

WORKING PAPER 449

THE BLACK INQUIRY AND

THE MEDIA

G P Walker and S N Macgill

School of Geography
University of Leeds
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THE BLACK INQUIRY AND THE MEDIA

1. INTRODUCTION

1.1 Content and aims

Within twenty four hours of a television programme about the possible connection between radio-active discharges from a spent nuclear fuel reprocessing plant in the UK and the high incidence of leukaemia in children in nearby villages, the British Government announced one of the most significant inquiries ever into the possible public health effects of the nuclear power programme in the UK. Mass media was the crucial catalyst in the genesis of this inquiry (referred to below after the name of its chairman, as the Black Inquiry): it also had a characteristically unique function in transmitting to a wide audience both the course of the Inquiry and related public comment by interested observers.

The purpose of this paper is to examine the interactive relationship between the Black Inquiry and mass media, chiefly through a series of analyses of the pattern and content of its reportage of the Inquiry's various stages. The paper provides, *inter alia*, a chronological review of the course of the inquiry.

The paper has been prepared as part of a larger research project designed to evaluate aspects of the significance of the Black Inquiry as a public policy initiative in the context of manifest fears and concerns within society for possible radiation induced health risks. Comparison papers have sought to elucidate terms in which the nature of the inquiry can be understood¹, and evaluate its relevance to ordinary members of the public who live in West Cumbria in the vicinity of the spent nuclear fuel reprocessing plant at Sellafield (commonly known as Windscale)

1. S M Macgill, J R Ravetz and S O Funtowicz, Scientific Reassurance as public policy; the logic of the Black Report; University of Leeds School of Geography/Department of Philosophy, 1985.

that was the focus of the original television programme.¹ A background paper reviewing in more general terms the debate over media performance and impacts in the environmental and nuclear fields has also been prepared.²

1.2 Brief case history

The Yorkshire Television programme, "Windscale, the nuclear laundry" broadcast on 1st November 1983 drew attention to the fact that the operations of British Nuclear Fuels at Sellafield in Cumbria (referred to below as BNFL) discharge greater quantities of radioactivity than any other installation in the UK, that land near the plant has up to one hundred times the natural amount of background radiation, that radiation is the only known cause of leukaemia within the limits of present knowledge, and that the incidence of leukaemia in children in Seascale, the nearest village to Sellafield, is ten times the national average. Viewers were left to draw their own conclusions about whether or not there was a link between radioactive discharges from Sellafield and the local excess of leukaemia.

Government responded without delay following the television programme in announcing a high level inquiry under the medical scientist, Sir Douglas Black, to investigate the highly controversial issues that had been forced into wide public view. A report published nine months later in July 1984³ stands as the foremost expert testimony on the highly sensitive issue of whether children near Sellafield are environmental victims of nuclear power. Though tempered with the recognition of uncertainties and identifying a need for more research into related issues, the overall conclusion, repeatedly stressed in subsequent media interviews by Sir Douglas himself, was that a "qualified reassurance"

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1. S M Macgill, F G Berkhout, Child Leukaemia around Sellafield: local community attitudes and the Black Report; School of Geography, University of Leeds, 1985.
 2. G P Walker, Nuclear and Environmental Issues and the Media; School of Geography, University of Leeds, 1985.
 3. D Black, Investigation of the possible increased incidence of cancer in West Cumbria; HMSO, London, 1984.

could be given to people who are concerned about a possible health hazard in the neighbourhood of Sellafield.

1.3 Overview

Four inter-related objectives shape the documentation and examination in the present paper of the interactive relationship between the Black Inquiry and the media. First to provide a historical record of the genesis, development and conclusion of the inquiry, gleaned from the sources which for most people will have been the sole means of awareness of its course and of its eventual report - mass media reportage. The chronological approach adopted below allows examination of the continued interaction between mass media and events, depicting the build up of issues over time, and the pattern of longitudinal coverage. Second, to assess the performance of the media in providing information about what was from the outset, a technically complex and politically sensitive inquiry. Criteria of accuracy and comprehensiveness are used in comparisons between different media reports and, in some cases, with original source material (in particular, news releases and commons statements). Instances of sensationalism and the use of dramatic imagery are also isolated. Third, to evaluate how the operation of news values and structural constraints on the news production process may have shaped or influenced what the media has presented. This evaluation draws on earlier studies isolating a range of news values deemed to determine the "news-worthiness" of different events and different styles of presentation¹. Finally to examine and compare the emphasis given to different aspects of the Black inquiry's function and findings in media reports, considering in turn the various components of headline, information selection, quoted and attributed reaction and direct evaluation. This analysis portrays how the media gives a directed interpretation of the inquiry and its final report.

1. S J Hall et al, Policing the Crisis, Macmillan, London, 1978;
J Galtung and M Ruge, The Structure of Foreign News in J Tunstall (ed)
Media Sociology, Constable, London, 1970.

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Although this paper is concerned specifically with the Black Inquiry, it should be noted that, shortly after the original television documentary and the setting up of the inquiry there was a serious operational error at the Sellafield plant. The Department of the Environment reacted to subsequent contamination of local beaches in, amongst other measures, issuing advice recommending people to avoid the unnecessary use of a 20 mile stretch of beaches. This incident and its repercussions (extending to the successful criminal prosecution of BNFL in July 1985) served to keep the Sellafield plant in the media limelight, and further heighten the level of public awareness and political controversy about its operations. This media coverage is not directly addressed in this paper¹, but may have influenced the reporting of the Black Inquiry at later stages.

1. But see G P Walker, mass media and the nuclear debate: the reporting of a contamination incident, School of Geography, University of Leeds, 1985, for a review and analysis of coverage of these events.

2. APPROACH AND USE OF SOURCES

The time period covered extends from the end of October 1983 to the early months of 1985. For convenience the period is divided into five stages: the genesis of controversy; the official announcement of an inquiry; the inquiry proceedings and the build up to the release of the report; the publication of the report; and subsequent debate. The nature of each of these stages can be outlined briefly as follows.

1. The genesis of controversy

The media played a crucial role in building up and publicising the television documentary which led to the setting up of the Black Inquiry. The programme attracted considerable pre-publicity partly because of the sensitivity of its disclosures, but more because of a row between BNFL (the company at the centre of the programme's disclosures) and YTV (the company who had made the programme) over the programme's balance, use of statistics, pre-publicity and research methods. A concentration of media reports sensitised the public and the government to the fact that there was an argument going on, and that there may be issues of real substance to be addressed. The analysis of these aspects below seeks to elucidate what news values operated in attracting media coverage, and how the nature of the publicity may have contributed to the reaction of the government in setting up the inquiry. Immediate reaction to the YTV documentary after its showing on the 1st November is also reviewed in charting the pressures leading to the inquiry announcement.

2. The official announcement of an inquiry

Mass media are clearly a crucial mediating link between authority and public. In the context of the Black Inquiry an important initial aspect was transmission of the official announcement (functions and aims) of the inquiry to a wider interested public. It is of interest to examine the extent to which the explanation and context put forward by the government was faithfully transmitted and to identify evaluations of status put upon the inquiry and Sir Douglas himself from the start.

3. The inquiry proceedings and the build up to the release of its report

Evaluations of status continue to be of interest during this period, but also of relevance are early reports of the inquiry findings and the way in which the media built up and was used to build up the eventual release of the report.

4. The publication of the Report

Coverage here is examined in terms of: the selection of material direct from the report itself; the suggestion of context and uncertainty; the inclusion of reaction and comment by other observers; and the media's own evaluation of the report. These four aspects contribute to assessments of the extent to which reassurance was conveyed through the media, the extent to which the media distorted the content of the report, the methods by which reaction to the report was assessed and the implications these have for the report's presentation and impact.

5. Subsequent Debate

Following the publication of the Black Report there have been criticisms of various aspects of its methodology and reasoning. These have appeared in press and letters pages of some local and national papers. An assessment is given of the extent to which this debate has penetrated the mass media and challenged the status of the inquiry's findings.

A wide range of sources is drawn on below, varying in number and detail for the different stages considered, depending upon their relevance to the chosen objectives, and the availability of source material. At its widest the range includes all UK printed media sources (national, provincial, local Cumbrian, and specialist) obtained from two news cutting collections,¹ and national and local TV news and local

1. The news cutting collections of James Cutler, producer of the YTV documentary, and of Sellafield's information services department, were utilised with their kind permission and assistance. The former used a professional cutting service, and the latter a daily review and collection by staff at Sellafield.

BBC radio (obtained from BNFL's own media monitoring service). This full range has only been obtained for particular days (those most crucial in terms of inquiry "events"), but provides a very comprehensive view of coverage, rarely available in other studies. For the rest of the period, the coverage is restricted to the national press, some Cumbrian press, and available TV and radio.

The reliability of source collection in terms of completeness is high for crucial days where material has been independently collected, collated and confirmed, and reasonably high for other periods (for example during the "inquiry period" stage) where reliance has had to be placed more on other individuals cuttings collections and the vagaries of their monitoring services. Where possible, checks have been undertaken and the completeness of these collections, especially for the national press, has been confirmed. A list of the national and Cumbrian sources used is given in Appendix B.

The use of this material is divided into two halves, the first consisting of a partially selective use of significant news reports to guide and illustrate the chronological review of events and secondly a stricter methodical analysis of particular days or periods of crucial coverage. The approach used in this second more detailed case, is adapted from that developed by McQuail¹ in a research report to the Royal Commission on the Press. This is detailed in greater length in Appendix A, but the key component of this content analysis is the compilation of a checklist of main points in the reports examined. Tabular representations of the content of reports is then used to compare and assess the coverage given by different sources. The methodology which provides a useful starting point for the comparative analysis of news stories, has been adapted for analysis of TV and radio reports and to handle the particularly large amounts of information sometimes carried by local newspaper and radio coverage.

1. D McQuail, Analysis of Newspaper Content, Royal Commission on the Press, 1974-77, Research Series no 4, London, HMSO.

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3. THE GENESIS OF CONTROVERSY

3.1 Pre-Programme Publicity

Even before the screening of the YTV documentary it was the subject of controversy, disagreement and consequently substantial publicity. The main reasons for this controversy were twofold. First, BNFL's objection to details of the programme being released to the press in advance, and in particular before a discussion session involving their representative had been filmed. Second, complaints made to the company and to local MP, Dr Jack Cunningham about methods used by researchers working on the programme; these complaints were taken up by BNFL and an official representation made to the IBA.

3.1.1 Early Reports

Newspaper reports on the programme and the nature of its findings began to appear during the week before transmission. The Yorkshire Evening Post picked up on the story as early as 25th October in an article headlined "YTV Team Reveals Windscale Shock", referring to "shocking and disturbing results" and "grave doubts" about safety, but containing little detail from the programme. The local Cumbrian papers also contained reports, from the 27th October onwards with, for example, The Evening News and Star adopting a dramatic angle, headlining "Cancer: A New Shock" and opening its article

"Startling new evidence about cancer in people living near to Windscale nuclear plant will be revealed next week"

(Evening News and Star, 27/10/83)

Other accounts were more sober, but most contained elements of "shock" or "drama".

Despite these early reports the documentary was not brought to the attention of a wider national audience until The Sunday Times and Observer carried substantial and detailed articles on 30th October. It was these reports which particularly prompted BNFL to complain about advance publicity. Attracted by the "exclusive revelations" angle, both papers included a lot of detail from the programme and played up its

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dramatic qualities. The Observer headlined with the clear cut "Children Near Windscale have High Cancer Levels" and referred to the documentary's "findings" and "revelations" rather than mere claims or allegations, with few elements of doubt or counter claim allowed for.

The Sunday Times headline of "Windscale Atoms may have Given Children Cancer" allowed greater uncertainty in the documentary's findings and the article referred more to "allegations" and "claims" than did The Observer. However at the same time the pictures and their captions added a more dramatic emphasis with a close up picture of a local family, the Merlinis, holding handfuls of dust captioned with "The Merlinis: Plutonium in the Vacuum Cleaner Bag" and a map and picture of the Sellafield plant captioned with the sensationalist "A Corner of Cumbria where Calves are Born Deformed and Ramblers Walk at their Peril". Rebuttal of the programme from BNFL is included in the report (although not until half-way through) but the treatment of their contribution was a source of particular complaint from the company. In a letter to The Times concerned about "alarmist attitudes" of the press, Con Allday, Managing Director of BNFL comments:

"A good example of this occurred when Mr Mummery¹ gave a long interview to your Sunday stablemate last Friday (20th October) rehearsing many of the points he made last night, but virtually none of them appeared in the long article on the subject which appeared in last Sunday's edition"

(The Times, 4/11/83, p 13)

3.1.2 Media Reports: 31st October/1st November

Now primed by the Sunday paper reports and encouraged by the immediate and angry reaction of BNFL to the advanced publicity, their rebuttal of the programme's allegations and YTV's later counter-responses, most national news sources reported on the growing controversy on 31st October or 1st November. Table 1 lists all these reports in terms of their headlines and length, a total of 32 new items in all.

1. BNFL Director of health and safety.

Table 1: Pre-Programme Media Reporters 31st Oct/1st Nov 1983

Source	Date	Length col cm/ mins	Headline
Times	31/10	47.5	Children near nuclear plant have high incidence of leukaemia
	1/11	59.5	Inquiry starts into cases of leukaemia near nuclear power stations
Guardian	31/10	56	Windscale leukaemia link denied
	1/11	48	BMP attacks "one sided" cancer file publicity
Telegraph	31/10	28	Windscale leukaemia claim "alarmist"
	1/11	55.5	BBC to claim to IMA over Windscale claims on TV
Mall	31/10	42	Windscale bosses deny cancer scare
Express	31/10	17	Child cancer probe into nuclear plant
Mirror	1/11	8.5	TV cancer protest
Star	31/10	5.5	Windscale link denied
Sun	1/11	5.5	A-plant TV fury
Morning Star	31/10	26	Windscale cancer link with children denied
	1/11	15.5	Cancer danger TV claim denied
BBC TV	31/10 lunch	2 + 35 s	BBC are to complain to the IMA about a documentary to be shown on ITV tomorrow
BBC TV	31/10 even	5 + 2 s	BBC has rejected claims that operations there are linked with growing levels of cancer
TV AM	1/11		Britain's state run nuclear power industry will tonight face the charge that it is a serious threat to the lives of young children
BBC 1	31/10	6 + 25 s	A bitter row has erupted today over fresh allegations about levels of cancer . . .
BBC2	31/10		There's been more controversy today over a documentary about Windscale
BBC2	1/11	4 + 27 s	ITV has accused BMP of creating a smokescreen over the controversial documentary
	31/10 am	1 + 4 s	Claims that the Windscale plant is linked with high levels of leukaemia have been fiercely denied by BMP
	31/10 am	4 + 10 s	A controversial documentary is to be screened on TV this week questioning the effects of the Windscale plant on the surrounding countryside
	31/10 lunch	3 + 15 s	BBC says it has had an apology from the IMA . . .
	31/10 pm	2 + 15 s	ITV has rejected attempts to discredit the programme as a smokescreen
	1/11 am	6 + 19 s	A TV documentary due to be shown on ITV tonight has led to a full scale row between the programme makers and BMP who run the reprocessing plant
	1/11 pm	1 + 26 s	The Prime Minister said at question time in the Commons that there will be a careful investigation of any evidence that suggested a disturbing level of radioactivity in the Windscale area
Evening Mail (Barrow)	31/10	33	B-plants' dirty linen - by that TV file
	31/10	46	BMP anger over claims
	1/11	26	New Jolt for Windscale over TV file
Evening News & Star	31/10	36	A-plant stopped cancer probe
	1/11	17.5	Watchdog call for Windscale
TV Times	31/10	20	TV cancer link claim rejected
			Lower link row ends

covering national press and TV and local press, TV and radio. It can be seen that the story reached page 2 in five national papers, the back page of The Guardian and the front of the Morning Star (the Financial Times does not cover the story at all until after the programme is shown). The Times, Guardian and Telegraph carried articles on both days as the issues develop. It reached BBC TV national news on 31st October, was not reported at all on ITN but was the subject of a fairly long interview on TV AM on the morning of 1st November. The programme and its related issues therefore achieved a fairly high national news profile even if some of the reports were only short in length (eg Star and Sun).

Locally in the press and on TV and radio the story was a running issue picking up developments as time progressed. Radio Cumbria included a total of six different new items over the two days whilst the Evening Mail included three articles in its two issues.

Not only did this high news profile serve to build up the significance of the programme but the way it was reported also achieved this with news items concentrating on the conflict and controversy angle. Grouping the headlines, 16 out of the 32 refer to BNFL's denials of the YTV allegations or their attack on pre-publicity and research methods. Another group of eight refer to the controversy which has been created describing this as a "bitter row", "TV-fury", "full scale row" and "more controversy". A further two refer to YTV's response to BNFL's complaints so that a total of 26 relate to the disagreement in some way. Of the remaining six, only The Times carried a headline similar to that of the Sunday papers stating firmly that "Children . . . Have a High Incidence of Cancer" although TV AM also concentrated on the programme's allegations with its opening line of "Britain's State-run nuclear power industry will tonight face the charge it is a serious threat to the lives of young children". Three other headlines referred to "inquiries in progress" (The Times), "inquiries called for" (Evening News and Star) and "inquiries announced" (according to an article by The Express).

