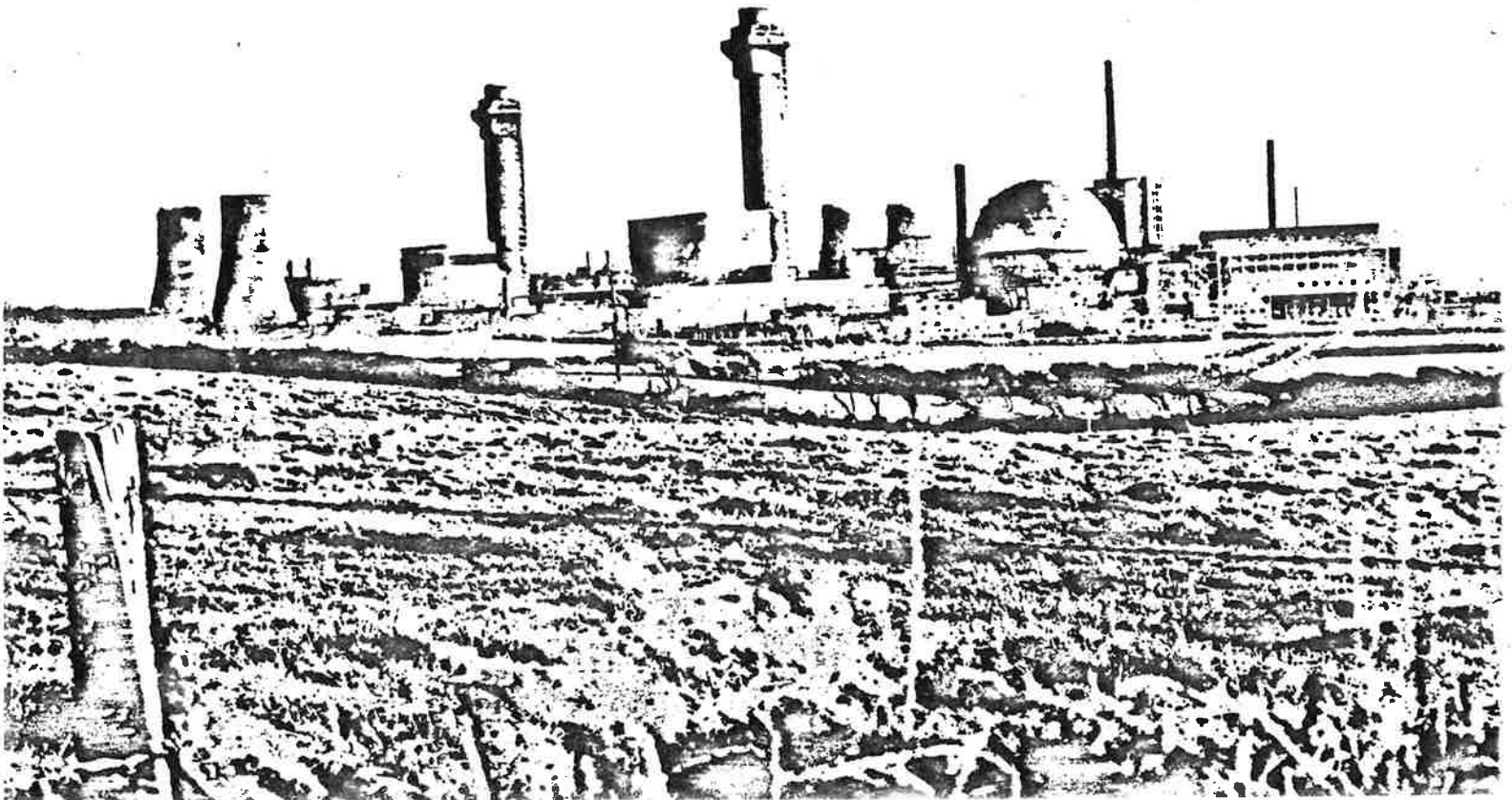


**ADVERSARY PROCEEDINGS
AND NUCLEAR POLICY:**

**THE WINDSCALE
INQUIRY OF 1977**

by

nicholas a. sundt



Adversary Proceedings and Nuclear Policy:	
The Windscale Inquiry of 1977.....	1
Part I--A History of the Windscale Inquiry.....	2
Background.....	2
Proposal Called-In and Referred to an Inquiry....	6
Pre-Inquiry Proceedings.....	9
The Inquiry Procedures.....	11
One-hundred Days.....	14
Post-Inquiry Procedures.....	17
The Parker Report and Shore's Final Decision....	18
Part II--The Inquiry: Success or Failure?.....	20
Narrowing the Differences.....	21
Altering the Distribution of Power.....	25
Lowering the Level of Conflict.....	27
Part III--Conclusions.....	35
Alternatives for the Future.....	39
 Appendices	
Summary of Contentions.....	41
Summary of Principal Conclusions.....	42
Recommendations.....	43
Inquiry Revisions.....	44
 Footnotes.....	52
 Bibliography.....	57

ADVERSARY PROCEEDINGS AND NUCLEAR POLICY:
THE WINDSCALE INQUIRY OF 1977

With the widespread introduction of nuclear power during the last two decades, industrialized democracies have witnessed the development among their citizens of serious disagreements over nuclear-power policies. Issues ranging from safety to the proliferation of nuclear weapons often have formed the basis for intractable disputes. Established democratic procedures for resolving political conflict have failed to ameliorate the situation.

The predicament encourages the development of alternative processes with which conflicts may be moderated. These include "adversary proceedings" in which conflicting groups debate the merits of their respective stands on different issues. This approach is appealing primarily because of the apparent potential therein for rationally narrowing differences.

This paper will discuss such a proceeding used in the United Kingdom in 1977. There, at a "public inquiry," the merits of plans to build a nuclear-fuels reprocessing plant were debated. By the time the inquiry was convened, the proposed plant had become the subject of intense controversy. The proceedings promised to settle some of the issues in a peaceful, discursive manner. Yet the lengthy inquiry did little to abate the controversy. Instead, it intensified the dispute over the construction of the plant and over nuclear power in general, while it undermined the legitimacy of traditional channels for resolving conflict.

Part of the inquiry's failure resulted from avoidable procedural

inadequacies. Revisions in the procedure may prevent some of these problems from recurring in future applications to the nuclear debate. However, evidence derived from the Windscale inquiry and similar proceedings in the United States suggests that the use of adversary procedures in the nuclear controversy unavoidably entails such problems. The future use by nuclear-power opponents of more forceful methods for settling the disputes consequently is encouraged. The integrity of democratic government is threatened. The use of adversary proceedings should therefore be avoided, while other consensus-developing alternatives are pursued.

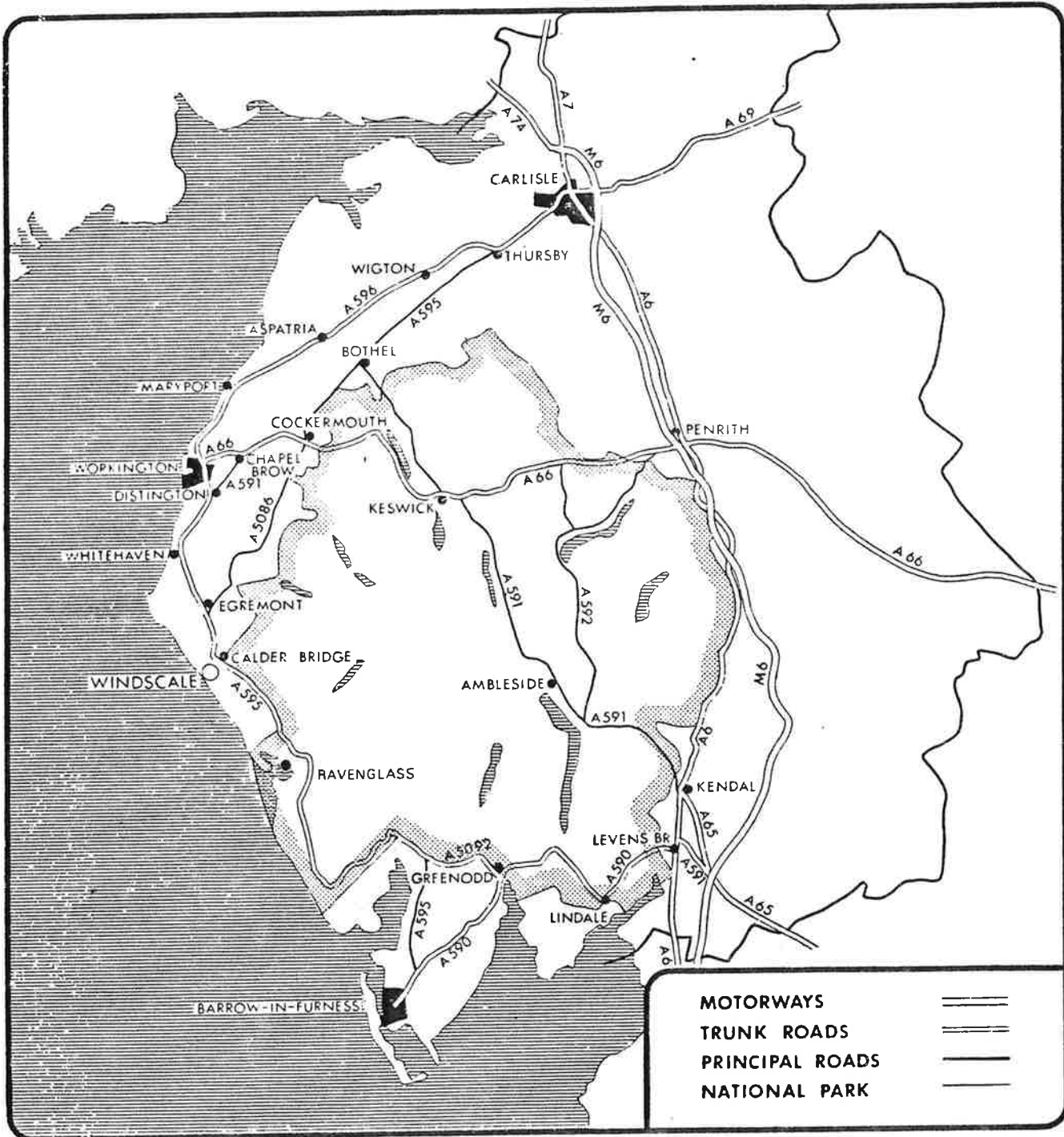
PART I--A HISTORY OF THE WINDSCALE INQUIRY

Background

British Nuclear Fuels, Ltd (BNFL), is a government owned limited-company which provides nuclear services to the country's Central Electricity Board and the South of Scotland Electricity Generating Board. Also it supplies research and development services to the United Kingdom Atomic Energy Authority (UKAEA)--the agency which holds BNFL's shares on behalf of the government.

In the autumn of 1975, the company announced its intention to increase the scale of its commercial activities. This it would do by expanding its Windscale and Calder Works near Shellfield, Cumbria.

Within the months following the announcement, two public debates were held on the proposal. The first, on the local level, was held in nearby Barrow-in-Furness in December, 1975. The proposal was debated nationally in Church House, Westminster, in January, 1976. The debates, conducted under the auspices of independent chairmen, included as participants, environmental groups and representatives from a wide variety of local and national organizations.



Windscale and environs

This map was not submitted as part of the Report but has been included at the request of the Inspector.

FROM: PARKER, ROGER. THE WINDSCALE INQUIRY.

Undaunted by opposition voiced during the debates, BNFL subsequently took the first formal step in seeking government approval of the expansion plans. In accordance with the Town and Country Planning Act of 1971 (the TACPA), BNFL submitted in June, 1976, an "outline planning application" to the authority which had jurisdiction over the locality within which the proposed structures were to be built. Since the plant would be built in Copeland Borough, the competent planning authority to which BNFL took its proposal was the Copeland Borough Council.

Because the proposal involved a project of major significance to the county, it was forwarded later to the Cumbria County Council for consideration. Specifically, the council's Town and Country Planning Committee, a twenty member group, would review BNFL's application and decide its fate.

The application included three specific proposals, the total cost of which was expected to be approximately 600 million pounds-sterling. The first sought improved facilities for handling and reprocessing irradiated magnesium-oxide (magnox) fuels. The second proposed a pilot demonstration plant for vitrifying long-lived wastes. The third involved a completely new facility, the Thermal-Oxide Reprocessing Plant (THORP). The plant would reprocess oxide fuels from the current generation of British advanced gas-cooled reactors and from reactors abroad.

Though the first two proposals generally were viewed as necessary and acceptable by Britons, the third was criticized harshly by many local and national groups. Even before the formal submission of the proposal by BNFL, the council received comments about it from concerned individuals and organizations. Consequently, though the council's

Committee on Economic Development and Committee on Policy and Resources favored the proposal, the county agency was inclined to seek some kind of private and public consultation before making its decision.

The council approached the National Radiological Protection Board for technical advice and appointed a consultant. Furthermore, in September, 1976, the council held an open meeting at Whitehaven, a town near Windscale. The public was invited and all parties could comment on the proposal, and question BNFL representatives. Over eight-hundred people attended the meeting which was televised, taped, covered by the local and national press, and even broadcast live. During the proceedings, opinions were voiced for and against the proposals. Some felt that still further public debate was needed. It was said the issues should be carefully addressed at a public inquiry, an adversary procedure traditionally used in planning disputes.

