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*Env Affairs*



10 DOWNING STREET

*From the Principal Private Secretary*

30 July 1980

*Dear Julian,*

REPORT ON THE B701 LEAK AT WINDSCALE

The Prime Minister has seen your Secretary of State's minute of 28 July 1980 about the report by the Nuclear Installations Inspectorate of the investigation into the B701 leak at Windscale and she is content for him to proceed in the way he proposes.

The Prime Minister has taken note that your Secretary of State and the Secretary of State for the Environment are reviewing the interface between their respective responsibilities at Windscale. If, as a result of this review, there are any proposals for changing responsibilities, she looks forward to being consulted about them.

I am sending a copy of this letter to David Edmonds (DOE).

*Yours sincerely,*

*Alan Whittman*

J.D. West, Esq.,  
Department of Energy.

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D.O.

1,

Prime Minister



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The report of the Safety Review Team will be a key document. Consider for Mr Heath to proceed as he proposes? And for him and Mr Herdman to put to you any proposals they may eventually have for changing their responsibilities (paragraph 7)?

Yes not

PRIME MINISTER

1. The report by the Nuclear Installations Inspectorate (NII) of its investigation into the B701 leak at Windscale will be published on 29 July. This leak was a high activity leak; essentially a container containing spillage overflowed and liquor seeped into the ground. Although an interim NII report concluded that the leak posed no safety hazard to the work force or the public, the full report will confirm that over the years a number of deficiencies in safety management in relation to the B701 buildings have occurred and that BNFL did not comply with a number of site licence conditions. It will also bring out that the HSE considered prosecuting BNFL under the relevant legislation but decided that there was insufficient justification for this.

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2. Publication of the report may revive public fears about the safety standards of Windscale generally. These have a long history, which can be traced to successive periods, in the 1950s, of intense development (for defence purposes) and subsequently lack of investment. The Royal Commission on Environmental Pollution in its 6th Report (1976), while stating that they had no reason to think that the operations at Windscale were not conducted with every attention to safety, nevertheless commented on the desirability of maintaining the highest standards of housekeeping and urged that this aspect should be given more attention by Windscale's management. I attach, at Annex, a note on the problems and what is being done to overcome them.

3. When the NII report on B701 is published, therefore, I shall emphasise that the Windscale safety record has been good, and that the report concluded that the existence of the leak, although serious, posed no safety hazard to the workforce or the public. I shall also point out that in view of the importance of safety at Windscale, and with the agreement of the Secretary of State for the Environment, I arranged with the Health and Safety



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Commission for the HSE to appoint an independent Safety Review Team headed by the Deputy Chief Inspector of the NII, and including a representative of the DOE, to conduct a comprehensive evaluation of safety management arrangements at Windscale. The setting up of this Review was announced to Parliament in July last year and the HSE expect to publish the Report in the Autumn. An interim confidential report to me and to the Secretary of State for the Environment has confirmed that no major deficiencies in Windscale safety management arrangements have been identified and that such deficiencies as have been identified have been brought to the Company's attention and are being acted upon.

4. The Secretary of State for the Environment has, however, recently visited Windscale, accompanied by Tom King. He has given me his impressions which were far from favourable. He saw a number of things, small in themselves, which in their totality suggested to him that the existing plant was not being supervised and managed with the rigour that such situations demand. He found the explanations given to him, in the presence of Sir John Hill and the BNFL Managing Director, wholly defensive and unconvincing. In his judgement therefore, and on the admittedly brief evidence of a six hour visit, the attitudes to safety and the resources devoted to safety fall far below the level necessary to command the Government's confidence. He has expressed to me his strong concern that any indifference or complacency bred by the poor legacy of the past should not be allowed to continue or carry over into the new plant now under construction. A specific suggestion he has made is that the manager responsible for safety should be relieved of line management duties in order to devote more time to safety matters.

5. This report is disturbing, but I am bound to say that I reject the conclusions reached by the Secretary of State for Environment, in particular about complacency over safety at Windscale. These conclusions cannot be justified by the instances which he quoted to the management and to me after his tour of Windscale. I am sure



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that the right way to approach this problem is to expedite the Safety Review Team's report, and I have asked the HSE to take into account in that report the points which the Secretary of State has raised. It would certainly not be right at this stage for me to say anything to the BNFL management which prejudices that report. And I intend to convey that message to them. The site has a new top management team which is striving hard to overcome current problems. The time to consider whether there is a need to tighten up that structure will be when we have the Safety Review Team's report.

6. The continuation of reprocessing at Windscale is vital to the continued operation of our existing nuclear power stations. If for any reason Magnox reprocessing had to be suspended for a lengthy period, Magnox stations would have to close. Windscale is, therefore, a target for those who oppose the nuclear programme, and they will not hesitate to exploit any opportunities open to them. The Government, therefore, has a major interest not only in supporting BNFL management, but also in ensuring that the management is fully effective and that the highest standards of safety are maintained. This is particularly important over the publication next week of the report on the B701 leak.

7. I am also concerned about our respective Ministerial responsibilities at Windscale. The Secretary of State for the Environment has a direct responsibility for authorising radio active discharges and for the environmental impact of any discharges whether authorised or not. On the other hand, I am solely responsible, with the independent assistance of the NII, for the safety of operations and also for the effectiveness of the management. Both of these, however, have an inevitable bearing on the likelihood or otherwise of the Secretary of State for the Environment's responsibilities becoming directly engaged. For that reason, we have both instructed our officials to consider and let us have advice on the interface between our respective responsibilities at Windscale.

