

MR BARCLAY

18 June 1984

ACID DEPOSITION

Patrick Jenkin's proposals on acid rain and on vehicle emissions are a balanced attack on air pollution and should be supported.

Acid Rain

In view of the scientific uncertainties, it is unacceptable to spend significant sums of money on modifying existing CEGB plants. For this reason the Large Plants' Directive should be rejected.

Patrick Jenkin proposes that we announce our intention to reduce both sulphur dioxide and nitrogen oxide emissions by 30% (compared with 1980) by 2000. This is a realistic objective.

We have already achieved a 20% reduction in sulphur dioxide since 1980. This should be maintained. Increased economic activity will not significantly depend upon energy-intensive industries and Peter Walker's programme on energy conservation should reduce emissions further.

The remaining 10% reduction does not require unrealistic assumptions about nuclear power plant construction. We must aim for 4-5 GW by 2000 (Sizewell plus 3-4 others) if we are to diversify from coal and lower the costs of electricity. Reductions will also come from technological advances, particularly in feedstock preparation, and there is some scope for the CEGB to use low sulphur coal both from the NCB and in the future from imports.

These elements add up to a credible package. Nevertheless, 30% should be an aim rather than a commitment. If we are unable to meet it, there should be no question of retrofitting existing CEGB plant.

We do question however, whether our nuclear objectives should be publicised as part of this package. In view of Sellafield, the suggestion that increased nuclear power is the answer to our environmental problems is likely to be greeted with justifiable scepticism.

Vehicle Emissions

The paper underplays the opportunities for a major UK initiative on lean burn engines to follow our proposals on lead. This would have environmental benefits in its own right as well as contributing to the problem of acid rain.

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Conclusion

These proposals provide the basis for a positive UK initiative on air pollution without major expenditure.

DLP.

DAVID PASCALL

30% Club

Sizewell

Nuclear calculation.

PRIME MINISTER

Acid Rain

Attached are briefs from the Cabinet Office, Dr. Nicolson and the Policy Unit.

I suggest you read Mr. Waldegrave's paper (Flag A) first. His proposals are summarised on the last page. They seem to me to amount to a good and defensible package, with two reservations:-

- i) Do we really need to risk committing ourselves to any specific figure for emission reductions - there is, after all, no scientific magic about 30 per cent?
- ii) Is it really sensible to envisage fitting FGD equipment even to new power stations?

Sellafield

This is the first of the papers you commissioned. The next will be on Sellafield, and you may like to press at the meeting for this paper to be circulated before the summer recess.

EMB

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PRIME MINISTER

ACID DEPOSITION

In previous meetings Ministers have accepted the need for a positive, forward-looking UK policy on environmental matters both as a desirable measure in itself and as the best way of countering increasing pressure from other countries and environmentalist groups to take expensive, ill-conceived and ineffective 'corrective action'.

The paper from the Secretary of State for the Environment suggests a policy for the first area to be considered in detail: acid deposition.

2. UK policy on a reduction in acid deposition should be decided on the basis of three criteria:

(a) That actions are taken on the basis of the best scientific evidence available on the causes of the ecological problems, and flexibility maintained to adapt those actions to the results of fresh scientific research.

(b) That the problem is attacked as a whole and not through a series of arbitrarily separated measures designed for the convenience of the Brussels bureaucracy.

(c) That actions are cost-effective and commensurate with the UK's contribution to the problems.

3. Mr Jenkin's paper largely meets these criteria. The UK is not a significant contributor to the German forest problem and only a minor contributor to the Scandinavian lake problem. Nevertheless the scientific evidence

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indicates that a balanced attack on power stations and vehicle emissions in Europe as a whole will favourably influence the ecological factors which cause these problems.

4. Neither the present EEC proposals nor the 30% club proposal appear to have been drafted with a proper knowledge of the scientific evidence and are therefore deficient in several respects. Mr Jenkin's proposal for specific reductions of SO₂ and NO_x from combustion plants and NO_x and hydrocarbons from vehicles is, and should be seen as, an improvement on these earlier proposals. The fact that his proposed reductions in emissions can be obtained by means of the sensible engineered solutions of nuclear power generation and lean-burn vehicle engines respectively means that they are inherently cost-effective. The research element of the package will extend our knowledge of the science of the ecological problems and the range of cost-effective abatement techniques available.

5. This nuclear power generation/lean-burn engine/further research package is so powerful if confidently presented that I would advise against undermining it by referring to lesser alternatives such as flue gas desulphurisation (FGD) on a "what if" basis. I see no logic in commitment to FGD on new fossil-fuelled stations and rejection of retro-fitting old stations - the operating costs are the same and the capital costs only marginally different.

6. I am copying this minute to Sir Robert Armstrong.

RBN

ROBIN B NICHOLSON
Chief Scientific Adviser

Cabinet Office
18 June 1984



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P.01316

PRIME MINISTER

Acid Deposition

You had a Ministerial meeting on 17 May which discussed several policy issues relating to environmental pollution including acid deposition. You asked for several further papers to be prepared of which that on acid deposition is the most urgent since a UK line has to be settled before the Munich Conference on air pollution on 25-27 June and the EC Environment Council on 28 June, at which a draft directive on large combustion plants is to be discussed. You had a seminar on the scientific aspects of acid rain at Chequers on 27 May.

