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7 September 1984

PRIME MINISTER

Await minute from Dot

ACID DEPOSITION

The Report of the House of Commons Environment Committee on 'Acid Rain', which was published ^{on 6 September} yesterday, is likely to have a considerable impact, both in the House and on public opinion. A summary of its main points is attached as an Annex.

2. Several other reports have been published since the meeting you chaired on 19 June to consider the Government's policy towards acid deposition. Those by the Energy Technology Support Unit (Harwell), the Nature Conservancy Council, and the Watt Committee on Energy covered nothing either new or particularly surprising. The House of Lords Select Committee on the European Communities published a report on the acid deposition issue in the context of several European Community draft directives; it welcomed the European Community initiatives but criticised the details and felt that too stringent emission reductions were being sought.

3. The Environment Committee Report is the most important. It covers a very wide field, and is severe in its criticism of Government policy. The CEGB, CBI and the motor industry are also criticised. In contrast, the Committee appears to have been strongly influenced by the views of some independent scientists and by what they saw and heard abroad.

4. The Report adopts a very wide definition of acid rain: it includes sulphur dioxide, nitrogen oxides and hydrocarbons, and their products in atmospheric reactions. This has the advantage of comprehensiveness. However, some witnesses may have been misled about the scope of the inquiry and submitted evidence on a too narrow definition of acid rain. Another

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result is that general statements about acid rain do not clearly distinguish between different pollutants from different sources.

5. The first part of the Report is generally sound and gives an account of the known effects of the pollutants on buildings, structural materials, atmospheric visibility, forests, agriculture, natural vegetation and freshwater fisheries. An impressive amount of ground is covered but, as is characteristic of Select Committee Reports, the evidence quoted is sometimes selective and anecdotal. The Report is comprehensive in its treatment of damage to the environment in the United Kingdom itself.

6. But there is one major shortcoming in the Report: while advocating action on emission abatement now, despite scientific uncertainties, the Committee does not justify the scale of measures proposed.

7. Great stress is laid on the United Kingdom as Western Europe's "worst polluter". As you know, the emission/deposition/export/import figures can be used to support virtually any prejudice but the Report does make a telling political point that, with present policies, the United Kingdom's performance relative to other countries is going to get worse.

8. The Report argues that the burden of reduction of sulphur dioxide emissions should fall on power stations. The arguments for this are both technical and economic: the technology is available and the cost will be spread among all electricity consumers. For sulphur dioxide the Report advocates joining the "30 per cent Club" and meeting the European Community's proposed 60 per cent reduction of emissions by the end of 1995. For nitrogen oxides the Report advocated major reductions in power stations, vehicles and industrial sources. Hydrocarbon emissions are ignored.

9. There is a brief and unimpressive section on cost benefit analysis. The Committee estimates that its abatement

recommendations would add 6 per cent to electricity prices, spread over 10 years, and £50-100 to the price of a new car (with offsetting gains in fuel economy from the lean-burn technology favoured).

10. There are over 20 recommendations dealing, in addition to the points mentioned above, with research, abatement technology development, and monitoring.

11. In summary, the following new issues arise from the Report:

- a. There is a lot of data on damage to buildings presented for the first time. The interpretation of these data, however, do not clearly distinguish between recent damage and damage several decades ago, or between the effects of local pollutants and those carried long distances. But the general public may perceive damage to buildings more vividly than to the natural environment and, for the first time, see acid rain as affecting them personally.
- b. The fact that a Committee of MPs has come out so strongly for severe abatement measures will increase international pressure on the United Kingdom to take more action than is envisaged under current Government policy.
- c. The Report can be correctly criticised for accuracy and logic in a number of ways; the CEGB has already done this. However, my advice is that this alone would not be an effective basis for the Government's response.
- d. The Report can also be criticised in totally failing to give adequate consideration to the environmental benefits of an enhanced nuclear power programme.
- e. Because the Department of the Environment did not make a clear public announcement of Government policy following the meeting on 19 June, any future Government announcement

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will now be seen as defensive and in response to the Committee's pressure.

12. If the Committee's Report had been available before the Ministerial meeting of 19 June, I do not think that it would have added any scientific weight to the arguments for more action on abatement than was then agreed. More generally, the Committee's arguments for joining the 30 per cent Club or even accepting the Commission's draft directive, might have influenced Ministers to go further. Personally, I doubt it.

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

MBN

ROBIN B NICHOLSON
Chief Scientific Adviser

Cabinet Office
7 September 1984

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HOUSE OF COMMONS ENVIRONMENT COMMITTEE
REPORT ON ACID RAIN

Summary of main points

1. Acid rain is defined widely to include sulphur dioxide, nitrogen oxides and hydrocarbons, from all man-made sources, and their products in atmospheric reactions.
2. On an international scale there is convincing evidence that acid rain is responsible for damage to buildings, structural materials, atmospheric visibility, forests, agricultural crops, natural vegetation and freshwater fisheries. There is cause for concern in the UK over likely damage to structural materials and forests. There is cause for concern in some countries, including Sweden, over possible damage to human health.
3. For total emissions of sulphur dioxide and nitrogen oxides, and their deposition in other countries, the UK can be considered to be the worst polluter in Western Europe and its relative performance is likely to get worse.
4. Reducing emissions will reverse some damage, slow down other damage, and reduce the threat of new or further damage to the UK and Scandinavia. A reduction in emissions will lead to a reduction in depositions.
5. The UK's present policy on acid rain is inadequate. Despite gaps in scientific knowledge, enough is now known to justify the application of abatement technology.
6. For the UK the quickest way to reduce sulphur dioxide emissions is by retrofitting power stations. The technology

is costly, but available. The UK should join the "30 per cent Club" immediately and attain the EC target reduction of 60 per cent by the end of 1995. This is the "best practicable means" approach, spreading the cost among electricity consumers and avoiding controls on existing other industry.

