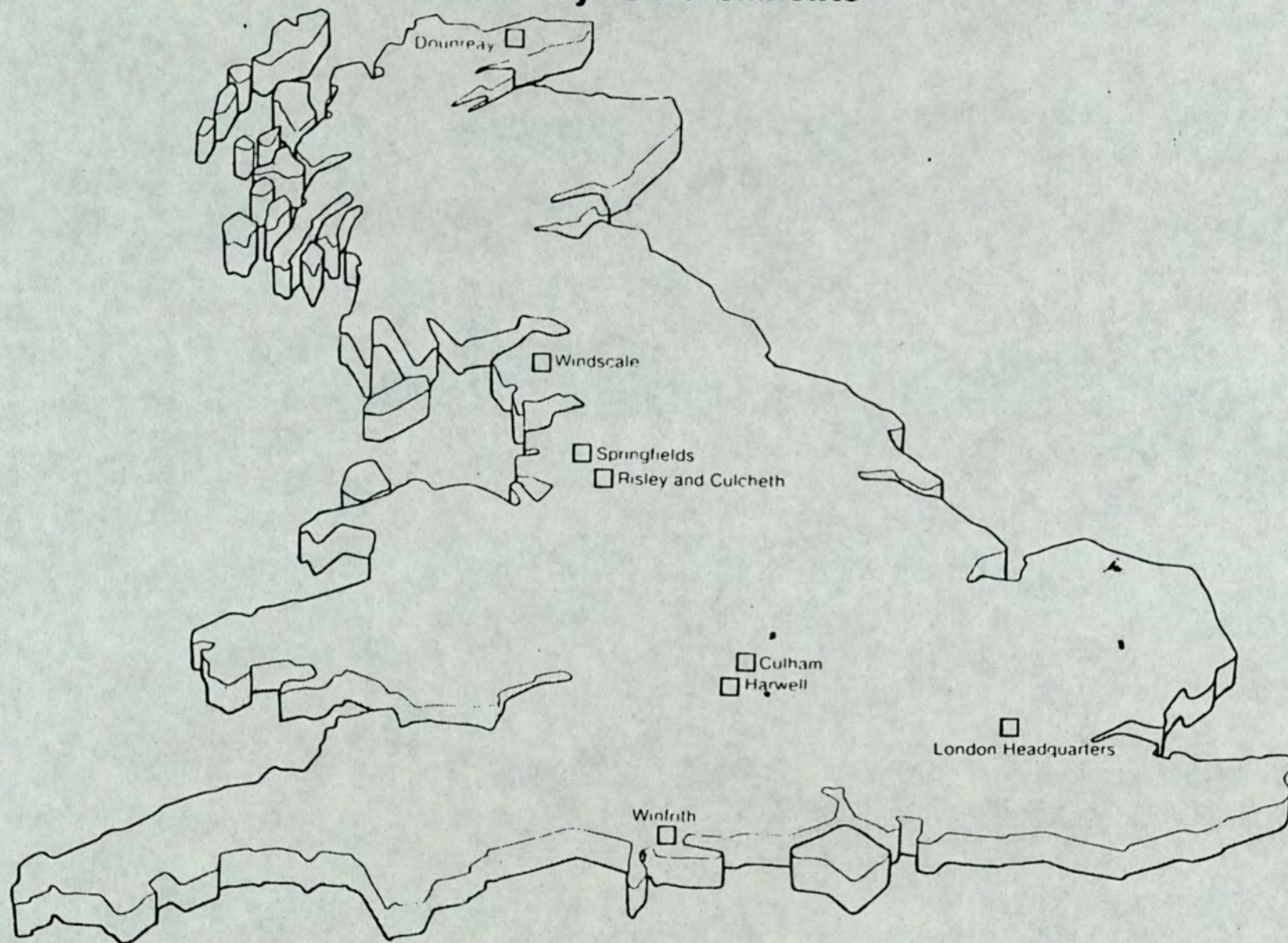


FIGURE 2

Analysis of Funding by Customer