Public inquiries, with origins in the U.K. as far back as the eighteenth and nineteenth centuries, are an integral part of the British planning system. Seven to eight thousand are held there annually in making planning decisions at the local level. It is therefore not surprising that some form of inquiry was suggested by critics of the BNFL plan. Even before the meeting, Stephen Murray, the County Council Planning Committee chairman, wrote a letter to the London Times suggesting that the U.K.'s Secretary of State for Environment, Peter Shore, intervene and submit the THORP proposal to an inquiry.

He urged that by invoking two specific sections of the TACPA, the inquiry should be held under the auspices of the highest level of government. Peter Shore could first "call-in" the proposal,



By courtesy of the UKAEA

British Nuclear Fuels Limited, Windscale Works

An aerial view of the Windscale and Calder Works, in Cumbria, of British Nuclear Fuels Limited. On the right is the Calder Hall nuclear power station. Opened in October 1956, it was the world's first large-scale nuclear power station.

Since this photograph was taken the course of the River Calder has been straightened.

FROM: PARKER, ROGER. THE WINDSCALE INQUIRY.

effectively ordering the county council to refer the question to him after their decision.

But before his final preemptory decision on the issue, he could refer the application to a public inquiry by exercising his discretionary powers. At the inquiry, a chairman would supervise an adversary proceeding where parties would present their cases and closely scrutinize and challenge those of their opponents. The presiding chairman then impartially would weigh the merits of the two positions and make a recommendation to Peter Shore.

Despite Murray's letter and the discussion at the Whitehaven meeting, Shore refrained from calling-in the proposal. The BNFL proposal evidently was extremely contentious, and early action by Shore appeared foolhardy from his perspective.

Faced with silence at the ministerial level, Murray and his committee were left after the Whitehaven meeting with the tough decision on the THORP. Yet through what one observer termed "an exquisite piece of political balancing,"¹ Murray's committee nevertheless was able to shift the responsibility to Shore.

The problem for the committeemen was the possibility that, after having made its decision, Shore might not call-in the application for submission to an inquiry. This would leave on committee members the onus of having made a final decision without the benefits of a formal and extensive public airing of the issues. Under the circumstances, the committee decided to treat the BNFL application as one which might be a "fundamental departure" from the county's development plan. Ambitiously characterized as such, the BNFL application legally could be referred to Shore without his express intervention.

Shore then would have two choices. He either could choose to consider it a fundamental departure of the plan, or he could refuse to treat it as such. If he refused, opponents would have the opportunity to proceed legally against the council on the grounds that it was a departure. Reflecting back on this possibility, Mr. Murray later commented that "even if such litigation was [sic] ill-founded and unsuccessful, it would certainly have caused great, and undesirable, delay."²

Under the circumstances, Shore would be compelled to accept the application as a departure from the development plan. He then would have a 21-day period in which to exercise the option of "calling-in" the proposal for consideration before making his decision; otherwise, the expiration of that period without action by Shore would signify his approval of the BNFL application. Should he call-in the application, he would have the further option of submitting the application to an inquiry before his decision. Thus, the committee in a roundabout way could open the way for an inquiry while itself shirking the full responsibility for a final decision.

Proposal Called-In and Referred to an Inquiry

Accordingly, in November, 1976, the county council declared it was "minded to approve" the application. But because it was labelled a possible departure from a "fundamental provision of the County Development Plan," it was placed before Shore. From that point, Shore had 21 days to exercise his powers to "call-in" the proposal. Otherwise, it would receive his automatic approval. Extreme pressure from opponents and proponents of the proposal mounted against the secretary.

BNFL opposed an inquiry, fearing that it at best would delay

unnecessarily the construction of the THORP and at worst would result in the proposal's demise. Of particular concern to BNFL was the possibility that several large reprocessing contracts with foreign enterprises might be jeopardized by an inquiry. Two-hundred million pounds-sterling's worth of foreign contracts for reprocessing oxide-fuel at Windscale already had been signed. An additional 400 million pounds-sterling's worth were under consideration, approval being predicated only upon government assent to the THORP proposal. BNFL claimed that, should the project be delayed by any substantial period of time, the foreigners might lose interest and go elsewhere with their business.

The BNFL fears were shared by many local groups, including labor organizations, which stood to benefit from the foreign contracts. Within the government, strong support for the proposal came from the Department of Trade and Industry which--eager to increase Britain's foreign trade--was preparing a massive capital-loan plan for BNFL's expansion. The Department of the Treasury supported the proposal for the same reasons cited by BNFL: delays occasioned by an inquiry could be very costly if contracts were lost.

Some groups argued further that the questions involved had already been subjected to adequate review and that nothing could be gained by additional public exposure of the issues. The Foreign Office and the Ministry of Defense perceived another disadvantage: they feared the possibility that the inquiry would turn into an investigation of proliferation and other related defense issues which they felt were best left undisturbed.³

Conversely, sentiment existed in support of the inquiry. A call for a detailed public examination came from a broad coalition

of environmental groups, local and national authorities, and interested citizens. Among these groups, the problems attending any delay were not serious enough to justify foregoing the benefits which would flow from a thorough treatment of the issue in an inquiry. Letters to the press and to Members of Parliament supported this stand, as did a motion heard in the House of Commons. Twenty-seven thousand signatures in support of an inquiry were collected in Cumbria by the Network for Nuclear Concern. Massive demonstrations were held.

Fueling the controversy was the discovery of a major leak from one of BNFL's storage silos in October, 1976. The existence of the leak, and an inordinate twelve-day delay in notifying authorities of the problem, incensed the public and Anthony Benn, the Secretary of State for Energy. Benn was the leader of the Labour Party's left wing; his opinions on the inquiry were of pivotal importance in influencing Shore's final decision on the matter. Benn's displeasure over the incident and consequent ill-feelings toward BNFL therefore served to greatly strengthen the power of those insisting that Shore should submit the THORP plans to an inquiry.

Despite the increasingly vociferous group seeking an inquiry, Shore remained uncommitted through November 24, 1976, when he announced to the House of Commons that he was invoking his powers to suspend the decision deadline in order to give the matter further consideration. A month later, after considerable infighting within the government⁴, Mr. Shore announced in Parliament his intention to subject the THORP proposal of the BNFL planning application to a public inquiry. However, the first two non-controversial portions of the application would be allowed to pass unimpeded.

Shore asked BNFL to withdraw the THORP portion of its application

and to resubmit it separately to the Copeland Borough Council. By so doing, Shore could avoid delaying the first two portions of the original proposal, while calling-in that involving the THORP. Since the proposals were of county-wide importance, they were forwarded to the Cumbria County Council. Following the submission of the applications came a 21-day period within which any third parties or "objectors" could make representations to the council. According to section-29 of the TACPA, the council had to consider the opinions of these parties (known as "Section 29" parties) in its final decisions on the proposals. With the end of the three week period and the closing of the "objectors' lists," came the council's decisions on the planning applications. As promised, only the application for construction of the THORP was called in by Shore on March 25, 1977.⁵

Pre-Inquiry Proceedings

Between the moment the BNFL proposal was called-in and the day the inquiry began, several required steps were taken. First, Shore published a notification of his decision to turn the question over to an inquiry. Copies of this notice were sent to the Cumbria County Council, BNFL, and Section-29 parties. Following this, the secretary fixed a time and place for the inquiry. It would be held at the Civic Hall in Whitehaven, and would begin on June 14, 1977. Shore was empowered to ensure that this information was widely circulated; this included its submission in writing to BNFL, the Cumbria County Council, and to all Section-29 parties.

Mr. Shore also was obliged to serve on the same parties a written statement of the reasons for calling-in the proposal, and a list of points which seemed relevant in considering the application.⁶

Shore also appointed in March, 1977, a person to preside over the proceedings. He earlier expressed his desire to find "someone of great experience and distinction in handling inquiries and who, therefore would be in a better position than most to bring the inquiry to a proper and thorough but also speedy conclusion."⁷ Deviating from the customary practice of choosing a Department of the Environment official to chair the inquiry, and in keeping with his stated objective, Shore named a high court judge as chairman of the inquiry.

His choice, the Hon. Justice Roger Parker, previously was a barrister specializing in commercial cases. Parker also chaired the major public inquiry into the 1974 Nypro chemical plant explosion at Flixborough. Justice Parker was recognized as competent and impartial by most parties concerned; the appointment was accepted widely. He was charged with making a recommendation to Mr. Shore on the BNFL proposal and, more specifically, with examining the implication of the development for public safety, the environment and both national and local interests.

Assisting the chairman in this task would be technical assessors or advisors. As was normally the case for technically oriented inquiries, they would assist the chairman by hearing, testing and weighing evidence on matters beyond his normal experience but which would have an important bearing on the issues to be decided. Because it was expected that substantial quantities of technical information would be encountered, two assessors were selected to help Justice Parker.

The first was Sir Ponchin, the head of the Department of Chemical Research at University College Hospital, London. Sir Ponchin, a former chairman of the International Commission for Radiological

Protection, was an authority on radiology. The second assessor, Sir Frederick Warner, was a senior partner in the engineering-consulting firm of Cremer and Warner. A chemical engineer with a longstanding interest in environmental matters, Sir Warner was a member of the Flowers Commission which produced the Sixth Report for the standing Royal Commission on Environmental Pollution.

Further procedural steps were required. The Cumbria County Council had to serve on BNFL, Shore and Section-29 parties a written statement of any submission which it proposed to put forward at the inquiry. The statement had to include a list of documents to which the council intended to refer; the documents were to be open to the scrutiny of the other parties before the opening of the inquiry. BNFL too had to submit to the other parties a similar written statement of any submission which it proposed to put forward, accompanied by a list of equally accessible documents.

The Inquiry Procedures.

The chairman, in hearing objectors and representations relating to the proposed development, would be provided with considerable powers. Parker by summons could require any person to give evidence or to produce any documents which might relate to any matter in question at the inquiry. No such person, however, would be required to go more than ten miles from his residence unless the necessary expenses of his attendance were paid.

Additionally, Parker would be empowered to take evidence on oath. Punishment could be imposed on any person who would refuse or willfully neglect to give evidence or to attend in obedience to a summons; or who would willfully alter, suppress, conceal, destroy or refuse to produce any evidence. Finally, the Department of the

Environment could require the Cumbria County Council and any other party at the inquiry to reimburse it for expenses incurred by the national government in conducting the inquiry.

The general guidelines within which the inquiry would operate were contained in the Town and Country Planning(Inquiries Procedure) Rules of 1974. Entitled to appear at the inquiry were BNFL, the Cumbria County Council, all Section-29 parties, and any persons specifically summoned by Mr. Shore or Justice Parker. It was further specified that any parties could choose to be represented by a counsel, solicitor or any other person. Several of the major parties to the inquiry took advantage of this liberty in employing Queen's Counsels to present their cases.

According to the 1974 statute, the following additional rules applied to the inquiry:

1. BNFL would begin with the first representation and would have the right of final reply. All other parties would be heard in whatever order the chairman specified.
2. BNFL, the Cumbria County Council and all Section-29 parties would be entitled to call evidence and cross-examine persons giving evidence. But any other person appearing at the inquiry could do so only if Parker permitted.
3. The chairman could not require or permit the introduction of any evidence where so doing would be contrary to the public interest.
4. No representative of a government department could be required to answer any question which in Parker's opinion was directed towards the merits of government policy.
5. With the exception of items exempted by rules #3 and #4, Parker

could request the admission of any evidence. He could furthermore direct that such evidence be subject to the inspection of any persons permitted to appear at the inquiry.

6. Beyond the above mentioned points and several other minor details specified in the 1974 law, the procedure followed at the inquiry would be determined completely at Parker's discretion. Most important among the procedural details he established were the following:

(a) He would require brief opening speeches by all parties before BNFL fully opened its case. This would enable him and his assessors to obtain as early as possible an overview of the problem and the issues likely to emerge; Parker greatly valued this benefit. Furthermore, the step would ensure that the objectors' points were made public at the outset instead of several weeks later. According to Parker, where this is not done, "the opponents' cases sometimes tend to get less than equal treatment in the press and on radio and television."⁸

(b) Using a power rarely exploited in planning inquiries, Parker would require that all evidence be submitted under oath. This he deemed desirable in light of the conflicts of evidence which were likely to arise, and the suspicion which probably would be felt by objectors when scrutinizing BNFL statements.

(c) Closing speeches by the objectors would be allowed.

To encourage public exposure and involvement in the proceedings, the media would be generously provided with facilities and services needed for covering the inquiry. However, sound and film coverage

of the hearings would be forbidden so that, in Parker's words, "no party or witness should feel in the slightest way inhibited or, on the other hand, tempted to speak past me or his opponents to the crowd."⁹

These inquiry procedures, along with the inquiry program, were discussed at an informal meeting convened by Parker in May, 1977. Open to the press and public, the meeting also included time during which all parties were permitted to make representations on the proposed THORP. Finally, about one month later, the inquiry itself began.

One-hundred Days

From June 14 to November 4, 1977, the inquiry participants deluged Parker and his assessors with different arguments (see appendix), evidence and witnesses. Though in the first few days this was done before a crowd of local people and others, the group soon thinned out and seldom more than twenty spectators attended the proceedings at any one time.