DIA

SAFETY AT WINDSCALE

1 The Nuclear Installations Inspectorate report on the leak of highly radioactive liquor at Windscale (the B701 incident of 1979) is to be published on 29 July. Publication of the report may lead to renewed criticism of safety arrangements at Windscale. This paper describes BNFL's difficulties at Windscale and the steps being taken to remedy them.

Background: Windscale's origins and present difficulties.

2 Underlying all Windscale's current difficulties is the site's history. The original two plutonium producing reactors and reprocessing plant for extracting plutonium were designed, built and commissioned in four years, at a time when nuclear safety arrangements were in their infancy, to enable the first UK bomb test to take place in 1952. The pressures in the 1950s to meet urgent defence requirements were followed in the 1960s and early 1970s by a period of uncertainty for the nuclear reprocessing industry; there were large-scale cuts in defence requirements; the economics of nuclear power were in the balance; Windscale was enjoined to act commercially and money for renovation, improvement and new plant was short. Despite the commissioning of new Magnox chemical reprocessing plant in 1964 and the plutonium fuel fabrication plant in 1970, Windscale was no longer a modern plant when BNFL was created in 1971 and assumed responsibility for the site.

3 Thus, in its early years, the new Company faced a legacy of very difficult problems: short-term decisions had been taken without regard to future requirements and consequences; management and staff were stale; morale was poor (the site had its first total strike in 1973); "housekeeping" was at its nadir; outside factors (including the three day week) disrupted the programme for the provision of highly active storage tanks and other new plant; reprocessing had

had to be curtailed for months; government pay policies made recruitment of high-calibre staff very difficult.

4 The turning point came early in 1974 when the Company, recognising that the problems of reprocessing had been underestimated, introduced plans to refurbish the plant to provide for:-

- (a) reprocessing of Magnox fuel until the end of the century;
- (b) reprocessing of oxide fuel;
- (c) plutonium storage under new, very stringent security conditions;
- (d) more efficient effluent and decontamination arrangements in line with increasingly stringent regulating controls.

5 To overcome the difficulties described earlier and to implement the refurbishment programme, the Company has overhauled, developed and strengthened the management structure. The result is that Windscale now has an essentially new senior management team. This has redefined priorities; reorganised engineering work to make it effective; introduced improved planning, control of resources and awareness by line management of responsibility and performance: restored morale and discipline. The Company will continue to strengthen this team in the light of the site's needs and the development of operations there.

Nonetheless, much remains to be done. The Company's operations require it to:-

- (a) keep the existing elderly chemical reprocessing plant (the Magnox plant) going, to service an important section of UK electricity capacity;
- (b) complete a major investment programme to refurbish and improve that plant;
- (c) build the large new oxide plant (THORP) to reprocess UK AGR fuel and to fulfil valuable overseas contracts.

At the same time, the Company has to give priority to maintaining nuclear safety and the prevention of nuclear incidents; and to avoid any excessive discharges of radioactivity to the environment. The management is also concerned to improve the appearance of the site (housekeeping) insofar as it is possible to do so while maintaining ageing plant in safe working condition and conducting major refurbishment and construction operations.

7 It will be clear from the above that the Company has formidable problems. But in addition, it will have to continue to counter a sustained and virulent campaign of criticism mounted by dedicated opponents of nuclear power. In doing so, the Company will need the full support of the Government, in particular in defending it against charges concerning safety at Windscale.

#### Nuclear Safety

8 Much of the concern about nuclear safety at Windscale has resulted from two leakages of radioactive liquid. The first, of contaminated water from a radioactive waste storage silo B38, identified in October 1976, was the subject of a full report by the NII published in February this year. That report concluded that the leakage was

m a crack below ground in a silo built long before BNFL came into existence; that the best way to stop the leak is to empty the silo; that work is in hand to develop a means of doing so, and that in the meantime, there is no safety hazard to the workforce or the public. Nobody sees anyway in which the Windscale management could have prevented the leak.

9 The second leak was of high activity waste from equipment in an old building (B701), out of use for 20 years. The leak was stopped immediately it was identified in March 1979. A container collecting spillage had overflowed and liquor seeped into the ground because emptying procedures had not been complied with over the years. An interim NII report concluded that the existence of the leak posed no safety hazard to the workforce or the public. The NII's full report will be published on 29 July. It will confirm that, over the years, a number of deficiencies in safety management in relation to that building have occurred and that the Company did not comply with a number of site licence conditions. The HSE considered prosecuting BNFL under the Health and Safety at Work, etc. Act 1974 or for breaches of licence conditions imposed under the Nuclear Installations Act 1965 (as amended). They concluded, however, that prosecution under the 1974 Act would not be justified because the Company's general radiological protection arrangements would have prevented any significant hazard to employees or the public, even if the leakage had been above ground level. They concluded with regard to the 1965 Act that, in view of the plant's history, BNFL's prompt remedial action and the effectiveness of radiological arrangements, the most appropriate action would be enforcement of necessary remedial measures and publication of full details of the incident.



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... the best way to stop the hole is to empty the hole

... that work will be done to develop a means of being so, and that in  
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... in the old building (301) in 1970, the hole was stopped  
... in the new building (302) in 1971.

... which had overgrown and had been removed from the ground because  
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... internal report concludes that the existence of the hole could  
... no entry hazard to the area in the office. The hole is still  
... there will be provided on 20 July. It will contain sand, over

... the years, a number of deficiencies in safety management in relation  
... to the building have occurred and that the Company did not comply  
... with a number of size 1500 conditions. The hole considered

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... regulations Act 1959 (as amended). They concluded, however, that

... the hole was not a hazard and the hole was not a hazard because the  
... Company's general safety and health procedures would have  
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