1984/85

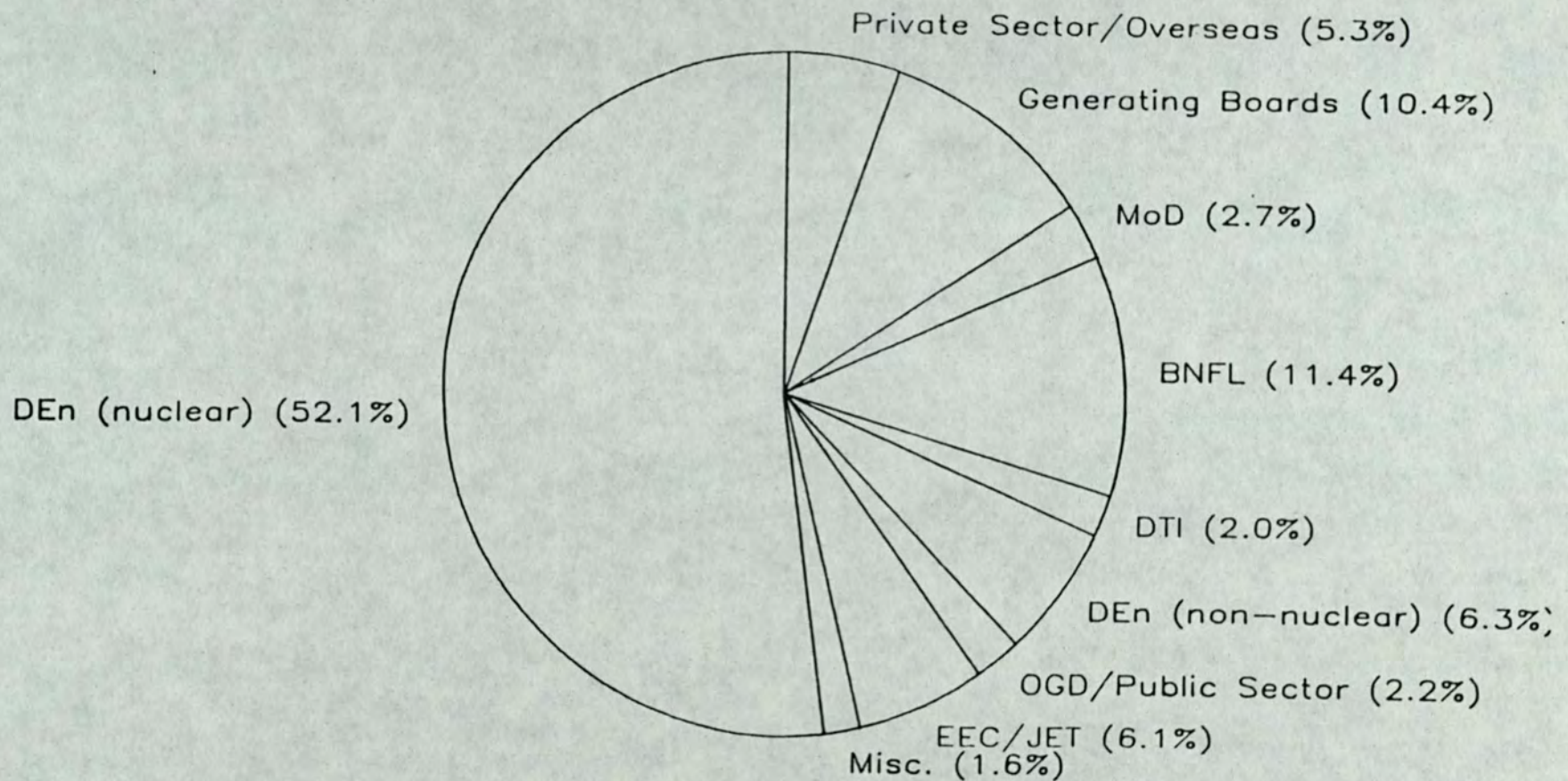
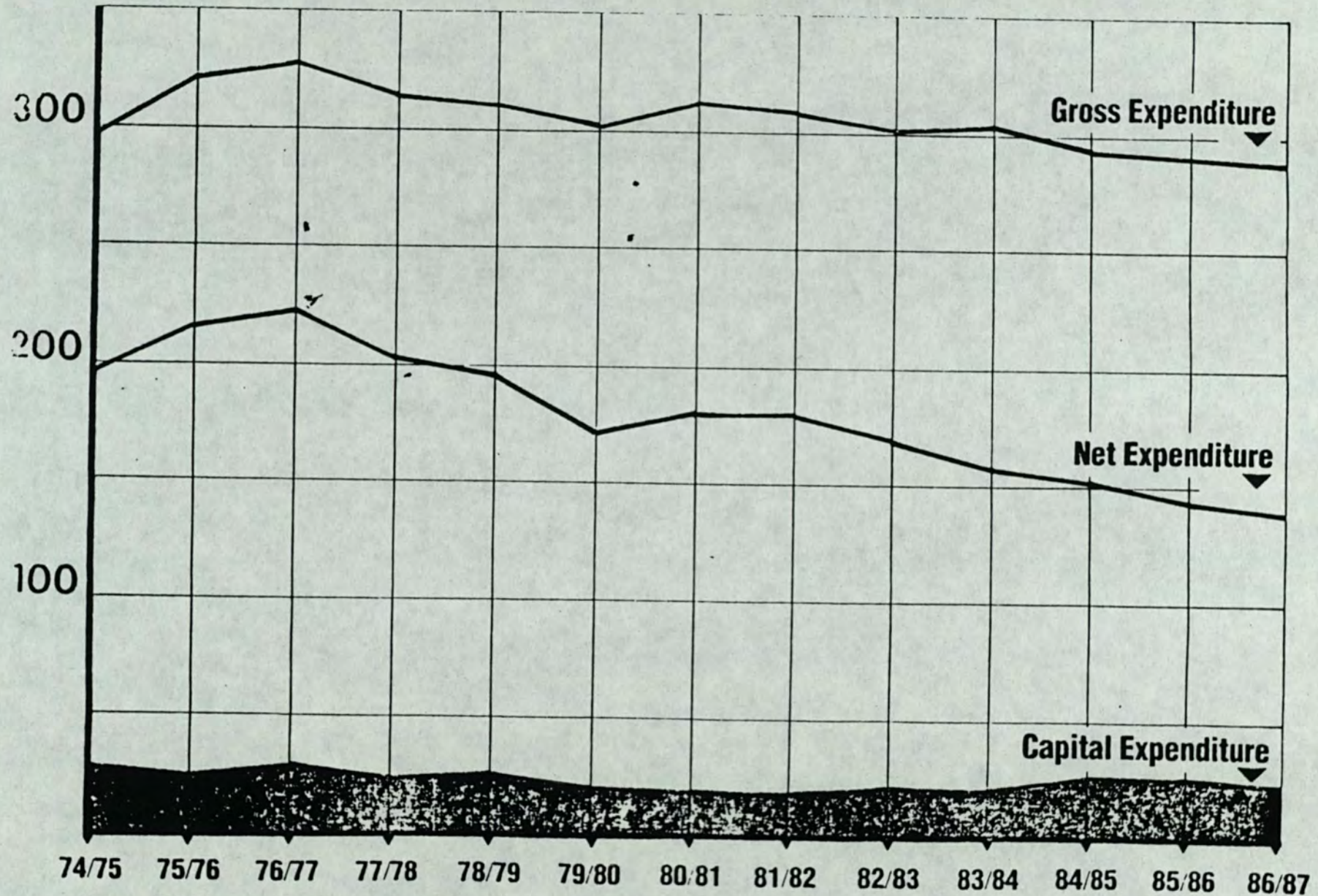