On the first day of the proceedings, Parker listed three questions, the answers to which he sought from the inquiry. These were:

- "1. Should uranium-oxide fuels from British reactors be reprocessed at all?
2. If yes, should that reprocessing be done at Windscale?
3. If yes, should the THORP be made twice as large as is necessary so that it can also be used for reprocessing foreign fuels?"¹⁰

Answering these questions were two groups of adversaries. Foremost among the supporters of the application were BNFL, the Cumbria County Council (which was described as "on the fence with a sharp list to the BNFL side"¹¹), the Electricity Generating Boards, numerous government agencies including Shore's own Department of the Environ-

ment, and the trade unions.

Opposing the plan were several environmental groups, the government of the Isle of Man, the National Peace Council, the Scottish Council to Resist the Atomic Menace, the Socialist Environment and Resources Organization, the Political Ecology Research Group from Oxford, and numerous other groups and individuals.

Though hoping to present a unified approach, the two biggest objectors--the Friends of the Earth(FoE) and the Conservation Society--disagreed over the relative importance of the long-term and short-term issues. Consequently, the Conservation Society pulled away to become the nucleus of the nine member Windscale Appeal Group which concentrated on the longer-term issues. This coalition included the Nuclear Reactor Vigilantes, the Concern Against Nuclear Technology Organization, the Ecology Party and the Irish and Wexford Conservation Societies. The three regional FoE groups, along with two Half-Life groups from North-West England, formed the Network for Nuclear Concern. This coalition would concentrate on local issues.

Over the one-hundred days of the inquiry, BNFL occupied 30 days, its supporters ten days, government departments ten days, the objectors ten days; and ten days were devoted to opening and closing statements.

BNFL, relying upon the work of a large research and legal support staff housed in a nearby school, produced seventeen witnesses and received support from an additional nineteen organizations and individuals. The objectors, depending on separate and variegated arguments, brought forward eighty-four witnesses, several of which were flown in from the U.S.

The resulting mound of paper was impressive: BNFL produced sixteen

proofs of evidence accompanied by 300 reference documents, its supporters produced eighteen proofs and about 200 documents, the government departments supplied ten proofs and 75 documents, and lastly the objectors based their cases on 92 proofs and 1100 documents.¹²

While the arguments were presented, Parker frequently intervened. Seeking to maintain a brisk and relevant discussion, he time and again interrupted testimony and posed what one observer termed "excruciatingly pertinent"¹³ questions. He sometimes stopped the proceedings to list a series of points which he wanted clarified. In several cases he cut testimony short or refused to hear witnesses altogether when he felt their evidence was redundant.

On occasion, the chairman used his powers to order investigations which he felt might clarify issues. He ordered that the lakes of Cumbria be tested for their tritium levels, that dust samples from the village of Ravenglass be analyzed, and that volunteers in the area be tested for a determination of their bodily radiation levels. Parker also requested that the UKAEA conduct a two-month study on storage of spent fuel.¹⁴

Worthy of mention--and of great importance in the proceedings--was the Department of the Environment/Central Office of Information team. This group coordinated the activities of the tribunal's own secretariat, the legal counsel, witnesses, press and general public; scheduled appearances--a major logistical exercise in itself; and operated a system to file, index and distribute the documents entered as evidence. For veterans of earlier inquiries, the group was considered an exceptional help, particularly in its efforts to increase access to information needed by those present.

The great volume of spoken testimony was taped each day, and transcripts speedily were prepared by a team of stenographers, typed, copied, and circulated. These inexpensive and remarkably accurate transcripts were usually available within 24 hours of the close of each day's hearings. The services were welcomed particularly by journalists.

Post-Inquiry Procedures

On November 4, 1977, the inquiry came to a close. Four-million words of evidence were presented during the inquiry. During the proceedings, Parker was moved to admit that he and the assessors were falling behind under a deluge of documents. Yet the inquiry went on, ultimately involving a cost of over two-million pounds-sterling. And still the work was not over; for Parker now had to ponder the mass of evidence which had been brought to him by the 146 witnesses. In addition to the oral evidence, some 1500 documents and five films were submitted, all of which would have to be considered in his final report to Shore.

This report, which contained his findings of fact and recommendations, was completed and turned over to Peter Shore in January of 1978. At that point, while the report was withheld from the public eye Shore had to make a final decision on the proposal. If he had differed from Parker on a finding of fact, or if he had considered, after the close of the inquiry, any evidence not considered at the inquiry, he would have risked further delays. For had he been disposed to disagree with Parker's recommendations because of such circumstances, he could not have come to a decision at variance with the report without first notifying BNFL, the Cumbria County Council and the Section-29 parties of his disagreement with Parker and the reasons for it.

Furthermore, he within three weeks would have had to afford those parties the opportunity to make written representations or (if he had taken into consideration new evidence) to ask for the re-opening of the inquiry.

The Parker Report and Shore's Final Decision

Yet the objectors, joined by members of the media, called for publication of the report before any government decision was taken. Furthermore, by February, 1978, over two-hundred members of Parliament had signed a petition calling for publication. Shore could meet these demands and avoid excessive legal problems by first disallowing the THORP application, and then invoking his powers under the TACPA to grant a "special development order." This would directly grant to BNFL planning permission subject to annulment by either house of Parliament. The avenue for parliamentary participation thereby could be opened.

Following this strategy, Shore on March 6, 1978, released the Parker report along with his decision on the BNFL proposal. The report recommended that the project be given Shore's approval without delay. Received angrily by objectors, and wholeheartedly embraced by BNFL and its supporters, the report included sixteen principal recommendations in which--subject to several conditions--the THORP proposal escaped essentially unscathed.

But according to plan--and despite his view that the conclusions reached by the inspector were "persuasive and broadly acceptable"¹⁵-- he denied BNFL his approval. He did so in order to transfer the ultimate responsibility for the decision to the members of Parliament, and to allow them the opportunity to debate the matter.

Of his decision, he was obliged to notify in writing virtually

all of the parties to the inquiry. This notification had to clearly and precisely describe his reasons for coming to the particular decision. Furthermore, it had to include either a copy of Parker's report or a summary of the report's conclusions and recommendations (the summary is appended herein).

Shore's special development order was issued in April, 1978, and was laid before the House of Commons. The House then had a month to adopt a negative resolution. The "T. & C.P. (Windscale and Calder Works) Special Development Order 1978" embodied all but three of Parker's original sixteen points.¹⁶

Debate in the House of Commons on the THORP was initiated first in March, 1978, when the proposal was discussed for several hours. At that time 168 members voted in favor of the report, while 56 voted against it. But the one month statutory time limit within which Parliamentary veto power was to be exercised was exceeded before further debate and a vote on the order would be made. Nevertheless, the government clearly indicated that it would be bound by the parliamentary vote when the debate did occur on May, 15, 1978.

Upon introduction of the order, a brief discussion followed, as was established procedure in such cases. The arguments varied from the statement by Leo Abse to the careful statements made by David Steele. Said Abse: "I believe that some of the atomic salesman are like pimps peddling a diseased harlotry, eager for profits, ready to put into world circulation cancer and death."¹⁷ Steele commented: "I believe that the onus must lie heavily on the Government who have brought forward the [special development] order, to persuade us that we are wrong. If they do not persuade us beyond a reasonable doubt, it will be right to vote in favour of the order

being withdrawn."¹⁸

According to one observer, it was "a debate in which most of the main arguments are rehearsed but at which few minds are changed."¹⁹ As the order was subject to "negative resolution procedure," this ended with a vote on a motion to deny the order parliamentary approval. The motion was defeated 224 to 80; a 73 percent majority favored the BNFL proposal. The THORP finally received the approbation of the authorities, two years after the application originally was submitted to the local council.

PART II--THE INQUIRY: SUCCESS OR FAILURE?

An evaluation of the inquiry could be based upon virtually any criteria. The criterion used here--perhaps the most important one with which to evaluate the inquiry--is its capacity to moderate the conflict. Conflict can be so effected in any of three ways. First, differences between groups can be narrowed. Second, the distribution of political power amongst them may be altered. Third, the "level" of the conflict may be lowered; this concerns the quality of power exerted, falling somewhere on a continuum ranging from an exchange of words at one extreme, to an exchange of bullets at the other.

The inquiry promised to moderate the conflict intensity through its effects on the first two categories. The adversary proceeding was considered uniquely suited for uncovering and isolating the essence of the dispute; it thereby might narrow the range of contentious issues. Furthermore, through exposure to the inquiry proceedings and to Parker's report, the public and the government could be influenced. This could generate support for one group or another, thereby altering the distribution of power associated with the controversy. While

these two effects might develop, the inquiry was not expected to have any immediate effect on the general level at which the conflict was being waged.

In fact, the inquiry had an impact within all three categories. However, the result was not to moderate the conflict, but to do precisely the opposite, to render it all the more intractable. A plethora of problems associated with adversary proceedings ensured that the parties would remain seriously divided. While the political power shifted temporarily in favor of THORP supporters, the long-term distribution of power among the adversaries apparently remained unaltered. Finally, the inquiry did have an effect on the level of conflict. It raised it by creating widespread disenchantment with established institutions and by encouraging efforts to circumvent them in the future.

Narrowing the Differences.

In discussing this aspect of the proceedings, it is first necessary to differentiate between the inquiry participants and those outside the Civic Hall.

As will be discussed later, the impact of the inquiry on the differences of opinion existing among non-participants was small indeed. It largely was limited to its influence on politicians deciding the fate of the THORP. Professor David Pearce of the University of Aberdeen, who studied closely the proceedings, commented on this. He stated that the debate had reached only those directly concerned, whether they were the objectors, industrialists, civil servants or politicians. He added that most of the public was not consulted, and that the idea of a "widespread public debate" was an illusion.²⁰

This observation is given added weight by virtue of the fact that similar observations have been made of adversary proceedings in the U.S. Said S.Ebbin and R.Kasper in Citizen Groups and the Nuclear Power Controversy: "For the most part, the citizen is reduced to being an observer of the proceedings--a non-participant who must depend upon others for a clear articulation of his interests."²¹

Dr. Pearce succinctly concluded that the term "public inquiry" seemed "to be a misnomer for what are essentially professional debates."²² A Member of Parliament acerbically quipped that the inquiry was "a classic example of the general imperfections we laughingly call public inquiry, public accountability and grass roots democracy. These public inquiries are meaningless nonsense to people outside. The objectors are either wealthy and able to afford counsel, or middle class and articulate."²³

As for reconciling differences among the participants themselves, again the inquiry had little effect. The capacity of an inquiry to bring groups together rests heavily on the earnest desire of the participants to narrow their differences. This desire was not evident at the inquiry. It was clear from the outset that few were interested in an open-minded interchange; rather, they were seeking to advance their own cases over those of their opponents.

Ebbin and Kasper presaged this problem when they said adversary proceedings are "marked by the manipulation of scientific and technological information by all parties in order to substantiate their pre-determined points of view."²⁴ Added Ralph King, of Britain's New Ecologist: "...it may not unfairly be assumed that few besides the Court and its advisers are truly objective and have an interest in reaching the truth...In such a case the Court is rather like the

blindfolded child in a game of 'blind man's bluff.'"25

Furthermore, to the extent that the capacity of the inquiry to narrow differences might be independent of the individual intentions of the participants, it certainly was not free from the inadequacies of the procedure itself.

The procedure displayed numerous problems generally related to its adversarial context. These had the effect of reducing the likelihood that the important facts would ever emerge. Commented the Americans Ebbin and Kasper: "...truth is often a casualty in a system better designed to present potent and convincing cases than to permit complete exposition of the facts."26

For example, opposing groups based their arguments on different sets of data. Despite attempts made by the parties to cooperate, problems often arose. Thus, when debating the impact of THORP on local employment, the participants were hampered seriously by the lack of a uniform set of figures and tables. Left without a common ground upon which to base arguments and responses, the discussion was rather unenlightening and served rather to confuse the issue.

Another problem involved the introduction of legal counsel into the process. Ebbin and Kasper stated: "...the lawyer becomes the focal point of the intervention and it is his command of the scientific and technical issues and his scientific and technical support which become a critical factor."27 The mannerisms, strategies, and language of the legal profession entered into the proceedings where these were considered inappropriate or detractive.

The use of legal counsel, as an intervention between experts, was said to distort the arguments somewhat. In some cases this unnecessarily polarized the conflict and exacerbated disagreements.

Those without professional legal training, unable to articulate their arguments as skillfully as the lawyers, were put at a disadvantage. David Pearce commented that the "courtroom atmosphere is sufficient to deter the least articulate and the least professional, when, arguably, it is they who should most be heard in the local context."²⁸

Ian Breach commented on the distinct influence exerted by the legal profession on the inquiry: "To those accustomed to following civil and criminal court proceedings, the forensic techniques are familiar. To most people, they are not--one reason why so many eminent witnesses emerged with the feeling that their submissions had been misunderstood and their arguments exploited unfairly. Sadly, that is a fact of adversarial legal life."²⁹

The chairing of the inquiry by a single independent inspector also was deemed by some as having serious drawbacks. The extensive freedom enjoyed by the Justice in structuring the hearings allowed him to exert enough control to respond flexibly to circumstances and to ensure that the important objective of seeking the facts was met expeditiously while minimizing extraneous or repetitious material.

But because the single inspector was relatively insulated from outside influence or interaction, and somewhat free to run the inquiry as he pleased, there was the risk that the proceedings would have a character unduly influenced by his presence. This might actually interfere with attempts to narrow differences among participants.