Whilst most headlines and much news report content is concentrated on the disagreement, and in particular BNFL's viewpoint, the content of the documentary also received substantial coverage. For television in

particular the visual nature of the source material encouraged its inclusion in news reports. BBC national news on 31st October used approximately 1 minute 20 seconds of film from the documentary during part of its commentary and included two brief sections with sound where John Urquhart (a statistician) and Professor Radford (an epidemiologist) are being interviewed. TV AM previewed a longer complete extract from the documentary lasting 2 minutes, 5 seconds concentrating on "the threat posed by plutonium" and an emotional interview with a local family (the Merlin's).

A methodical analysis of national newspaper articles identifies 20 points of information which relate to the programme's content (see Appendix A). All the newspaper reports included the basic cancer allegations of the programme, whilst some such as The Guardian, Times, Telegraph and Mail included a considerable amount of detail (11, 10, 7 and 7 points respectively). It is, however, relevant to note that the national newspapers tended to avoid the more personalised and dramatic aspects of the programme's allegations, for example, the Merlin's and the "deformed calves". The one exception here was The Mail which included references to "horror in hoover" and "wall to wall plutonium". The TV and radio sources included these aspects of the programme more frequently, for example, through a TV interview with the Merlin's and a radio interview with a local farmer. The extent to which the contents of the programme were previewed by these news reports is significant in greatly extending the audience which could receive its allegations. In fact pre-publicity led one TV reviewer to remark that actually watching the documentary revealed little information that hadn't already been in the newspapers.¹

In discussing the build up to the eventual inquiry announcement it is also relevant to examine evaluations of the YTV programme's significance in the media reports and of early references to the need for an inquiry. After the Sunday paper articles, the national press includes little explicit evaluation building up the significance or seriousness of the

1. "Geoffrey nemingway's Viewpoint", Yorkshire post, 2/11/85

programme's allegations in themselves. The exceptions here are The Times with its demonstrative headline and references to "most alarming disclosures" and The Mail which dramatises its report (as discussed earlier). On TV and radio there are more such references made by presenters and correspondents, for example:

"claim that cancer in children . . . is a staggering ten times the national average"

(BBC North East, 31/10/83)

"from what we have read in the papers, the evidence seems very damning . . ."

(BBC National lunchtime, 31/10/83)

"there is little doubt it will rekindle the arguments which have been going on for nearly a quarter of a century of the pros and cons of operating a nuclear plant"

(Radio Cumbria, 31/10/83;B)

These however tend to be isolated examples rather than prevalent interpretations. The greatest number of evaluations stressing the seriousness of the programme's allegations in fact came from a series of interviews with Dr Jack Cunningham, the local MP (and imminently to be Labour Party Spokesman on the Environment). He was interviewed on four different programmes (national and local) in all of which he repeatedly stressed the "gravest possible nature" of the allegations and the fundamental questions they could raise about the operations of BNFL. (Although at the same time he referred to the series of unfounded allegations made in the past). He also mentioned the public concern being generated by the allegations:

"I recognise of course that there is deep and widespread concern"

(Border TV, 1/11/83)

"I've no doubt it's already caused concern locally as similar allegations have done in the past".

(Radio Cumbria, 1/11/83)

Other references to public concern in media reports were few. Local radio interviews with some local people concluded that:

"most of the villagers just don't believe or don't want to believe the allegations being made"

(Radio Cumbria, 31/10/83;B)

References to existing and potential inquiries into the allegations being made were more prominent. The Times headlines with the fact that an NRPB study had already started and expected this to address itself to the programme's allegations:

"the results of that study may be the only way of resolving the controversy over the number of cases of leukaemia among children . . .".

References to the NRPB study in other papers also tended to give it an investigative character. The Daily Express would seem to have jumped the gun in relation to the setting up of a separate inquiry. Its headline of "Child Cancer Probe into Nuclear Plant" referred to a comment made by the Department of Energy that:

"serious allegations are always checked. We will be looking at the claims made in the programme"

This platitude was (invisibly) transformed into something more like an authoritative announcement of inquiry in an opening line of:

"The government is to investigate claims . . ."

On radio and TV various interviewees agreed to the need for some kind of special inquiry. Dr Jack Cunningham, for example, stated that:

"What will be necessary will be a very fundamental and wide ranging investigation or inquiry into the incidence of cancer in the vicinity of the plant".

(Border TV, 1/11/83)

On Radio Harold Boulter of BNYL was asked:

"would you go along with a further study of children, a proper epidemiological study?"

to which he replied:

"of course we would, if this is felt to be necessary by NRPB and the Area Health Authority".

(Radio Cumbria, 1/11/83)

On TV AM Harold Boulter also stressed the fact that the YTV researchers were not "experts" and that their statistics should be examined by the "real" experts, in a scientific manner.

1. National Radiological Protection Board.

3.1.3 Comment

This review of pre-programme news reports illuminates the extent of publicity given to it and the related controversy across the media. The early "leaks" to the Sunday papers had the effect of giving substantial, dramatic and largely unchallenged publicity to the programme's findings and creating the backlash of complaints from BNFL. Subsequent reporting right across the media concentrated on the "conflict" and "controversy" angles which in turn raised the programme's political significance, as not only was the programme content of interest and of news value, but also, if not more so, the reactions and counter reactions of involved participants, which included the government. The various (and disputed) allegations made about improper researching methods, the alleged removal of a researcher and producer by YTV, and the complaint made to the IBA gave the controversy additional relevance to the often self-interested media and extended its longevity as a news item. This concentration on controversy news angles illustrates how conflict and disagreement at a superficial level, is more attractive and easier to handle for the media than the complex issues involved in the programme and in the more substantial disagreements - both scientific and moral - at the heart of the YTV/BNFL conflict. Certainly in the briefer reports the existence of conflict as manifested in simplified versions of press releases, tends to overwhelm the actual substance of what is being alleged in the documentary and the issues which underlie these allegations.

In terms of the build up to the inquiry announcement, the nature of BNFL's complaints about the programme - unscientific, statistically insignificant, unbalanced - pointed naturally to these matters being investigated by a more authoritative committee. The comments being made by Jack Cunningham concerning the seriousness of the allegations, the level of public concern and the need for an inquiry, also gave his question to Patrick Jenkin a greater significance - especially as he is traditionally a solid supporter of BNFL, and a high profile figure in the local media.

Whether the media over exposed and blew up the significance of the programme is difficult to assess. The Sunday paper accounts were

certainly "dramatised" but later reports show little evidence of this, these perhaps instead overdramatised the significance of the argument being waged between (and vigorously fuelled by) BNFL and YTV.

Finally an additional source of pre-programme publicity which may be of some significance should also be mentioned. Television previews on the listing pages of newspapers give substantial prominence to the programme, with a number of national dailies highlighting it for special comment. Most of these are fairly descriptive of the content of the programme but some refer to the programme's "shock findings" and "alarming new evidence"¹. Many provincial papers also carry previews with lengths ranging from two lines up to 41 column centimeters plus picture. Most of these report the same facts and phrases (indicating direct copying from ITV/YTV press releases/listings) including "grave doubts over safety", "a disturbing potentially dangerous situation" and "startling levels of radioactivity".

By the time the programme was shown there is no doubt that a lot of people had heard about it. This included Mrs Thatcher who was asked about the "disturbing" allegations of the documentary during Parliamentary Question Time.² The question put by Conservative MP, Nigel Farnon, asked her to ensure that the NRPB investigation was fully and independently conducted and its report published in full. She responded that levels of radioactivity were monitored and kept within limits but that if claims indicated that particular hazards had been underestimated they would be "properly and urgently examined by the departments' responsible". It has been suggested that this question and the media reports led Mrs Thatcher to watch the YTV programme that evening and summon officials for an explanation the next morning.

1. TV listings, Daily Star, 1/11/83.

2. Hansard, 1/11/83.

3.2 Reaction to the Documentary

The ITV documentary was broadcast on November 1st. The impact of the actual showing of the documentary itself on the public and the government is difficult to assess (but see two general attitudinal surveys; Weber and Gunter 1984, or Eiser and Van der Pligt 1985).³ However, immediate reactions contained in the media on November 2nd may give some idea of the impact or perceived impact of the programme. Several categories of reaction are apparent including TV reviews, editorials and reported reaction of others. News reports (on 2nd November, 1983) in the national press are surprisingly scarce perhaps reflecting the extent to which coverage beforehand nullified the news impact of the actual showing of the documentary itself. However, two articles identified in the Financial Times and Sun, usefully illustrate the range of reaction to the programme. The Financial Times (in its first article on the controversy) based its report around the NRPB's response which was summarised as "Sellafield radioactivity claim denied". In contrast the Sun headlined with the dramatic "Villages of the Damned - Sun Special on families who live in the nuclear shadow", with the first paragraph opening:

"The spiders are big and strangely coloured, some gesse
are deformed. And cattle can suffer from abnormalities"

This article was the clearest example of overt sensationalism in the reporting of the programme and its allegations, and became a subject of particular local criticism.¹ Underneath the dramatic and doom laden imagery the article concentrated on the Marlin family, featured in the ITV documentary, and drew out a theme of economic dependence on BNF, stifling local criticism of the company.

Beyond these isolated examples of news articles television reviews almost universally praised the programme. The Express² referred to it as "chiller of the week" painting a "horrific picture of evil cancer

1. Villagers hit back in atom word war, Evening News and Star, 26/11/83.

2. Digging Deep for TV Sparkle, Daily Express, 2/11/83.

3. J n Weber and D Gunter, The Day After and first meeting, IMA Research Department working paper 1984; J n Eiser and J van der Pligt, Community attitudes to proposals for new nuclear power stations, Dept of Psychological Sciences, University of Essex, 1985.

radiation getting into the sea, the air, the cattle, the vegetables and eventually the people". Discussing the principle behind the programme it concluded that "on balance TV is right to keep an eye on such dangers and ring alarm bells when bureaucrats seem to be putting up a smokescreen to obscure the truth". The Telegraph¹ review referred to the reputations of the documentary makers ("Honest John" Willis) and concluded that:

"Anti-nuclear campaigners on the box always have the suspicion of too much zeal attached to them, but this straight down-the-middle reporting carried disturbing conviction".

The Guardian² picked upon the visual and emotional impact of the programme commenting that:

"Like bullets, statistics are not televizual; what you see is the effect Mrs Merlin had evidently been crying for a long time".

Similar comments, largely uncritical of the programme are also found in the provincial papers, some of which were also unimpressed by BNFL's "pencil-twirling spokesman"³. There was a tendency for these reviews (perhaps in an effort to be entertaining) to further dramatise, distort and generalise the programme's allegations. For example the Bath and Wiltshire Chronicle:⁴

"The TV programme's researches discovered sheep, presumably destined to be lamb chops browsing in a field so radioactive that it was a danger to anyone who walked there".

One of the most dramatic reviews is found in the Irish News.⁵ This succinctly attempted to describe the impact of the documentary as a visual television programme:

"The programme was a piece of special pleading which came across with a great force. It is rare for a documentary to possess aesthetic qualities but from the very opening of this programme with those gas-chamber towers, ghoul-like against the Wordsworthian Hills . . . the conflict between life and death was starkly stated".

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1. Windscale Dirty Washing, Daily Telegraph, 2/11/83.
 2. Windscale Dirty Linen, Guardian, 2/11/83.
 3. "Geoffrey Hemingways Viewpoint" Yorkshire Post, 2/11/83.
 4. Sleeping Sickness, Bath and Wiltshire Chronicle, 5/11/83.
 5. Many Happy Returns, Irish News, 5/11/83.

The significance to accord to such TV reviews is difficult to assess. If they are a reflection at all of how the programme was viewed by a wider public, its potential impact could have been substantial. For people who missed the programme and only read the review, they also give a strongly directed and largely favourable view of what was shown.

Turning to editorial attention The Times¹' editorial discussed at length the content of the programme and ENFL's reaction to it, arguing that their assurances that they were not to blame were anticipating the findings of an NRPB study - to which it gave the prime investigative role. The editorial also criticised the industry for not being open enough and ready to admit the possibility of error:

"The fuller the information available to the public on these issues the less scope there will be for belated discoveries that justifiably shake public confidence or alarmist disclosures which raise unjustified fears".

As far as the content of the programme goes it argued that further study was necessary but that the "evidence so far" is not enough to halt discharges from the plant.

Locally an editorial in the influential Whitehaven News² reviewed reaction to the programme which it summarised as "anxiety and concern as well as anger in political, government and community health circles". It concluded by calling for a thorough investigation:

"To the general public the issues are worrying and confusing and there seems little doubt that, now they have been spotlighted, however dramatically and scientifically pointed by Yorkshire Television, a far deeper investigation is necessary".

The Evening News³ headlined with a call by local councillor Donald Fell for an inquiry and Jack Cunningham's "pressing for a government statement". On radio and TV other local figures are also reported to

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1. Fuelling Nuclear Fears, The Times, 2/11/83.
 2. Windscale Again, Whitehaven News, 3/11/83.
 3. Probe Call over Windscale Fears, Evening News and Star, 2/11/83.

state that they would like to see an inquiry held. General local reaction to the programme is assessed by several news sources, for example the Evening Mail in an article headlined "I Put My Trust in BNPL" concluded that:

"across West Cumbria reaction was mixed - but with a majority feeling the programme was unbalanced".

(*Evening Mail*, 2/11/85)

3.3 Comment

By 2nd November the YTV programme had become highly controversial, divisive, political and highly public. Although involving deep and complex scientific and medical issues, the nature of the medium (visual, public, etc) and the controversy which surrounded it had made it of much wider interest and news value. The joint reporting of YTV allegations and BNPL's denials and the sides taken by different parties leaves the impression of an issue far from resolved. Calls for an investigation have been reported (although not widely) and the impact on the public is assumed by some participants and news sources to have been significant. At the same time however, the existence of an NRPB study had been widely reported and presumed by some to be the correct route by which issues should be resolved. The government could have stayed with just this study or extended its terms of reference, but it chose to set up a new study. It is reasonable to speculate that part of the reason for this was the high profile given to the controversy in the media, which also meant that the function of the Black Inquiry could not simply be "scientific" in nature. It also had implicitly to address itself to the public now sensitised to the issues and to the wider implications for government policy.

4. THE OFFICIAL ANNOUNCEMENT OF AN INQUIRY

4.1 The Announcement

The setting up of the Black Inquiry was announced by Patrick Jenkin, Secretary of State for the Environment, in a written answer to a question from Dr Jack Cunningham, tabled in fact before the YTV programme was shown. Patrick Jenkin referred to "recent media reports" and the "natural concern" they had aroused and announced that:

"my Right Hon. Friend, the Secretary of State for Social Services, has invited the distinguished medical scientist Sir Douglas Black, who is a former president of the Royal College of Physicians, to consider the evidence concerning the alleged cluster in the neighbourhood of Sellafield, and its causation, to determine the need for any further research and to make recommendations".

(Hansard, 2/11/83, p 579)

This announcement was set by Patrick Jenkin within a list of other considerations, policies in hand, and institutional reassurances, playing down the significance of the need to set up a new inquiry. For example, he said the media reports "have not indicated levels of radioactivity out of line with those recorded in previous monitoring and the radiological significance of the levels quoted has been exaggerated" and in this context assigned the need for an inquiry to take any evidence "seriously" (*Ibid*). Institutional reassurances included references to the regular monitoring and "stringent control" of the DOE and MAFF¹, an existing study being undertaken by the NRPB, and taking account of the "authoritative independent advice" of RWMAC². Emphasis was also put on the reductions in discharges being achieved by BNFL (the SIXEP plant "costing over £80 million") and plans for future cutbacks. As a whole the announcement tended to read as "we've got everything under control" but that the media reports and the concern they had aroused meant that an additional investigation was needed to "play safe".

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1. Department of Environment and Ministry of Agriculture, Fisheries and Food.
 2. Radioactive waste management advisory Committee.

4.2 Reporting in the Media

The news reports of the setting up of Sir Douglas Black's inquiry contain four aspects of information and discussion which are to be examined and assessed. These are respectively what each of the news sources includes about:

1. Why the Inquiry was set up.
2. What it is investigating.
3. The status of Sir Douglas Black.
4. Context, comment and background.

Aspects 1 and 2 form the basic information about the inquiry and a comparative analysis of sources should reveal disagreement and inaccuracy between reports, and different interpretations of the government's actions. Aspect 3, the status of Sir Douglas Black is important in establishing the credentials of the inquiry at an early stage, as the respect given to its results are dependent upon the conferment of such status. Aspect 4, relating to information of context, comment and background examines the extent to which the context chosen by Patrick Jenkin is relayed or whether additional and oppositional points are also included.