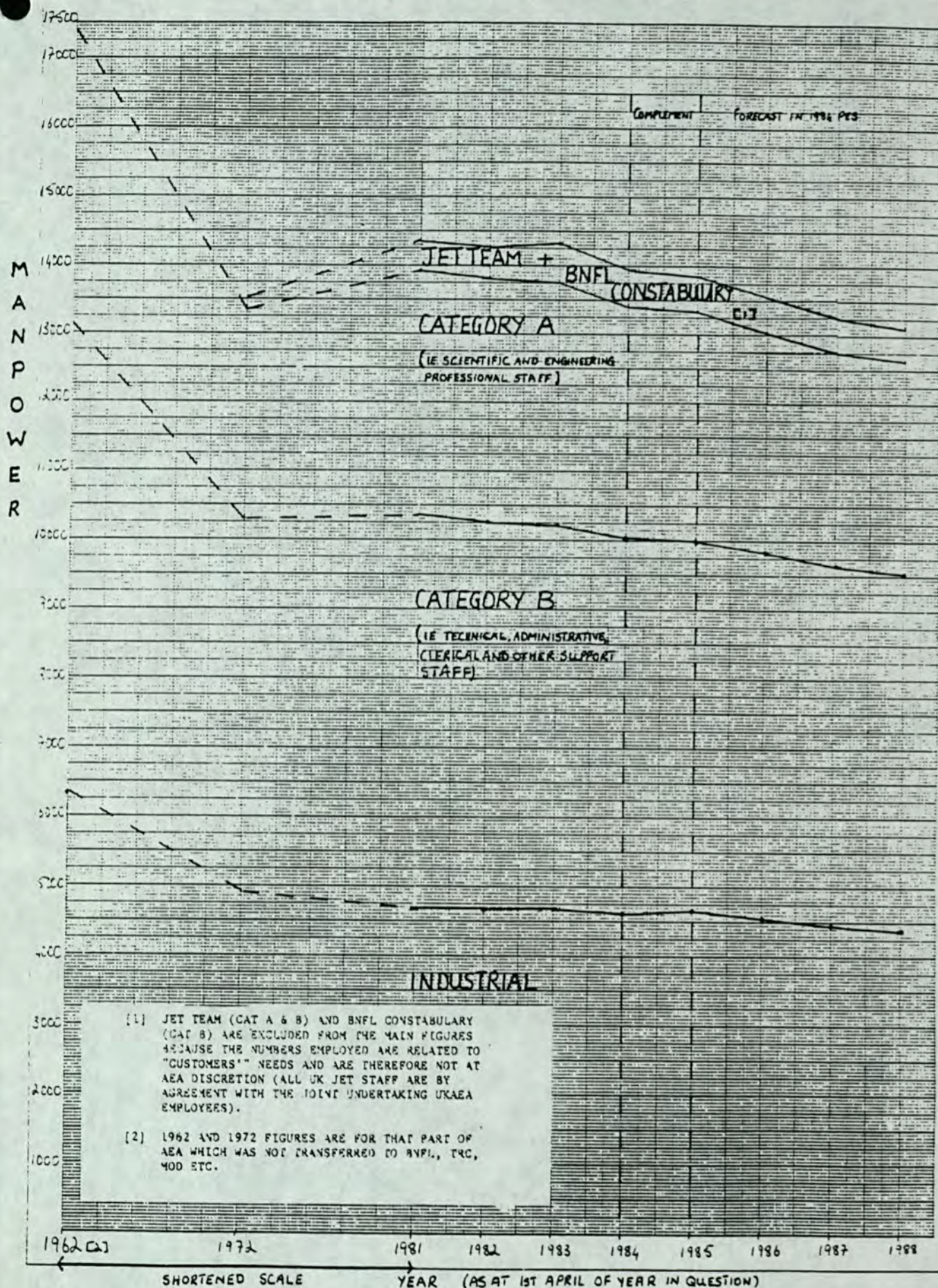
FIGURE 3

Trends of Expenditure (£m 1980/81 Prices)



Note:- All Figures exclude expenditure on the IFT project

AUTHORITY MANPOWER 1962-1988



Notes to Table 1

- (1) These comprise Operation of the Winfrith Reactor, Radiological Protection and Measurement, Assessment Work, Refurbishment of the Harwell MTRs.
- (2) The Authority's nuclear and non-nuclear repayment work generates a surplus in cash terms which is used to reduce the net call on the vote. Some of this surplus in cash terms is used to cover the charges to customers in respect of central services overheads and the Authority's Employer's superannuation contributions, items which in the cash PES presentation are included with early retirement payments under the heading of Other Provisions. For simplicity in this presentation the whole cash surplus is netted off against this heading.
- (3) Income from repayment work that can be associated with vote funded programmes has been included in the figures for external funding of those programmes. "Other repayment work" comprises nuclear R & D work on programmes with no direct Authority analogue (eg naval work for MoD), sales of technical and non-technical services, and royalty receipts.
- (4) Receipts arise mainly from the provision of administrative services on a repayment basis, in particular the provision of AEA Constabulary at BNFL sites, and in respect of amenities such as canteens, hostels and housing.