Indications that this indeed occurred came in November, 1977, shortly after the Town and Country Planning Association presented its case. Maurice Ash, of the association, then drew attention to some of the problems which he found in Parker. He complained of the

"...incompetent handling of the inquiry, Parker's authoritarian decisions and his ambivalence towards the question of energy alternatives, his undue concentration on seeking the establishment of certain empirically determined truths, his almost studied lack of interest in the evidence of internationally eminent witnesses, his disallowing of pertinent discussion on the ground that policy was not his concern, and indeed his complete inaptness for the occasion."³⁰

Under the circumstances, with the participants either uninterested in narrowing their differences, or hampered in their efforts to do so, they left the inquiry as divided in their opinions as they were when the proceedings began. The inquiry report did nothing to favorably improve the situation. Dr. Pearce pointedly stated: "Far from reducing the distance between objector and proponent, Mr. Justice Parker's Report has increased it."³¹

Altering the Distribution of Power

While the participants at Whitehaven may not have been interested in narrowing differences in opinion, they certainly were concerned with changing the distribution of power associated with the controversy. They hoped that the proceedings and the inquiry report would have repercussions in their favors. They hoped to sway politically important groups to their sides of both the THORP issue and other nuclear-power issues. A preponderance of power on one side or another would effectively moderate the conflict by overwhelming opposition and rendering it impotent or ineffective.

The participants all hoped that the substance of the proceedings would influence the thinking of the public and government officials. This potential had been discovered long ago by objectors in other inquiries. It was suggested as early as 1971 by Irving Like, a British attorney, when he said:

"The administrative arena must be used as an administrative forum to alert the public to the project's adverse effect on

environmental quality. The environmental status must be vividly dramatized as a prelude to organizing political action to block the project or correct its deficiencies. Viewed in this perspective a losing environmental cause is worth fighting for because it adds to the ecological enlightenment of the public."³²

However, there is no discernable and convincing evidence that the proceedings themselves had any such influence on outside opinion. In view of the media coverage of the proceedings, this outcome was perhaps inevitable.

The hearing transcripts of course were available to all, but relatively few had sufficient interest to purchase them. Consequently, any impact depended heavily upon media coverage of the proceedings; and this was judged inadequate. Coverage of the inquiry was necessarily abridged, and it was generally the case that the most skeletal of these received the widest exposure through the press. And as Ian Breach indicated, these were sometimes of dubious quality:

"...the press and broadcasting organizations will not provide anything approaching full coverage but will select high spots--the beginning and end being the most usual--and orthodoxly newsworthy diversions like outbursts from objectors or the dropping dead of the Inspector."³³

The results were not surprising. Not only did the inquiry not change many minds among the public, but in the words of BNFL's Con Allday, it produced "more, not less, confusion in the public mind."³⁴

The report, however, did clearly favor approval of BNFL plans among politicians, thereby triggering a transitory shift in the distribution of power in favor of THORP proponents. Arthur Palmer, an MP and the Chairman of the Select Committee on Science and Technology, called it "an excellent report, far better than anticipated...Parker is extremely realistic--he looks on nuclear power, of which reprocessing is an integral part, as a necessity in an industrially advanced country--as I do"³⁵; and Peter Shore claimed it "analyses in a masterly way"

the issues.³⁶

Lowering the Level of Conflict

The most important, long-term effect of the inquiry was its effect on the strategic thinking of the adversaries of nuclear power in the United Kingdom. The very existence of the inquiry resulted from the inadequacies of other established political institutions in dealing with the THORP issue. The inquiry itself, while promising some favorable results, turned out to be a complete disappointment to the objectors. Not only did it not serve their interests but it actually subverted them. The opponents of commercial nuclear-power projects consequently are discussing alternative strategies to advance their objectives; these alternatives portend nothing less than an escalation of the conflict.

Evidence of the anger and frustration among the objectors was plentiful in the period following the inquiry and parliamentary debates. One observer commented that

"...the experience of conducting their cases at Windscale, and then of their realizing the cavalier treatment of some of their evidence by Sir Roger Parker, has sent a wave of cynicism and despair running through the whole anti-nuclear and environment movements."³⁷

Dissatisfaction actually began at a very early stage of the inquiry, as one problem after another developed. These put the objectors at a growing disadvantage among the inquiry participants. The report itself and the parliamentary votes were simply the culmination of what was viewed by many objectors as a seriously and perhaps fundamentally flawed process.

Many felt that, in their efforts to present a complete and effective argument, they were hampered sometimes in ways which put them at a distinct disadvantage. A serious and persistent problem

was evident to objectors long before the THORP even was proposed. This was the immense gap between the resources available to the objectors and those available to the proponents of the THORP.

The most notable of these discrepancies were the differences in available technical expertise and in financial resources. The THORP proponents had at their disposal numerous scientists who, if not directly employed by them, were to varying degrees dependent upon their financial support. This relationship promoted a situation where THORP proponents had relatively free access to expertise, and it acted as a deterrent to any experts tempted to offer their assistance to the objectors. Consequently, relatively few competent experts were willing to support the objectors; moreover, those that might be willing were difficult to find and expensive to engage.

The gap in technical resources seriously undermined the effectiveness of objectors in countering the solidly backed case of the THORP proponents. Whereas the latter had ample expertise to back their contentions, the former had to rely on a smaller number of experts scarcely adequate in countering the expertise of their opponents.

The other large discrepancy between the groups involved financial resources. The situation was described aptly by David Lock in a paper written as the inquiry began:

"...There is a very unequal distribution of resources among participants at many planning inquiries, which leads to an unequal presentation of the various arguments and, as a result, may distort the judgement of the Inspector or, in the small number of cases that reach him, the Secretary of State.

When the cost of technical advisors plus their disbursements, postage, travelling expenses, paper, duplicating, maps, photographs, telephone calls, etc.--are added together with loss of earnings caused by attendance at prolonged inquiries, a total cost of several thousand pounds can easily be incurred by an ordinary group. Win or lose, there is no provision for them

to recoup any of their expenditure, regardless of the contribution they have made at the public inquiry. They are particularly prey to the bleeding of their resources by applicants for planning permission who return to the same site again and again until the interest group is both politically and financially exhausted."³⁸

The adverse effects of this situation were aggravated, and efforts to narrow these resource differences were impeded, by the inadequate time interval between the announcement of the date upon which the inquiry would begin and the actual arrival of that day. This eleven week period was deemed insufficient for participants to prepare their cases and for objectors to raise funds. The problem was especially severe where the groups were not even formed until the call-in was announced.

Though the Isle of Man Local Government Board had adequate funds and with a moderate effort the Town and Country Planning Association expected to secure enough money, others were not so fortunate.

By June 14, 1977, the FoE had raised 10,000 pounds sterling by direct appeal, and the Windscale Appeal Group had raised 1800 to 2000 pounds sterling. But the FoE and the Windscale Appeal's Conservation Society would each require an estimated 20,000 pounds sterling--15,000 of which were needed for legal fees alone. Though each was promised a further 10,000 pounds sterling from a private donor, it was likely that both would encounter serious difficulties in financing their cases. It even appeared as though the Windscale Appeal would run out of money entirely.

The FoE requested 25,000 pounds sterling of public funds in an attempt to alleviate the problem. But in March, 1977, the Secretary of State for Energy turned the request down. Ultimately though, ambitious fund-raising and sufficient public support assured the objec-

tors funds sufficient for presenting their cases.

Other complaints were voiced over the location of the inquiry. Before the inquiry's opening, the Windscale Appeal representatives requested that it be held in a more central location. Similar sentiments later were voiced repeatedly.³⁹

Complaints also were made about the hectic pace of the inquiry and its scheduling. Said a representative of the Town and Country Planning Association:

"The Windscale inquiry had by any standards been hastily convened and those convening it had hopelessly underestimated the time the question would demand. Timetables were therefore virtually non-existent, putting great strain upon the resources of voluntary bodies such as ours; indeed, the TCPA simply ran out of legal help to cross-examine witnesses. Still more important, our case had to be presented disjointedly instead of in the coherent form in which it was conceived."⁴⁰

The schedule imposed a substantial workload on participants, one consequence of which was the necessity of taking much of the evidence as being read in order to save time. Where evidence was produced in this way, some felt it would receive less attention than evidence actually read.⁴¹

Complaints about schedule changes also were voiced. These changes resulted in evidence being called out of the order requested, sometimes causing one party's witnesses to be interpolated between another's. Specifically, the TCPA cited as an example the relegation of pure planning" issues to the very end of the inquiry, and then-- with only two days' warning--its being brought forward to the middle of the association's case.⁴²

Another problem was caused by the lack of coordination among objectors groups. This opened the way for a great deal of repetition. The fractionalized character of the objectors' camp caused other problems. For example, there was reportedly fierce competition for

witnesses, as those dropped by one group might be snatched up by others. There was even a report of "poaching" where one group attempted to lure another's witnesses into their own group.⁴³

As mentioned earlier, some objectors complained of Parker's problematic influence on the character of the proceedings. In consideration of his impact on the inquiry, and of the other problems which plagued objectors, there was little hope among them that the final report would support their case. However, they at least did expect a comprehensive view of the proceedings in the report. As was said in a New Scientist article, some objectors "were under no illusion afterwards about the possible outcome" but nevertheless "were expecting a report that would, as near as realistically possible reflect the detail and the character of their case."⁴⁴

But again the objectors were disappointed. In the words of a Town and Country Planning Association critique, the tone of the report was "inappropriately subjective and personal."⁴⁵ Added another observer: "...this master clarifier ends up by muddying the water and giving the report a strong sense of his own personality."⁴⁶

The FoE representatives incisively remarked that the brevity of the report ("91 pages of large type with ample white space") itself precluded a satisfactory report. And they added that "the discrepancy between the inquiry proceedings and the report which purports to represent them is gaping."⁴⁷

The objection to the report was best stated by one observer who said that

"...it does somehow seem as if once Mr. Parker had decided that the decision should go in BNFL's favour he went out of his way to find for them on almost every issue--rather as a

judge, confronted by a bunch of witnesses prepared to testify to a man's innocence, might dismiss their evidence in toto once satisfied that the man was guilty."⁴⁸

In so doing, Parker developed an argument found by some objectors to have three primary deficiencies: the omission of important material, misrepresentation of witnesses and submissions, and "asymmetrical criteria of soundness" with which more substantive evidence supporting the objectors was passed up for more hypothetical evidence favorable to BNFL's case.⁴⁹

The result was, according to one, a "monstrous inadequacy as the basis for a decision."⁵⁰ Said Robin Cook, a Member of Parliament and therefore one of those expected to use it as such a basis:

"I am extremely concerned with the report. Parker has decided to present the case for THORP--and he's better at it than BNFL."⁵¹

Following the publication of the report, challenges proliferated. Several witnesses indicated that they were contemplating legal action in view of the serious misconstructions that Parker put on their evidence. Two of the environmental groups demanded apologies. Some of them published extensive commentaries on the inquiry and the Parker report, cataloguing errors of omission and commission. A letter from one group, the Network for Nuclear Concern, to Peter Shore was typical:

"...we carefully followed the submissions of other objectors at the inquiry and can testify that the misrepresentations we have detailed are merely an example of the selective and inaccurate way in which the issues have been treated in the report.

Finally, as the inquiry report will be taken by some as an objective statement of the facts, we are concerned lest it unjustifiably discredits environmental groups such as ours, who put [forward] a carefully reasoned case, as being nothing but alarmists. We therefore urge you, as a contribution to natural justice, to set the record straight and issue a public apology and amendment to the report."⁵²

One of the witnesses, Tom Cochran, also sent a formal protest to Shore expressing "shock and dismay at the way the judge misrepresented my testimony to support his own findings."⁵³ And in a letter to the London Times, a group of seventeen witnesses said: "We each consider that our evidence has been misunderstood, misrepresented, distorted or ignored."⁵⁴

The final blow to the objectors came with the Parliamentary involvement with and treatment of the issue. Elected politicians, who presumably should be intimately involved with the THORP issue, were excluded from any active role in the proceedings, and it was not until after Parker's report was issued that Parliament somewhat belatedly was included. And upon introduction of the Special Development Order into the House, the debate was largely pro forma, as though the inquiry and Parker's report had already settled the issue. Parker's weighty recommendations entered a political arena in which many were neither interested nor well acquainted with the topic which he had so carefully considered.

In speaking of the debate on the THORP proposal in Parliament, one member predicted that perhaps a dozen of his colleagues were sufficiently well informed to make effective contributions; and that some forty more were interested enough to speak but had not studied the problem carefully. Presumably, the several hundred remaining MP's were marginally interested at the most and essentially ignorant of many of the important questions involved.⁵⁵

Under the circumstances, it was unlikely that the House would reject Parker's recommendations by opposing Shore's special order. Indeed, they gave the proposal their approval. The exact degree to which their positions were affected by the Parker report is uncertain.

However, it is known that most accepted the report, and such concurrence was likely in view of the situation in Parliament mentioned above, where few actively were concerned and capable.

With the disheartening experience of seeing their expectations dashed by both the inquiry and subsequent political operations, the objectors reevaluated their strategies. They were so incensed that some were suggesting other strategies and the abandonment of the public inquiry as a vehicle for advancing their causes. Having failed to reach their objectives through routine political channels, and faced with the perceived inadequacies of a public inquiry, nuclear power opponents spoke of alternatives which violate traditional norms.