2. In his minute of 15 June Mr Waldegrave, on behalf of the Secretary of State for the Environment, discusses the policy options on acid deposition. He rejects three options: no action other than further research; joining the 30 per cent club (ie those countries who are committed to 30 per cent reduction from the 1980 level of sulphur dioxide emissions by 1995); or supporting the draft EC Large Plants Directive (which would require a 60 per cent reduction in sulphur dioxide levels and a 40 per cent reduction in nitrogen oxides levels by 1995). He puts forward instead a compromise option which is to aim at a 30 per cent reduction in 1980 levels of both sulphur dioxide and nitrogen oxides by 2000. The UK's position at the Munich Conference and at the EC Environment Council would be worked out in the light of the broad decision about policy.

MAIN ISSUES

3. The main issues are:

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- i. whether it is right to reject the three more extreme options and to go for a compromise option;
- ii. what should be the elements of the compromise option;
- iii. what are the implications for the UK's line at the Munich Conference and the EC Environment Council.

The options

4. There is likely to be little dissent from Mr Waldegrave's view that the UK should not accept the present draft of the EC Large Plants Directive. This would involve fitting flue gas de-sulphurisation to existing and new fossil fueled power stations at a cost of about £1.5 billion at a time when (paragraph 2 of Mr Waldegrave's minute) "we cannot be certain which causes determine which effects - and therefore what success might follow from the various actions we might take".
5. Joining the 30 per cent club is superficially attractive and this was a course Mr Jenkin proposed at your earlier meeting on 17 May. But this would not cover nitrogen oxides which are increasingly being seen as more relevant than sulphur dioxide to forest damage. Moreover, this option would also require a smaller but still substantial investment in flue gas de-sulphurisation, of the order of about £0.8 billion.
6. The argument is therefore likely to be merely about whether the UK should rest on its existing policy, taking credit for the substantial reduction in emissions already achieved and laying stress on our research effort; or whether we should adopt a compromise option with some additional elements. The Secretary of State for Energy and the Chief Secretary, Treasury may argue that the case has not yet been made out for going beyond our existing policy. The Foreign and Commonwealth Office is however likely to support Mr Waldegrave's suggestion that a more positive stance is



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required in international discussion.

Details of the compromise option

7. If the discussion favours a more positive compromise option, much will turn on precisely what it amounts to. Mr Waldegrave's minute suggests that there would be the following elements:

i. we should announce that it is an objective of our policy to achieve a 30 per cent reduction in emissions of both sulphur dioxide and nitrogen oxides by 2000;

ii. we would expect any new fossil fueled power station to adopt the most cost effective sulphur and nitrogen oxides abatement then available;

iii. we should propose stricter emission standards for petrol engined cars but oppose the three-way catalyst system.

8. The issue on which the meeting will need to concentrate is what we mean in practice by adopting the 30 per cent objectives and what additional expenditure is likely to be involved. It is suggested in Mr Waldegrave's minute that we may be able to achieve both these objectives without major investment above that already planned and by relying on technological developments already in progress or foreseen, together with an increase in our nuclear power station capacity. It is however accepted (paragraph 17) "that there is an element of optimism in this package". Mr Waldegrave then goes on to say: "Should it become apparent that we shall miss the 30 per cent objectives we have two options: to resile from the policy or to commit additional investment".

9. The meeting will need to consider whether it is politically feasible to accept objectives and then to resile from them later. The Secretary of State for Energy and the Chief Secretary, Treasury

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may argue that, unless the commitment to the 30 per cent objectives is very weak, and can be seen to be so, we shall in fact be obliged to make in due course whatever investment is required to ensure that the 30 per cent levels are met in the year 2000. They may argue that it would be wrong to accept objectives on this basis since, because of the uncertainties about the nuclear programme, and about the pace of technological development affecting emissions, we simply do not know what additional expenditure may be involved.

10. If there is a reluctance to accept the two 30 per cent objectives, because of the uncertainties, there would seem to be only two alternatives; to redefine the objectives in a much weaker form (eg "best endeavours" or "hope and expect"); or to return to the option of continuing with existing policy based on the need for more research.

Line in international discussions

11. It is clear that, whatever broad policy decision is taken at the meeting, much more work will need to be done to define the UK's position clearly in the discussions at the Munich Conference and on the draft EC Large Plants Directive. In the latter case some general policy statement will probably be sufficient for the Environment Council on 28 June. There will however be discussions of detail subsequently. If the preferred UK policy is to adopt objectives from which we may have to resile eventually, the task will not only be to reduce the percentages in the draft Directive but also to ensure that the obligations are expressed in a way which is not binding. The task of working out the UK's position in detail will need to be remitted to officials through the normal machinery, eg the Official Committee on European Questions (EQO).

HANDLING

12. You will wish to ask the Secretary of State for the Environment



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to introduce the minute of 15 June with support as necessary from his Parliamentary Under-Secretary of State, Mr Waldegrave. The other main contributors are likely to be the Secretaries of State for Energy, Trade and Industry and Transport, the Chief Secretary, Treasury and the Parliamentary Under-Secretary of State, Foreign and Commonwealth Office, Mr Whitney.

CONCLUSIONS

13. You will wish to reach conclusions on the following:

- i. whether we should go beyond our existing policy on acid deposition, based on the need for more research;
- ii. if so, whether we should adopt the proposals in paragraph 19 of the minute of 15 June and, in particular:
 - announce objectives of a 30 per cent reduction in emissions of sulphur dioxide and nitrogen oxides by 2000, even though we may have to resile from these if they cannot be met without additional major investment;
- iii. whether, in the light of i. and ii., officials should be asked to work out detailed positions for international discussions, and in particular those on the draft EC Large Plants Directive.

PLG

P L GREGSON

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