

PRIME MINISTER

FOOTBALL

The Home Office have passed us an advance copy of Mr. Justice Popplewell's interim report, which is to be published next week. The Home Office will be letting us have recommendations on handling shortly.

You do not need to read the report at this stage. But I thought you might be interested to note that paragraphs 6.22 to 6.50 deal with the question of membership cards. Popplewell comes down firmly in favour of such a scheme, which he believes will help exclude the hooligan element from matches. He also comes down firmly in favour of steps to prevent away supporters going to matches, though the report envisages that away supporters might attend matches so long as proper controls, linked to a membership card system, were in force.

MBA.

Handy on me

→ Rose P

→ D 1173

16 July 1985



G

cc: BJS While claiming to offer a
BJ summary of the report, I am
checked this letter does not
do so. MWA 18/7

QUEEN ANNE'S GATE LONDON SW1H 9AT

16th July 1985

D. Williams

INQUIRY INTO CROWD SAFETY AND CONTROL AT SPORTS GROUNDS

I enclose a copy of Mr Justice Popplewell's interim report. The purpose of this letter is to summarise the report's content, and seek the agreement of colleagues to the timing and manner of its publication.

As to the events at Bradford and Birmingham, the Inquiry concludes that the fire at the former was probably caused by the accidental dropping of a lighted match or cigarette or tobacco onto accumulated rubbish below the stand; and that the riot - which the police could not reasonably have foreseen - at the latter was caused by spectators bent from the outset on violence.

The recommendations are summarised at Chapter 7. They fall into two groups, viz those that are made with a view to the forthcoming season and those provisional recommendations intended to indicate the way the Inquiry's mind is moving on some key issues on which firm conclusions will be reached in the final report.

Officials are now giving urgent study to the detailed recommendations. At first sight none seems to give rise to immediate difficulties of principle although giving effect to some will require surmounting significant practical problems. On publication my intention is to respond in a positive way so far as possible to all the non-provisional recommendations so that the local authorities, the police, the fire service and the clubs should be left in no doubt about what is expected. I do not foresee fresh expenditure implications for the Government at this stage. So far as the clubs are concerned, my colleagues closest to these problems will know that I have sought to implement further designations under the 1975 Act in a way designed to minimise immediate costs.

In my view I will be expected to make an oral statement on publication of the interim report. We are aiming to publish on Tuesday 23 July and I hope that the Lord Privy Seal will agree to my making the statement that day or later that week if for any reason the date of publication slips. In the usual way I will send an advance copy of the text to those of my colleagues chiefly concerned. The main elements of the statement as I see them at present are (a) a positive response to the report's firm recommendations, (b) an outline of the steps that have been variously taken by the Government since my last statement on 13 May, (c) an account of the findings of the urgent inspections of sports grounds which I requested chief fire officers to undertake and report upon by 12 July, and (d) a reference to the consultative document on the Fire Precautions Act 1971, which I propose to publish on the same day as the interim report. You will recall that colleagues recently agreed to the latter's publication: this timing will allow me to explain its separate purpose but reassure people that it will be open to the Inquiry in its next phase to consider and, if necessary, comment upon the consultative document's proposals. Officials would then immediately follow up my statement by circulating the report's conclusions and recommendations to local authorities, the police and fire services and the relevant sporting authorities drawing attention as appropriate to the steps that are required of them.

The Rt Hon Viscount Whitelaw, CH, MC

Because of the urgency on this occasion I hope colleagues will be able to let me know by close on Thursday only if they are not content with my general approach. As to Scotland, although I could refer in general terms to the position there in my statement, I imagine George Younger would much prefer to set out his position separately, perhaps by an arranged Question. Similarly, although the 1975 Act does not apply to Northern Ireland, I imagine Douglas Hurd will wish to prepare his position separately too.

I am copying this letter and the report to the other members of H Committee, Neil MacFarlane and Sir Robert Armstrong.

L
L
L

**Committee of Inquiry
into Crowd Safety and
Control at Sports Grounds**

Chairman

Mr. Justice Popplewell

INTERIM REPORT

July, 1985

CONTENTS

	Paragraphs
INTRODUCTION	1 - 11
<u>The Fire at Bradford City Football Ground</u>	
Chapter 1	How did the fire start ? 1.1 to 1.35
Chapter 2	Why did the fire start and cause such casualties ? 2.1 to 2.28
Chapter 3	What lessons are to be learned ? 3.1 to 3.155

The events at Birmingham City Football Ground

Chapter 4	How did the riot start ? 4.1 to 4.74
Chapter 5	Why did the riot start ? 5.1 to 5.17
Chapter 6	What lessons are to be learned ? 6.1 to 6.68

Recommendations

Chapter 7	Summary of recommendations and provisional recommendations
-----------	---