Referring to a proposal to hold another public inquiry--this time on the British Fast Breeder Reactor(FBR) program--the editor of the Ecologist magazine said:

"Since reason and truth no longer prevail at public inquiries, we must not delude ourselves the FBR inquiry will go the way of the objectors...We call on all those who object to FBR to boycott the inquiry and instead to commit themselves to a campaign of civil disobedience."⁵⁶

In the following month's issue of the same periodical, Dr. Leonard Taiz, Chairman of the Conservation Society, concurred and suggested that he would support "a campaign of civil disobedience" against nuclear power "if this proved to be the only way in which we can bring the nation to its senses." He cautioned, however, that such "a decision has to be taken with the utmost care and after most vigorous considerations."

In the New Statesman, J. Bugler summed up the situation as follows:

"...until now the anti-nuclear forces in Britain have shown themselves willing to protest 'within the system.' In sharp

contrast to French or German opponents, they have argued that society can be persuaded from nuclear power. But Parker does not offer dialogue. He gives no credit to the groups and people that, at great personal cost, mounted the public debate Labour called for. This almost amounts to a dereliction of duty, and it will not be surprising if the anti-nuclear movement here now changes its approach."⁵⁷

The Greenpeace Foundation, in a letter to the Guardian, also expressed reservations about the procedure:

"The open-door consultative approach, so evident at the Windscale inquiry, where...bonhomie became an institution in itself, clearly has its place, but with the odds stacked so heavily against the anti-nuclear lobby it is questionable whether such tactics are in the best interests of the campaign."⁵⁸

Added Ian Breach: "What the Windscale inquiry did, more than anything else perhaps, was to unify the opposition, to create a more or less well-defined camp to which one either belongs or does not."⁵⁹

Walt Patterson, FoE member and a long-time observer of British politics, comments ominously:

"...organized disruption of public planning inquiries--singing, chanting, and shouting down the proceedings--has in the last two years become an everyday sight at British inquiries into proposed motorway construction. To date the challenges have stopped short of Molotov cocktails and riot gas, but no one in Britain has any profound conviction that such eventualities are beyond imagining."⁶⁰

In view of these and other similar comments, it is apparent that the inquiry pushed opponents of nuclear-power one step away from established procedures and towards physical confrontation. The level of future conflict consequently may be heightened.

PART III--CONCLUSIONS

The inquiry failed to moderate the conflict; unfortunately it may have even increased its intensity. As a consequence, confidence in public inquiries witnessed a deleterious erosion among nuclear-power opponents. These two developments--the intensification of the dispute and the erosion of confidence--undermine future efforts

to resolve nuclear-power conflicts. Opponents now are more likely to use strategies which violate established norms.

Can inquiries be used in the nuclear-power conflict without creating serious problems? Or are fundamental, undesirable inadequacies related to the use of inquiries? The evidence suggests that three grave intrinsic problems are associated with inquiry proceedings and the manner in which they are applied to the conflicts.

First, adversarial proceedings are ill suited to the genre of issues discussed here. The disputes often emerge among groups which differ not only over facts but also over the values which they hold. A Town and Country Planning Association official noted that, as a consequence, "many of the issues are not susceptible to proof or analysis on the basis of established fact, but depend for their evaluation upon an ability to balance technical and measurable fact with qualitative opinion."⁶¹ As a result, the conflict is polarized and important problems are obfuscated where the issues are submitted to adversary proceedings.

Second, adversarial proceedings are inappropriate where the parties involved differ widely in their capacities to argue their cases. For this introduces a bias in a context which presumes a rough equivalence in the capacities of groups to present their cases. The nuclear-power debate is characterized by severe discrepancies in this area. The differences introduce unacceptable biases in favor of those who support nuclear power.

Third, fundamental problems are associated with the manner in which the proceedings yield judgements, and in which these later are used. The inquiry is not merely an adversarial procedure; it is also judicial and advisory.

Some form of judgement emerges on the merits of the cases. Yet because the judgement and recommendations are formulated in relative isolation from important political influence--in somewhat of a political vacuum--the power of participants over the process is severely curtailed. Furthermore, politicians are inclined to ascribe to the report more weight than it rightfully deserves. Ultimately, the consequence of these political aspects is the transfer of responsibility and power to politically isolated judges who make the de facto decisions. Said Nature magazine's Richard Walgate: "...Parker was there to decide, not to illuminate the controversy."⁶²

One individual comments on this propensity for the inquiry thereby to transfer subtly the locus of political decision-making away from politicians:

"It can be argued that the larger and more important a project, the greater is the political element involved in a final decision. It may well be that political decisions in the past have been taken on the basis of inadequate knowledge..., and that this situation must not be permitted to recur. But public inquiries, however expert and sophisticated, cannot exclude political responsibility altogether. Ministers must weigh expert assessment together with other factors--public opinion and financial or administrative constraints for example--in making the final decision. The danger of inquisitorial inquiries conducted by panels of experts is that technical or scientific evidence which has been thoroughly questioned and examined at the inquiry may tempt government to invest the inquisitors' recommendations with a finality they do not deserve and should not, in a democratic society possess."⁶³

This fundamental problem has been recognized by several other observers. Commented Ian Breach: "What is at issue...is the role of Parker as an instrument of policy-making--or if you like, a political receptor."⁶⁴ Nature magazine, in an editorial, offered what increasingly is agreed upon: "A planning inquiry, however broad ranging, is not the place for the weighty matters of energy forecasting and nuclear proliferation to be resolved. These belong in the political arena."⁶⁵

These propensities increase the chances of an untenable political judgement. The objectors are given the impression that they are blocked-off from meaningful participation; the system, taken as a whole, seems to preclude favorable decisions. This predicament is particularly troubling. David Pearce warns that the political framework

"...must be seen to present an 'efficient' outlet for the expression of criticism: it must be possible for the framework to contemplate a set of results that are counter to professed Government policy. That, in essence, is surely what even the worst democracy must achieve to merit even the contemplated use of such a title."⁶⁶

Efforts to reduce or eliminate the above problems while maintaining the essential identity of the proceedings are likely to fail. No acceptable way has been found to create an approximate equivalence in the capacities of the adversaries to present their cases. It is extremely difficult to sufficiently increase the political sensitivity of those judging the cases without unacceptably compromising the degree of objectivity and independence characteristic of the proceedings. And politicians will always be tempted to vest an inappropriate amount of persuasive power in the hands of the judges.

The use of adversarial proceedings are likely to fail on these points alone. Yet even if these flaws--and the other problems discussed--theoretically could be eliminated by revising the present structure, the result inevitably would be more expensive and more time consuming.

Comments Ian Breach:

"The Windscale inquiry was regarded by a majority in both the Government and in Parliament as a horrific concession: to contemplate an exercise which would take perhaps six or seven times as long, consume sizable amounts of public money, and be designed virtually to dash contemporary official plans and objectives, is to dream."⁶⁷

Little hope exists then, of ever modifying inquiries to the ultimate

satisfaction of those involved. Consequently, if they nevertheless are used, the most important result will continue to be an intensification of the conflict and a loss of legitimacy for the institutions used.

This likelihood is confined to neither the nuclear controversy, nor to the United Kingdom alone. It is the probable result of repeated efforts to submit politically contentious issues involving intertwined factual and valuational differences to adversarial proceedings for judgements. Analogous circumstances in the U.S. include the submission to the courts or other adversary proceedings of conflicts over abortion, desegregation, environmental protection or nuclear power.

Alternatives for the Future

It is one thing to convincingly establish the shortcomings associated with a particular procedure. It is quite another to suggest alternatives. While criticizing at times may be facile, it is far more difficult to offer attractive and viable substitutes. I have in this essay attempted to tackle one side of the problem by illuminating the basic problems associated with the Windscale inquiry specifically, and with judicial adversary proceedings generally. Yet the truly difficult question remains: What are the alternatives, and which are best under specific circumstances? While I will not--and cannot--answer that question, I do offer an important suggestion for those who seek options.

The nuclear-power controversy has progressed to the point where the opposing sides may never eliminate their factual and valuational differences. Queried Ian Breach: "What of the nuclear 'debate' itself? Is it a debate at all--or has controversy passed the point

where the various issues might be handled according to reason and logic?"⁶⁸

Whether or not some of the conflicts are irresolvable in the adversarial context, there is theoretically no reason why such differences might remain while politically tenable solutions are developed which skirt the most tenaciously intractable conflicts. As long as the groups involved are willing to give as well as to take, to mix concessions with accessions, the possibility exists for compromise and negotiation. Political ends can be reformulated without first trying to "resolve" underlying disagreements over facts and values.

But as long as groups are locked in adversarial combat over specific points, beneficial interactions are discouraged, and political compromise is increasingly remote.

Those seeking to resolve nuclear-power issues in a manner consistent with democratic ideals therefore should not concentrate their efforts on submitting the issues to adversarial contexts, but instead should seek interactive environments where conflicts and political goals may be redefined in a non-confrontational setting. This kind of dialogue must be pursued with utmost vigor, while adversarial proceedings are gingerly avoided. For while the former offers a glimmer of hope, the latter promises little but to undermine democratic government.

Should democratic rule fail to withstand the strain, future nuclear-power conflicts may give present-day adversary proceedings an aura of antique gentility.

APPENDICES

Summary of Contentions.....41
Summary of Principal Conclusions.....42
Recommendations.....43
Inquiry Revisions.....44-51

Summary of Contentions

Applicant's case

5.1 BNFL's case at the opening of the Inquiry may be summarised as follows:

1. BNFL has the necessary technical experience to develop and operate the proposed plant. Magnox fuel has been reprocessed successfully for 25 years. There is also experience of separating and storing plutonium and of reprocessing oxide fuel.
2. Reprocessing is desirable as an energy conservation measure and would add to secure indigenous fuel resources.
3. Whilst the proposed development is not dependent on a decision whether or not to go ahead with FBRs, it is essential if the FBR option is to be kept open.
4. Reprocessing of spent fuel from UK AGRs in operation or already under construction is essential on waste management grounds.
5. Existing plant in the UK is inadequate to deal with anticipated AGR spent fuel arisings.
6. A plant large enough to reprocess foreign spent fuel in addition to UK arisings would permit economies of scale and would bring a balance of payments advantage to the UK.
7. Foreign business exists which would justify construction of a plant of 1,200 tonnes capacity.
8. The UK reprocesses fuel for foreign customers under internationally accepted safeguards designed to prevent the proliferation of nuclear weapons. If we were to deny reprocessing services to foreign customers they might be driven to develop their own facilities without the protection the safeguards provide. Such denial might therefore add to the risks of proliferation.
9. Terrorism will continue to find targets and to present a threat whether or not reprocessing and plutonium separation continue on an increased scale at Windscale. The additional risk and threat to the civil liberties posed by the proposed development would therefore be negligible.
10. Reprocessing technology is not novel and the Nuclear Installations Inspectorate (NII) are confident that the proposed plant can be designed, built and operated to high standards of safety.
11. The emissions of radioactivity from the plant during routine operation give no grounds for supposing that employees or the public at large will face any significant risk.
12. The effect of the plant on visual amenity and infrastructure raises no problems which cannot be satisfactorily resolved.
13. The development would create a substantial number of stable jobs in a Special Development Area with a higher than average level of unemployment.

At the end of the Inquiry their case remained substantially the same.

5.2 In broad terms the objections raised by the various objectors were to the following effect:

1. The plant would increase the dangers of nuclear weapons proliferation.
2. The plant would create unacceptable risks from terrorism. Alternatively, the containment of such risks within acceptable levels could only be achieved at the cost of an interference with civil liberties which would itself be unacceptable.
3. There is in any event no present need for the plant and will probably never be such a need.
4. Permission would pre-empt a decision on the Fast Breeder question.
5. The plant would be an unsound proposition on financial grounds.
6. Emissions from the plant in normal operation would create unacceptable risks to the workforce, to the public, to future generations, and to the natural environment.
7. The risks to the workforce from minor incidents at the plant and, to the public and the environment, from major accidents at the plant would be unacceptable.
8. The risks to transport workers and the public from accidents in the course of transporting spent fuel to the plant, or fresh fuel or plutonium from the plant, would be unacceptable.
9. It is not yet established that the highly active waste resulting from reprocessing can be safely disposed of by means of vitrification and burial of the resulting glass blocks. Disposal of spent fuel as such, without reprocessing, might prove preferable and no further highly active waste should be created until this possibility has been fully researched and the position established one way or the other. Other methods may also be found.
10. In any event foreign fuel should not be reprocessed.
11. Even if the intended limits of radioactive discharges and the estimated accident risks were acceptable, the plant would represent too ambitious an advance in technology and there could be no confidence that the plant would operate so as to confine the discharges and risks as intended and estimated.
12. The presently prevailing institutional arrangements for fixing limits of radiation doses and discharges, for vetting the design, construction and operation of plants producing radioactive emissions and for monitoring discharges from such plants give no grounds for confidence that the various authorities are sufficiently independent or competent to protect the public.
13. There is emotional hostility to the project in a large section of the public which could lead to violence and permission should be refused on this ground alone.
14. If there is to be an oxide reprocessing plant in the UK it has not been established that Windscale is the proper location for it, indeed it is a bad location.
15. Although the plant would create new jobs in West Cumbria, which is an area of high unemployment, the number of such jobs likely to be filled by the unemployed would be relatively few. A large number of the available jobs would go to immigrants into the area, whose arrival would impose severe strains on housing, sewerage, roads and the like.
16. The additional jobs are, in any event, not of the most desirable nature because they would be provided by a company which is already a dominant employer in the area.
17. The nature of the Inquiry, the interval between its arrangement and opening, the lack of adequate information preceding it and the disparity of the resources available respectively to the applicants and the objectors has resulted in an inadequate investigation of the issues. There is therefore no satisfactory basis for a decision in favour of the applicant.