7. Nitrogen oxide emissions should be reduced by the fitting of low nitrogen oxide burners to power stations and, with Government assistance, to most categories of industrial users. There should also be controls of nitrogen oxide emissions from new motor vehicles.

8. These controls would increase electricity costs by 6 per cent, spread over 10 years, and put £50-100 on the price of a car.

9. A more fundamental energy strategy is needed, based upon conservation and more efficient transmission.

cc *[Handwritten signature]*

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CENTRAL ELECTRICITY GENERATING BOARD

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*From the Chairman
Sir Walter Marshall, CBE, FRS*

6 September 1984

The Rt Hon Peter Walker, MP
Secretary of State for Energy
Department of Energy
Thames House South
Millbank
London

Dear Secretary of State

This morning we issued the attached statement from the CEGB on the Select Committee Report on Acid Rain. In line with our telephone conversation together yesterday we shall try to avoid confrontation and discussion in the media. In the interests of speed I am copying this to the private offices of the Ministers who might be involved and also to Number 10.

Yours sincerely

Walter Marshall

W Marshall

cc PS/Secretary of State for the Environment
PS/Parliamentary Under Secretary of State, Dept of the Environment
PS/Prime Minister ✓

PR 791

6 September 1984

ENVIRONMENT COMMITTEE REPORT ON ACID RAIN

STATEMENT BY CEGB

We shall study the report carefully but our first reaction to it is disappointment that it has misunderstood or misinterpreted a great deal of the evidence given by CEGB. We believe that this has led the Committee to conclusions which are out of step both with trends in scientific views on acid rain and with the main conclusions of most other major reports published recently* ie. that more research is required into the cause and effects of acid rain.

The report contains errors of fact and misunderstandings relating to the CEGB's evidence. For example, on damage to stonework, particularly to historic buildings.

The report states that the CEGB were dismissive of the effect of acid rain on stonework, had not monitored the effects and were 'trite and evasive' in suggesting "that natural levels (of rain acidity) should be assessed before any conclusions were drawn about the effects of acid rain".

This is incorrect as the minutes of evidence show. These records that the CEGB fully acknowledged the effects of acid deposition on stonework. It is well established by international experts that the principal cause of stonework corrosion is high concentration of gaseous pollutants. These high concentrations occur only in urban areas and are the result of many small sources of pollution with power stations making only a minor contribution. Controlling the latter alone will not remove the cause of the damage or even materially lessen it.

The Committee instance several buildings in London as being a cause for their concern in this regard. However, power generation has almost ceased in the GLC area with only two small power stations remaining. Emissions of SO₂ from London power stations has thereby fallen from 55,000 tonnes per annum in 1975 to 3,000 tonnes in 1983, but this has not apparently lessened the rates of corrosion that concern the authorities. The same situation will apply in many other cities.

As stated power stations are not the major contributors to pollution in cities which mainly comes from local sources. The CEGB does not consider that it should have a responsibility for monitoring pollution from sources other than power stations.

The Committee says "Ozone has emerged as one of the primary suspects of tree damage observed in German forests. This fact has been cited by the CEEB and motor manufacturers as a reason for not controlling their NO_x emissions. We are unsure whether this was the product of ignorance or a deliberate attempt to mislead us".

This is incorrect. The CEEB pointed out that ozone arose from NO_x emissions and that was the reason why we should give attention to those emissions. Indeed we gave an educated guess that this might well turn out to be much more important than the emission of SO₂. We were therefore explicitly drawing attention to the fact that it may well turn out to be more important for the CEEB to control NO_x emissions than to control SO₂ emissions. The Committee quotes us in the exact reverse sense.

The report says that the CEEB "appears to have actually obstructed work by British companies" (on wet FGD systems).

This is incorrect. The Lodge-Cottrell Company quoted by the CEEB is a subsidiary of an American company and we would expect that any FGD systems installed in the UK would be manufactured in the UK under licence from foreign owners of the technology. The CEEB has a record of buying British second to none.

The Committee recommends "that the CEEB should install equipment to obtain the overall national reduction of 60% in accordance with the EEC Draft Directive by the end of 1995". This recommendation is more extreme than that proposed by any other body since all the costs would fall on the electricity consumer. The Committee did not ask us to cost this option nor does their Report contain any cost estimate. Our preliminary calculations suggest that to meet this proposal we would need to fit FGD to virtually every oil and coal fired power station in the country. Even if it could be done in the timescale suggested it would increase the cost of electricity by about 10 per cent.

The Committee recommends "that all power stations should have low NO_x burners installed during routine shutdowns". This statement is naive. As the Committee acknowledges we said in evidence that we did not know whether it is possible to retrofit burners which would reduce nitrogen oxide emissions to the majority of our boilers. Even if it is possible, the installation would obviously require a lengthy shutdown and rebuilding programme. The whole operation would be a significant technical challenge.

We were puzzled by the reference in Paragraph 134 that "CEGB figures for ozone levels are based on monitoring at low altitude, from which, in evidence to us, they extrapolated to high altitudes". The Board did not give this evidence.

The Report claims that the CEGB ignored the insurance element in its criteria for moving to controls. The Board has a £20 million emission technology programme which covers this aspect.

- END -

* Royal Commission
Watt Committee on Energy
House of Lords Select Committee
E.T.S.U.