APPENDICES

APPENDIX 1	List of those who submitted evidence
APPENDIX 2	Plan of the Main Stand at Bradford
APPENDIX 3	Three photographs (A, B and C) of the fire at Bradford
APPENDIX 4	Fire Research Station Report on the Bradford fire
APPENDIX 5	Typical Safety Certificate of a designated football ground
APPENDIX 6	Plan of Birmingham City football ground
APPENDIX 7	Three photographs (D, E and F) of the ground at Birmingham
APPENDIX 8	FA Memorandum of 1983 to Football League clubs regarding crowd control

Rt Hon Leon Brittan QC MP
Secretary of State for the Home Department

Rt Hon George Younger MP
Secretary of State for Scotland

INTERIM REPORT OF THE INQUIRY INTO CROWD SAFETY AND CONTROL AT SPORTS GROUNDS

INTRODUCTION

Sirs

1. On 13 May 1985 I was appointed by you to undertake an Inquiry with the following terms of reference: "To inquire, with particular reference to the events at Bradford City and Birmingham football grounds on 11 May, into the operation of the Safety of Sports Grounds Act 1975; and to recommend what if any further steps should be taken, including any that may be necessary under additional powers, to improve both crowd safety and crowd control at sports grounds".

2. This followed a fire at the Bradford City football ground on 11 May in which 55 people died and many were injured, and the serious crowd disorder at the Birmingham City football ground on the same day, in which a boy of 15 died and many were injured.

3. Appointed to assist me as assessors were Mr Alan Goodson OBE, QPM, Chief Constable of Leicestershire and Mr Martin Killoran QFSM, formerly Chief Fire Officer of Greater Manchester. I am much indebted to them for their advice, expertise and common sense.

4. I have been greatly assisted in this Inquiry by the hard work and advice of my Secretary Mr Neil Morgan and his assistants Mr Mark de Pulford and Miss Jill Hales. Their invaluable contribution has enabled me to produce this Interim Report so expeditiously.

5. On 29 May, after we had begun our work, there took place the tragic events at the European Cup Final match at Brussels in which 38 people died and many were injured. It was agreed that I should take account of any lessons arising from these events, although the investigation is, of course, a matter for the Belgian authorities.

6. I decided to hold a public inquiry into the fire at Bradford. For that purpose I visited the ground on 14 May. I held a preliminary hearing on 23 May. The full hearing began on 5 June. It concluded on Thursday 13 June after hearing 77 witnesses. I give a fuller version of these events and my conclusions and recommendations in Chapters 1, 2 and 3 of this report.

7. As for the events at Birmingham I decided not to hold a public inquiry but to consult with the Police, the two football clubs involved and the local authority in order to find out what happened and to make recommendations for prevention of any repetition in the future. I visited Birmingham City football ground on 15 May and 1 July. I consulted with the various authorities on July 1, 2 and 3 and also talked to the parents. I received a large quantity of documents relating to the incident and have seen the video film. My conclusions appear in Chapters 4, 5 and 6 of this report.

8. In relation to the other aspects of the Inquiry I invited evidence from all those who wished to submit it, and specifically from a wide range of sporting, local authority, fire service and police representative bodies. This was done on 3 June, before I began the hearing at Bradford, in order to give time for the preparation of evidence and so that I could quickly begin to consider the remaining aspects of the Inquiry after I had completed investigations into the events at Bradford and Birmingham. Many representative bodies and individuals have submitted evidence. I am most grateful to them. The full list is given in Appendix 1. I am also grateful to all those who wrote to me giving their views on the incidents at Bradford and Birmingham.

9. From the outset of my Inquiry I realised that I would be faced with a difficult problem of timing in relation to the preparation of a report to you. The separate inquiries into the events at Bradford and Birmingham were unlikely to be completed before mid July. I then had to complete my reports on these events. Thereafter, I and my assessors would have to consider a great mass of evidence on the other aspects of the Inquiry. I should want to hear some further oral evidence. I then had to prepare my report giving my conclusions on the complex and difficult issues arising from the need to improve crowd safety and crowd control at sports grounds. Even for High Court Judges there are only 24 hours in a day. It was clear that even working at all possible speed a full report could not be prepared and in your hands in sufficient time before the next football season, due to start in the middle of August.

10. I had two alternatives; either to report nothing until I had completed all aspects of the Inquiry, or to prepare an interim report giving the results of my investigations into the events at Bradford and Birmingham, together with some preliminary recommendations on safety matters and crowd control based on these investigations. I decided it would be right to choose the latter alternative, as safety levels must be improved quickly. It must however be appreciated that the time scale has necessarily prevented as full or detailed an investigation into these complex matters as I would have wished. The interim report is therefore submitted for your consideration.

11. I am now proceeding with the remaining aspects of the Inquiry and will produce my final report as soon as I reasonably can.

Yours sincerely

Oliver Powell

CHAPTER 1

1.1 At about 3.40 on the afternoon of Saturday 11 May 1985 a fire started in block G of the main stand of the Bradford City football ground, at Valley Parade. In about five minutes the whole stand was in total flames. 55 people lost their lives, in addition many were seriously injured.