Summary of Principal Conclusions

Question 1. Should oxide fuel from UK reactors be reprocessed in this country at all?

17.2. Although reprocessing of oxide fuel is not necessary to preserve the option either to build CFR1 or to launch an FBR programme, and although it is possible that it will be decided not to proceed further with FBRs at any rate for a period, I conclude that a new plant for reprocessing oxide spent fuel from UK reactors is desirable and that a start upon such a project should be made without delay. My principal reasons for this conclusion are as follows:—

1. Stocks of spent fuel from AGRs presently existing and under construction will, unless reprocessed, continue to build up and will have to be stored until finally disposed of in some manner.
2. It is necessary to keep the nuclear industry alive and able to expand should expansion be required. Such expansion might be required, either to meet additional energy demands, or to preserve a 'mix' and to avoid over-dependence on a particular energy source, or to reduce the number of fossil fuelled stations as a result of confirmation from further research of the views expressed in the Ford Foundation Report (and elsewhere) that such stations are more harmful than nuclear stations.
3. Keeping the industry alive will involve further reactors being constructed and further quantities of spent fuel arising. Such further quantities will, if not reprocessed, also have to be stored until finally disposed of in some manner.
4. All the spent fuel stored will contain fission products and the long-lived actinides including plutonium. The inventory of plutonium will therefore continue to increase for so long as reprocessing is delayed.
5. The prolonged storage of ever-increasing spent fuel containing an ever-increasing quantity of plutonium would involve the development of new storage methods. This would be both a costly and a lengthy process.
6. To store such increasing quantities of spent fuel

11. The risks from terrorism are not significant. The plutonium separated from UK fuel would be stored at Windscale and would not be subjected to movement from Windscale save in the form of fuel, which is not an attractive target.
12. The risks arising from transport would be no greater than at present. Spent fuel will have to be carried to Windscale in any event. Fresh fuel sent out from Windscale would not present any significant risk.

Question 2. Should reprocessing be at Windscale?

17.3. I have no doubt that the answer to this question should be in the affirmative. The existence of the facilities already at Windscale and the store of knowledge concerning the behaviour of radionuclides discharged from Windscale, coupled with the facts that any alternative would be likely to involve additional transport of plutonium or prohibitive expense, make it clear that, if the operation is to be carried on at all, Windscale is the obvious location. It will involve additional exposure to local inhabitants but the risks involved appear to me to be so small that this fact cannot outweigh the advantages mentioned.

Question 3. Should the plant be double the size required for UK spent fuel and used to reprocess foreign fuel?

17.4. The financial advantages of having a plant to reprocess foreign fuel on the basis intended by BNFL are plain. There is the additional advantage that planning permission, a start on THORP and the receipt of foreign fuel for reprocessing would do something to relieve the pressure on non-nuclear-weapon states to develop their own facilities. It would also demonstrate that this country intends to honour at least the spirit, and as I think the letter, of its obligations under the NPT. This could well be an advantage in negotiations, over the period when THORP is building, to strengthen the NPT. Furthermore, the existence of substantial reprocessing facilities in one or more nuclear-weapon states is a necessity to deal with fuel which fails in reactors or deteriorates in storage.

17.5. The disadvantages of accepting and reprocessing foreign fuel are also clear. It will involve additional routine emissions, additional storage of spent fuel pending reprocessing, additional highly active waste to dispose of and, which was chiefly relied on, additional movements of plutonium in some form, and the putting of non-nuclear-weapon states nearer to the bomb.

17.6. These disadvantages appear to me to be clearly outweighed by the advantages. The risks from the additional routine emissions are very small: the additional storage presents no significant risk and certainly no greater risk than would be involved in the storage for prolonged periods of UK spent fuel; the total highly active waste from reprocessing of UK and foreign fuel combined will contain only a fraction of the plutonium which would be contained in UK fuel alone if such fuel were disposed of without reprocessing; the risks from the movement of plutonium can be largely dealt with by technical fixes. The one substantial objection which appeared to me to arise is that the separation of plutonium and its supply to non-nuclear-weapon states will put them nearer to the bomb. Since, however, this matter can be alleviated to some extent by technical fixes; since it will not in any event happen for 10 years; and since a refusal to accept foreign fuel would be in breach of the spirit if not the letter of the NPT and would put pressure on non-nuclear-weapon states which could lead them to produce their own plutonium long before they could receive any from THORP I cannot regard this as an overriding objection.

17.7. It is also important to remember that unless foreign business on the required scale can be obtained BNFL would not proceed with the plant as presently proposed. To meet UK needs only would require a smaller plant and the whole concept would have to be the subject of reconsideration and re-design. This would be likely to involve an undesirable delay in starting on reprocessing of UK fuel. It would also mean that when further capacity was required we should, instead of having it available at the cost of foreign customers, have to finance it ourselves.

In the light of the above I would answer the third question in the affirmative.

Recommendations

- 17.8 My principal recommendations are the following:
1. Consideration should be given to charging some independent person or body with the task of (a) vetting security precautions both at Windscale and during transit of plutonium from Windscale and (b) reviewing the adequacy of such precautions from time to time (para 7.18).
 2. BNFL should devote effort to the development of plant for the safe removal and retention of krypton 85 and, if development proves successful, should incorporate it in the proposed plant (para 10.52).
 3. More permanent arrangements for whole body monitoring of local people should be instituted. Subject to certain general principles, the details should be agreed by those directly concerned. They would not be appropriate to planning conditions (paras 10.93, 10.94 and 10.126).
 4. The authorising departments should however consider whether provision of such facilities should be made a condition of authorisations to discharge (para 10.95).
 5. Consideration should be given to the inclusion of some wholly independent person or body with environmental interests in the system for advising central government on the fixing of radiological protection standards. That person or body should probably be changed from time to time (para 10.111).
 6. A single Inspectorate, as recommended by the Royal Commission, should be responsible for determining and controlling all radioactive discharges (para 10.113).
 7. There should be specific discharge limits for each significant radionuclide. The onus should be placed clearly on the operator to show that a discharge cannot practicably be avoided before the limits are fixed (paras 10.115-10.116).
 8. The provisions of the Radioactive Substances Act 1960 relating to the powers to hold inquiries into proposed authorisations to discharge should be re-examined (para 10.122).
 9. The relevant authorities should carry out more monitoring of atmospheric discharges (para 10.126).
 10. FRL should publish their annual reports more rapidly in future. There should, as recommended by the Royal Commission, be one comprehensive annual survey published of all discharges and at intervals, reports by NRPB on radiation exposure (para 10.126).
 11. BNFL should do more, in future, to ensure that safety precautions and operating procedures at Windscale are sufficient for all eventualities, are strictly observed and are continually rehearsed. (para 11.11.)
 12. The current review of NII should examine whether they are sufficiently equipped with scientific expertise to check the designs for the proposed plant (para 11.24).
 13. It is essential that those who would be required to take action under the Windscale emergency plan are fully aware of the responsibilities the plan places on them (para 11.30).
 14. The local liaison committee should be re-organised and its functions re-defined. (para 11.34).
 15. Fuel flasks should, as far as possible, continue to be delivered to Windscale by rail, but this is not a matter appropriate to planning conditions (paras 14.28 and 14.45).
 16. Outline planning permission for THORP should be granted without delay, subject to conditions (paras 14.39-14.41, 14.45 and 16.1).

INQUIRY REVISIONS

Despite the failures of the Windscale Inquiry, revisions of the inquiry format used at Windscale already are being discussed. An inquiry will be conducted to review the Commercial Fast Reactor (CFR) program, Britain's breeder reactor effort, before important decisions are made on it. Though it is expected that this inquiry too will have its problems, it is felt that some encountered at Windscale can be avoided.

Specific suggestions for alternatives to the traditional inquiry procedures were made long before the Windscale inquiry. The Council for the Protection of Rural England (CPRE) suggested in 1974 an "examination in public" technique in which an inspector or panel of inspectors unconnected with any interested government department, and independent of the industry, would conduct a wide investigation of the issues and report to a Parliamentary Select Committee. The CPRE also suggested the use of an Environmental Impact Analysis (EIA) as part of the procedure. This suggestion was taken up by the Department of Environment, and a study group formed to examine its potential use.

Another proposal for a revised inquiry procedure has been advanced by the Town and Country Planning Association. First it suggested that a Standing Royal Commission on Energy be founded, with membership drawn from people with a broad experience of public life as well as from the most eminent relevant professional and technical experts. This group would be characterized in part by its independence from official and political pressure and opinion. The group would look into a broad array of energy policy questions.

Foremost among its early priorities would be the assessment of a broad range of possible energy strategies, one of which would be recommended. It also would provide specific advice for use in a public inquiry and for use by the government in making its decisions. Its findings and suggestions would be published as a report which then would be debated by Parliament and by the public before any inquiry was held on the CFR.

The inquiry would have to cover both the general idea of a CFR commitment and the merits of several alternative sites. The general idea or principle of a CFR would be the most important element of the inquiry, and would be considered in view of the findings of the commission. The commission's report would provide at least some platform upon which to initially base the inquiry.

The TCPA specifically suggested the following characteristics for an inquiry:

1. An EIA is undertaken before the inquiry starts. This necessarily involves a detailed examination of the technical character of the project and its impacts. During the period in which the EIA is undertaken, the proponents of the project are required to submit statements in support of the general CFR program.

2. The inquiry itself has a two-stage format:

- A. Discursive stage--"an examination in public" of the plan.

- The parties identify and discuss the main issues, and establish what additional data are available or might be required.

- Agreement on the data is not sought, as that is deemed too problematic at this stage. Participation in this stage does not make participation essential in the second

part, nor vice versa.

B. Adversarial stage--witnesses are subjected to examination-in-chief, cross-examination, and re-examination. All witnesses appear under oath. This stage is advocated because the TCPA feels there is a reluctance on the part of many nuclear-power proponents to reveal some of the factual material.

3. The inquiry panel can commission outside experts to undertake specific research during the course of the inquiry, should it consider this necessary. The panel may halt the progress of the inquiry while the research is undertaken.
4. The chairman of the inquiry is a person with the ability both to absorb technical and scientific material quickly and to appreciate, evaluate, and understand the abstract and qualitative aspects as well. A High Court Judge or a scientist is not appropriate for this position, while a senior civil servant, a planning barrister or an academician is more acceptable.
5. There is a broad mix of eight or nine assessors to assist the chairman of the inquiry. One member is a senior planning inspector with wide experience. Also, people are appointed with the appropriate expertise and, above all, the ability to relate their knowledge and experience to a broad view of the issue, stressing its social and environmental impacts.
6. Parliamentary debate occurs at several stages:
 - when the Royal Commission report is released.
 - between the two stages of the inquiry.
 - after the inquiry is completed and the recommendations are published, but before a final decision.

7. Some form of financial assistance is provided to objectors.

The government would allocate a fixed amount (perhaps on the order of 250,000 pounds sterling), and establishes a special committee specifically for the purpose of allocating the funds on the basis of detailed submissions from objectors--with provision for special concessions to be made for small objectors.⁶⁹

David Lock, of the TCPA, subsequently suggested that financial support perhaps should not be sought from the government only. He instead suggested the formation of a grant-making trust with individually influential trustees drawn from appropriate non-governmental organizations. This trust would grant financial help to those it might select--probably by trial and error at first--from among those who asked for money.

The trust's financial reserves could be raised from other charitable trusts or even from the government, whether as general annual grants or as grants for specific inquiries. Said Lock:

"...the greatest advantage of such a trust would be its independence, its neutral political interest, and the freedom that it might have to resolve those burning questions...: Should the aid be based on means or on the issues involved? Should it be given before or after the event? Should there be limits on what can be given? And who would be eligible to claim: groups, individuals or both?"⁷⁰

Peter Shore also made a proposal for a reformed inquiry procedure. His suggestions embraced many of the TCPA proposals. First he stated that the inquiry should be in two parts. The first stage would be more substantial and take the form of a public examination "by a suitable body such as a Commission or a Committee, outside the inquiry system to assess the background and the need."⁷¹ The published report of the group would be a major background document to a subsequent site-specific inquiry. This first stage would concentrate on generic as opposed to site-specific aspects of the proposal.

Shore also cited the need to involve Parliament, but restricted this involvement to the period after the public inquiry but before a final decision is made. He also gave guarded support to the use of an EIA, though he seemed to see its use as confined to an examination of impacts on the natural environment only. Shore failed to mention several important points. He did not specify the number of assessors, nor did he discuss the characteristics to be sought in a chairman.

BNFL's Con Allday offered suggestions too. He favored the use of a single inspector with assessors:

"After all he is not making a decision. His job is to hear evidence, sift it, and produce a report which as a result of his professional analytical competence should be both a summary of the pros and cons, and also an assessment of their worth. A commission, committee or panel are [sic] not so likely to produce a crisp, clear analysis, which surely is what the government and public want."⁷²

The Political Ecology Research Group (PERG) has also formulated an alternative. Its proposed inquiry could take up to four years and could be divided into two main parts with an intervening period of a year or possibly longer. The following is its suggested format, as summarized by Ian Breach:

"Part I

Identification of the issues and areas in need of investigation.

--The proceedings would be discursive: the Tribunal or team would meet and receive submissions over a month.

--The submissions would describe available evidence, propose evidence to be further assembled, and suggest areas of investigation for the team to undertake.