Before examining each of these four aspects in detail, some basic information about the news reports is introduced below.

4.2 News Sources

The news sources examined consist of nine national newspapers, four local papers, two local TV news programmes and BBC local radio.¹ The Sun contained no item on the inquiry announcement although the day before it had carried its large feature on Sellafield and the cancer allegations entitled "Village of the Damned". The local Whitehaven News was published on 3rd November and although predicting that an inquiry would take place, was printed too early to cover the announcement itself.

1. It was not possible to access national TV reports.

Table 2 lists the headlines or opening sentences of these 16 news sources. It can be seen that all but two of the headlines referred to the setting up of the inquiry with it variously described as a probe, investigation and inquiry, and the subject of the inquiry ranging from "cancer claim" and "cancer alert" to "levels of radioactive discharge" and just "Windscale" generally (discussed further below). The two headlines not directly referring to the inquiry were both in local papers. The Evening Mail significantly chose to highlight Patrick Jenkins' comment that the "media exaggerated" the radiological significance of the levels quoted, rather than the setting up of the inquiry itself and a second article in the paper headlined with another "reassuring" quote this time from a local medical officer saying, "Cancer? We've been studying it for months". The Barrow News headline referred to the fast speed of the government's action rather than what the action had been.

Using a method outlined in Appendix A, an analysis of points of information contained in each news source was undertaken. This is not described in depth but particular aspects of the analysis are drawn on in the ensuing discussion.

4.2.2 Why Was the Inquiry Set Up?

The first aspect of the news reports to be examined is their explanation of why the inquiry was established. Although the inquiry was obviously a reaction to the YTV programme, there is still the question of why the government reacted so quickly and indeed why it reacted at all to a programme which could have been ignored and eventually forgotten.

As would be expected the most frequently featured explanation of the setting up of the inquiry is simply as a reaction to the content of the YTV programme and the allegations made in it. This is included in fourteen of the news sources. The Star and Mirror are the two sources not to refer to the programme, in the latter's case because of the articles very short length. The Star only refers to "the cancer scare" and says that the inquiry has been set up because:

Table 2: Inquiry Announcement Reports

<u>Source</u>	<u>Headline</u>	<u>Date</u>	<u>Length*</u>
Times	Inquiry into Windscale cancer rate	3/11/83	14.5
Guardian	Nuclear cancer link for inquiry	3/11/83	85
Telegraph	Windscale Cancer Inquiry	3/11/83	29.5
Financial Times	Jenkin orders medical inquiry into Windscale cancer claim	3/11/83	33
Mail	Nuclear child cancer inquiry	3/11/83	20.5
Express	Top doctor probes child cancer alert	3/11/83	40
Mirror	Nuclear probe	3/11/83	4.5
Star	Probe at Windscale	3/11/83	6
Sun	- - -		
Morning Star	Probe ordered into Windscale	3/11/83	9.5
BBC Look North	A government inquiry is to be held to look at levels of radioactive discharge in and around the Windscale plant in West Cumbria.	2/11/83 evening	20 s
ITV Border	A short time ago the Environment Secretary Patrick Jenkin announced that the medical scientist Sir Douglas Black is to carry out an investigation into the levels of radiation around Sellafield	2/11/83 evening	4 m 15 s
Radio Cumbria	After the controversial ITV programme on Windscale a top medical scientist has been appointed to look into levels of radioactive discharge in and around the nuclear plant	3/11/83	11 m 23 s
Evening News	Minister orders A-plant cancer probe	3/11/83	35
Evening Mail	Media exaggerated/Cancer we've been studying it for months.	3/11/83	26.5 s 68
The Journal	New Inquiry into Windscale	3/11/83	58
Barrow News	Cancer: Government's quick action	4/11/83	33.5

* column cm/minutes

"Patrick Jenkin is anxious to find out why children living in villages near the Cumbrian plant have such high cancer levels".

This reference to high cancer levels as fact, contrasts with other reports which are generally careful to refer to them as claims and allegations of the documentary.

The fourteen sources which refer to the YTV programme do not all ascribe the setting up of the inquiry solely as a reaction to the content of the YTV programme. Some include references to the level of public anxiety created, to longer term pressures on the government and to the political context within which the inquiry was announced.

Public anxiety is referred to by Patrick Jenkin who mentions the "natural concern" the programme has aroused in his written statement. This comment is included in only seven sources, and nationally only in the Guardian, Financial Times and Telegraph. The Guardian, however, extends this consideration of "natural concern" and forms it into a major reason for the inquiry being established. It comments that:

"The speed of the reaction was a measure of the seriousness with which ministers are treating the allegations and was obviously designed to reassure the public",

and finishes the main section of its report with:

"It seems that the government is greatly concerned at the build up of public anxiety which could result from the publicity".

In this interpretation the inquiry becomes more a reaction to the public impact of the programme than to its content.

In addition to this emphasis on immediate public reaction, the Guardian article also builds up a picture of considerable longer term concern within the government. It opens with

"The full extent of government anxiety about the possible escapes of radioactive material from the Windscale plant in Cumberland was revealed yesterday . . ."

and refers later to "official sensitivity" and to "anxious" government

departments. Using "government sources" the article also mentions "behind the scenes pressures" from the DOE and MAFF and "protests made on three occasions over the past five years" about the levels of discharge from the plant.

The Morning Star, the only other news source to refer to these considerations at all, is more cynical in its interpretation, stating that the:

"screening of the documentary has forced ministers to at least be seen to be doing something".

These news reports set the inquiry within more of a political context and hint at political motives beyond the setting up of a "scientific investigation". Most sources, however, continue their explanation to the reaction to the YTV documentary, as it is principally explained by Patrick Jenkin, and accept the inquiry at face value as an investigation of an important issue. Locally the perspectives included for example, by the Guardian, do not seem to have been featured initially in media sources at all, although in later weeks considerations of reassurance and political pressures do emerge, principally through the letters pages.

4.2.3 What is the inquiry to investigate?

In the written statement Patrick Jenkin sets out quite clearly what the inquiry is to investigate:

"To consider the evidence concerning the alleged cluster in the neighbourhood of Sellafield and its causation, to determine the need for any further research and to make recommendations".

(Hansard, 2/11/83, p 379)

However, the news sources are far from clear what Sir Douglas Black is to investigate with explanations ranging from the incomplete to the totally inaccurate. Table 3 lists eight different descriptions of the subject of the inquiry, identified in the news sources. Only three of these are accurate in relation to Patrick Jenkin's statement - numbers 1 - 3 concerned with evidence of the cancer cluster, its causation and further research, respectively. It can be seen from Table 3 that only one news source, the Guardian, includes all three components in its

Table 2
What the Inquiry is to Investigate

	<u>Sources</u>
1 Consider the evidence concerning the alleged cluster	Times, Guardian, Financial Times, Telegraph, Mail, Morning Star, Radio, Evening Mail, Journal, Evening News, BBC News
2 Determine its causation/investigate link with plant	Guardian, Mail, Times, Radio, Journal
3 Determine need for further research and make recommendations	Guardian, Express, Morning Star, Radio, Evening Star, Evening Mail, Telegraph
4 Investigate allegations about health hazards	Morning Star
5 Investigate levels of radioactive discharge	B.B.C. M.I., Radio
6 Investigate levels of radioactivity around Sellafield	I.T.V. Border
7 Investigate claims of radioactive leeks	Mirror
8 Decide if cancer caused by radiation from Windscale or from radioactive discharges into the sea.	Daily Star

- 2d -

report; the radio also covers all three but only in the course of an interview with Patrick Jenkin rather than in the news commentary. Of the three accurate components of the investigation twelve sources refer to the first, which is also the most general and important, with nine of these also including either aspect 2 or 3. Four sources therefore contain no accurate references to what the inquiry is to investigate.

However, before discussing these deficient reports, several features of the "partly accurate" news sources are worth noting. Firstly, although the Morning Star includes points 1 and 3, it also refers earlier in its article to an investigation into "allegations about health hazards" which is ambiguous, particularly in relation to whether it is referring to inside or outside the plant. Secondly, there is a differentiation as to how the cancer cluster is referred to. Most reports refer to the "alleged cluster" or to "investigated claims" whereas the Express (most notably) refers to "the high cancer rate" and to the TV programme "revealing that leukaemia among children in the area was far more common than anywhere else in Britain". This description of the issues (reflected also in the Express headline of "Child Cancer Alert") suggests that the inquiry is not to investigate whether or not the cluster exists, but just why it exists (see below also in relation to the Daily Star).

Thirdly, if the level of detail at which the reports are considered is increased then far more discrepancies between reports can be found, for instance in whether they refer to cancer or leukemia, whether they specify the cluster as "childhood" cancer or just cancer in general, whether the level of cancer is referred to as a "cluster" or as higher than normal, higher than average, and so on. This only serves to illustrate that the deeper the reports are investigated the greater the discrepancy and innaccuracy found, although the significance of such differences may be debateable. It is also noticeable that "official" statements and documents can exhibit inconsistencies in this respect.

Returning to those news reports which contain no accurate statements as to what the inquiry is to investigate, these are found in four sources - local BBC TV, Border TV, Daily Mirror and Daily Star. Looking firstly

at the TV news reports, these both refer to investigating "levels of radioactivity", in relation to "discharges" and "levels around the plant" respectively. Although both these aspects of "radioactivity" are likely to be involved in part of the investigation, they are hardly central to its purpose or descriptive of the announcement made by Patrick Jenkin. Such inaccuracy is perhaps surprising in local TV reports, but may be accounted for by the fact that only a short time elapsed between the announcement and its reporting in the early evening news programmes. This explanation is reinforced by the fact that in the TV news reports on the following day (3rd November) the function of the inquiry is described comprehensively and accurately. At the same time however, there would seem to have been a hang on effect on local BBC radio, as the next morning, the radio report in its opening sentence refers to an investigation into "levels of radioactive discharge in and around the nuclear plant" although Patrick Jenkin himself gives a full and accurate description of the inquiry's brief, approximately 20 seconds, later in the programme. These examples of inaccuracy would therefore seem to be cases of structural constraints on the news collation process.

The Daily Mirror and Daily Star articles conflict more fundamentally with what the inquiry is about with the latter being inaccurate to the point of being nonsensical. The Daily Mirror states that the inquiry is to investigate "claims of radioactive leaks", which is wrong in relation to the claims, and wrong in relation to the inquiry which is more concerned with regular discharges than with "leaks". The Daily Star starts from the premise that the cancer cluster exists (referring to "such high cancer levels") and states that Sir Douglas:

"will decide if the cancer is caused by radiation from Windscale or whether the plant's radioactive discharges into the Irish Sea are to blame".

This statement firstly presumes the plant is to blame one way or the other, and secondly makes a nonsensical differentiation between "radiation from the plant" (just emanating from the place?) and "radioactive discharges into the sea". Unless this article is misprinted in some way, it shows a complete ignorance of what the inquiry is about and of the nature of the issues involved.

The fact that such fundamental mistakes can occur and that there can be so much disagreement between sources over what is an important but fundamentally straightforward item of reporting, illustrates the deficiencies (and perhaps the difficulties) that can occur in news reporting. Within this context any attempt to inform the public may face an uphill task. It is also apparent that the accuracy of information received about the function of the inquiry will have depended upon the information sources used, with in this case the national quality and local papers being the most accurate.

4.2.4 The Status of Douglas Black

For an investigative inquiry, establishing the status and credibility of the inquirer is vital for the acceptance and respect paid to its results. This is particularly the case where the issues involved are controversial and divisive. In his announcement Patrick Jenkin refers to the "distinguished medical scientist, Sir Douglas Black, who is a former President of the Royal College of Physicians" thereby establishing his status in the government's eyes. To what extent do the media also confer credibility on Douglas Black?

Table 4 indicates where aspects of status and biography have been included in news sources. It can be seen that ten sources use a directly evaluative adjective in describing Sir Douglas with the words used including distinguished, top scientist, eminent and leading. Ten sources also include the biographical fact mentioned by Patrick Jenkin that he is a former President of the Royal College of Physicians. (The BBC News however makes no mention of the fact that the inquiry is to be headed by Sir Douglas Black whilst the Telegraph and local Evening Mail avoid any evaluation or biography). Two national papers go further into Sir Douglas' background with the Financial Times referring to two previous posts held and the Express to his leading role in the "medical profession's attack on smoking" in fact using this in the opening sentence. The paper also comments that because of this background he "is sure to pull no punches over the issue". On radio in interviews with Patrick Jenkin and Dr Jack Cunningham, Sir Douglas' reputation is

Table A: Sir Douglas Black Status and Biography

	T	Ga	PT	Te	Na	Ex	Mir	St	H	Star	BBC ME	BBC TV	Border TV	Radio Cumbria	Ey Mail	Ey News	The Jour News
Adjective of status "distinguished" "eminent" etc	✓	✓		✓	✓									✓	✓	✓	✓
Ex-President of Royal College of Physicians	✓	✓	✓	✓				✓					✓	✓		✓	✓
Chief Scientist at Dept of Health, Professor at Manchester etc																	
Spearheaded attack on smoking									✓							✓	
Other comment										✓							

further praised. Patrick Jenkin refers to him as a "very distinguished medical scientist" whilst Jack Cunningham states that:

"it's quite right that someone as independent and as eminent as Sir Douglas Black should be looking into it very quickly"

and furthermore that:

"I would have thought that everyone would accept that the man appointed is someone who will do a thorough, proper and exhaustive job".

(Radio Cumbria, 3/11/85)

So it can be seen that the messages in the media depict a considerable status for Sir Douglas. In fact no dissenting voices can be found; nobody at this stage was questioning or criticising his appointment. The Evening Mail for example, quotes the secretary of the Barrow Action Group, Jean Emery, later to criticise the report, as saying that the group "had no reason to believe Sir Douglas Black would be biased".

4.2.5 Context, Comment and Background

As discussed earlier Patrick Jenkin included a range of aspects of context, comment and background in his announcement of the inquiry, all of which had a reassuring tone emphasising the level of control and monitoring already surrounding BNFL's operation. This section examines the extent to which this reassuring context is also transmitted through the media. Grouping sentences to a certain extent, 12 such points are made by Patrick Jenkin in his announcement. These are listed in Table 5 and their inclusion in each source indicated. Some sources exclude any additional points at all because of their short length - Mirror, Star, BBC News - whilst all other reports include at least one of the comments made by Patrick Jenkin. The most frequently featured are those concerning the YTV programme (1, 2 and 12), the existing WPPB study and the SIXEP development underway at Sellafield. The sources using most points are the Guardian (10), Evening Mail (9), Telegraph (8), Daily Mail (6), Financial Times (5), Journal (6) and Radio (5). In the case of the Guardian the extensive quoting of Patrick Jenkin is counterposed by the extensive description of the content of the TV programme, comments concerning government anxiety and behind the scenes pressures on BNFL so

Table 5: Patrick Jenkins Points of Contact

Point	T	Gu	PF	To	No	Re	MAP	SA	N	BNC	Barclay	Rad	By	The	Barry	Steve	Total
1. Levels of radioactivity not out of line with previous monitoring	/	/	/	/						/	/	/	/	/	/	/	6
2. Radiological significance of levels exaggerated	/	/	/	/						/	/	/	/	/	/	/	7
3. RNR is working on a project	/	/	/	/						/	/	/	/	/	/	/	6
4. Discharges authorised by DOR and RAPP	/	/	/	/						/	/	/	/	/	/	/	4
5. Aim is to reduce discharges	/	/	/	/						/	/	/	/	/	/	/	4
6. SIREP will reduce oceanic discharges	/	/	/	/						/	/	/	/	/	/	/	4
7. Oceanic discharges already limited	/	/	/	/						/	/	/	/	/	/	/	4
8. Aim to reduce plutonium levels as well	/	/	/	/						/	/	/	/	/	/	/	3
9. Already achieved a reduction of 60%	/	/	/	/						/	/	/	/	/	/	/	3
10. Will consider in the light of day whether further reductions are necessary										/	/	/	/	/	/	/	3
11. We take account of the advice of RNRIC										/	/	/	/	/	/	/	1
12. We will take any evidence seriously										/	/	/	/	/	/	/	7
TOTAL	1	10	5	8	6	3	0	0	1	0	2	5	9	2	6	1	

that the "reassurances" given in the statement are made to appear far less convincing. The Financial Times and Telegraph, in contrast, include no such counterposing comments, and additional points add to the reassurance.

Local news sources obtain reactions to the announcement from a range of people. For example the Evening Mail leads simply with Patrick Jenkin's references to media exaggeration and includes most of his other comments, but sets this next to reaction from Jack Cunningham, the local Euro MP, a councillor, Jean Emery of BAG, and John Terrell, the West Cumbria District Medical Officer. All of this reaction is essentially favourable to the inquiry although opinions on the ITT programme differ, and Jean Emery makes comments opposing those of Patrick Jenkin concerning discharge cuts. Other local reports use similar sources for reaction comment.