1.2 There are three questions which I have to consider: (1) how did the fire start; (2) why did the fire start and cause such casualties; and, (3) what lessons are to be learnt for the future so as to prevent such a disaster ever happening again?

The Ground

1.3 It is situated at Valley Parade, Bradford. It has covered accommodation on three sides and an open terrace known as Spion Kop on the north side. The pitch runs from north to south. On the west side was the main stand with which I am concerned. It held just over 2,000 people. The accommodation has been subject to some alteration. The standing area in front of the stand has twice been reduced to accommodate pitch widening: but the buildings are substantially as they were in 1908. A plan of the stand is at Appendix 2.

1.4 The stand was some 90 metres long. It was set on the side of a hill. It divided approximately into two equal longitudinal sections separated by a wooden fence which was about 4 to 5 feet high. Above the fence, spectators were provided with timber seats, affixed to timber; below, there were polypropylene seats affixed to concrete. These seats were numbered from 1 to 151 above the wooden fence, from 1 to 140 below. They were divided in blocks, from block A to block G. Block G is the most northern part of the seating area. Access to and from all seating sections was from a long corridor extending almost the full length of the back of the stand. It was located at the highest point next to the same perimeter wall along Valley Parade. Entrance, turnstiles and exit doors led directly from the road to the corridor which in turn fed the various sections of seating.

1.5 At the northern end of the main stand and all along the front, terraced standing areas were provided. This area is known as the Paddock. In front of the Paddock ran a brick wall between 4 and 5 feet high. In front of this wall was a track and then the pitch.

1.6 Because of the natural slope of the hill there was a void underneath the wooden floor of the stand, between the seats and the ground. Its depth varied between 9 inches and 30 inches. The back part of the seating in G block, the area in which the fire started, consisted of 9 rows, lettered I to Q and numbered from south to north, 141 to 151. Seat number 141 adjoined the steps leading up to the corridor. Number 151 adjoined the Paddock. The upper section of the seating accommodation was separated from the lower section by a timber partition which went along the whole length of the stand.

There were only two points of access from the front seating to the corridor at the back of the stand, namely between block B and C and between E and F. There were also steps to the back corridor at the south end of the stand adjacent to block A.

1.7 The close boarded roof was covered throughout its length with roofing felt, and supported by three rows of steel columns, with timber trusses and purlins.

The Club

1.8 The Club was formed as a rugby club in May 1903. Its original name was Manningham Rugby Football Club. It then became a Soccer Club. It was promoted from the 2nd Division as champions to the 1st Division in 1908. When the Bradford City Association Football Club (1908) Ltd was formed it won the FA Cup in the 1910/11 season. It stayed in the 1st Division until 1922. It then dropped from the 2nd into the 3rd Division in 1927. It achieved 2nd Division status again in 1928, which it held until the 1936/37 season. From that time it has spent its entire years in the 3rd and 4th Divisions until the present season, at the end of which it was promoted to the 2nd Division.

1.9 Mr Stafford Heginbotham was a director of the 1908 club from 1965 until 1973 and during that period became Chairman. He had no connection with the club from then until 1983, when the 1908 club went into receivership and subsequently into liquidation. It apparently had debts of somewhere over £400,000.

1.10 Since 1983 a new company, Bradford City Associated Football Club (1983) Ltd, has been formed. Relations between the Club and the police have been excellent. Mr Heginbotham is Director and Chairman, Mr JC Tordoff and Mr P Flesher also constitute the non-executive board of Directors. Mr T Newman is the Company Secretary and Administrator, Mr M Ryan is in charge of lotteries and promotion, Mr T Cherry is the team player/manager and responsible for all

matters relating to football. His assistant is Mr T Yorath. Mr A Gilliver is the Stadium Manager and is responsible for the ground, the bar, and match day catering and general maintenance.

1.11 In addition there is a secretary to the football Manager and there are a number of full-time and part-time people who work in the lotteries office. There is a maintenance man who is responsible for general maintenance at the ground; there is an assistant groundsman, and various other people in part-time and full-time employment.

1.12 By the summer of 1984 when the club was in a more stable financial position, six people were asked to join as Associate Directors in order to lend their expertise to the club on practical rather than financial matters.

1.13 The financial position of this club was not substantially different from a number of others who lurk in the depths of the 3rd and 4th Division. The gates of these clubs are insufficient generally to provide adequate financial stability. Thus directors and chairmen, often local businessmen themselves, devote a substantial amount of their own money in order to keep their football clubs afloat. Football at this level is run on a shoe string.

1.14 There were in the 1984/85 Season, 31 first-team League and Cup matches. The total attendance was 186,532, an average of just over 6,000. Mr Heginbotham gave evidence at the public inquiry. He took a highly responsible attitude to the events which had caused so much grief. He gave every assistance to the police in their inquiry and to us in ours. In the course of his evidence he was asked this: "I think that you yourself want to say something about the responsibility of the club itself", ANSWER: "Yes, a great deal of effort was put in to improve the club and a great deal has been achieved since the new company was formed. Many improvements have been made to run the Club but as the Chairman of the Club I accept the responsibility for the executive and management I employ. I accept the responsibility for the manner in which the Club is run and the direction which the board give to it. There are obviously things that could have been done on that day or before that day that would have helped the situation with the benefit of hindsight. I am prepared to say that there are a number of things we all wish had been done or had been thought of prior to this terrible tragedy".