--The team would be empowered to instruct proponents and regulatory agencies to perform investigations (the application lapsing by default) and for objectors to undertake other necessary research.

--The proponents would be required to submit, before the inquiry began, data sufficient to establish the full nature of the application.

Intervening Period

The team or Tribunal would meet in public, perhaps three times over the period of a year or two, to review the progress of investigations. Further submission could be considered.

Part II

Testing of the prepared and assembled evidence under oath.

- The documentary evidence would be available at least a month before the inquiry opened, although late evidence would be allowed; written proofs of oral evidence would, ideally, be available a fortnight before the scheduled appearance of the witness.
- The evidence would be subdivided into issues or topics; this would avoid leapfrogging contentious evidence and would help to reach consensus on non-factual questions.
- Participants would, nevertheless be allowed to make opening and closing statements on a party basis.
- The team or Tribunal would have the power to suspend Part II if a large body of additional evidence was found to be needed.
- Part II would be expected to proceed 'briskly'⁷³

PERG suggested that the inquiry should be both generic and site specific. A judge, they said, would not be an appropriate chairman, and they further declared: "There should be no encouragement of lawyers to have any part in the proceedings, as the experience of the Windscale inquiry and the Parker report shows that their training is quite unsuitable."⁷⁴

Proposals for increasing public access and exposure to information was also suggested, and would involve the cooperation of the broadcasting networks and local authorities in disseminating information concerning the proceedings. PERG also supported the TCPA's scheme for intervenor funding, though it warned that funding should not be limited to organized groups: "Too much institutionalization of the objectors will destroy the public participation we are seeking to create."⁷⁵

Perhaps the most comprehensive examination of alternatives has been conducted by the Windscale Assessment and Review Project (WARP). As the Windscale inquiry closed, the Social Science Research Council announced that its Energy Panel had commissioned the survey "to study and report on the papers and proceedings of the inquiry, with particular reference to the lessons that might be learned for the conduct

of future public discussions of energy matters, and indeed of major industrial developments in general."⁷⁶ Professor David Pearce, of the University of Aberdeen, was commissioned to conduct the study.

In February of 1978, WARP invited interested parties to submit their views and suggestions on how future inquiries might best be organized. Specifically, five groups of questions were posed, which together suggest a few of the crucial problems facing those wishing to restructure the public inquiry procedure for use in the energy debate:

- "1. Terms of reference: If an inquiry's terms of reference are an important determinant of its findings, should there be prior debate over this question? If so, how, between whom, and under what rules?
2. Format: Which format would be appropriate to what kind of inquiry? How could function be matched to format? What virtues or problems would there be if objectors were able to nominate one or more commissioners or assessors? Would it be more satisfactory to order the inquiry by topics rather than by parties? Should there be rests/gaps between topics?
3. Use of Lawyers: If they are to be used, are there other and better ways of using the services of the legal profession?
4. Timing: What would be the best way of timetabling inquiries? Could a longer pre-inquiry period be used to establish the key issues? Secure co-operation between objectors? Enable all parties to establish their data-base? What are the difficulties in this area? How can they be overcome?
5. Resource imbalances: What resources are needed by objectors? Money? Information? Research assistance? Legal aid? An objectors' secretariat? From whom might they be sought? Government? An independent body? Charitable trusts? Could these resources, if they are needed and were made available, be administered or allocated by the objectors? Should the objectors form a temporary umbrella organization for this and any other purpose?"⁷⁷

Using the responses to these questions, along with its own work, the WARP published a report in late 1979 (Decision Making for Energy Futures). In the report, the authors propose an Energy Policy Commission closely linked to Parliament and to the planning system.

Also it suggests the continued use of inquiries in conjunction with the commission. However, the authors did suggest several inquiry reforms which they deemed essential to the proper functioning of the inquiry and to its appropriate use in policy formulation.

FOOTNOTES

1. Breach, Ian. Windscale Fallout.
2. Ibid.
3. Wright, Pearce, "Ministries Split Over Windscale Inquiries,"
4. Patterson, Walt, "London Report," Environment, 19:41-43(Mar 77);
and Wright, Pearce, "Ministries Split Over Windscale Inquiries."
5. The following four applications were submitted by BNFL:
 1. Application for "outline permission" for the entire plant, excluding the fuel receipt and storage facilities.
 2. Application for "outline permission for the whole of the receipt and storage facilities.
 3. Application for "full planning permission" for only the "first phase" of the receipt and storage facilities.
 4. Application for "full planning permission" for the extension of an existing oxide-fuel storage pond, which would allow the receipt and storage of foreign fuel which BNFL had already agreed to reprocess.

Application #2 was deferred; approval of this application would allow BNFL to build facilities which would be used only if pending overseas reprocessing contracts were approved and signed. Application #3 was granted along with proposal #4. The first application, #1, the core of the BNFL plan, would be the subject of the inquiry.
6. These points were as follows:
 - "1. The implications of the proposed development for the safety of the public and for other aspects of the national interest.
 2. The implications for the environment of the construction and operation of the proposed development in view of the measures that can be adopted under (1) the Radioactive Substances Act 1960 to control the disposal of solid, gaseous and liquid wastes, which would result from the proposed development, and (2) the Nuclear Installations Act of 1965 to provide for the safety of operations at the reprocessing plant.
 3. The effect of the proposed development on the amenities of the area
 4. The effect of additional traffic movements both by road and rail which would result from the proposed development.
 5. The implications of the proposed development for local employment.
 6. The extent of the additional provision that would need to be made for housing and public services as a result of the proposed development."

From the Town and Country Planning Association. Planning and Plutonium.
7. Piper, Allan, "Reprocessing 'Scare' in Britain."
8. Parker, Roger. The Windscale Inquiry.

9. Ibid.
10. Ibid.
11. Silcock, Bryan, "Windscale Men Withstand Nuclear Attack--So Far."
12. Greenhalgh, Geoffrey, "After Parker: A Review of the Windscale Inquiry and Subsequent Developments."
13. Breach, Ian, "The Windscale Inquiry."
14. In "Ninety Days and More," Eben Wilson comments on these investigations ordered by Parker: "The scientific groups on both sides of the application have agreed that the tests will prove nothing--an ironic consensus, as witnesses have usually retreated behind the armour plating of 'not enough information' when under pressure."
15. Breach, Ian. Windscale Fallout.
16. The underlying purpose of those three omitted recommendations had been accepted in principal by Shore, but they involved organizational changes which required additional consideration by the government. They were therefore left out of the order and were to be acted upon separately.
17. Moltke, Konrad Von, "The Windscale Inquiry and Policy-Making Procedures."
18. Ibid.
19. Breach, Ian. Windscale Fallout. p191.
20. Pearce, David and Lynne Edwards and Geoff Bueret, "Energy: How to Decide."
21. Ebbin, Steven and Raphael Kasper. Citizen Groups and the Nuclear Power Controversy.
22. Breach, Ian. Windscale Fallout. p140.
23. Ibid. p140
24. Ebbin, Steven and Raphael Kasper. Citizen Groups and the Nuclear Power Controversy.
25. King, Ralph W., "Why Public Inquiries Have False Teeth."
26. Ebbin, Steven and Raphael Kasper. Citizen Groups and the Nuclear Power Controversy. p228.
27. Ibid.
28. Pearce, David and Edwards, Lynne and Beuret, Geoff. Decision Making for Energy Futures. p213.

29. Breach, Ian. Windscale Fallout.
30. Hall, David, "Windscale Inquiry Report."
31. Pearce, David and Lynne Edwards and Geoff Beuret. Decision Making for Energy Futures.
32. Greenhalgh, Geoffrey, "After Parker; A review of the Windscale Inquiry and Subsequent Developments."
33. Breach, Ian. 100 Days of History. The Windscale Inquiry.
34. Ibid.
35. Breach, Ian. Windscale Fallout.
36. Ibid.
37. The Town and Country Planning Association. Planning and Plutonium.
38. Lock, David, "Paying for Participation."
39. In his report, Parker rejected the argument and said that the hearing should be held locally, as many local residents were witnesses and objectors, and many local people occasionally attended the inquiry. These people, he claimed, would be those most directly affected by the result of the inquiry.
- Had the inquiry been held elsewhere, he argued, it certainly would have saved some objectors the expense, time and inconvenience of travelling to Whitehaven. But this would have been to the disadvantage of those most directly affected by the proposal. These people would not attend otherwise, thereby depriving Parker of their views. In commenting on the complaints over the location of the inquiry, Parker commented: "There is a curious inconsistency between advocating greater public participation and at the same time seeking a location which would reduce, or make difficult and expensive, the participation of those principally affected."
40. The Town and Country Planning Association. Planning and Plutonium.
41. In his report, Parker acknowledged that the schedule, which involved no substantial adjournment, imposed a considerable burden on all. But he felt objections to the schedule were "of a somewhat querulous nature," and did not feel it prevented anyone from presenting a proper case. In reference to a complaint by the Windscale Appeal, he further commented that to the extent that they were not able to find the time to properly organize their case, it was not due so much to the tight schedule as it was "to the taking of Holidays."
42. Parker responded that such changes were inevitable, as it was exceedingly difficult to accurately predict the amount of time any particular witness would be testifying. Furthermore, he cited the fact that the inquiry secretary and his staff made great efforts to accommodate everyone, as did various parties among themselves.

43. Silcock, Bryan, "Windscale's Nuclear War."
44. Breach, Ian and Peter Stubbs, "Case Dismissed or Misunderstood?"
45. Breach, Ian. Windscale Fallout.
46. Bugler, J., "Windscale Verdict."
47. Patterson, Walt and Czech Conroy. The Parker Inquiry.
48. "Windscale Issues Need More Debate," Nature, 272:297 (23 Mar 78)
49. Patterson, Walt and Czech Conroy. The Parker Inquiry.
50. Hall, David, "Windscale Inquiry Report."
51. "A Black and White Report for Debate," Nature, 264:395 (2 Dec 76)
52. Breach, Ian. Windscale Fallout.
53. Greenhalgh, Geoffrey, "After Parker: A Review of the Windscale Inquiry and Subsequent Developments."
54. Ibid.
55. "Windscale Inquiry Report to be Published Today," London Times, 6 March 78. p2.
56. Baker, R.J.S., "Nuclear Power: The Widening Debate."
57. Bugler, J., "Windscale Verdict."
58. Breach, Ian. Windscale Fallout.
59. Ibid.
60. Patterson, Walt, "Put it Somewhere Else."
61. Breach, Ian. Windscale Fallout.
62. Walgate, Robert, "Mr. Justice Parker and Technical Fact."
63. Wraith, R.E. and G.B. Lamb. Public Inquiries as an Instrument of Government.
64. Breach, Ian. Windscale Fallout.
65. "Windscale Issues Need More Debate," Nature, 272:297 (23 Mar 78).
66. Pearce, David and Lynne Edwards and Geoff Beuret. Decision Making for Energy Futures.
67. Breach, Ian. Windscale Fallout.
68. Ibid.

69. Town and Country Planning Association Executive Committee, "TCPA Policy Statement. Energy Policy and Public Inquiries."
70. Lock, David, "Paying for Participation."
71. Shore, Peter, "Major Planning Inquiries."
72. Masters, Richard, "What Sort of Fast Reactor Debate."
73. Breach, Ian. Windscale Fallout.
74. Ibid.
75. Ibid.
76. Ibid.
77. Ibid.

BIBLIOGRAPHY

1. "After Windscale, What?" Nature, 272:111 (9 March 78).
2. Allday, Con, "Nuclear Power, Politics and Public Opinion," Atom, 268:44-45 (Feb 79).
3. "Allday on Public Inquiries," Nuclear News. 22:73 (Jan 79).
4. Ash, Maurice, "Viewpoint 1. Energy and Form: The Windscale File," Town and Country Planning. 45:469-473 (Nov 77).
5. Ash, Maurice, "Viewpoint 2. The Meaning of Windscale," Town and Country Planning. 45: 295-299 (June 77).
6. Baker, R.J.S., "Nuclear Power: The Widening Debate," The Political Quarterly. 50: (Jan/Mar 79).
7. Bartlett, Gerald, "Windscale Waste Plant Go-Ahead 'Without Delay'," London Daily Telegraph, March 7 1978.
8. Beaumont, C.H. The Town and Country Planning Acts 1971 and 1972. London: Butterworths, 1973. 596p.
9. Berry, Adrian, "Shore Backs Windscale Atom Plan," London Daily Telegraph, 7 March 1978, 1a.
10. "The Big Fight Comes Later," The Economist, 266:20-21 (25 March 1978).
11. "A Black and White Report for Debate," Nature, 272:299 (23 March 1978).
12. Boucher, Gillian, "Another Day for BNFC," Nature, 264:395 (2 Dec 76).
13. Boucher, Gillian, "Permission to Process," Nature, 264:104-105 (11 Nov 76).
14. Brauman, Martin, "Windscale Inquiry," London Times, 29 Oct 76. 15g.
15. Breach, Ian, "After Windscale?," New Scientist, p4 (6 April 78).
16. Breach, Ian, "Allday's Week at the Windscale Inquiry," New Scientist, p758 (30 Jun 77).
17. Breach, Ian, "BNFL's Solid Reasons for Windscale Expansion," New Scientist (14 July 1977).
18. Breach, Ian, "Mr. Justice Parker's Uncompromising Stand," New Scientist, 635-636 (9 March 78).
19. Breach, Ian, "Legal Representations at the Windscale Inquiry," New Scientist, (7 July 1977)