TABLE 1

1984/85 Authority Programme Provisions

| | £m (cash) | | |
|--|------------------------------|-----------------------------|--------------------------|
| | <u>D/En Vote Funding</u> | <u>External Funding</u> | <u>Total Funding</u> |
| Fast Reactor R&D | 93.5 | 8.4 | 101.9 |
| Thermal Reactor R&D | 17.4 | 28.9 | 46.3 |
| General Safety | 5.3 | - | 5.3 |
| Radioactive Waste and Nuclear Materials Management | 19.5 | 18.5 | 38.0 |
| Underlying Research | 21.8 | - | 21.8 |
| Fusion | 17.1 | 18.4 | 35.5 |
| Other minor Vote programmes ⁽¹⁾ | 3.2 | 17.3 | 20.5 |
| Non-Nuclear R&D | NIL ⁽²⁾ | 28.6 | 28.6 |
| D/En contracts on renewable energy sources and energy conservation managed by ETSU | NIL | 14.9 | 14.9 |
| Other repayment work ⁽³⁾ | NIL ⁽²⁾ | 35.0 | 35.0 |
| Other Provisions | 18.8 ⁽²⁾ | 10.4 ⁽⁴⁾ | 29.2 |
| TOTAL | <u>196.6</u> | <u>180.4</u> | <u>377.0</u> |

FAST REACTOR PROGRAMME

- i) Overall objective
 1. The overall objectives of the programme, as set out in the Authority's Corporate Plan, are:
 - to retain for the UK the option of series ordering of fast reactors on a commercial scale at the time when it becomes likely to be an economically favourable strategy;
 - to carry out with our European partners joint R & D programmes leading to improvements in design and costs of fast reactor power stations and associated fuel process plants and which support the demonstration plants to be built under the provisions of the collaborative agreements with Europe;
 - to seek benefits for UK industry wherever possible.
- ii) Basis for and context of Programme
 2. The bases for the programme are:
 - a) the operation of the 240 MW prototype fast reactor at Dounreay, together with its associated reprocessing and research facilities, supported by work at other Authority sites, particularly Risley and Harwell;
 - b) the development work done at the Authority laboratories, in association with NNC design teams, and from now on in association with European partner organisations required to sustain one to three successively improved economic and safe full scale fast reactors.

3. The context of the programme is the inter-governmental Fast Reactor Memorandum of Understanding (MoU) signed on 10 January 1984, the three industry level MoUs on reactors, fuel fabrication and fuel reprocessing signed on 2 March 1984, and the discussions currently in progress in relation to specific agreements covering design, R & D and commercial aspects.
 4. In order to handle the requirements of the international collaborative programme a joint organisation - the Fast Reactor Joint Co-ordinating Committee - has been set up to control UK fast reactor activities. This body meets regularly under Authority chairmanship with representatives from the AEA, NNC, BNFL and the Generating Boards. There are also two independent assessors, and the Department is entitled to attend as an observer.
- iii) Specific Targets to be expanded in discussion with Authority and with assistance of Department's nuclear experts
5. (i) To achieve sustained operation of PFR at high power (240 MWe (gross) or higher) and a high availability (in excess of 50%) in time for the conceptual reactor design referred to in (ii) below, and to continue operation of the Dounreay fuel reprocessing plant;
 - (a) to provide (by 1989/90) improved confidence in the long-term operation of such plants;
 - (b) to provide data on performance, safety and reliability, essential for the design of large commercial-scale plant;
 - (c) to act as a test bed for new component development: and,
 - (d) to reduce to a minimum the amount of plutonium needed from other sources by enabling PFR to be operated on a closed fuel cycle.

- (ii) To develop and validate within the international joint programmes a conceptual design for a commercial-scale lead reactor and a design for a joint reprocessing plant (by 1989/90):
 - (a) by the establishment of agreed design objectives leading to reduced cost and improved reliability;
 - (b) by carrying out a major reactor design and proving programme on key components in collaboration with the UK nuclear industry.
- (iii) To provide research and development support with the UK making important contributions particularly in the international joint programmes on:
 - (a) engineering component development;
 - (b) high burn-up fuel development; and,
 - (c) fuel plant development.
- (iv) To establish by 1989/90 criteria for the licensing in the UK of fast reactor stations by:
 - (a) contributing to the preliminary safety assessment of the current NNC conceptual design of a commercial demonstration station; and,
 - (b) collaborating with the international fast reactor community in both the improvement of the inherent safety characteristics of reactor designs, engineered safeguards and high-integrity components and the development of appropriate common safety standards.

iv) Costs

a) Total cost of Programme to completion

5. The programme is predicated on the planning assumption that construction of a UK lead fast reactor, to be paid for and operated by the CEGB, will start in 1993. The research programme will thereafter begin to be wound down. Any research required to support the commercial ordering of fast reactors will be the subject of a subsequent programme, to be paid for in full by the Generating Boards. The total expenditure in 1982/83 prices through to completion in 2001/2002 on this basis is estimated at £1.3 billion. The annual profile is at Annex 1. It is, however, understood that any revision to the date at which a lead reactor is started in the UK would also require a revision to these figures.

b) Allocation of voted funds to specific targets

A breakdown of the planned annual allocation of voted funds to the specific targets through to 1991/92 is set out at Annex 2.

c) PES forecasts

Forecast expenditure in cash terms for PES during the present settling down phase of the programme is at Annex 3.

v) Progress and uncertainties

An annual statement of progress towards targets is to be provided to the Department with the PES returns and will be discussed with them. However:

- (a) The programme will be subject to change in the light of decisions made in discussions of European collaboration. It is as yet uncertain where or when the next reactor will be built. The split of R & D between the partners will not be agreed until the end of 1984.

- (b) The structure of the programme will be subject to review in the light of technical developments for example, the performance of PFR and other Dounreay facilities.