The Outbreak of fire

1.15 Saturday 11 May 1985 was to be a day of celebration for the Bradford City

Football Club. They had won the 3rd Division championship and were to be promoted. This was their last game of the Season. The visitors were Lincoln City. Before the game started, the trophy for the championship was presented to the Club. The manager was presented with an award for "Manager Of The Year". The Vice-President of the Football League attended; so did the Deputy Lord Mayor of Bradford, together with civic dignitaries from twin towns in Germany and in Belgium. It was indeed a day of celebration. A crowd estimated at some 11,000 attended.

1.16 Before the match started, in addition to the presentations, there was a parade. No serious crowd trouble was anticipated, nor took place. A smoke canister was thrown on the other side of the ground, as was a meat pie. There was some chanting. There was the normal exchange of pleasantries that occur at football grounds between groups of spectators and the police; otherwise there was little incident off the field. Some seven or eight were arrested either inside or outside the ground.

1.17 The match kicked off at 3 pm. It was by all accounts a fairly dull game. Shortly before half time the fire started. The first police message was timed just after 15.40 and 58 seconds. On the television film produced by Yorkshire Television a fire is visible and timed at 15.40.

1.18 Sitting in Row I which is the front row of this section of G block were Mr Alcock in seat 141, Mr Bennett 142, Mr Brownlie 143, Mr Tempest senior 144, Mr Tempest Junior 145, Detective Constable Blanchfield 146, and his son 147.

1.19 In row J, was Mr Wetherill in seat 141, Mr Kolawole 142, Mr Jarvis 143, and his grandfather 144, Mr Cleworth 145, Mr Wilkinson 146, Mr Levitt 148, Mr Pachela in 149.

1.20 Mr Alcock first knew of something amiss when he heard Mr Brownlie say that he could see some flames underneath the stand in front of him. Mr Alcock looked over and he could see them as well. He described a hole roughly between seats 142 and 143 which he thought was about 2" long and about 1½" wide. He could see what appeared to be paper or debris of some kind underneath, which was on fire.

1.21 Mr Brownlie told the public inquiry that just before half time he felt his right leg was warm and he bent down and rubbed his leg. He remarked, "Hell, it's warm down there". When he looked he saw there was a fire; he described the gap in the floor as being no more than ½" in width and he supposed it extended

the length of the plank. The fire appeared to him to be about 9" below the floor board. Mr Bennett described how his feet started getting warm: he therefore stood up. He said that there was a crack in the floor boards below him and he could see fire through it. He described the crack as being between 1/8" and 1/4" wide.

1.22 Other witnesses in the area noticed that there was a smell of smoke which they variously described as the smell of plastic burning, and of cigarette or pipe tobacco. The evidence given by Mr Brownlie, Mr Bennett and Mr Alcock was graphically confirmed by the still photographs which appear in Appendix 3. The general public took a large number of photographs which have been of great assistance to the police and to the Inquiry. One of those photographs, letter A shows the flames under the floor boards immediately under the seat numbered J141. There is visible a gap. The other photograph, letter B shows flame under J141 and smoke coming out from underneath.

1.23 None of the witnesses in this part of G block saw anything thrown from outside which could have caused that fire. There was, as is customary after this sort of disaster, a great deal of rumour and talk. A number of witnesses made statements to the police suggesting that a smoke bomb had been thrown into G block and that is what had caused the fire to start. The police investigated that. Detective Superintendent Cooper set up a major incident room with a team of 100 detectives. Within 14 days all those who had been seated in this part of G block except those who had unfortunately died had either come forward or had been traced. Detective Superintendent Cooper and his officers investigated allegations made by a total of 14 people elsewhere in the ground that various missiles had been thrown. At the end of that investigation he said that there were two people who still believed that items were thrown. Neither of those two people were talking about a smoking object. He and his officers were satisfied that that view was either inaccurate or mistaken. All those seated in G block unanimously rejected the suggestion that anything had been thrown.

1.24 However, one witness was called for the public inquiry who was convinced a smoke bomb had been thrown. This was Mr Trueman, who was a reporter for the Daily Star. He had been sitting in the press box which was level with rows I and J in G block, but some 40 yards further away. His description as it appears in the edition of 13 May of the Daily Star was: "A smoke bomb caused the tragic Bradford football fire, I am convinced of it, I was sitting only yards away from the seat of the inferno that killed at least 52 fans. I saw everything, every horrifying second, I saw a smoke bomb thrown by hooligans from the stand adjoining the main building and I know that the killer who threw it would have escaped". The article continued in similar dramatic vein.

