

PRIME MINISTER

ACID DEPOSITION

Patrick Jenkin is circulating a paper for our meeting on 19 June. I understand that this will discuss the costs involved in adopting particular emission control standards.

In assessing these costs it is of course necessary to form a view of the potential role of nuclear power in reducing emissions; it may be helpful if I explain some of the difficulties here. The first point I would make is that we have no means of knowing exactly how much new nuclear capacity will actually be installed by 2000. Various figures have been produced but there can be no "central case" - the uncertainties are too great. Nor are we committed to any quantified programme of nuclear installation by that date. Judgements are needed, but they must be realistic, or we may be led to suppose that there are easy options.

In their Sizewell evidence, the Central Electricity Generating Board (CEGB) set out a "medium nuclear scenario" of 10GW of new nuclear - nine Sizewells - in operation by 2000. This now seems an extremely optimistic scenario. Leaving aside questions of managerial and industrial capacity and the possibility of constructional delays, we cannot overlook the prospect of difficulty in relation to planning consents for such a number of major sites. Against this background, I very much doubt if we can realistically expect to see more than four or five new nuclear stations actually in operation by 2000. If consent is granted, the CEGB themselves do not expect Sizewell to be in operation before 1992/3 at the earliest. For another four stations to be completed by 2000 would be good going.

Best estimates suggest that, with 5GW of new nuclear, we should be well short of achieving a 30% reduction in emissions by 2000. Depending on growth assumptions and other factors, we could face the need to retrofit four or even more large plants to meet a 30% target by 2000, at a cost of upwards of £500m.

cc DP

CF: for Tuesday's meeting per

- 1) Mr Turnbull
- 2) Prime Minister (2)

Mr Walker puts down a marker for your meeting on acid rain next Tuesday.

18/6

DMS
15/6



With the current scientific uncertainty I do not believe we would be justified in incurring such costs. For the present I believe that we should continue to insist on the prior need to demonstrate that this very substantial expenditure will actually solve the problem. In Community discussion it seems feasible for us to argue for a more realistic and soundly based set of proposals without committing ourselves in advance to a particular target.

A further point: I am very concerned about the public presentational aspects of all this. We must obviously be extremely cautious at this stage in deploying figures on future nuclear construction, and their potential impact on coal use.

I am copying this minute to Willie Whitelaw, Geoffrey Howe, George Younger, Patrick Jenkin, Norman Tebbit, Tom King, Michael Jopling, Peter Rees, Nicholas Ridley and to Sir Robert Armstrong.

SECRETARY OF STATE FOR ENERGY

15 June 1984

Acid Rain Pt 2

The current scientific consensus is that acid rain is not a new phenomenon. It is the result of natural processes in the atmosphere, but human activities have significantly increased its acidity. The primary source of the sulfur and nitrogen compounds that form acid rain is the burning of fossil fuels in power plants, factories, and vehicles. These emissions react with water vapor in the atmosphere to form sulfuric and nitric acids. The resulting acid rain can have harmful effects on the environment, including the acidification of lakes and streams, the damage of forests, and the corrosion of buildings and infrastructure.

In addition to the environmental damage caused by acid rain, it also poses a significant health risk. The acidic droplets can irritate the respiratory system and exacerbate conditions such as asthma and bronchitis. Long-term exposure to acid rain has also been linked to an increase in the incidence of certain types of cancer. Therefore, it is crucial to take steps to reduce the emissions of sulfur and nitrogen compounds to protect both the environment and public health.

Efforts to reduce acid rain emissions have been ongoing for several decades. In the United States, the Clean Air Act of 1970 and subsequent amendments have led to a significant reduction in sulfur dioxide emissions. Similarly, in Europe, the 1990s saw the implementation of the Sulphur and Nitrogen Emissions Trading Schemes, which have also resulted in a decrease in acid rain. However, more aggressive measures are still needed to further reduce emissions and prevent the continued acidification of the environment.

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