The only significant questioning of the need for the investigation and its credibility comes during the radio interview with Jack Cunningham where the interviewer takes a "devil's advocate" position. She asks first whether very much will be learnt from another investigation, second, suggests that "there's some concern" that the new investigation might be treated in the same way as the Windscale Inquiry (referring to the dismissal of opposing scientist's evidence), and third questions how far the government could go in taking any action bearing in mind the number of people employed at Sellafield. Jack Cunningham counters each of these suggestions, with the objections relating to the Windscale Inquiry in particular being dismissed as coming from people who can't be taken "too seriously".

In responding to the inquiry announcement various participants in the local press predict the outcome even at this early stage. BNFL is quoted as saying:

"we have nothing to hide, we welcome any move that will kill off these rumours"
(Evening News, 2/11/83)

clearly presuming that Sir Douglas would disprove any link with Sellafield. In contrast, Jean Emery of BAG is quoted as saying that:

" . . . once Sir Douglas Black sees the evidence, there will be no alternative but to reduce the Windscale discharges"

(Evening Mail, 2/11/83)

and adding also that she thought that inquiries in Japan and the USA had already shown that discharges should be reduced and that therefore Sir Douglas' work had partly already been done. Jack Cunningham takes a less certain stance commenting that:

"even the eminent scientist . . . may not come up with any conclusive answer as to the reasons for these cancer clusters".

(Barrow News, 2/11/83)

It is apparent therefore that points of context, comment and background are almost universally supportive of the government's response in setting up the inquiry, with Patrick Jenkin's comments and positive reaction to them fairly widely reported. With only a few exceptions therefore the tone of reports is one of reassurance.

4.3 Comment

This analysis of news reports of the announcement of the Black Inquiry has shown that they are largely "neutral" in interpretation but at times highly inaccurate. Most reports interpreted the government's reactions as they were presented, which is as a concerned reaction to important allegations and to the "natural concern" raised amongst the public. Some sources most notably, the Guardian however hint at the background pressures on the Sellafield plant and to the inquiry's wider political implications - in most sources the inquiry is presented as strictly "scientific" in nature.

The analysis has also illustrated most obviously the potential inaccuracies always operating within media reports; whether these be caused by time/resource constraints, ignorance or carelessness. Certainly the report in the Daily Star shows a complete ignorance of the issues involved even after several days of reporting of the YTV programme, whilst the inaccuracies of the BBC report may lie more at the door of time schedules and reporting deadlines.

Finally, the media also contained a large number of references to the high status of Sir Douglas Black and hence of the inquiry. This in total gives the government a largely good start in setting up the inquiry (even if not all sources were able to accurately state what it was about).

5. THE INQUIRY PROCEEDINGS AND THE BUILD UP TO THE RELEASE OF ITS REPORT

5.1 The Investigation

After the initial setting up of the Inquiry any mention of Sir Douglas and the work being undertaken virtually disappeared from the national sources. Occasional references were made to the inquiry as part of later stories concerned with the discharge incident in November 1983 (referred to in the introduction) and activities of Greenpeace. Such references although largely accurate in their description of the inquiry's purpose could at times suffer from the hangover of earlier inaccuracies - for example, BBC national news on 22nd November, 1983 again refers to "a government inquiry into levels of radiation around the plant". Other national reports were restricted to the quality papers and concerned findings made by various researchers involved in collecting and assessing evidence for the Black Inquiry and generally first reported in the specialist medical press¹. The Guardian carried a more general report on 20th January, 1984 headlined with "Cancer Inquiry Leader will not Visit Village" which assessed the state of evidence at that time, included the comments of local Doctor Barry Walker concerning the short duration of Sir Douglas' visit to Cumbria, and discussed the disagreement then taking place in the letters pages of the Lancet over the significance of the cancer figures being found.

The only identified criticism of the appointment of Sir Douglas in the national press was that contained in a letter to the Times and Guardian from the Bishop of Carlisle and local vicar Patrick Woodhouse. They both ask whether

"the appointment of Sir Douglas Black who is a physician is adequate both to attend to the technical and environmental issues involved and also to meet the widespread anxiety as to whether or not the reprocessing plant at Sellafield is the risk to the local community and to the wider environment, that the programme and Professor Radford suggested it was".

(Times, 12/11/83; Guardian, 12/11/83 - last sentence varies slightly)

1. For example, Guardian, 25/5/84; Times, 26/5 referring to leukaemia cases on the West Coast of Scotland.

These letters as indicated were isolated examples of any criticism reported nationally; any other references are favourable to his appointment.

Locally the topic of the Black Inquiry was kept more alive in the media as reaction and debate continued particularly through November and December 1983. The criticism coming from the church is widely reported¹ and some other sources of doubt and concern over his appointment are also covered. For example, County Councillor, Henry Sturdy is reported as making an "angry attack" on Sir Douglas and accusing him of not taking local cancer deaths seriously (Evening News and Star, 21st November, 1983). Again these are only isolated examples and overall there is repeated support for Douglas Black's appointment coming especially from Jack Cunningham, and calls for a thorough and speedy investigation to be held by Sir Douglas.

Advances in the collection of statistics and their interpretation are also occasionally reported as news, and referred to in the letters pages in particular of the Whitehaven News. These all show at an early stage that the cancer cluster itself was being confirmed and that the problem now was to assess its significance and cause. When Sir Douglas visited the plant in January, 1984, he was interviewed on local TV and broadly confirmed this position:

"Well we've reached the conclusion and it's an important one, that there's a real problem to investigate. What the nature of that problem will ultimately turn out to be, it is still premature to say . . ."

"We're not questioning the validity of the actual cases, it's just a matter of relating them to a meaningful population".

(BBC NE 23/1/84)

1. For example, Evening Mail, 12th November, 1983; Radio Cumbria News 5th March, 1984).

Three particularly significant reports appeared in the Daily Mirror, which themselves introduced new evidence to be considered by the Black committee¹. Written by Paul Foot they are referenced in the Black Report as bringing new evidence to the committee's attention², and related the incidence of Down's syndrome amongst children in Maryport, a coastal town 20 miles to the north of Sellafield. A recommendation is also made in the report that the incidence of such congenital chromosomal disorders in the vicinity of Sellafield should be investigated³. These articles form another example of the active involvement of the media in the investigation of Sellafield's possible health impact.

In April 1984, YTV produced a short follow up to their original documentary⁴ which again generated a flurry of interest and argument, although of a lesser intensity than that which surrounded the original programme. This second documentary presented additional evidence of cancers and radiation levels, with another leukaemia case found in Seascale, high levels of radioactivity measured in the Maryport estuary, and a Maryport cancer rate identified, allegedly 4 times the national average amongst teenagers. As before ENFL made strong criticisms of the YTV figures arguing that the team had not considered causes other than radiation, and had not properly analysed the cancer statistics. They also commented⁵ that they expect these points:

"to be covered in Sir Douglas Blacks' inquiry which will provide a thorough and objective analysis lacking so far from YTV".

(ENFL Press Release, 5/4/84)

The resulting interchange between YTV, ENFL, local councils and MP's was

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1. P Foot, Just Coincidence, Daily Mirror, 9/2/84, Coincidence Strikes Again, Daily Mirror, 23/2/84, Riddle of the Sands, Daily Mirror, 19/4/84.
 2. D Black, op cit, page 33.
 3. Ibid, page 36.
 4. Return to Windscale, Yorkshire Television, 3/4/84.

heavily reported over about 2 weeks in the local press with again some dramatic headlines,¹ and a pattern of pre-publicity build up, during which the contents of the programme were aired and counter arguments put forward, followed by reaction and debate after its showing. The scale of local coverage was increased in particular, by the complaints of Allerdale District Council that the programme was inaccurate and unbalanced, and by the reported attempts of a local businessman and chairman of the Whitehaven Conservative Association to get the showing stopped.²

Nationally the YTV documentary and associated argument was the subject of news reports in 5 national papers with 2 headlines relating to the programmes claims and another 4 to BNFL's denials or the fact that a "row" was going on. This broadly mirrors the coverage of the original documentary.

This second YTV documentary had the important combined functions of bringing additional information to the Black Inquiry's attention (see paragraph 2.7, Black 1984) and of re-kindling and publicising the argument over the issues being addressed, and the fact that the inquiry was underway.

5.2 Report Release Run-Up

By the beginning of June 1984, reports on the likely outcome of the Black Report begin to appear more frequently in both the national and local press and are more authoritative in tone.

The Sunday Telegraph (3/6/84) carried the first national report on this topic, headlined with "Leukaemia in A-Plant Villages". This outlines with some accuracy the findings of the committee stating that a

1. A-Plant danger to kids - TV lines up new shocker, Evening News and Star, 29/5/84)

2. "Bid to Block TV Film is dropped", Evening News, 2/4/84.

concentration of cancer cases had been confirmed in villages near the Sellafield complex but that:

"it is understood that a definite link has not been established between radioactive emissions from Sellafield and the leukaemia cluster"

This early report was followed up by the Daily Telegraph, local papers, radio and the journal New Society, all of which refer to the cancer cluster confirmation and the problems of identifying its cause. The latter in particular comments that the report "is unlikely to say anything sensational".¹

After these initial and generally accurate "leaks" of what the report was to say little else is heard until the week preceding the release of the report, when reports concerning the likely outcome of the inquiry again appear stimulated by the accusations of MP George Foulkes that the government was attempting to cover up the release of the report. In contrast to the earlier accounts he assesses the report as "dynamite" and claims that it:

"does not categorically prove a link between the discharge and leukaemia, but indicates there is a strong suspicion of one".

(Morning Star, 19/7/84)

He claims that the government was trying to hold back the report until just before the summer recess in order to avoid "proper parliamentary scrutiny". These claims were fairly widely covered in four national papers (19th July) and in the local press and in an interview with the MP on radio, and began to raise the level of news interest in the outcome of the inquiry.

Some important sources during this period claimed that the Black Report would go further and link the cancer with the plant. The Guardian on 20th July states in its opening paragraph that:

"a government inquiry is to give official credence next week to claims made by a YTV team that there appears to be a link between the Sellafield . . . plant and the deaths of Cumbrian children from leukaemia".

1. New Society, 7/6/84, No Shocks over Windscale.

Similarly the Times the next day (21/7/84) contains an article headlined with "Sellafield Leukaemia Allegations Supported". Both these articles contain a fair amount of accurate detail of what the report would include and base their headlines on the interpretation of are largely accurate facts. For example, the Guardian interprets the fact that the inquiry is to recommend further extensive research as evidence of a belief that the link is there, rather than, as the report later presented it, as a need to investigate areas of ignorance and uncertainty. A similar angle is taken by the Mail which refers to a "startling report" which "throws the strongest suspicion yet on Sellafield" (Mail, 21/7/84). The Times is more certain in the nature of the report's conclusion although it comments later in the article that "the study is unable to show a direct cause and effect".

Following these national articles, local sources report BNFL's and Jack Cunningham's angry reaction to such speculation and the Evening Mail (in an editorial) criticises the Guardian in detail arguing that the article:

"does not give any support to the statement with which the article so decisively begins. Quite the contrary; the quotations seem to indicate that the compilers of the report have finished their inquiry with an open mind".

Also on local TV, Sir Douglas Black was interviewed about the report and he took a far more reassuring line than the "leaks" discussed above:

"To live in the neighbourhood of Sellafield confers no greater risk than many which we normally accept in our daily living. Now I'm not saying there is no risk, I'm merely trying to put it in some form of perspective".

(BBC Local TV, 20/7/84)

He is also reported as saying that his aim was to reassure local people and that:

"I really do think reassurance is well justified in this situation, otherwise I wouldn't give it".

This message of reassurance was largely only reported locally, although the Daily Telegraph briefly mentions the interview and the claims of George Foulkes and the interpretations of the Guardian and Times went

largely unchallenged in the national press until the release of the report on 23rd July.

The evening papers of 23rd July predicting the awaited release of the report illustrate the diverse expectations of what it was to say and what reaction there would be. For example, some forecast disagreement and controversy - "Radiation Row is Set to Erupt" (Belfast Telegraph 23/7/84) - and refer to an alarming or explosive report whilst others saw little in it to cause any drama - "Windscale Report is a Damp Squib" (Evening Mail 23/7/84). The Guardian on the 23rd also carried a long article written by James Cutler (producer of the ITV documentary)¹ in which he states confidently that:

"The Report of Sir Douglas Black's advisory group on childhood cancers near Windscale (Sellafield) will make awkward reading for the world's beleaguered nuclear energy lobby".

He also predicts that it contains "little reassurance for anxious parents" and that:

"far from dismissing the possibility that radiation from Windscale has caused the cancers, recommends that this hypothesis should be extensively investigated".

His article contains a substantial amount of accurate detail from the report but again without the conclusions and reassurances which framed these findings when the report was eventually released (see below). The Black committee findings are instead set in the context of his own research and disagreement with the calculations of the NRPB, presenting a very different picture from what was reported in the press the next day; as shall be seen, in terms of what the Black report emphasised in its conclusions and the media presented to the public James Cutler's predictions were realised in fact, but not in interpretation.

1. J Cutler, The Peril that Lurks by the Sea, Guardian, 23/7/84.

5.3 Comment

The review of coverage during the inquiry period and the run up to the report's release has shown first that there was no reported substantial challenge to the status of Sir Douglas and the Inquiry, and second, that although the confirmation of the cancer cluster was reported at an early stage there was considerable confusion as to whether a link with Sellafield would be confirmed right up to the last minute. The interpretations put upon the report's findings by George Foulkes, James Cutler and the Guardian (for example) are interesting in that although there were probably oppositional motives in the lines taken they were largely based upon accurate facts from the Black Report. This serves to illustrate the way in which "the facts" can be interpreted in many different ways and that without the framing and interpretation given by the full report and the reassurances of Sir Douglas Black, very different lines of approach were taken and featured. The fact that in the event media reporting after the release largely took the line of the inquiry team or in fact, in some cases took it further and "cleared" Sellafield, is therefore surprising, given the interpretations put forward in the release run-up period. This shift in interpretation may bear testimony to the effectiveness of the government's news management in the release of the report, or at a broader level to the pervasiveness of the official, institutional and "scientific" interpretation over those of a more marginal and oppositional nature.

6. THE PUBLICATION OF THE REPORT

6.1 Announcements

The Black Report was issued to the press on 23rd July with an announcement made in Parliament in response to a question from Jack Cunningham¹ and a press conference held late in the afternoon. Both the Minister's statement and a press release issued by the DHSS² open their summary of the report with the statement that, it concludes:

"that there is an increased incidence of leukaemia among young people in Seascale . . ."

thus initially giving prominence to the confirmation of the cancer excess. The press release briefly mentions that this excess cannot "with certainty" be attributed to radioactive discharges and that a "qualified reassurance" is given to those living near Sellafield, before preceding to list all ten main recommendations of the report in some detail. Kenneth Clarke's statement concentrates more on the conclusions of the report and the way they were arrived at, progressing from the "increased incidence", to "no general health risks", to the "qualified reassurance", the link with radiation ("possible but not proven") and the "unavoidable uncertainties" involved in estimating cancer cases. The recommendations are mentioned but not detailed and Kenneth Clarke announces that the government has accepted "every one" of the report's recommendations.

The press conference held late in the afternoon of 23rd July, at which Sir Douglas was present, was apparently the subject of complaints from several of the journalists attending it. They objected to the fact that little time was given for pre-reading the report before the press conference, and to the timing of the conference itself which was pushing deadlines at the end of the day. This suggests elements of "stage management" in the release of the report by the government (perhaps in response to the level of pre-leakage and speculation over preceding weeks). The report was issued just in time for it to be reasonably

1. Hansard, 25/7/84

2. Department of Health and Social Security, Evidence on Leukaemia in Seascale Inconclusive, Press Release, 25/7/84.

easily included on TV news that evening, although obtaining reaction to the report in the short time available was difficult (see BBC report below).

These measures taken by the government to release the report - press release, conference, commons answer - serve two functions: first, of making the report an "event" which could be reported; second, of beginning the process of simplification and direction necessary to condense the 103 page report into short news bulletins and press articles. This process is continued in the writing and presentation of the reports by the media sources.

6.2 Reporting in the Media

6.2.1 Headlines

The headlines of the 75 articles and reports identified across all sources¹ can be grouped into categories as listed in Table 6 with examples of each also given. Table 7 shows the number of headlines in each category identified and breaks the sources down in terms of medium and area of coverage.

What is immediately striking is the diversity - eight categories of headline - reflecting the lack of any simple straightforward outcome and the ambiguity apparent in the Black Reports' message (Macgill, Ravetz and Funtowicz 1985). However, there are four dominant interpretations given, namely those of "further checks", "link not proven", "no evidence of cancer link", and "reassurance given". The first two categories, amounting in total to 22 headlines, feature more of the uncertainty of the report's findings and conform more or less to the interpretations used in the report itself and in the DHSS Press Release. The last category of "reassurance given" also draws from the "qualified reassurance" wording in the report and Sir Douglas Black's own discussion of it, although at times the "qualified" nature of the reassurance becomes lost.