1.25 When he gave evidence to the public inquiry Mr Trueman described that he was looking towards where the Paddock adjoins G block because there had been a previous occasion when there had been trouble there. He described seeing some smoke.

This was a trail of smoke in the air with a thinner fading smoke from the standing area, building up to thicker larger smoke towards the seating area in G block. He described smoke becoming denser in the direct area where the thick trail of smoke had landed: then saw a glow, then flames. After he went on to the pitch he heard a number of people talking about a smoke bomb being thrown. The view of those to whom he spoke confirmed his belief that he had seen a smoke bomb thrown from the standing area and that was what had caused the fire. He accepted that he did not actually see anything thrown. He said that from what he saw, namely the trail of smoke in the air, the way it fell and the way that everything had occurred, he believed and still believes that a smoke bomb had been thrown. I think the fairest thing I can say about Mr Trueman's evidence is that it is not reliable.

1.26 All the witnesses in the area described some gap between the floor boards, they are visible on the still photographs. Constable Riley, who is the Football Liaison Officer, and has held that position since 1981, described there being gaps in the floor underneath the seats. He was able to see crisp packets, ordinary paper, accumulated rubbish, plastic cups and things of that sort. He described having seen that in F and G blocks.

1.27 Superintendent Clapham, who was commander of the police task force at Bradford and responsible after the fire for dealing with the search of the stand, described finding some remarkably unburnt paper and debris in block C. That consisted of a copy of the Bradford Evening Telegraph and Argus for Monday 4 November 1968, the wrapper for a packet of peanuts, costing six old pennies, and other wrappers and packets indicating that they had been manufactured before decimalisation. Superintendent Clapham said there were other things which had clearly been there for a very long time. I am satisfied there was likely to have been all under the main stand a similar accumulation of debris to that found in block C.

1.28 A gap in the floor boards was confirmed by Detective Constable Blanchfield who described how some months before, when he was at the ground with his son and a friend of his son, that friend lost his scarf through a gap in the flooring. It was in another part of the stand. When they tried to retrieve it they could not.

1.29 Mr Gilliver, who is the stadium manager and responsible for the condition of the stadium and ground, said that there was some rubbish in the stand, but not as much as everybody made out. He had been able to see some rubbish under the stand when they had done repairs. They removed the rubbish before blocking the stand up again. That was when kick boards under the seats had been repaired. This had occurred during the summer of last year. He accepted that there were still gaps through which debris could fall. Mr Lawn, a maintenance man, described debris being under the boards which he had seen through damaged kick boards. He said it would be impossible to reach through the damaged coverings to retrieve or to remove the majority of the rubbish.

1.30 Mr R A Cooke is a forensic scientist attached to the Forensic Science Laboratory at Weatherby, a Bachelor of Law and a Member of the Institute of Fire Engineers. He described the floor boards as being close boarded but not tongue and grooved. He understood that because of the age of the structure a shrinkage of timber had allowed gaps to open between the floor boards which would allow rubbish to fall through. He made a comprehensive search with his team of the area in I 141 - 146 and K 141-146. He found charred debris about 6" to 8" deep. He said that represented shrinkage from probably uncharred materials, so it would be to some degree higher than that. It may have been even 12" deep in its original unburnt state.

1.31 Superintendent Clapham found no evidence of paint or accelerant or gas cylinders or anything of that nature which could have caused or contributed to the fire. I conclude that the fire was not started by any malicious means.

1.32 A report was commissioned through the Department of the Environment Building Research Establishment from the Fire Research Station at Borehamwood. That report appears in Appendix 4. Dr Woolley of the Fire Research Station carried out a test by dropping, from a reasonably normal hand height, a lighted match. He found that in that test 25% of dropped lighted matches were capable of igniting material at floor level. Additionally, one match which broke would also have set light to combustible materials.

1.33 Dr Woolley concluded that it was perfectly possible that a lighted match dropped through a gap in the floor, could have ignited rubbish and that a lighted cigarette might have done so, although he thought the latter was less likely, on balance.

1.34 Among the debris found by Mr Cooke were cigarette packets, match boxes and

match sticks, brandy bottles, disposable soft drinks bottles, polystyrene drinking cups and sweet wrappers. There were several match boxes which had the remains of carbonised matches still in, but there was one which appeared to be a full match box found under seat I 145. No incendiary devices, fire-works or aerosol cans were found, and he concluded that a small flame source such as a dropped match was probably more likely than a dropped cigarette, though he could not eliminate a dropped cigarette. There were in rows I and J people who were smoking, as indeed there were generally in block G. I am quite satisfied that the cause of the fire was the dropping of a lighted match, or a cigarette or tobacco on to debris beneath the floor boards in row I or J, in between the seats 141 and 143. It is quite impossible to determine who caused the fire to start; indeed it would be grossly unfair to point the finger at any one person.

1.35 The answer to the question how the fire started, is that it was due to the accidental lighting of debris below the floor boards in row I or J between the seats 141 to 143.