AE 3

4 May 1984

FAST REACTOR DEVELOPMENT COSTS (NET)

| £m | 1982/83 | Constant Prices |
|-----------|---------|-----------------|
| 1984/85 | | £85 |
| 1985/86 | | 80 |
| 1986/87 | | 75 |
| 1987/88 | | 75 |
| 1988/89 | | 75 |
| 1989/90 | | 75 |
| 1990/91 | | 75 |
| 1991/92 | | 75 |
| 1992/93 | | 80 |
| 1993/94 | | 85 |
| 1994/95 | | 85 |
| 1995/96 | | 80 |
| 1996/97 | | 80 |
| 1997/98 | | 75 |
| 1998/99 | | 65 |
| 1999/2000 | | 55 |
| 2000/01 | | 45 |
| 2001/02 | | 35 |

1300

The table assumes that construction of a UK CDFR would start in 1993, but the figures do not include its cost. They also do not include design and component proving work by NNC in certain years which it is assumed will be funded by CEGB.

Fast Reactor ProgrammePlanned Allocation of AEA Net Vote Funds to Specific Targets

| | £m 1982/83 prices | | | | |
|--|-------------------|----------------|----------------|----------------|--------------------------|
| | <u>1985/86</u> | <u>1986/87</u> | <u>1987/88</u> | <u>1988/89</u> | <u>1989/90 - 1991/92</u> |
| i) <u>Operation of PFR and fuel reprocessing plants</u> | | | | | |
| £m Net | 35 | 31 | 30 | 31 | 31 |
| ii) <u>Design of lead reactor and joint reprocessing plant</u> | | | | | |
| £m Net | 3 | 3 | 4 | 4 | 4 |
| iii) <u>Research and Development support</u> | | | | | |
| £m Net | 37 | 36 | 36 | 35 | 35 |
| iv) <u>Safety</u> | | | | | |
| £m Net | 5 | 5 | 5 | 5 | 5 |
| v) <u>Total</u> | | | | | |
| £m Net | 80 | 75 | 75 | 75 | 75 |

| | £m (Cash) | | | |
|---|----------------|----------------|----------------|----------------|
| | <u>1984/85</u> | <u>1985/86</u> | <u>1986/87</u> | <u>1987/88</u> |
| Net Vote | 93.3 | 90.2 | 85.8 | 88.4 |
| PFR Receipts | 6.4 | 9.9 | 11.8 | 17.7 |
| Gross AEA | 99.9 | 100.2 | 97.7 | 106.1 |
| Assured CEGB funding of design and component proving work | 5.0 | 8.0 | 9.4 | 9.6 |
| <u>TOTAL</u> | 104.9 | 108.2 | 107.1 | 115.7 |

Possible Contract For Safeguards R & D

1. This paper sets out how a safeguards R & D programme in support of the International Atomic Energy Agency (and in line with UK policy) might be contracted for from the Authority by the Department of Energy. The note lays down the structure of the contract and also refers to some of the elements that might be required in the contract proposal.

2. Because of the close contact between AE Division and the IAEA, agreement on broad objectives for the programme should be fairly easy; similarly, the Department with assistance from BNFL and AEA should be able to judge the relative merits of particular routes to those objectives as proposed by the Authority. Indeed, the programme currently being pursued is the result of discussions in which AE Division has been closely involved.

PREAMBLE AND OBJECTIVES

3. The preamble would state the background of the programme. This is that in June 1980, the UK offered a three-year programme of R & D assistance to the IAEA in the field of safeguards, and the programme was agreed and formally accepted by the IAEA in July 1981. At the request of the IAEA, the core of the programme is centred round aspects of the nuclear power programme in which the UK has particular expertise, viz the Fast Reactor and its fuel cycle, and uranium enrichment by ultra-centrifuges. The UK support programme is one of ten offered to the IAEA by member nations and international agencies.

4. The proposal and the contract would then go on to give the broad aims and objectives of the programme which remain as agreed when the programme was established:

- (a) To assist the IAEA in attainment of its safeguards goals in a cost-effective manner and to influence the formation of technical policy in that organisation.
- (b) To enable the UK to meet its obligations under the Non-Proliferation Treaty and associated Agreements in as

cost-effective a manner as possible, both for existing facilities and those at the design stage.

5. There would be scope for some explanation of the context and justification of the programme along the following lines. Member states of the United Nations have decided that the IAEA should not be funded to conduct its own development work in the safeguards field. As a result, member states with major nuclear power programmes have made voluntary offers of support programmes. Although some of these have been in place for a number of years, the task of providing the range of equipment and techniques required by the IAEA is far from complete.

6. The UK support programme is a tangible expression of the Government's willingness to play their part in providing the means whereby the IAEA might attain their non-proliferation objectives. The withdrawal of UK support before the task is substantially complete would be an implicit statement that the UK alone among the nuclear powers no longer supported the non-proliferation objectives of the IAEA in a practical way. Within the UK the absence of a credible UK stance on non-proliferation could seriously undermine the public acceptance of nuclear power.

PROPOSED PROGRAMME

7. Reference would then be made to the programme content for the years covered by the contract under discussion. There would be likely to be an annex containing detail of the content, but both the main contract and the proposal could describe the broad work areas. These are as follows:-

A. Service Programme

8. Under this heading certain services are supplied to the IAEA. The exact details are subject to their request but one example is the provision of an annual two week training course to IAEA inspectors.

B. Generic Programmes

9. These address those elements of instruments and systems that are common to many systems or are fundamental to major safeguards topics such as destructive and non destructive analysis. For example, work on neutron interrogation is undertaken to analyse and to improve the performance of a number of instruments used for non-destructive analysis.

C. Enrichment Plant Safeguards

10. Under this heading, the aim is to develop techniques for the safeguarding of centrifuge enrichment plants. For example a system is being developed to detect by monitoring pipework the production of enriched uranium of enrichment in excess of that declared to the safeguards authorities.

D. Field Trials

11. Field trials cover the testing of instruments and systems developed in the UK and elsewhere. An example is the field trial of computer file interrogation packages for audit and safeguards purposes, which aims to streamline the work of inspectors and internal auditors and to reduce paperwork errors.