20. Breach, Ian, "Opponents Wind up the Case Against Expansion," New Scientist, 272(3 Nov 77).
21. Breach, Ian, "The Windscale Inquiry," New Scientist, 694-695(23 June 77).
22. Breach, Ian, "Windscale: The Last Week," New Scientist, 336(10 Nov 77).
23. Breach, Ian, "Windscale--the Numbers Game," New Scientist, (4 Aug 77).
24. Breach, Ian, "Windscale Protest Fund," New Scientist, p381(19 May 77).
25. Breach, Ian and Peter Stubbs, "Case Dismissed or Misunderstood?," New Scientist, p634(9 Mar 78).
26. "To Breed or not to Breed--Plutonium is the Question," The Economist, p22-23(15 Oct 77).
27. Bugler, J., "Windscale Verdict," New Statesman, 95:309-10(10 Mar 78).
28. Conroy, Czech. What Choice Windscale? London: The Conservation Society Ltd. and Friends of the Earth Ltd., Jan 78.
29. "Council Caught in Nuclear Age Dilemma," London Times, 4 Oct 76. 2b.
30. "Decision on Expansion of Windscale Postponed," London Times, 12 Oct 76. 5a.
31. "Delay on Nuclear Plant 'Could Damage Industry'," London Times, 30 Sept 76. 5b.
32. Dickson, Peter, "Now Nuclear Riots?," Sunday London Times, 21 Aug 77. 12g.
33. "Environment Groups Seek Windscale Inquiry," London Times, 12 Nov 76. 2h.
34. Fishlock, David, "Report Of Windscale Inquiry is Target Of Controversy and Bitterness," The Energy Daily, p3-4(22 Mar 78).
35. Forman, Nigel, "The Windscale Error," Nature, 273: 332(1 June 78).
36. "FOE Puts its Case to the Windscale Inquiry," Nuclear Engineering International. 22:36-37(Oct 77).
37. Fremlin, J.H., "The Windscale Inquiry," Science and Public Policy, 5:214-217(Jun 78).
38. "'Friends' are Enemies of the Parker Report," New Scientist, 78:275(4 My 78).
39. Greenhalgh, Geoffrey, "After Parker: A Review of the Windscale Inquiry and Subsequent Developments," International Atomic Energy Agency Bulletin, 20:2-8(Dec 78).
40. Hall, David, "Viewpoint 1. Windscale or Windmills," Town and Country Planning. 45: 148-150(Feb 77).
41. Hall, David, "Viewpoint 1. The Windscale Inquiry. 2. The TCPA Case," Town and Country Planning, 45: 517-519(Dec 77).

42. Hancock, Tom, "The Windscale Inquiry. 1. Half-Time," Town and Country Planning, 45:451-454 (Oct 77).
43. "Hazards of Plutonium Reactors Alarm Royal Commission," London Times, 20 Sept 76. 4a.
44. Hildyard, Nicholas, "Reprocessing the Truth," The Ecologist, 2: Supplement (Mar-Apr 78).
45. Hildyard, Nicholas, "The Windscale Inquiry," The New Ecologist, 2:38 (Mar/Apr 78).
46. Hodgkinson, Neville, "Windscale Inspector to Visit Plant Today," London Times, 13 Jun 77. 2c.
47. Hornsby, Michael, "Brussels Support for 'Windscale' Plants," London Times, 16 July 1977.
48. House of Commons, "Reprocessing Orders Not Lost Because of Plant Planning Inquiry," London Times, 5 July 77. 8a.
49. "In Parliament," Atom, 247:99 (May 77).
50. "In Parliament," Atom, 249: 155 (July 77).
51. "In Parliament," Atom, 258: 114-115 (Apr 78).
52. "In Parliament," Atom, 261: 195-196, 198 (July 1978).
53. "The Japanese Connection," Nature, 272:304 (23 March 78).
54. Kenward, Michael, "Critical Reactions," New Scientist, p636 (9 March 78).
55. King, Ralph W., "Why Public Inquiries Have False Teeth," The New Ecologist, 2:51-54 (Mar/Apr 78).
56. "Lack of Inquiry on New Reactor 'Damages Conservation Case'," London Times, 25 Aug 77. 2a.
57. Local Government Act 1933, s.290. U.K.
58. Masters, Richard, "Toward a Fast Reactor Inquiry," Nuclear Engineering International, 24:13-14 (Jan 79).
59. Masters, Richard, "What Sort of Fast Reactor Debate," Nuclear Engineering International, 23:15-16 (Aug 78).
60. Moltke, Konrad Von, "The Windscale Inquiry and Policy-Making Procedures," Environmental Policy and Law, 4:101-103 (July 1978).
61. "More Demands for Inquiry into Nuclear Fuels Plan," London Times, 29 Sept 76. 6g.
62. "MP's Back Windscale by 130-Vote Majority," London Times, 23 March 78.

63. "MP's Should Make Nuclear Decisions, Inquiry Told," London Times, 6 Oct 77. 2e.
64. Murray, Stephen, "Expansion at Windscale," London Times, 13 Aug 76. 13e.
65. "New Nuclear Plant Would be Safe Against Strikes," London Times, 17 Aug 77. 4a.
66. "Nuclear Reprocessing Plan Goes to Council," London Times, 2 March 77, 2a.
67. "Nuclear Reprocessing Plants Gets OK," Chemical and Engineering News,
68. "144 Majority for Windscale Plan," London Times, 16 May 1978. 1.
69. Parker, Roger. The Windscale Inquiry. Report in 2 Volumes. London: Her Majesty's Stationery Office, 1978.
70. Patterson, Walt, "London Report," Environment, 18;2-3(Sept 76).
71. Patterson, Walt, "London Report," Environment, 19:41-43(Mar 77).
72. Patterson, Walt, Proof of Evidence Given at the Windscale Planning Inquiry on Behalf of Friends of the Earth, Ltd., mimeo, 11 pages, 1977.
73. Patterson, Walt, "Put it Somewh re Else," The Bulletin of the Atomic Scientists. 34:6-7(Nov 78).
74. Patterson, Walt, "The Windscale Report--a Nuclear Apologia," Bulletin of the Atomic Scientists. p44-46(June 78).
75. Patterson, Walt, "The Worldwide Relevance of Windscale," New Scientist, p11-12(5 Jan 78).
76. Pearce, David and Lynne Edwards and Geoff Bueret, "Energy: How to Decide," Nature, 272:115-116(9 Mar 78).
77. Pearce, David, "The Nuclear Debate is About Values," Nature. 274:200(20 Jul 78).
78. Piper, Allan, "Reprocessing 'Scare' in Britain," Nature, 258:(13 Nov 75).
79. "Plans for Oxide Fuel Reprocessing Plant at Windscale to be Subject of Planning Inquiry," London Times, 23 Dec 76.
80. "Public Help Refused," London Times, 28 March 1977. 4h.
81. "Public Reassurance Needed," London Times, 26 Nov 76. 13a.
82. "Radiation Test for Volunteers," London Times, 10 Sept 77. 3a.
83. "Radioactivity Tests for Manchester's Lakes," London Times, 21 Jul 77. 3b.
84. Rippon, Simon, "The Windscale Report--A Review," Atom. 259:131-133(May 78).

85. "Sabotage Charge at Windscale Inquiry," London Times, 18 Aug 77. 2b.
86. "Scaling up Windscale," The Economist, 18 Dec 76. 15.
87. Scott, A. I., "Windscale Inquiry," London Times, 10 Nov 76, 17f.
88. Shore, Peter, "Major Planning Inquiries," Atom, 265:307-309 (Nov 78).
89. Shore, Peter, "Planning Application for Windscale Development," Atom, 244:25-29 (Feb 77).
90. "Mr. Shore Wants Time to Consider Windscale Nuclear Waste Plans," London Times, 26 Nov 76. 1d.
91. Silcock, Bryan, "Planning Force over Nuclear Plant," London Times, 31 Oct 76. 6a.
92. Silcock, Bryan, "Windscale Men Withstand Nuclear Attack--So Far," London Times, 24 July 77. 4g.
93. Silcock, Bryan, "Windscale's Nuclear War," Sunday London Times, 12 June 77.
94. Tombs, Sir Francis, "Nuclear Power and the Public Good," Atom, 255: 2-7 (Jan 78).
95. "TCPA Windscale Information," Town and Country Planning, 45:520-523 (Dec 77).
96. The Town and Country Planning (Inquiries Procedure) Rules 1974. Statutory Instrument no. 419. Tribunals and Inquiries.
97. "University Don Heads Advisory Committee on Nuclear Waste," London Times, 16 May 1978. 8.
98. Wakstein, Dr. C., "The Windscale Decision," The Political Quarterly. 49:357-362 (July/Sept 78).
99. Walgate, Robert, "Mr. Justice Parker and Technical Fact," Nature, 272: 300-301 (23 March 78).
100. Walgate, Robert, "UK Report Recommends Nuclear Reprocessing," Nature, 272:117 (9 March 78).
101. "Washing Windscales's Dirty Linen," The Economist, p122 (18 Jun 77).
102. "What will the next Inquiry be Like? Shore Gives Hint," Nuclear News, 21:45 (Oct 78).
103. Wilson, Eben, "Ninety Days and More," Nature, 269:640-642 (20 Oct 77).
104. "Windscale, Belvoir and Such," London Times, 8 Jan 77. 13a.
105. "Windscale Expansion is Approved," London Times, 3 Nov 76. 1g.
106. "Windscale, Four Million Words Later," The Economist, 11 Mar 78. 72-73.

107. Windscale Inquiry 1977--List of Appearances. Mimeo, 1977.
108. "Windscale Inquiry Decision for Mr. Shore," London Times, 22 Nov 76.
109. "The Windscale Inquiry Focuses on Risks," Not Man Apart, 7:7 (Oct 77).
110. "Windscale Inquiry 'Not Suitable for Reactors'," London Times, 11 Jul 78. 2h.
111. "Windscale Inquiry Report to be Published Today," London Times, 6 Mar 78. 2.
112. "Windscale Issues Need More Debate," Nature, 272:297 (23 Mar 78).
113. "Windscale May be International Test Case," London Times, 1 June 76. 2b.
114. "Windscale Planning Applications," Atom, 246:58 (Apr 77).
115. "Windscale Planning Application," Atom, 245:56 (Mar 77).
116. "Windscale Public Inquiry: BNFL's Statement of Case," Atom, 249:142-143 (Jul 77).
117. "The Windscale Report," Nature, 272:298 (23 March 78).
118. Wraith, R.E. and G.B. Lamb. Public Inquiries as an Instrument of Government. London: George Allen & Unwin, Ltd, 1971. 389p.
119. Wright, Pearce, "At Windscale the Amateurs Shine in the Battle of the Legal Giants," London Times, 28 Oct 77. 14a.
120. Wright, Pearce, "Hazard of Spreading Weapon Materials," London Times,
121. Wright, Pearce, "Inquiry to Focus on 600m pound Nuclear Contract Terms," London Times, 20 June 77. 4b.
122. Wright, Pearce, "Inquiry Pledged on Part of Windscale Expansion," London Times, 23 Dec 76. 1a.
123. Wright, Pearce, "Judge Outlines Issues at Windscale Inquiry," London Times,
124. Wright, Pearce, "Ministries Split Over Windscale Inquiries," London Times,
125. Wright, Pearce, "More Plutonium Near Windscale Than at U.S. Test Site Inquiry Told," London Times, 15 June 77. 4d.
126. Wright, Pearce, "'More Plutonium Than Needed' in Windscale Plan'," London Times, 17 June 77. 2d.
127. Wright, Pearce, "Nuclear Plant 'Would Last for Fifty Years'," London Times, 30 June 77.
128. Wright, Pearce and Robert Parker, "Radioactive Leak at Windscale Kept Secret," London Times, 10 Dec 76, 1h.
129. Wright, Pearce, "Windscale Inquiry: Block on 350m Pound Japanese Contract," London Times, 12 April 77. 4b.

130. Wright, Pearce, "Windscale Report Due at End of Year," London Times,
5 Nov 77. 3a.

131. Young, John, "600m Pound Nuclear Waste Plant Backed by Windscale Report,"
London Times, 7 Mar 78. 1a.

132. Breach, Ian. Windscale Fallout. Middlesex, England: Penguin Books, 1978. 192p.

133. Patterson, Walt and Conroy, Czech. The Parker Inquiry. London, U.K.:
Friends of the Earth, 1978.

134. The Town and Country Planning Association. Planning and Plutonium. London,
U.K.: Town and Country Planning Association, 1978. 110p.

135. Hall, David, "Progress with Major Planning Inquiries," Town and Country
Planning. 46:487-489 (Nov 78).

136. Hall, David, "Windscale Inquiry Report," Town and Country Planning,
46:246:-248 (May 78).

137. Lock, David, "Paying for Participation," Town and Country Planning,
46:535-537 (Dec 78).

138. Town and Country Planning Association Executive Committee, "TCPA Policy
Statement. Energy Policy and Public Inquiries." Town and Country Planning,
46:266-270 (May 78).

139. Breach, Ian. 100 Days of History. The Windscale Inquiry. London: IPC
Magazines, Ltd., 1978.

140. Pearce, David and Edwards, Lynne and Beuret, Geoff. Decision Making
for Energy Futures. London, England: The Macmillan Press Ltd, 1979.

141. Ebbin, Steven and Raphael Kasper. Citizen Groups and the Nuclear
Power Controversy. Cambridge, Massachusetts: The MIT Press, 1974.