CHAPTER 2

Why did the fire start and cause such casualties?

2.1 It is clear that the whole period between the first appreciation of the presence of fire under the floor boards by the spectators, until the total conflagration of the entire stand from top to bottom and end to end, was about five minutes. Those in the immediate area of the fire seemed not unreasonably to think that it was simply some paper which had caught fire, that it was of no particular significance, and that within a short period of time steps would be taken to deal with it.

2.2 When Mr Bennett Row I, seat 142 saw the fire he said: "Our feet were warm, I just stood up and somebody said, whether it was me, my nephew or the other lad, 'Oh there is a fire under there', and I said there sure is, I'll go and get a fire extinguisher." He then went to the back of the stand to get a fire extinguisher. He did not find a fire extinguisher, but he found three policemen. One of those was Police Constable Lyles. Mr Bennett said: "Can you get a fire extinguisher, there is a fire down there". PC Lyles asked PC Thompson to get a fire extinguisher and he himself went down to look at the fire. He was followed by PC Frankland. PC Lyles described the fire when he got there in this way: "It appeared at first that it was a very minor fire, all we saw was a small amount of smoke, I was not sure that 'fire' was really the right word to describe it, it appeared to me to be a minor incident." While Mr Bennett had been talking to ^{the police} Mr Brown had emptied about a quarter of a cup of coffee on the fire, which had no effect. PC Lyles shouted to some other officers, who were standing on the touchline, to get a fire extinguisher. Owing to the background noise they thought he had asked for the fire brigade and they therefore radioed to the fire brigade.

2.3 When PC Frankland got to the scene he saw a thin wisp of smoke coming through the floor boards, and he could see what appeared to him to be a small piece of paper burning.

2.4 The police messages recorded on tape have been transcribed. They are automatically timed. It has since transpired that the clock on the timer at the date of the inquiry was 25 seconds slow. It matters not for the purpose of this Inquiry. The first message received by the police control about the fire is a message from PC 2573 Johnson to control, timed some time after 1540.58 seconds,

and it reads as follows: "PC 2573 to control", control to 2573 "2573 go ahead", 2573 to Control "Can you get the fire brigade the main stand there is a fire under the main stand clear it, over." 1541.18, Control to 2573 "You say you want the main stand cleared as well". 1541.19 2573 to Control "It's the bottom there is a fire under the stand". 2573 to Control, "Did you get that". 1541.41, Control to 2573 "We are requesting the fire brigade the other part of your message is broken can't read you."

2.5 Chief Inspector Mawson was Acting Superintendent for the Manningham sub division and was in charge of the police operation at this ground on this day. He was standing near the players' entrance by the club house. He heard the word "fire" on his police radio and immediately went down to G block from where he saw smoke coming. On the Yorkshire Television film, on which timings have been provided, he can first be seen moving from his position at 1543.57. By 1544.12 there are plainly visible flames coming from G block. By 1546.20 the whole stand is well ablaze.

2.6 PC Lyles said to the people who were close by, that they should move, but it did not appear to those in the immediate vicinity that there was any urgent danger; those further away could see smoke, and a lot of them assumed that there had been some sort of smoke bomb. The game continued for a short while. It is clear from all the evidence and indeed from the still photographs which show people standing close by and watching flames, that people were very reluctant to move.

2.7 PC Lyles said: "We did not get much reaction from people in the stand, obviously they were watching the match and in fairness the fire did not look much from where they were sitting. A few of them moved out into the aisles towards the top of the steps." The police officers did finally persuade people to move. No doubt the increase in smoke and flames was itself a powerful factor in that respect.

2.8 The speed with which the fire took hold was graphically described as faster than a man could run. The wood roof covered with tarpaulin and sealed with asphalt itself rapidly took fire; the burning asphalt added its own fuel to the flames and injury to the spectators. The presence of the roof itself caused the fire to spread horizontally at a very fast speed.

2.9 Dr Woolley described it in this way: "A substantial rubbish fire may have developed within 90 seconds, capable of igniting adjacent timbers within about

30 seconds." He describes in Table I of his report that within about a minute 20 square metres of seating would be involved. The factors causing the spread of the fire were, the void half filled with rubbish; air to feed the fire; timber in close proximity to the original fire; the uphill slope of the stand; and the construction and shape of the roof. It all led to spontaneous ignition in advance of the path of the actual fire. He went on to describe the effect of the presence of the roof on the flame in this way: "As the flame increases in height and as it expands over a larger and growing area of the flooring material, its height increases until it touches the ceiling or a horizontal level. Once it goes under, or has to go under, that ceiling, because it can only get air from one side now and not all the way round, there is an enormous lengthening effect of the flames underneath that roof. Now, that is a standard picture that is seen not only in this fire but in many others in buildings where fire develops and goes beneath the ceiling. Very approximately, a flame will have five times the length under a ceiling than it would have in a vertical direction". And he said that it was this length of horizontal flame which gave witnesses the impression of a moving ball of fire coming towards them.