E. Plant Studies

12. These are a group of studies relating to practical problems in plant safeguarding. An example is work on K-edge absorptiometry in process plants, which aims to develop a system for the on-line analysis of plutonium in solution.

F. Exploratory and Short Projects

13. The definitions of these small projects is self-explanatory.

14. The proposal would need to justify why work was needed on a particular topic. For example the requirement for work on non-destructive analysis as part of the generic programme could be explained as follows.

Non-destructive analysis, while lacking the precision obtainable by destructive analysis, has great advantages in timeliness, convenience, and avoidance of sampling problems. When the programme began, non-destructive analysis using passive techniques, in which assay is achieved by measuring the natural gamma-ray and neutron emissions, seemed fairly well established, so work concentrated on active neutron interrogation. In this, a neutron source stimulated neutron production by the sample under interrogation. The main application has been to the determination of fissile material in wastes. Work is still needed to improve methods of correction for the effects of the matrix in which the fissile material is embedded. Experience over the past years has now exposed limitations in passive systems. A review of these is proposed and it seems likely that these too will require further development.

RESOURCES AND COMMITMENTS

15. A major element in both contract and proposal would be a statement of overall resources and commitments. A detailed annex might be required in the contract. The proposal would be for a three year programme totalling £1830K, the breakdown and phasing being as follows:-

| Project title | Cost £K* | | |
|-----------------------------------|----------|-------|-------|
| | 84/85 | 85/86 | 86/87 |
| Service Programme | 64 | 64 | 64 |
| Generic Programmes | 215 | 190 | 190 |
| Enrichment Plant Safeguards | 30 | 20 | - |
| Field Trials and Plant Studies | 160 | 150 | 150 |
| Exploratory and Short Projects | 20 | 20 | 20 |
| New Projects yet to be defined | | 55 | 75 |
| Management | 66 | 66 | 66 |
| Contingency | 45 | 45 | 45 |
| TOTAL | 610 | 610 | 610 |

* The cost figures are estimated in 1984/85 money values at commercial rates

16. In support of the level of resources proposed in the UK it would be stated that these would be comparable with those from France, the Federal Republic of Germany, Canada, and Japan. A review conducted by the IAEA and national representatives in 1983 concluded that there was no significant overlap of activity between the programmes and little scope for the redistribution of tasks. The reduction in funding by Department of Energy of 20% in Autumn 1983 fortunately coincided with the completion of a number of tasks. A number of those remaining were about to enter a phase where a sharp rise in the rate of expenditure was required. By planned phasing of some of this it was possible to accommodate the programme within the reduced

budget without signalling to the IAEA that UK support was being reduced. It is unlikely, however, that further cuts in real funding could be sustained without political consequences. It is therefore proposed that the programme should continue at about the level agreed with the AEA for 1984/85.

17. Given the long term importance of international safeguards, it is likely that demand from the IAEA will continue. It is proposed to review the programme after 2 years with the probability of putting forward a case during the 3rd year for further work.

CUSTOMER INVOLVEMENT

(1) Customer monitoring

18. Since its inception, the programme has been managed within the normal AEA structure. Formal liaison with the IAEA is maintained by a "UK Support Programme Steering Committee" chaired by Dr. F. Brown, Department of Energy. UK policy matters and practical arrangements are at present agreed by an informal group, with representatives of the AEA, BNFL and DEn, which meets as required. Under a contract system, it would need to be stated in the contract that the day-to-day management of the project would rest with the AEA Project Manager and the formal liaison with IAEA would be through the Steering Committee chaired by DEn. It might be desirable to formalise the existing UK Group. The contract would also include a clause specifying the degree to which the contractor could change technical aims and resource allocations without reference back to the customer.

(ii) Periodic Technical Reporting Requirements

19. These would need to be specified in the proposal and the contract and would depend on the needs of the customer. The more detail required the greater the cost and staff requirements would be.

(iii) Intellectual Property Rights

20. The contract and proposal would cover appropriate provisions and it would be expected that ownership of the intellectual property would remain with the contractor (AEA). The Government as well as the AEA would have free use. Further/wider use including that by the IAEA would be subject to negotiation (although clearly IAEA must have access to the results).

FINANCE

(i) Financial Reports, Payments and Audit Rights

21. Relevant provisions would need to be included in the contract.

(ii) Nature of Charging

22. A cost plus system with limit of commitment would be appropriate. It is likely that charges would be on a fully commercial basis. The question of profit would be for discussion. VAT would also be added. A cost variation clause would also be required.

DURATION

23. The contract and proposal would need to cover the duration. The original programme agreed with IAEA was for three years and this would appear an appropriate period for any contract (c.f. also para. 17).

REVIEW AND NOTICE PROVISIONS

24. The contract and proposal would need to encompass (for both the Department's and the Authority protection) review and notice provisions (c.f. also para. 17).

WORKING GROUP TO REVIEW THE AEAILLUSTRATION OF THE INTEGRATED WORKING AND INTER-DEPENDENCE OF
AUTHORITY ESTABLISHMENTS

To take an example from the fast reactor programme, the changes in dimensions of core components under fast neutron irradiation, involving mechanisms not previously encountered, created a major problem. The solution was achieved by using the wide diversity of expertise and facilities in the Authority, closely co-ordinated under its project system. Salient among the many contributions were:

- i) measurements by the Dounreay Fuel Technology Division of the deformation of fast reactor fuel pins (which are exposed to more extreme conditions than other fast reactor components) to guide the choice of the most deformation resistant alloys;
- ii) the development by the Harwell Chemistry and Metallurgy Divisions of an accelerator technique by which several years of fast neutron irradiation damage could be simulated in a few days, providing both a better understanding of the deformation mechanisms and a rapid sorting technique for selecting new alloys for further investigation;
- iii) the design by Risley Engineering Division and the National Nuclear Corporation fast reactor team of equipment by which the residual distortion of the core could be restrained and controlled;
- iv) the production by the Harwell Theoretical Physics Division of a theoretical model of the core deformation and a related computer programme (CRAMP) which predicts the dimensional changes of individual components

and the consequential forces between them; and which in collaboration with the Risley Engineering Division and the Dounreay PER Operations team was developed into a fuel management system for the Prototype Fast Reactor, and in collaboration with NNC into a design tool for the Civil Fast Reactor core;

- v) the development by the Acoustics Engineering Group at Risley of an ultrasonic under sodium viewing technique which, inter alia, allows any undue deformation of components beneath the surface of the molten sodium coolant to be monitored.