1. The analysis of headlines covers national, local, provincial and specialist printed media sources and some TV and radio. The TV reports are from the evening of 23rd July whilst the daily press and radio are the 24th July editions and other publications are dated the next week or month where applicable. Only the first day reporting for each source is included

Table 6: Examples of Headline Categories

1. Further Checks:- "More Research on Nuclear Risk says Minister"
Birmingham Evening Mail
2. No Evidence of Cancer Link:- "N-plant cleared of cancer link"
Western Daily Press
3. Cancer Higher:- "Leukaemia deaths higher at Sellafield"
The Times
4. Link not Proven:- "N-plant cancer link not proven"
Sandwell Mail
5. Reassurance Given:- "Nuclear Plant Reassurance"
Colchester Evening Gazette
6. Report Welcomed:- "Parents reassured over cancer scare"
Dundee Courier and Advertiser
7. Fears Remain:- "Fears of N-plant families"
Liverpool Daily Post
8. No general risk to Health:- "The government commissioned report says there's no evidence of any general health risk"
BBC NH
9. Other:- "Cancer Risk Reviewed"
Nature
"Union call on Sellafield"
Huddersfield Examiner

Annex 7

Number of Headlines per Headline Category

No. Category	Headline Category	National Press and TV	Local Press, IV and Radio	Provincial Press	Periodicals	NPB
1	Further Checks	3	2	5	1	11
2	No evidence of cancer link	5	4	6	-	14
3	Cancer Higher	3	-	2	-	5
4	Link not Proven	3	-	5	3	11
5	Reassurance Given	3	1	5	-	9
6	Report Welcomed	1	2	1	-	4
7	Fears Remain	1	-	1	-	2
8	No General Risk to Health	2	2	-	-	4
9	Other	-	6	6	3	15
		19	17	31	6	71

The third and largest category of "no evidence of cancer link" does not however draw directly from the report or Press Releases, especially when it is simplified into "plant cleared of cancer" as it is in most cases. This category, presenting as it does a simple and distorting forensic view of the outcome of the report, bears interesting comparison with the relevant section of the DHSS Press Release:

"it is not able to say with certainty whether this is due to radioactive discharges at Sellafield or not".

i.e., these headlines have changed absence of proof (or open verdict) into proof of absence. Uncertainty is lost in such banner headlines (indicating the media's preference for simple, straightforward solutions), although they sometimes conflict with the more carefully worded article which follows (for example, in the case of the Daily Telegraph).

All of these four dominant categories of headlines tend to emphasise the negative conclusions of "uncertainty" and "clearance". The main alternative emphasis that can be given to the report is that it confirms that child leukaemia is higher in Seascale (and therefore largely verifies YTV's original findings). As discussed earlier this is the opening line of the DHSS Press Release and Kenneth Clarke's statement. However, only five reports headline with this aspect of the report's conclusions. This group consists of nationally, The Times, ITN early news and TV AM and two Scottish newspapers. These latter two headlines relate to the fact that the report had confirmed higher cancer levels on the Solway Coast rather than at Seascale.

The two headline categories relating to local reaction to the report can be seen to conflict in interpretation, and additional headlines included under the "other" category give a varied picture. The Liverpool Daily Post headlines most dramatically with "Fears of N-Plant Families" basing this upon reactions of several quoted villagers who "want their children monitored in a new probe to find out why they are prone to the killer disease". In contrast the Daily Telegraph headlines in a front page article with "Seascale Welcomes Inquiry" a more sober description of the villagers wanting further checks, and locally the Whitehaven News states that Seascale residents were virtually united in the response of

"we know our village is a safe place". The Cumberland News identifies a generally mixed response with its headline "The Row Rages On". The implications of these varied assessments of local reaction and the basis on which they are made is discussed in detail later on.

Whilst examining headline categories it is important to consider interpretations of the report not featured at all. For example, the view of Greenpeace that, in confirming the cancer cases the report pointed to Sellafield as the most likely cause, is not headlined. Another alternative and important emphasis that could have been given was that the link with Sellafield was possible but not proven, in fact the ordering of words used by Kenneth Clarke. Instead headlines concentrated on the "not proven" aspect of this conclusion.

Overall therefore headlines present little oppositional interpretation of the Black Report, and in fact they tend to emphasise more than the press releases, and in some cases more than the report itself, the extent to which the link with Sellafield was not found and the plant deemed "not guilty."

By referring back to Table 7 it is possible to explore further distinctions in headline treatment by medium and/or area of coverage. Looking firstly at local sources it can be seen that no sources headline with the fact that the cancer excess at Seascale was confirmed by the report or that "fears remain" amongst the local public. Instead the dominant headlines is that of the absolving "no evidence of cancer link", with "Inquiry Welcomed", "Further checks" and "no general health risk" featured at equal frequencies (the "other" total of six is largely accounted for by a number of articles in the Whitehaven News concerning reaction from BNFL, Greenpeace, The Tourist Board, Barry Walker and Jack Cunningham). This pattern although to a certain extent mirroring that of the overall coverage does suggest a local emphasis on the Black Report "clearing" Sellafield (for example, Whitehaven News "Clean Bill for Sellafield . . ."), if not finally resolving the matter - alternative interpretations (although included in articles) are not emphasised as the main outcome of the inquiry by local sources.

Turning to national sources it can be seen that overall the different headline interpretations are balanced fairly evenly. Within mediums this balance is not as even with only the Times out of the 10 national papers referring to the confirmed cancer cluster. On TV, however, two sources headline with this and on Channel 4 it constitutes the second half of the opening headline (all these sources are on Independent TV). The BBC takes a more "reassuring" line with two programmes opening with the "no general health risk" conclusion (as on local BBC sources) and the 9.00 pm news headline referring to the report as "generally reassuring" (and in the process losing the "qualified").

It is interesting to note the shift that both TV channels make between early and late evening news bulletins. As discussed above, the BBC moves from "no general risk" to "reassurance", whilst ITN makes a bigger shift from "cancer levels higher" to "qualified reassurance". Both the major TV late evening programmes therefore transmit the report's reassurance as the prime message.

Looking finally at the other area categories of news sources, the Scottish papers provide the main spatial distinction. Two articles in Scottish papers headline with the fact that cancer was found to be higher on the Solway coast. This emphasis given to the confirmation of cancers in Scotland is also found in the content of other Scottish articles and its prevalence is strong enough to suggest a regional distinction in interpretation - three other headlines are not classified under the "cancer levels higher" section but in fact rely on this as the central perspective in relation to calls for inquiries and further investigations. The significance given to the (in fact fairly small) cancer excess on the Solway coast by the Scottish papers, contrasts most obviously with the lack of featuring of the larger excess confirmed at Seascale, in the West Cumbrian sources.

6.3 Content Analysis

Only selected sources are used for the analysis of the content of Black Report articles in more detail, although these still constitute the majority of national and local coverage. The analysis is intended to examine the following questions:

1. How much information from the Black Report is contained in news sources?
2. What information is selected for emphasis and featuring?
3. To what extent are aspects of uncertainty and context included?
4. Whose reactions are included in news sources and which (if any) voices are excluded?
5. How is local reaction assessed?
6. What evaluations and editorial attitudes are put across by the media?

Underlying each of these questions are a range of considerations of media performance, information transmission and the shaping and direction of the interpretation of the report and its wider significance as discussed in the Introduction to the paper.

The method of analysis is divided into two sections; firstly, that addressing questions 1 - 3 which relies upon a detailed tabulation of points of information included in all sources (as discussed in Appendix 1); and secondly, that addressing questions 4 - 6 which is less structured and detailed in its analysis of the content of source material (partly because of the length of some reports, for example, the 20 minute radio programme).

Some basic information on the prominence, length and headlining of the 17 sources used is contained in Table 8. For the BBC and ITV national news, the later evening bulletins have been used, and for the local press two papers selected, the Whitehaven News (weekly) and Evening News and Star (daily) - the former for its local significance and both for their wide circulation in the immediate area. A variable pattern of prominence and length is apparent, indicating the different perceived importance of the story to different readerships.

The Guardian is the only newspaper to contain an editorial on the report and also gives the most space to its discussion across the national press. Locally the Whitehaven News also devotes a considerable amount of space, (total of 596.5 col cms!), on local TV the story takes up much

Table 5: Media Reports: Main Headlines

Source	Printlength	Length %	Headline
Times	2	27	Lauksmia deaths higher at Sellafield
Guardian	1	76	Sellafield cancer link not proven
	4	100	Cautious view of Sellafield cancer link
FT		36	Sellafield cancer link unproven
Telegraph	1	17	Banscale welcome inquiry
	6	54	Inquiry clears Sellafield of causing cancer risks
Mail	2	31	Government sets on nuclear peril report
Express	22	54	New checks at Sellafield
Mirror	2	9.5	Atom base; no cause for alarm
Daily Star	4	45	Atom plant kids check
Sun	2	40	Nuclear plant all clear on cancer given
Star	1	42	Cancer fears remain after nuclear probe
HBC 3 fm	5 ± 27 s	The report into the dangers of radioactivity from Sellafield has been published and its generally reassuring	
ITV 1	1 ± 10 s	An official report has given what it calls a qualified endorsement about suspected health hazards in the area around Sellafield	
HBC 3 fm	7 ± 55 s	The government commissioned report says there's no evidence of any general health risk . . .	
Border TV	14 ± 52 s	The Report is aimed at calming fears in West Cumbria	
Radio	19 ± 25 s	Main point to emerge was that he found no evidence of any general health risk	
Unit Haven Radio		a) 322 b) 84.5 c) 37 d) 163	a) Clean bill for Sellafield - but further cancer studies and tighter discharge control needed b) Action starts on new child cancer studies c) We know our village is a safe place d) Four reaction pieces
Evening News and Star		a) 129 b) 41.5 c) 24 d) 27.5	a) The row rages on b) No Health Hazard c) Minister accepts reports findings d) A call for action

4 mms/vcl/cm

of the local news programmes and on radio it dominates a substantial section of the morning news and discussion session lasting nearly 20 minutes in total.

Three national papers give the story front page coverage with the Guardian using it as the main story of the day. The Daily Telegraph, rather strangely puts the details of the report on page 6, whilst including a shorter piece mainly about local reaction on the front page. The Daily Express article although fairly long is hidden away on page 22 separated from most of the news coverage in the paper. The Mirror manages only a report of 9.5 column centimetres and the low importance given to the issue by the Mirror led in some editions to the article being completely excluded. The space given to the report by the other popular papers is however more substantial.

6.3.1 The Extent of Information

In order to examine information presented on the content of the Black Report and its conclusions, points from the report included in the news discourse and those attributed to Sir Douglas Black were identified and tabulated. These therefore constitute the information contained in the media coming directly from inquiry sources - points attributed to and/or mentioned in interviews by other parties, such as BNFL, Greenpeace and so on are not included at this stage. The total number of points identified in each source is shown in Table 9, and those points contained in more than one source specified in Table 10.

It can be seen that nationally the Guardian and locally the Whitehaven News contain the most number of points from the Black Report. Both their "scores" however underestimate the actual space given over to details from the report with for example, point 15 "detail of leukaemia cases" constituting four short paragraphs in the Guardian and three long paragraphs in the Whitehaven News. In fact the Whitehaven News devotes almost a full page to discussing the content of the report alone. The level of detail it goes into on some points is considerable for example, specifying all the "remote possibilities" which could result in the cancers being caused by radiation, which no

Table 9: Number of points in each news source (from Report and Douglas Black's comments)

SOURCES	NATIONAL										LOCAL						
	T	Gu	Te	FT	Ma	Ex	M1	St	Sun	M	BBC	ITV	EBC	ITW	Radio	Wh News	Ev News
REPORT	13	17	15	10	11	8	5	4	8	10	10	7	8	6	6	26*	11
DOUGLAS BLACK	-	5	-	4	-	-	-	1	-	1	4	3	10	7	8	3	2
TOTAL	13	23	15	14	11	8	5	5	8	11	14	10	18	13	13	29*	13

NB: Includes shared and individual points

* not completely counted

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other sources do. Moving down for these "top scorers" the quality press and TV contain approximately equal amounts of information (10-15) whilst the lowest scorers are as expected the tabloid press with for example, the Mirror managing to include only five points from the report (although the Sun devotes two paragraphs to discussing epidemiological findings).

It can be seen that local TV and radio rely strongly upon interviews with Sir Douglas Black to put across information from the report, with only the barest of presenter summaries leading to the introduction of a range of interviewees. Consequently little detail of figures and so on is found in these reports with interviews consisting mainly of reaction, discussion of principles and issues at stake. This illustrates well the way that information selection is determined and influenced by the nature of the medium of transmission with the transient mediums of radio and television having little time for "hard facts" when interviews can be used instead. Nationally this difference is not as marked with both TV programmes managing to include a reasonable amount of detail partly through the use of graphics.

In terms of news sources supplying the public with summaries of the Black Report, it can therefore be seen that performance varies enormously from the Whitehaven News and its page long methodological and detailed description, to the Mirror with its brief and highly selective outline. It is significant that fairly good and lengthy summaries of the report are available (locally and nationally) for those who are interested in knowing a substantial amount of the content of the report. In this respect the newspapers provide (are able to provide) a better service than radio and TV sources. As already mentioned one feature of the news reports is the high profile of supplementary comments made by Sir Douglas Black himself either through quotation from the press conference or interviews on TV and radio (all five sources include extracts of interviews with Sir Douglas). This indicates the extent to which the inquiry and the results were personalised under the reputation and status of Sir Douglas with his comments being particularly important in presenting reassurances, playing down risks and making risk comparisons for the local public.

In order to examine to what extent the news sources agree as to the basic conclusions from the report the most frequently mentioned points can be isolated. Referring to Table 11 it can be seen that nine points received coverage in eight or more news sources.

Table 11: Dominant Points

1. No evidence of any general risk to health	14
2. Can give a qualified reassurance	14
3. Report agrees there is a cluster of leukaemia cases	15
4. Calculations do not support the view that radiation is responsible	16
5. Further checks to be undertaken on children	17
6. There are uncertainties concerning the operation of the plant	11
7. Recommendations specified	10
8. Report probes allegations made by YTV documentary	11
9. Greater control' of discharges needed	10

These points from the bare bones of the report's conclusions with two points relating to the plant not being linked with cancer and that further checks on children are needed being selected for inclusion by nearly all sources. All reports include either point 1 or 2, conveying the inquiry's position of finding no evidence of a general risk to health from Sellafield. In 15 sources this is set against the fact that a leukaemia cluster was confirmed, (point 3) largely supporting YTV's figures. However, two sources, the Mirror and the Star do not include this point, with the former presenting the report as a clear rebuttal of the allegations made (especially with its "No Alarm" headline). As such these two cases are exceptional, but represent the extremes of simplification (and distortion) evident in all the news sources.

Looking at the transmission of the report's reassurance, although four sources do not include point 2 in all of these cases Sir Douglas Black is quoted (or interviewed) as giving his own reassurance. It is significant that some important points do not feature amongst this dominant list. For example, the fact that "a proposition of a link cannot be discounted" is found in only six sources (introducing the alternative hypothesis) whilst the more absolving "calculations do not support the view that radiation is responsible" is included in all but one source.

6.3.2 Context and Uncertainty

The difference in amount of information contained as between the long reports and the briefer articles begs the question of what is being excluded as reports become shorter. To a certain extent it is detail which is lost, but information is also omitted which cannot just be written off as "detail", much of which involves considerations of content and uncertainty - points covering a wide range of issues including uncertainties and qualifications in the methodology of the report, questions raised but not examined in depth, issues of comparative risk and so on. Such matters may be crucial to the understanding of the Black Report's nature and limitations and the qualifications with which it is laden.

The text analysis shows that points concerned with uncertainty and context exhibit mainly low frequency scores. The exceptions here are point 6, concerning "uncertainties with plant operation" and perhaps point 2, which uses the phrase qualified reassurance. The predominantly low scoring points in this category are listed in Table 12.

As already mentioned these points of context and uncertainty cover a range of related issues. The comments of Sir Douglas Black can be seen to particularly relate to issues of comparative risk with the level of risk being compared to differential transport risks, to early concern over the dangers of electricity, and to risks "normally accepted" in everyday life. These all constitute part of the message of reassurance he is aiming to put across. (although this does temporarily falter with a question reported only by the *Guardian*, concerning his own choice of residence and employment; see point 6.11, Table 13).

The number of points of context and uncertainty included in each source is shown in Table 13.