2.10 In addition Dr Woolley described that ahead of the flame would be a dense thick smoke, particularly in this case for those in the back corridor of the stand. The report and calculations by Dr Woolley appear in Appendix 4 and in the various papers annexed to his report. It is unnecessary to repeat that scientific detail in the main body of the report.

2.11 There was no fire fighting equipment in the stand. The only fire fighting equipment in the ground consisted of a number of fire extinguishers in the various club bars at an end of the main stand. PC Thompson had set out to find these. Although he was not aware where they were, he went down the corridor immediately behind the back of the seats of the main stand. He reached the tea hut and asked for a steward and the fire extinguishers. He was told that it was not known where either were to be found. Accordingly, he got on his radio to control and asked for fire extinguishers and for the doors to be opened. That message, as recorded, only refers to doors being opened, it was timed at 1541.55.

2.12 Mr Ryan, who is the Commercial Manager of the Club, was on duty supervising lottery payments. He was standing at the back of block H. He was approached by a policeman who shouted at him to get a fire extinguisher. He ran the full length of the stand behind the seating area into the main entrance to the club house, picked up the fire extinguisher and ran back. He went back

along the corridor and had just passed the gents' toilets. He said there was an enormous number of people approaching him and then smoke overtook and enveloped him and it was difficult to see. He was never able to use the extinguisher.

- 2.13 The large quantity of black smoke which the fire emitted has been described by witnesses as like the smoke caused by burning tyres. Many spectators naturally sought to go out the way that they had come in and moved at varying degrees of haste towards the back of the stand to seek safety through the exits.

The Exits

2.14 At the back of the stand is a long corridor running the whole length of the stand. From that corridor there are a number of exits into South Parade. These are marked on the plan at Appendix 2. At the southern end of the corridor leading from the corridor into the club house there was a wooden door, letter Z, opening inwards into the club house. It was closed but not locked. In the club house there was a glass aluminium double door, letter A, which opens inward into the club house which was closed but not locked.

2.15 Moving northwards along the corridor, there was a small wooden double door, letter B, leading from the corridor into South Parade and opening outwards. At 3.30 pm one side of that door was unbolted to enable people like players' wives, who had an invitation to go into the clubhouse, to go there via South Parade and entrance A. It was the normal practice of the stewards (Anthony and Peter Keating) to stay there until 5 or 10 minutes after half time. At the time of the fire, therefore, one part of door B was unbolted and the other part of the door was closed but not locked. There were two small exits, letter C and D which were wooden openings into South Parade. They were boarded up at the time and were unavailable as exits.

2.16 Next were double wooden doors, letter E. They opened outwards, the door had a bolt into the lintel, a bolt into the floor (although there was no hole in the floor to receive the bolt) and a sliding bolt in the middle. That sliding bolt was secured by a locked padlock. However, it could be opened without needing to unlock the padlock by undoing one bolt at the top and pushing both doors together. That was open at the time of the fire, having been opened by Police Sergeant Hendrick and other dog handlers.

2.17 There was a boarded up opening, letter F. It was forced open during the fire. There was a similar wooden door which had been boarded up, letter G. This too was forced open.

2.18 There were then four turnstiles numbered 2, 3, 4 and 5. Numbers 2 and 3 were steel turnstiles going from floor to ceiling. They could only be used as an entrance into the ground and not as an exit. The door to turnstile 2 was not opened on that day and was padlocked; the door to turnstile 3 was opened when spectators came into the ground, but the door had been locked closed thereafter. The locking of those doors was of no significance because it was impossible for those inside the ground to get out through the turnstiles at opening H.

2.19 Turnstiles 4 and 5 were mechanically operated and they were waist high. On the roadside there were doors which opened inwards; after spectators had entered, the turnstiles were secured by chain and padlock. Although it would have been physically possible to climb over the turnstiles, exit through the doors was impossible because the doors themselves were secured with a padlock from the inside. There was thus no exit from J. To the right of J there was, however, a store which was alongside the turnstile. That store was used for the counting of money. The door from there onto the road was unlocked. There was no indication anywhere where the exits were, or that this particular route through the store was an available exit. There was evidence that it was used by a number of spectators to get out.

2.20 The next exits were some double doors, letter K, which opened inwards. They had been closed and locked by bolts with a padlock on. It was Mr Keating's practice to undo the bolt and pull the gates, both together, so that he could undo the gates without needing to use the key to the padlock. In fact, these doors were burst open by a number of spectators from the outside during the fire. The next opening from the corridor was into the gents' toilets. From the toilets there was no exit into South Parade. Three people died in the toilets. The next exits were two small openings letters M and N which are described on the plan as being boarded up openings. Mr Lawn who was employed as the maintenance man said that about 3 months previously he had been asked to unblock a door by Mr Gilliver and had done so. He identified that as M. Mr Gilliver himself identified it as N.