Inputs to the Harwell Business Centres

The Materials Engineering Centre is typical of Harwell Business Centres in the way it calls on varied resources from seven Harwell Scientific and Engineering Divisions. The attached histogram shows the proportion of time QSEs spend working on the project.

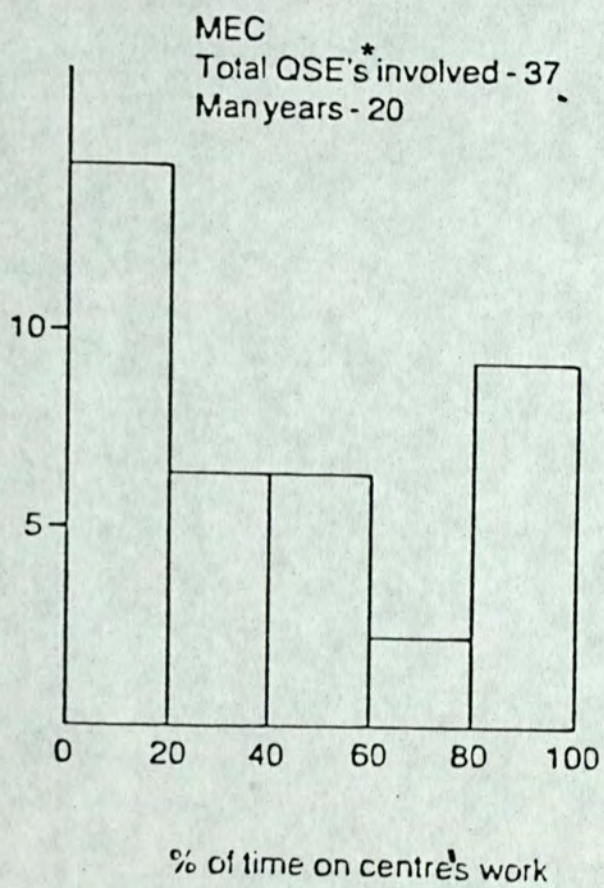
The Centre undertakes a wide ranging industrial programme with the emphasis on product and process development and the improved engineering use of materials. A typical current contract in which several Harwell Divisions are involved is a programme aimed at the development of advanced gas sensing devices. The programme is funded by a multi-client Working Party, whose objective is to develop new materials for semi-conductor devices for the detection of various gases. A parallel generic programme supported by the Department of Trade and Industry provides a fundamental understanding of the response mechanisms of semi-conductor sensors and information about the different ways in which these responses might best be exploited.

Contributions to the programme are provided by:

- Chemistry Division, together with the Materials Development Division, who have been involved in the identification, preparation and screening of over 300 different materials for responses to a range of flammable gases. Within the generic programme, Chemistry Division have also developed sophisticated sol-gel methods of oxide preparation used to prepare a series of compounds which give better quality gas response data. Sol-gel techniques were developed for application on nuclear programmes.
- Theoretical Physics Division which has undertaken a statistical analysis of the responses of the most promising materials, resulting in the categorisation of responses into four main types. This allows predictions to be made of the reaction involved in the detection of most of the test gases. Within the generic programme it has also developed a theoretical structure against which the results of the materials screening programme may be evaluated.

- Materials Physics and Metallurgy Division, which has fully characterised materials offering useful gas responses using X-ray diffraction techniques. These techniques are applied in a wide range of nuclear and non-nuclear programmes.

The same materials are also being screened for response to some toxic gases and responses have been recorded in some instances at gas concentrations as low as 20 ppm (parts per million). A number of new materials have now shown promise for the detection of toxic gases and others appear useful as low temperature moisture monitors.



* Qualified Scientists and Engineers





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AT 10/10
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JU274

Secretary of State for Trade and Industry

8 October 1984

The Rt Hon Peter Walker MP
Secretary of State for Energy
Department of Energy
Tnames House South
Millbank
London SW1P 4QJ

Peter

REVIEW OF THE AEA

You sent me a copy of your minute of 14 September to the Prime Minister enclosing a copy of the report on the review of the UK Atomic Energy Authority. I have also seen the Prime Minister's and the Chief Secretary's comments.

2 I, too, support the general objective of putting the AEA on a more commercial basis, but am concerned about a couple of the consequential of what is proposed.

3 I note that the report recommends that the nuclear industry should bear a greater proportion of the AEA's nuclear research costs. Since most of these costs will fall on the electricity supply industry with possible implications for electricity prices, I welcome Peter Rees's assurance that these costs will be taken into account in setting the external finance for the electricity industry.

4 The report also suggests that the costs of the AEA's underlying nuclear research programme should be recouped through a surcharge on all contract customers which would include this Department's contracts for non-nuclear work. If this recommendation is implemented, I could not accept that this Department should absorb the extra costs, particularly since the support for non-nuclear work is solely designed to help the AEA exploit existing nuclear research for non-nuclear purposes, and

with AT?



the Department is not therefore a customer in the usual sense. However, in this context I welcome Peter's assumption that positions are reserved on the question of programme increases to cover any extra costs arising from the review's recommendations.

5 I am copying this letter to the Prime Minister, Keith Joseph, Michael Heseltine, George Younger, Patrick Jenkin, Peter Rees and to Sir Robert Armstrong.