Table 13: Points of Context and Uncertainty per source

SOURCE	T	Ga	Ts	Fr	Ms	Ex	M1	Star	Sun	M1 Star	BBC News	ITV News	MS News	ITV News & Star	BBC L	ITV L	Radio
No of Points	4	11	7	8	2	2	2	0	4	7	6	16	4	7	7	7	8

Of the 17 sources the Guardian and Whitehaven News discuss the uncertainty and context of the report at greatest length, in line with the scale of their coverage and in the case of the Guardian in line with its headline and editorial emphasis ("link not proven" and "cautious view of Sellafield cancer link"). The Telegraph also includes a surprisingly high number of points of uncertainty despite its assertive "Inquiry Clears Sellafield" headline. In contrast the Sun gives the least indication of the problematical nature of the report and its area of study including none of the 25 points listed above. This omission is not simply a matter of space as the shortest article in the Mirror manages to include two points of uncertainty regarding the operation of the plant and past accidental discharges.

Looking in detail at which points of context and uncertainty are included in which sources, it is possible to categorise some of these points as supportive of one side of the cancer link argument or the other. For example, points such as "radiation is the only environmental cause of leukaemia" and "the proposition of a link cannot be entirely discounted" can be seen as supporting the Sellafield link theory whilst those such as "other places in Britain have higher incidence of cancer" and "In West Cumbria as a whole mortality from childhood cancer is close to the average" can be seen as supporting the no-link viewpoint. (Some points cannot however be categorised so easily for example "the effect of chance or some unknown factor cannot be excluded".) However, no clear pattern of the selection of facts supportive of one particular viewpoint is apparent in most news sources. The Financial Times perhaps concentrates on the anti-link points such as risk comparison, other areas of higher cancer rates and the treatment of the leukaemia cases with caution. It also mentions the fact that BNF is the areas principal employer in the first paragraph. The Morning Star in contrast perhaps concentrates on the pro-link case with points 8 and 11 featured. However, such selection of points of context is not clear enough in most cases to suggest an adequate indication of editorial attitude.

The loss of points of context and uncertainty as news reports become shorter, reflects the process of simplification required for writing brief articles. To write a short report complications and qualifications

are excluded in the process distorting the complete message of the Black Report and giving the reader little idea of the difficulties apparent in the subject area and the extent to which a clear cut answer can be given. This is particularly the case where headlines are also simplified into unqualified dogmatic statements where space permits however, uncertainty is allowed for and discussed, in some cases, at length.

6.3.3 Reaction to the Report

The majority of the content of the news report not examined so far, consists of reaction, comments and quotation of a range of people involved in the Sellafield debate. The inclusion of reaction is important in presenting supportive or alternative interpretations and perspectives on the report and its wider implications. The analysis in this section is divided into national and local sources partly because the scale of reaction contained in local sources. National sources are examined using the point analysis already introduced above whilst local sources are addressed at a less detailed level.

Table 14 indicates points of reaction and quotation contained in national sources. Looking across all sources it can be seen that the most frequently quoted source is Black himself (as discussed earlier) followed by Greenpeace and then BNFL and Allan Mounsey of the Parish Council as a voice of local opinion. The Guardian, Mail, Morning Star, Daily Star and Telegraph go to the greatest lengths to include a range of reaction and opinion from different sources. The Mail in particular exhibits its tendency to go for the "human" angle by in fact concentrating more on reaction than the reports contents itself, whilst the Telegraph carries a separate article on the "residents of Seascale's view". In contrast three of the tabloid papers (Mirror, Express and Sun) include no extra comment at all, therefore enabling no additional voices or interpretations of the report to be heard. Three other newspapers (Financial Times, Times and Telegraph) although including reaction from Black and BNFL, contain no oppositional or critical comments, so across the national press there is a general lack of alternative views of the report within news items. The exception here is the Morning Star which

Table 14: Reaction - (National Sources)

	Douglas Black	Kenneth Clarke	BNNL	Greenpeace	FoE	Barry ¹ Walker	ITV	Parish Council	MP's	Kathleen Richardson ²	TOTAL
Times	-	-	1	-	-	-	-	-	-	-	1
Guardian	5	-	2	2	-	-	-	1	1	1	12
Telegraph	-	2	2	-	-	1	-	3	-	-	8
FT	4	-	-	-	-	-	-	-	-	-	4
Mail	-	-	2	3	-	3	2	-	-	-	10
Express	-	-	-	-	-	-	-	-	-	-	0
Mirror	-	-	-	-	-	-	-	-	-	-	0
Star	2	1	1	1	-	-	-	-	-	-	5
Sun	-	-	-	-	-	-	-	-	-	-	0
Morning Star	1	-	-	3	-	-	-	-	2	2	9
BBC TV	3	-	-	-	2	-	-	-	-	-	5
ITV	2	-	-	5	-	-	-	-	-	-	7
TOTAL	17	3	8	14	2	4	2	6	3	2	

¹包括了在其他新闻来源的报道

is the only newspaper to feature criticism of the report without also including the favourable view of BNFL as well, with this source also being the only to include the comment of "anti" MP George Foulkes.

The national TV bulletins clearly suffer in the timing of the announcement and release of the report, in that there was little time for them to collect reaction to the report. Both include interviews with Black relating to "inflated concern" compared to that over electricity in the past (BBC), and the small number of cases of leukaemia found (ITV), which are then "balanced" with an approximately equal length interview with a member of a pressure group. In the case of the BBC interview, this is with Dr Carroll of the FOE (which had not in fact been directly concerned in the recent controversy at Sellafield at all, making him a strange choice) and the interviewer, in questioning him, refers to the fact that he had not had the report very long, and Dr Carroll says he is only able to respond on the basis of reading the conclusions of the report.

On ITV the interviewee is the more directly involved Peter Taylor of PERG, who raises the question of whether the incidence of leukaemia is properly described as a cluster or an excess (in fact the only time in any of the news sources that this issue is raised). Neither national TV bulletins quote BNFL's or anyone else's reaction to the report. This is an example of TV's attempt to "balance" news report at work, with the "objectors" view immediately sought after with Greenpeace and FOE being recognised alternative voices.

Turning to local sources, Table 15 indicates the inclusion of various reaction, with a gauge of scale used in terms of time or length rather than number of points. For radio and TV only interviews are included, rather than only attributed points, (in fact the majority of reaction input is in the form of interviews on these mediums). The first point of note is the similarity between the range of people and organisations sought after for the reaction by local and national sources although the extent of concentration on particular opinion is different. Most notable is the high local profile of MP Jack Cunningham, whilst nationally he is quoted in only one source. All local sources include his views at length, which generally consist of him welcoming the

Table 15: Reaction - (Local Sources)

	BBC TV	BORDER TV	RADIO CUMBRIA	WH NEWS	EVENING NEWS
Sir Douglas Black	2 m 10 s	1 m 46 s	2 m 38 s	8.5 cm	9 cm
Dr Jack Cunningham MP	2 s	3 m 15 s	2 m 58 s	37 cm	99 cm
BNFL	45 s	2 s	50 s	16 cm 5 cm	3.5 cm
Greenpeace/ CORE *	27 s	1 m 56 s	2 m 30 s	25 cm	9 cm
Barry Walker (Local GP)	-	-	3 m 35 s	30 cm	-
Allan Mounsey (Seascale Parish Council)	-	-	-	9 cm	3 cm
Regional Medical Officers	-	-	-	90 cm	-
Chairman Cumbria Tourist Board	-	-	-	15 cm	-
County Councillor H Sturdy	-	-	-	-	3.5 cm
Locals and tourists	Mr White 1 s	-	4 people 2m 58 s	5 people 30 cm	4 people 12.5 cm

* Cumbrians opposed to a radioactive environment

report, hoping it will reassure the public, decrying the "wild and irresponsible allegations" made by pressure groups and encouraging people to read the report for themselves. (In fact in four sources he is the person interviewed/reported at most length).

All local sources include the reactions of protestors (either Peter Wilkinson or Jean Emery) and of BNFL. In three cases the protestor's voice is heard at marginally greater length whilst in the other two BNFL is given more time. On Border TV the two opposing sides are directly put together through a discussion session between Jean Emery (CORE) and John Doran (BNFL). Both television sources leave the range of reaction largely to these four main groups/individuals (Black, Cunningham, BNFL and Greenpeace) whilst the newspapers and radio quote a larger range of local figures and local people (partly possible because of their later publication/transmission). Barry Walker, the local Seascale GP, features particularly prominently on radio with his criticism of the "verbal reassurances" given by Sir Douglas. Assessments of local reaction are discussed in detail in the next section.

Locally reaction is included by all sources covering both criticism and support. However, because of the positions of Black, BNFL and Cunningham which are all supportive of the report and its reassurances, criticism coming from Greenpeace, Barry Walker and the occasional local figure tends to become overwhelmed, although is certainly not excluded from any of the media sources.

6.3.4 The Assessment of Local Reaction

One important category of reaction to the report is that of the reaction of the people to whom the reassurance is directed - the villagers of West Cumbria and in particular Seascale. The news sources transmit assessments of this reaction through their own evaluation, the evaluations of community figures or the direct quoting and interviewing of local people. In terms of the first of these, evaluations by sources, the following assessments are found:

<u>Morning Star</u>	"Cancer fears remain after nuclear probe" (Headline) ". . . villages called for a thorough probe into the high rate of childhood leukaemia"
<u>Telegraph</u>	"Seascale welcomes inquiry" (Headline) . . . Seascale welcomed calls in the report for further investigations into the high incidence of leukaemia in the area"
<u>Mail</u>	"Holidaymakers appeared unconcerned at the controversy"
<u>Radio Cumbria</u>	"In West Cumbrian villages response to the report is mixed. Most young people are unconcerned but parents say they are worried because the report has confirmed that there is a high rate of childhood cancer in the area"
<u>Whitehaven News</u>	"We know our village is a safe place" (Headline) Seascale's residents had little to say about the Black Report, as they were virtually united in the response "we were not worried anyway - we know our village is a safe place"
<u>Evening News and Star</u>	"Some Seascale villagers welcomed the report - but added they did not need reassuring".

It can be seen that there is some contradiction in assessments of reaction (as suggested earlier in the headline analysis) although local sources universally present a picture of little concern. The Morning Star refers to the villagers' calls for further studies as does the Daily Telegraph, but uses a headline of "Cancer Fears Remain". This would seem to be based upon the quoted view of just one villager, Kathleen Richardson, who reportedly said that:

"a lot of people quite frankly are absolutely petrified.
Anybody who has a child who has a graze which doesn't
heal quickly, becomes worried. If they get a bad cough
they panic".

This same villager is however quoted in other reports as "playing down" the level of concern, for example, in the Guardian which says she

"appealed to people to let their children start leading
normal lives. I think there has been a terrible fear
put into people's minds".

Such contradiction gives little confidence in the use of quotations by news sources. In this case mistrust is increased of the further variability evident in the use of Mrs Richardsons comments in other

provincial papers. For example, the Liverpool Daily Post headlines dramatically with "Fears of N-plant Families" and uses a secondary headline of "Anyone whose child has a cough starts to worry". The use of this second quote suggests that it is supporting the primary headline interpretation. However, in the text the secondary quotation is attributed to Kathleen Richardson who is said (as in the Guardian) to have "welcomed the report and appealed to people around the plant to let their children lead normal lives again". Thus whilst she would seem to want people to be reassured her comments are transferred into a dramatic headline which suggests an emotional adverse reaction to the Black report. The assessments made by local sources are justified by interviews with local people as noted below:

Radio - 2 girls, 2 men

Whitehaven News - 3 locals, 2 tourists

Evening News - 3 villagers
and Star

The radio assessment based on interviews with "youngsters" in the area concludes that youngsters are not concerned but parents in the area are worried. The only interview included in the programme which suggests this however, is held with a young girl who is asked:

"How about older people, how do they feel, do you think?"

"I don't know . . . they're more concerned I suppose you know, most people that I know like me mum and dad's friends and them, they're not really bothered about it".

The older people that are interviewed appear unconcerned, contradicting the overall assessment made by the radio interviews, and suggesting that the assessment was generalised from the girl's comment. The Whitehaven News also generalises from a very few quoted comments, whilst the Evening News is a little more careful in referring to their assessment as "some Seascale villagers".

The other source of assessment of local reaction is that made by involved figures. In this respect we have the following assessments made:

- 10 -
1. Douglas Black "confident people of Seascale will be reassured"
(Financial Times, Border TV)
 2. Jack Cunningham MP the report "must be reassuring to the thousands of people who have been concerned about this issue"
(Radio Cumbria)
"it certainly should allay the fears of the people of West Cumbria"
(Border TV)
 3. Barry Walker "the report did not lift all the worries of local people"
(Telegraph)
"it will do nothing to allay those well founded fears"
(Mail)
"Black Report would be reassuring to the people of West Cumbria as a whole"
(Whitehaven News)
 4. Allan Mounsey "the existence of Sellafield on the doorstep would inevitably still cause concern"
(Telegraph)
"felt that fellow villagers would remain uncertain about the issue until it had been thoroughly investigated"
(Whitehaven News)
 5. Gordon Steele "I feel we at Sellafield are reassured and I hope the people of Seascale are"
(Whitehaven News)
 6. Cumbria Tourist Board Chairman "Should alleviate some of the worries that have kept some tourists away"
(Evening News)

Again there is some contradiction in the reported statements of individuals, for example, in the case of Barry Walker, who is reported as expecting three different intensities of reaction from local villagers, and there is also a contradiction between people in their assessments of how the local public will react. This only serves to illustrate the futile nature of such assessments, based as they are on the minimum of direct evidence, and relying more on the reaction desired or hoped for, rather than that of any actual "public". Such assessments may however themselves influence how the

local people react through the process of alignment with "dominant" views, or accepted wisdoms.

6.3.5 Evaluation and Colour

As the source material for the news stories is in this case the release of a "dry" scientific report there is relatively little scope for colour in the news reports. The few examples found are listed below:

Daily Mail Government acts on nuclear peril report (Headline)

Children play in the shadow of Sellafield

Star Thousands of children are to be checked for leukaemia

Express A probe into a cancer scare at Sellafield

ITV News . . . villagers live in the shadow of the nuclear reprocessing plant

The Mail is the only source obviously to dramatise the findings of the report with its use of a picture of children playing on a beach, the headline listed above and also its opening sentence, which refers to "blood cancer" rather than leukaemia.

Explicit interpretive comment is found more frequently but is still at a low level, with most of the news reports consisting only of extracts from the Black report and quoted comment. Those evaluations found are listed below (not including those relating to local reaction discussed earlier):

Financial Times "The inconclusive report . . ."

Mail "The Report dismayed objectors . . ."

Sun "One of Britain's Top Scientists calmed fears . . ."

Mirror "Fears were calmed yesterday . . ."

BBC National News (opening sentence) "The report into the dangers of radioactivity from Sellafield has been published and its' generally reassuring"

Border TV "The Report is aimed at calming fears in West Cumbria"

Border TV "A person who has done more than most to seek reassurances for the people of West Cumbria is Dr John Cunningham"

Whitehaven News ". . . These are probably the two main, if inconclusive observations from the Black report"

It can be seen that the evaluations relate generally either to the "inconclusive" nature of the report or to its "reassurance" and effect of "calming fears". Another category of evaluation not detailed above is that of the status of Sir Douglas, with 6 sources referring to him as a "top" scientist or doctor, this perpetuating the status given to the inquiry early in the inquiry period.

6.3.6 Comment

The coverage of the release of the Black Report is discussed in detail in later sections. It is sufficient here to summarise two major conclusions from the above analysis. First, it is evident that a large range of interpretations of the reports' findings are presented by the headlines of media sources. Some of these headlines directly conflict, whilst others represent more marginal differences in emphasis. The diversity of headlines reflects both the complex and difficult nature of the report (there is no one, overriding conclusion, and uncertainties and qualifications abound) and the range of messages made available to the media from press releases, statements, press conferences and interviews. Although a range of interpretations is apparent this is not however, to say that this is a full range or a balanced (in frequency) range. Some interpretations apparent in the pre and post Black periods are not headlined or featured, whilst the overall pattern tends to emphasise either the uncertainty of the report, its reassurance or the clearance of the plant rather than the confirmation of a cancer excess. This pattern of interpretation is also evident in other aspects of the news articles (selection of facts, context and reaction).

Second, the impact of the selectivity necessary to write short news bulletins has been identified, with omission of important facts and reaction evident at times, and the loss of information of context and uncertainty a general trend. Some news sources however, fare much better than others and are able to provide wide ranging and lengthy summaries of what the report has concluded.

7. SUBSEQUENT DEBATE

For most news sources the Black Report was a one-day story there being no significant additional "events" to increase its longevity as a news item. The fact that in a significant number of news reports on the 24th July, especially the nationals, critical comment or reaction was minimal or completely absent means that initially the message of the Report went largely unchallenged in the media.

Over a longer period, however, the Report was subject to significant challenge. Substantial criticisms of its methodology, use of statistics and models, and conclusions were subsequently made. Much of this debate, however, did not reach the level of a mass national story, its circulation being restricted to specialist journals, local papers and radio, and the occasional national paper - often through the letter columns rather than through news articles.

During the period immediately following the release of the Report, then, few follow up articles can be identified in the national media, although locally, the reaction of various local figures was still deemed newsworthy. A notable exception to the general absence of initial follow-up, is the reporting of comments made by Charles Haughey the former Irish Prime Minister, describing the Black report as a "whitewash" and calling for the closure of the plant and the jailing of people:

"who have clearly been telling us lies over the past four or five years about this matter"

(Guardian, 30/7/84)

These scathing criticisms by a well known political figure were heavily reported in the Irish press and locally in Cumbria, but reached only four national papers and none of the national TV bulletins. (Radio Cumbria also carried other immediate Irish criticism with a doctor referring to the report as a "Blackwash", 27/7/84). Another significant but isolated national follow up report appeared in the Sunday People in a page long article given over entirely to Peter Wilkinson, Greenpeace campaigns director. In this he explains, at greater length than had appeared elsewhere, Greenpeace's reaction to the Black Report:

"Our verdict on the Black Report is that it simply serves to increase and deepen the controversy and that it bends over backwards to be fair to the plant and its operators, British Nuclear Fuels.

But is it being fair to the parents and children who live in the shadow of Windscale? If Sir Douglas intended to reassure public opinion then he has only succeeded in increasing the doubts and multiplying the suspicions."

(Sunday People, 29/7/84).

He emphasises the political nature of the report, the lack of knowledge in the fields involved ("a scientific wasteland") and the action Greenpeace had taken and his view of the need to stop discharges from the plant. These views are clearly very different to the prevailing tone of the earlier news reports and the reassurances of Douglas Black in this article.

Despite the limited breadth of coverage given to early criticism of the report's conclusions, this is not to say that Sellafield disappeared from the dominant news agenda after the publication of the Black report. There were a substantial number of national news reports at the end of July and beginning of August about the ending of all beach use advice from the DOA (announced on 1st August 1984) and reports that BNFL was to be prosecuted over the discharge incident. Indeed reports of the latter, recur frequently towards the end of 1984, whilst the more substantive debate emerging over the Black report is largely ignored by the majority of the media.

The first appearance of the more involved post-Black debate is seen in the letters pages of the Guardian and Times, with various individuals criticising the risk comparison comments made by Sir Douglas and the logic used in evaluating the leukaemia/radiation link. However, the first authoritative criticism which received an amount of albeit restricted publicity arrived in the form of a letter to the Lancet from Dr Robin Russell Jones.² In this letter he argues that the Black report contains three basic misconceptions:

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1. Guardian, 20/7/84; 30/7/84; 6/8/84.
 2. Lancet, 25/8/84.

- 1) that to argue that the link between the increased rate of childhood leukaemia and radioactive discharges is not proven is scientifically meaningless.
- 2) that a second flaw is the extraordinary faith displayed in MRPB calculations of the extra deaths expected as a result of Sellafield's operations.
- 3) that a third flaw is the implicit assumption that victims of industrial processes should be required to demonstrate that they are being harmed before remedial action can be taken.

These considerations lead Dr Russell Jones to conclude that

"The Cumbrian public may come to view the doctors and others on the Black inquiry with as much suspicion as they now regard the management of British Nuclear Fuels".

This letter to the Lancet became news in its own right, with reports in the Guardian (25/8/84), an interview on local radio and articles in the local press, and also notably the Irish Press. In these reports the criticism is given weight (and also made newsworthy) by the status of Dr Russell Jones who is described in various sources as "a top medical expert" (Evening News and Star), "a consultant dermatologist" (Irish News) and in New Scientist as "an advisor to Friends of the Earth".

This initiation of more substantial criticism of the report was followed shortly afterwards by the announcement by the Political Ecology Research Group (PERG) that they were to produce an "alternative" Black Report, addressing the many deficiencies they felt the official version contained. This received similar coverage to the Lancet letter with interviews on radio and articles in the local press. By this time the rise in criticism of the report had led the Radio Cumbria presenter to comment that:

"Sir Douglas Black's' report is looking a little bit battered at the moment"

(29/8/84)

The Whitehaven News similarly concludes in an editorial on the 30th August that:

"Influential opinion is building up against Sir Douglas Black's report"

also arguing that

"These are serious and disturbing points of view which cannot be dismissed (as so many of those closely involved with the industry so frequently do) merely on the grounds that they emanate from anti-nuclear cranks. "Anti-nuclear" these critics may be, cranks they certainly are not".

(Whitehaven News, 30/8/84)

In the face of this criticism, responses begin to appear from various bodies concerned and from Sir Douglas Black himself, marking the beginning of an interchange to take place over a period of several months in the letters pages and occasionally feature pages of the specialist press, local media and quality national press. The NRPB made an initial response to Dr Russell Jones' letter in the Lancet with follow up letters ensuing.¹ Sir Douglas Black's response appears first in reports of his visit to Cumbria, apparently planned several months earlier, but also interpreted as a chance to counter the criticisms being made of the report. In a similar style to his comments with the release of the report, Sir Douglas is reported as repeating his reassurance to the people of Cumbria and the importance of comparing risks², although some sources report a greater emphasis on the uncertainty of the inquiry team's conclusions; several articles carry his comment on whether or not the nuclear plant was to blame for local cancers as:

"Quite honestly, we don't know and nobody does"

(Evening News and Star, 7/9/84)

and the Evening Mail for example headlines with

"Still a mystery - N-probe chief"

(Evening Mail, 7/9/84)

1. Lancet, 15/9/84; 29/9/84; 13/10/84)

2. Guardian, / /84; Doctor, 13/9/84)

Douglas Black also spoke at the British Association a few days later where he repeatedly discussed how his own views on the leukaemia issue had changed during the investigation, from thinking there was "nothing peculiar", to a view that "it is extremely likely that there is a troublesome excess of cases" (*Guardian*, 12/9/84). In these responses Sir Douglas Black makes little direct or detailed reply to the criticisms levelled at his report, but relies instead on considerations of probability and the low number of cases involved, which themselves are taken to overwhelm any detailed inaccuracies or alterations suggested.

Alongside the emerging debate over the report itself another aspect of news stories during this period was the reporting of research being undertaken in response to recommendations made by the inquiry. Reports of projects being set up have appeared mainly in the local press although wider attention has focussed on particular stories. Most noticeably the Sunday People¹ picked up on the testing of the bodies of dead infants for radioactive traces, and presented this using a "dramatic revelations" angle. This contrasted with the calmer and much earlier local reporting of the proposed tests, and led to complaints of misquoting and "shock horror" treatment amongst local figures involved.²

The continuing scientific debate to-date has involved a variety of individuals and organisations including amongst the critics James Cutler the producer of the *ITV* documentary, Greenpeace and again Dr Russell Jones, whilst responses to these criticisms have been made by BNF, Jack Cunningham, G J Draper of the Childhood Cancer Group, NRPB, Craft and Openshaw from Newcastle and Eileen Rubery, secretary to the Black inquiry committee, amongst others. The debate has also revolved around a range of issues with some observers addressing only particular aspects of the report and the realisation of its recommendations whilst others adopting a stance more wholly critical or supportive of the report as a whole. Particular criticism has revolved around the use of statistics³, the accuracy of the NRPB dosage model⁴, the accuracy of epidemiological data⁵, and the

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1. Sunday People, 28/7/85
 2. Whitehaven News, 1/8/85; 8/8/85.
 3. A Pomiakowski, Nature, 5/9/84
 4. J Cutler, Lancet, Nov 17th 1984
 5. J Urquhart and J Cutler, Lancet, 19/1/85; A W Craft and S Openshaw, Lancet, 16/2/85.

interpretation of this data¹ and the implementation of the reports recommendations². In the course of this debate one important feature is the credibility of Sir Douglas Black and the inquiry team - an issue which was little discussed in earlier media articles. For example in response to Dr Russell Jones' letter to the Lancet, Jack Cunningham is reported as saying:

"I call Dr Jones' comment stupid. As I understand it this man has made an attack on the integrity of Sir Douglas Black and his advisers in drawing up the Report. Sir Douglas is a man who has devoted his whole career to peoples good and service. His assessors are people at the top of their profession and they have no axe to grind".

(Whitehaven News, 30/8/84)

In contrast a letter writer in the Guardian states that:

"but when it doesn't suit him (Douglas Black) - because he supports the Establishment view on nuclear power and nuclear weapons - he is prepared to discard common sense and fall back on epidemiological ambiguities and uncertainties"

(Guardian, 17/9/84)

Another letter writer, G J Draper of the Childhood Cancer Group considers that attitudes towards the report came eventually down to a matter of trust:

"The question is whether we can trust the authors of the Black Report; I believe we can"

(Guardian, 19/1/85)

In this light it can be seen that the post Black debate is perhaps more fundamental than it seems reaching deep into issues of credibility, scientific method and social responsibility. However, in terms of media interest it is seen as elitist in nature, involving detailed science for interested and involved publics only - the scientific, the socially aware, and the locally concerned. For the popular media the Black inquiry largely lost its relevance when the forensic and policy aspects of its role were effectively resolved - the post-Black debate has failed to concretely impinge on Government policy in any way (perhaps because the mass media have not been interested?)

1. R Wakeford, Guardian, 4/1/85.

2. Evening News, 26/9/84; Jessop and Mursley, Lancet, 15/12/84.

In terms of the range of opinion and interpretation presented by the media it is interesting to note that the interpretations put forward during the pre Black period, emerge again during the post Black period after being temporarily overwhelmed by the "official" release of the report. However, as noted earlier, these interpretations have not been as fully aired to the mass of the public, and to the political/public climate within which the government operates, as were the reassurances of Sir Douglas and the presented conclusions of the report in July 1984, as the debate has moved back to the "specialist" sources and to the letters pages, and largely away from the mass audience. However this restricted audience may also be the influential audience in some respects, so the potential of the post Black debate is still uncertain.

8. ASSESSMENT OF MEDIA INVOLVEMENT AND COVERAGE

The review and analysis of media coverage of the Black inquiry has provided a chronological view of events and reportage over a 12 year period. A range of individual points about the performance, characteristics and structure of this coverage have also been made. This section draws out broader themes from the analysis and discusses the individual conclusions already made in greater depth.

8.1 Media Roles

The chronological view has illustrated how in the public policy arena within which the Black inquiry took place, the media plays important interactive and mediating roles between the various "publics" (communities) concerned (politicians, activists, BNF, locals, general public and so on). The function of the media in this respect has been multifaceted with four particular roles identified in the context of the Black inquiry:

1. Influencing events: - the ability of the media to directly influence events is of course most impressively witnessed by the fact that but for the making of the YIV documentary, the cancer excess in the vicinity of Sellafield would not have been identified (at least when it was) and the Black inquiry would never have existed. The significance of the documentary relied both on the fact that it had unearthed new evidence on cancer statistics, but also that these were heavily publicised and presented in a visually attractive format over a mass medium. It is reasonable to speculate that if the same information had been presented in a drier form than a TV programme (eg a plain scientific report) the reaction of the government would not have been as immediate or as concerned - certainly general public awareness would have been much lower and the government and the nuclear industry has shown itself to be highly sensitive to public awareness. The media in this respect therefore played active, political and scientific roles; the current level of investigation both of the Cumbrian case and of the hazards of low level radiation in general, contributing to the advancement of knowledge in these fields. As well as this primary role in influencing events other less fundamental examples of media involvement can be seen during the Black inquiry. In a less

direct manner, the news media reporting of the pre-programme debate can be seen to have raised the political significance of the YTV documentary and almost certainly increased the level of pressure felt by the government to set up an inquiry into the allegations. The pre-publicity also influenced the character of the inquiry in that it could not be only "scientific" in nature but would have to address political and policy issues, and play a role of judge and jury on the cancer link; the inquiry was set up in the media limelight and could not escape the medias concentration on the political and forensic aspects of its function (discussed at greater length later).¹

Another example of the active involvement of the media would be the Daily Mirror articles on Down's Syndrome cases, which also brought new information to the inquiry's notice, and the second YTV documentary. These cases are examples of the active campaigning and tradition of journalism, involving itself directly in the debate rather than just reflecting or reporting it.

2. The Provision of Information: - information about the Black inquiry for the majority of people in the country must overwhelmingly be gained through the media. For example, in the case of the Black report there are perhaps four modes of potential communication of its contents: these being direct access (reading the report) mass media reporting, specialist media reporting and interpersonal communication. Of these the only effective channel through which the report would connect with the majority of the public would be the mass media. Relatively few people will have taken steps to access the report itself, the specialist media have only a limited audience, and much interpersonal communication will have relied on media reports as its initiating source.

In informing the public about the Black report the media clearly do not simply act as a means of transmission of its content. They must also transform its contents through the necessary simplification from a 100+ page report to brief newspaper articles or radio and TV bulletins. In

1. See also Macgill, Ravetz and Funtowicz, 1985.

this process of simplification there must inevitably be selection, omission, emphasis and maybe evaluation put on particular aspects of the report and not on others. The manner in which this process of transformation has occurred in the case of the Black report has been discussed in section 6 of this paper.

Although media reportage will have been a prime source of information, opinions and discussion on the Black inquiry it would be foolhardy to presume that this specific reportage will have been a dominant influence on public opinion. Research into the relationship between what the media is saying and what the public thinks has produced more disagreement than agreement¹ and a variety of perspectives have been adopted. In the case of Sellafield, however, there are several reasons for attributing a greater potential influence to the media, including the issue's "newness", complexity and uniqueness², although the nature of this influence may not be predictable or homogeneous in nature.

3. Forum for debate: - the third role of the media in the Black inquiry is that of a forum for debate and discussion. This role has perhaps been of most importance during the post-Black phase with critiques of the report being presented in letters pages or in feature articles written by involved participants, which in turn generated discussion and debate functioning through the letters pages of especially the Guardian and Whitehaven News. In this way the post Black debate has been able to proceed under some degree of interested public scrutiny not possible if it were restricted to specialist publications or individual communications.

At other times during the Black inquiry the local radio and television provided a more immediate forum for debate, reaction to events and so on. Although often featuring a restricted set of interviewees and participants, these mediums at times are able to include the voices of the non-involved

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1. for review and discussion of this issue see D McQuail, Mass Communication Theory, Sage, 1983; J B Lement, Does Mass Communication change Public Opinion after all, Nelson Hall, Chicago; D A Davis and S J Baran, Mass Communication and everyday Life, Wadsworth, California, 1981.
 2. H G Zucker, The Variable Nature of News media Influence, in B D Huben (ed) Communications Yearbook 2, Transaction Books, New Brunswick, 1978.

elite, for example in the interviews with local people about their reaction to the Black report (although as discussed this was only very sketchy). Local TV has also staged programmes dedicated to discussing Sellafield issues the most substantial of these being the Tyne Tees/Border TV "Friday Live" programme broadcast on 25/4/84.

4. An issue itself: - lastly the media has been a subject of controversy and debate in itself, most obviously in the "pre-programme" period with BNFL complaining at the research methods used by the ITV team (media ethics) and at the balance, accuracy and bias of the programme itself (media performance). The Sun's "Village of the Damned" article (see section 5) also generated particular local complaints and during the run up to the release of the report, the media were also criticised for speculation and for reaching unsubstantiated conclusions. During the pre programme period the debate over media ethics and performance almost in fact overwhelmed the more substantive issues at stake with headlines concentrating on "the row" rather than the programmes allegations and the fact that the media were being criticised also extended the news story's interest and longevity in the press. The specific criticisms of the media can be seen to lie within the more general critical perspective adopted towards the media by the nuclear industry in general and BNFL in particular.¹

These four identified media roles confirm the media's integral and pervasive part in the course of the Black inquiry. They are not unique to this issue, but emphasise that the media should not be considered just as a reporting medium influencing only general public opinions in some way. The range of potential effects is much wider and more complex.²

1. See G P Walker, Nuclear and Environmental Issues and the Media, School of Geography, University of Leeds, 1985.

2. The wider roles of the media have been discussed in other contexts, although until recently this was a reflected aspect of media research. See C Seymour Ure, The Political Impact of mass media, Sage, 1974; S Kraus, Dennis D, The effects of mass communication on political behaviour, Pennsylvania University Press, 1976

8.2 News Values and Structures

As mentioned in the introduction the news is produced and presented within certain organisational or administrative structures, with stories selected and written with some set of news values in operation. These news values vary to an extent across media sources (depending on intended audience, editorial orientation . . .) but common values have been identified such as a concentration on the dramatic, the negative, the personalised, the elite individuals, the extraordinary and so on.¹ The news media also operate within strong structural constraints, especially those of time and space. These considerations will have shaped the reporting of the Black inquiry as in any other news story.

The attraction of conflict as a news angle is seen most clearly in the pre programme period where headlines and to a lesser extent reports, tended to concentrate on the fact that there was a "row" or disagreement going on, which to an extent overwhelmed the far deeper issues at stake. During the run up to the report release some sources were also predicting conflict with the release of the report, in an effort to "spice up" its forthcoming publication. In the context of the complex debate behind the conflict reported by the press it can be seen that adopting a conflict angle is far simpler and less involved than attempting to put across the basis of the disagreement over the hazards of low level radiation. This simplicity is part of the attraction for the media - everyone can understand the nature of a "row", whereas few people may understand the world of rems and curies.