Norman

NORMAN TEBBIT

Energy March 84

Review of the AEA



12 OCT 1984

CONFIDENTIAL



PRIME MINISTER

Peter Walker sent me a copy of his minute to you of 17 September about the review of the Atomic Energy Authority. I note that he will shortly circulate proposals in the light of it and I will reserve final comment till then. It may however be useful if I give my initial reactions.

I too welcome the general thrust of the report in the direction of developing a more commercial approach by the AEA. I am also inclined to share the view that it would be unrealistic to go for privatisation at the present time, not least because of current public sensitivities in this field. I do however have certain particular points of concern. First, I would be willing to accept DEN funding of some elements of AEA research on wastes provided that we are consulted on content and have access to results. Second, I am disposed to accept a 10% surcharge on customers to finance seedcorn research, but only if it supersedes and is not additional to the current surcharge. Thirdly, while I appreciate the advantage of furthering commercial exploitation of waste management, I think we must be careful to avoid creating barriers to the free interchange of new ideas and technologies in a field where public safety is of such paramount importance.

As the report acknowledges, there have already been some discussions between officials on these matters, and I am sure we can come to conclusions on the review which deal satisfactorily with them.

I am copying this minute to Peter Walker, Keith Joseph, Michael Heseltine, George Younger, Norman Tebbit, Peter Rees and Sir Robert Armstrong.

PJ

P J

2 October 1984

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DEPARTMENT OF EDUCATION AND SCIENCE

ELIZABETH HOUSE, YORK ROAD, LONDON SE1 7PH

TELEPHONE 01-928 9222

FROM THE SECRETARY OF STATE

The Rt Hon Peter Walker MBE MP
Secretary of State for Energy
Thames House South
Millbank
LONDON
SW1P 4QJ

12 March 1984

Dear Peter,

REVIEW OF THE UKAEA

I was grateful for a copy of your minute of 2 March to the Prime Minister on this subject and for your reference to my interests, specifically in relation to SERC.

I think it likely that my potential interests in the review, arising from my responsibilities for scientific research supported from the Science Vote and UGC grant, go rather more widely. The Authority undertakes a significant amount of fundamental and applied research in areas of interest to other Research Councils (NERC and, I think, the MRC) as well as SERC: and it has numerous contacts with the universities and polytechnics. It is my impression, and one shared by my Advisory Board for the Research Councils who recently visited Culham and Harwell, that there is a good case - and scope - for extending and strengthening collaboration between the Authority and the Research Council-higher education sectors; and perhaps, more radically, for looking at the present balance of work across the bodies in question. Might there, for example, be wider benefits if more of the fundamental work required by the Authority could be done in universities and polytechnics?

I realise that the main thrust of the review is likely to be directed at the Authority's other areas of work. But you indicated that this is to be a comprehensive and thorough exercise, looking at radical options; and it seems to me that the issues I mention above might quite appropriately be included. I hope that you will agree that, at least, it would be useful for the Deputy Secretary chairing the review to discuss the matter with my officials and with the Chairman of the ABRC Sir David Phillips and the Chairman of the SERC Professor

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Kingman. The Head of Science Branch, Mr Tanner, would be the person for him to contact.

I am copying this letter to recipients of yours.

Tanner.

King.

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10 DOWNING STREET

From the Private Secretary

6 March 1984

UK AEA

The Prime Minister has seen your Secretary of State's minute of 2 March, proposing a comprehensive review of the activities and role of the UK AEA. She welcomes this review and is content with the way in which he intends to conduct it.

I am copying this letter to Elizabeth Hodkinson (Department of Education and Science), Richard Mottram (Ministry of Defence), John Graham (Scottish Office), John Ballard (Environment), Callum McCarthy (Department of Trade and Industry), John Gieve (Chief Secretary's Office) and Richard Hatfield (Cabinet Office).

(ANDREW TURNBULL)

Michael Reidy, Esq.,
Department of Energy.



10 DOWNING STREET

Prime Minister ⁽²⁾

A thorough review of UKAEA must be overdue. We have employed 15,000 people for 30 years but has the nation got value for money? Or is it a producer dominated organization?

Does it need to be financed so much (50 percent) by the tax payers or could its customers (the electricity utilities and BNFL) contribute more?

Has one branch of science absorbed too much of our research effort?

Content?

AT

Yes not

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Prime Minister

You will wish to be aware that I have put in hand a comprehensive review of the activities and role of the Atomic Energy Authority (AEA). Major changes in the nuclear industry in the 30 years since the Authority's establishment, and recent ad hoc reviews of key programmes such as the fast reactor, make a wider examination timely.

The review is being chaired by one of my Deputy Secretaries, with direct Treasury and AEA participation. I intend it to be thorough and to cover all the possible options, including radical alternatives. To this end my officials have already been in touch with representatives of the nuclear industry (CEGB, the Nuclear Installations Inspectorate, BNFL), and the Department of the Environment about their relationship with the Authority on nuclear waste management R & D. They may also need to contact the Ministry of Defence about their sizeable repayment contracts with the Authority, and the Department of Education and Science about the possible role of the Science and Engineering Research Council (SERC). They additionally have it in mind to approach Dr Nicholson, Chief Scientific Adviser at the Cabinet Office. I understand that Dr Nicholson made a useful contribution to the fast reactor review a little while ago.

I envisage putting a comprehensive paper based on the outcome of the review to Ministerial colleagues before the summer break, with the objective of establishing a long-term framework for the Authority's activities and for public expenditure in this area.

I am copying for information to the Secretaries of State for Education and Science, Defence, Scotland, Environment and Trade and Industry, the Chief Secretary, and Sir Robert Armstrong.

SECRETARY OF STATE FOR ENERGY

2 March 1984



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