The exclusiveness of a news story is another important attraction for the media and can be seen to have operated in the case of the two early pre programme articles in the Sunday papers. Both tagged as "exclusives" they concentrate at length on YTV's allegations (the Observer referring to them as findings), and, to increase the drama of the exclusiveness , both tend to sensationalise the story in one way or

1. Hall et al, *Policing the Crisis*, Macmillan, London 1978; P Lowe and D Morrison, *Bad News or Good News: environmental politics and the mass media*, *Sociological Review* 2, 1984 p 79-90.

another. Where stories are less exclusive in the following daily papers the YTV allegations are described more cautiously and carefully.

The personalisation angle of the media is seen in the prominence given to Sir Douglas Black as head of the inquiry (although this is partly his and the governments own doing). Given the status given to him as an individual throughout the inquiry period, this personalisation helped give credibility to the inquiry team as well. Status conferral can also be seen to be aided by the standard conventions of news report writing which include aspects of biography about individuals involved in the subject story.

In the release of the report a media concentration on the forensic and policy aspects of the inquiry as opposed to the scientific can also be identified. There is an observed tendency for media sources to be concentrating on the "verdict" rather than the findings of the inquiry team, with this most explicit in the "Sellafield cleared" headlines. This may be a consequence of both news values, simplification, and the style of earlier conflict coverage when the inquiry was established. A verdict is easy to summarise as a headline and can be understood within conventional legalistic terminology. Earlier conflict begs the question of who is to be decided the "winner" when the inquiry team reports.

The simplification apparent in all stages of reporting of the inquiry can be seen as a combination of the structural constraints on news reporting and of news value considerations. Clearly the Black report had to be simplified to condense its contents into a short article or bulletin and further condensed to obtain a headline. At the same time news sources will have presumed a certain level of interest and comprehension for their readership and will have written reports in accordance with this view; resulting in a detailed report in the Guardian and a minimal report in the Mirror for example. However, as identified in the text analysis simplification creates distortion and in the case of the Black report the aspects which tend to be excluded as coverage gets brief are those of context and uncertainty, aspects which are in theory essential for the accurate comprehension of the report. In this way simplification is likely to reduce accuracy and the depth and breadth of comprehension.

The need to keep to strict deadlines and the consequent pressures of time also shape the news production process and in the Black inquiry this can be clearly seen on two occasions with the announcement of the inquiry and release of the report. In both cases the amount of time available in particular between the release of the news item and the early evening news bulletins was very restricted. This contributed to both inaccuracy and a limited range of reaction to the news event being included in reports. In the case of the report release the short time and the need for instant reaction (the next day the report would not be news) limited both the range and quality of reaction that could be included (it has been suggested that the report was deliberately released late in order to achieve this very effect).

Finally it is apparent that news values usually require an "event" to occur for a news story to be potentially created. In this sense the release of the Black report was an event, with press releases, a commons statement and press conference all attuned to the operation of the media. In contrast the post Black debate has had no such galvanising events to gain it widespread coverage. Criticisms have been sporadic, largely intellectual in character and involving individuals not central to the public or political sphere. As such their newsworthiness is generally low - considerably lower than the report itself - and hence, however damning have not achieved a high profile in the public consciousness.

These various examples and illustrations of how news values and organisational constraints may have impinged on the Black inquiry, begin to give limited insights as to why the coverage was how it was. Some of this analysis must be partly speculative in character and it is difficult and potentially misleading to generalise across all media sources.

Whether the operation of identified news values leads to biases in the presentation of issues and opposing cases is very difficult to assess in any conclusive manner. For the moment what is important is some recognition or awareness of their existence and the resulting difficulties inherent in any attempts to change how the media currently operates.

8.3 Media Performance

The feature of news coverage which perhaps varies the most between news sources is the comprehensiveness of news reports. In the three sections of detailed analysis included in the chronological review, figures showed how both the length of reports and the number of points of information included in them varied enormously between news sources. As would be expected the more comprehensive reports are found in the quality press and local press, with the tabloids often including only the minimum of information (the exceptions being feature articles). National TV reports contain about the same amount of information as the quality press, whilst local radio reports are extensive in length but rely largely on interviews and discussions for their content, with information summaries at times brief.

Selectivity in general varies inversely with comprehensive so that in the coverage of the Black report the Whitehaven News contains 29+ points from the inquiry findings including all of the dominant points (see table 9) whilst the Star contains only 5 points in total and selects only 4 of the dominant points. The need to select only certain of the main points from what is a complex report results in some sources in important points (such as the fact that a leukaemia cluster had been confirmed) being excluded.

There are also distinctions in the frequency of coverage with the tabloids only covering the Black inquiry at crucial points largely in the form of one day stories, a pattern also seen in national TV news coverage. Local sources and some national (most notably the Guardian, Times and Telegraph) have a more regular pattern with articles during the inquiry period, and some follow up reports to the main stories.

The importance of "accuracy" in news reporting is often stressed, even though the dividing line between inaccuracy and interpretation may often be difficult to draw. In the detailed analysis of the inquiry announcement and the Black report coverage, significant inaccuracies were identified but more so in the former than the latter news sources. It was found that in the announcement of the inquiry four sources contained

no accurate reference to what the inquiry was to be about and in others the description was incomplete but conveyed the central objective. The fact that this straightforward information was readily available in press releases and the commons statement cannot be conveyed accurately by all sources bears testimony to the level of inaccuracy sometimes exhibited by parts of the media (some sources are however largely accurate and comprehensive).

The seemingly "inaccurate" reports of what the inquiry was to conclude, appearing during the run-up to the report release, are interesting in that the facts on which they were based were largely accurate, but the interpretation put on them by the news sources was different to that presented by the final report. They were therefore in a sense inaccurate in their predictions but justified within their own context. The coverage of the report release itself also shows this variability of interpretation, whilst the facts within bulletins and articles were largely accurate (although distinctions in wording could be isolated).

In terms of providing information for the general public, some sources clearly perform much better than others, and therefore different sections of the public will have a variable opportunity to gain comprehensive and accurate information. However, both nationally and locally in the case of the Black report, fairly detailed and accurate summaries were available in the press for those strongly interested in the inquiry.

The issue of sensationalism in news coverage of nuclear affairs is one that has arisen in criticisms made largely by the nuclear lobby over recent years. It is however, a difficult issue to discuss and even more so to measure in any consistent manner. Clearly what is sensationalist will depend upon each individuals view of the topic being addressed. If the risks of low level radiation are considered to be minimal any coverage of statements alleging otherwise may be considered sensationalist. If the individual is an environmental activist any coverage may be considered good publicity. The authors assessment may in this sense be only as valid as anyone elses.

In the earlier analysis, instances where "colour" or what was considered

to be clear exaggeration or dramatisation, were apparent were identified. These included the early "exclusive" Sunday paper articles on the YTV documentary, the Sun' "Village of the Damned" feature, TV reviews following the documentary and occasional articles for example in the Mail (pre programme), Liverpool Post (Black report release) and Sunday People (post Black). The sort of sensationalism identified consists of exaggeration ("fields where ramblers walk at their peril") the use of doom and death imagery ("horror in hoover") and the concentration on the extraordinary ("the spiders are big and strangely coloured"). These articles can be seen as exploitative of the potential drama of the components of the debate - death, children, individual reaction to risk, radiation (science fiction mythology). It would appear to be easy for writers to slip at times into sensationalism in an effort to either entertain (TV reviews) or enhance the exclusiveness of a story (Sunday papers pre programme). It would however, be wrong to presume this is a universal tendency as the majority of articles, particularly those concerning the inquiry rather than the YTV programme, are comparatively sober and straightforward in character and content. Overt sensationalism has also tended to be restricted to the press rather than the mediums of TV and radio.

Less clear cut cases are articles for example where the contents of the YTV programme are presented as facts rather than as allegations. Here the dividing line is unclear and it is perhaps more significant that the majority of sources are cautious in their use of the YTV findings.

9. REASSURANCE AND THE MEDIA

The Black inquiry has been interpreted as a thorough and justified basis for reassurance in the local community by some and as a symbolic exercise in reassurance by others. As has been discussed in earlier sections of the paper the majority of the public would only hear about the inquiry and its findings through the mass media and if reassurance were to be given it would largely need to be transmitted through the media's channel of communication. Reassurance is in evidence both at the inquiry announcement and at the release of the report and on both occasions the media largely transmit this with little oppositional interpretation or comment.

In the case of the inquiry announcement, Patrick Jenkin included a number of institutional reassurances in his House of Commons statement. At least one of these reassurances is found in the majority of news sources, with some sources concentrating heavily on his comments with no counterposing points in evidence. Most sources also accepted the government's explanation of the setting up of the inquiry at face value as a scientific study of a potential health problem revealed by the YTV documentary. Two national papers, however, most notably the Guardian, discuss background pressures and the government's concern about public opinion, indicating that the inquiry also served broader political purposes. These considerations were not widely reported. The news reports of the inquiry announcement also willingly transmitted various indicators of the status of Sir Douglas Black and hence of the inquiry, and at this stage very few dissenting voices are in evidence. In these ways, the inquiry got off to a good start in the media.

During the inquiry period Sir Douglas Black's' status was questioned at times, but suffered no substantial bruising, and although Greenpeace say they were told by Sir Douglas (when giving evidence) that his purpose was to "reassure the public" (thereby construing the inquiry as pure ritual in their eyes) this did not become a "news story" in any way or question the credibility of the inquiry within mass media sources. In the pre-report period the reassurance of the inquiry was partially challenged by the speculative news reports, headlining with the confirmation

of the cancer cluster and the predicted finding of a link between the cluster and the plant. These reports were however, sporadic and diffused between sources and over time, so their impact could only be limited.

With the release of the report the reassurance of the inquiry was largely transmitted and even strengthened by the media. At various stages of analysis (headline, content, reaction) a picture of interpretation favouring the "clearance" of the plant, or of support for the findings and conclusions of the report, was identified, this tending to be more dominant than those interpretations critical of the report or emphasising the confirmation of a cancer cluster and the still possible link with the Sellafield plant. The high profile of Sir Douglas Black especially on the TV news reports (the most important of which also opened with reassurance messages) particularly contributed to the playing down of the risks and the significance of the cluster identified. Some, but not all reports also tended to simplify the conclusions of the report in an effort to find black and white solutions where there were none and militating against the effective conveyance of uncertainty and the problematical peculiar nature of Black. There is also little colour or drama included in the news reports.

In combination these factors would seem to have contributed to presenting the inquiry's findings in a relatively reassuring and favourable light, although as described the post-Black debate has begun to seriously question the validity of the report and its reassurances.

The explanation behind the largely passive role the media has performed in transmitting the Black inquiries reassurances where on other occasions, for example in reporting Greenpeace's activities, the media has given prominence to very critical views of authority, is difficult to conclusively put forward.

It may be that media sources are expressing a deliberate editorial attitude in their reporting of the inquiry findings. Alternatively it may be that the news management of the government and the presentation of the report by Sir Douglas Black, were particularly effective in achieving favourable coverage and stifling criticism. The explanation as might be expected is unclear.

Certainly if the local public were not reassured by the Black Report¹ news media coverage of the inquiry cannot be easily blamed, although the longer term effects of the ITV documentary and the reporting of other Sellafield and nuclear issues must also be of relevance to opinion formation on this issue.

1. See S. Macgill, *r G Berkhout*, 1985.

10. CONCLUSION

The Black Inquiry was one of the most significant investigations into the public health effects of nuclear power in Britain. It also acted as an effective tribunal on the continued operation and existence of the Sellafield plant. The fact that an inquiry of such importance was media induced bears testimony to the central involvement of the mass media in current public affairs and its potential active role influencing the public and political agenda. Once on the agenda the media also played continual interactive roles in the course of the issue as identified in this paper.

Perhaps most importantly the news media had the function of informing the public about the inquiry and its findings. The performance of the media in this respect has been assessed and been found to be at times inaccurate, significantly incomplete and occasionally sensationalist, but also often comprehensive, accurate and sober. In the coverage of the Black report itself, it is evident that there is a large problem in conveying a complex, scientific document to a lay public through a brief article or news bulletin. The level of selectivity necessary has been shown to be substantial and distortions inevitably occur. It may be that the media are incapable of adequately handling such a document where an attempt is being made to present an independent and unaligned study of a complex and highly sensitive problem. In this respect the media may be more attuned to the simpler, superficial and more easily handled types of publicity and argument put forward by those actively involved in the nuclear debate (eg BNFL and Greenpeace). One particular observation made from the Black Report coverage is that the actual report release did little to aid the more considered and detailed reporting and review of its contents. The fact that the release was surrounded by speculation, allegations of cover ups and news management, emphasises again the political and public environment within which such "scientific" inquiries must operate.

What the review has also illustrated is that it is difficult to generalise about "media coverage" when a broad range of sources are used (the relative significance of sources is also difficult to assess).

Despite such considerations it has been possible to identify the influence of common news values and news structures in shaping the reporting of the inquiry. These include at times the well-known news values of conflict and drama, and at others the more individual concentration on the forensic outcome of the inquiry at the expense of its scientific findings. The constraints of time have also been evident at crucial points. It is significant that participants in the debate have adapted to and used these features of the news reporting process, with, for example, pre-release and leaks being used to heighten news drama and tension, and news release timing and context perhaps being used to minimise coverage and criticism.

News values may also be seen as influential in shaping the course of events around the inquiry. For example, reported conflict surrounding the YTV programme almost certainly increased the likelihood of an inquiry being established, and the absence of "events" around which to hang stories about the post-Black debate, has limited its penetration of the media and political consciousness.

Whether the extent of attention given by the media to the issues involved is justified or relevant, is inevitably a point of contention. Some may argue that the original YTV programme was over publicised, over dramatised and of little substantive significance and only achieved its impact because of the nature of the medium. Others may argue that the seriousness of its allegations meant that it was important that the programme's findings were heavily publicised and consequently the government was forced to react to them. What such opposing views emphasise is that the media cannot be isolated from the climate and nature of the current debate over nuclear power.

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APPENDIX A: METHOD OF ANALYSIS

The methodology used to analyse the media coverage of the three central "stories" during the Black inquiry (pre programme, announcement and report release) is adapted from a content analysis contained in a research report to the Royal Commission on the Press, which analysed the content of selected industrial relations stories¹. This uses as source material national newspaper articles on the same story on the same day, thereby restricting any range over time, but enabling a wide ranging comparative view across different sources. The key component of this methodology of content analysis is the compilation of a checklist of story elements or points of information contained in the newspaper articles. Each article is analysed in turn and points made either added to the tabulated checklist or ticked off where they have already occurred in other papers. This tabular representation between and across papers to identify for example points which are covered in common across all newspapers, points which occur less frequently, which are unique to particular reports, which are omitted and so on. Space has not permitted the presentation of any of the full tabular checklists in the above text, although table 10 shows part of the tabulation of the report release coverage.

The methodology has been extended and adapted to a certain extent to enable the incorporation of radio and television reports, and to handle more economically particularly long and detailed coverage. This has involved focussing in on specific topics of interest/concern for each story, rather than following a strict, methodical assessment structure as is used in the McQuail report. For example, in section 4, "the announcement of the inquiry", four substantive topics are examined - why the inquiry was set up, what it is to investigate, the status of Sir Douglas Black and context, comment and background - which compares with the more formal assessment structure used by McQuail which progresses through space and prominence, headlines, completeness and diversity, attitudes of newspapers are revealed in editorial comment and editorial attitude or colour in news reports, for each story.

1. McQuail, Analysis of Newspaper Content, Royal Commission on the Press 1974-77, Research Series No 4, London 1980.

In using this approach to content analysis McQuail is careful to emphasise its limitations and inherent weaknesses. In particular he stresses the possibility of misrepresentation in compiling the checklist of points, because the continuity of a newspaper account is missing and because the wording of an identified point in table cannot reflect variations in phrasing and minor discrepancies in lengths of quotes and so on. In this sense the analysis and assessments made must reflect the reading and judgement of the researcher and some caution should be taken in their use.

At the same time, however, the methodology has the advantages of openness in that it at least attempts to lay bare the content of the source material rather than submerging it under a statistical presentation, but avoids the alternative extreme of a purely qualitative approach.

APPENDIX B: GLOSSARY OF SOURCES

National

Times - T
Guardian - Gu
Daily Telegraph - Te
Financial Times - FT
Daily Mail - Ma
Daily Express - Ex
Daily Mirror - Mi
Daily Star - St
The Sun - Sun
Morning Star - M St
BBC National News - BBC N
ITN National News - ITN N

Local

Whitehaven News - wh News
Evening News and Star - Ev News
North Western Evening/Daily Mail - Ev/D Mail
Barrow News - Barr News
The Journal - The Jour
BBC North East News - BBC NE
Border TV News - Bord TV
BBC Radio Cumbria - R Cumb

All other provincial and periodical sources named in full.