2.21 Turnstiles 6, 7, 8 and 9 were entered from the corridor by entrances letters O and P. The turnstiles were waist high and at the time of the fire were secured by chain and padlock. These turnstiles had doors on to South Parade which opened inward into the ground. They were each locked with bolts and padlocked. Numbers 6, 8 and 9 were forced open during the course of the fire while Number 7 remained shut. The majority of spectators who died did so by exit K and the exit through turnstiles 6-9 through main exits O and P. The over 70's and under 20's accounted for over half of the casualties.

2.22 There was a single wooden door, letter R, which opened outwards. It was closed and locked with a sliding bolt and padlocked. It was forced open during the fire and people escaped therefrom."

2.23 There was a door at the end of the corridor leading towards the Paddock, letter X, which was a wooden hinged door. It opened inwards into the main stands; it was bolted on the inside of the main stand, it was not locked and it was opened during the fire. At letter S which was the exit from the Paddock into South Parade there were double wooden gates which opened outwards. They were closed and secured by a large wooden beam inserted into metal rests across the back of the door. That door was open at the time of the fire.

2.24 Turnstiles 10 and 11 led from the Paddock into South Parade. The turnstiles were locked and chained, so too were the doors leading into them.

2.25 Mr Wilkinson who had been attending this stand for over 20 years (the last eight years as a regular) said that it was not an easy ground to get out of even when the gates were opened, that he used to sit and wait because it was packed solid getting out, it was always a 5 or 10 minute job. Chief Inspector Mawson said that as far as this stand was concerned, it was quite plain it could not in any way measure up to a capacity to evacuate the number of people it contained in 2½ minutes.

2.26 The answers to the question therefore why the fire started and caused casualties are that, firstly the stand was a wooden structure, with a void under the seats, in which debris could and did collect; and secondly that the available exits were insufficient to enable spectators safely to escape the devastating effects of the rapidly spreading fire.

2.27 The Home Office and the Scottish Home and Health Department published a Guide to Safety at Sports Grounds (Football) in 1976. It is called the Green Guide and it recommends measures for improving safety at existing football grounds. Paragraph 8.11 of the Green Guide reads:-

"A common feature in the construction of stands which is a fire risk is the provision of voids under the seating. These voids become the resting place for paper, cartons and other combustible materials which can be ignited, unnoticed, by a carelessly discarded cigarette end. Wherever possible such spaces should be excluded but where they exist they should be sealed off so that paper etc cannot find its way into them."

Paragraph 10.6 Housekeeping reads:-

"One of the potential causes of fire in football grounds arises from the accumulation of waste paper, programmes, packets and other combustible materials which are dropped by spectators. As stated in paragraph 8.11 this can present a particular problem in stands. Every effort should be made to reduce this hazard. All parts of buildings should be inspected before and after every event and accumulations of combustible waste cleared as quickly as practicable or stored in a safe place pending clearance."

Paragraphs 8.2 and 8.3 read:-

"8.2 Every stand should be provided with sufficient exits to allow for the orderly evacuation from the stand of all spectators likely to be accommodated."

8.3 Evacuation time, which will depend largely on the fire hazard present in the stand, should be within the following limits.

a. 8 minutes where a stand is of non-combustible fire resisting construction, the interior use and contents present a low fire risk and the exit staircases are not vulnerable to a fire occurring within the stand; and

b. 2.5 minutes for stands of a lower standard.

The conditions at a particular ground may call for interpolation between these times."

2.28 Had the Green Guide been complied with this tragedy would not have occurred.

CHAPTER 3

What lessons are to be learned and how can a similar tragedy be avoided?

3.1 I have made it clear throughout that I am not engaged in an exercise of apportioning blame, but of learning lessons. The clearest lesson to be learned is firstly, that fire can develop at a frightening speed and that the ordinary spectator, who has never in his life been exposed to it before, will react slowly. Secondly, that the panic and confusion caused by a fire and the smoke which accompanies it is likely, of itself, to be a source of considerable danger.

3.2 I have set out at paragraph 1.35 the immediate cause of the fire but the Inquiry has highlighted a number of matters, only some of which have any relevance to this fire. Others played little or no part in this particular tragedy. It is important to mention all of them to learn lessons for the future.

The Police

3.3 There were 144 officers under Chief Inspector Mawson, including three special constables and two traffic wardens. In accordance with the usual police practice, good liaison was maintained with the club. PC Riley held the position of Football Liaison Officer and had done so since 1981. He attended every match, save one and also attended away matches. Every League club has a liaison officer. They vary in rank from superintendent to police constable. Their task is to exchange intelligence with other police forces, to discuss problems with the management of the club, and to advise the senior officers responsible that as far as possible the game is conducted with the least possible disorder among the spectators.

3.4 Considerable controversy emerged during the course of the public inquiry about the responsibility of the club vis a vis the police and vice versa. A football club is a private organisation run for profit. It is thus in no different position from any other private individual or body arranging a function. Essentially the individual or club is responsible for the arrangements for securing safety on its own premises and for ensuring that whatever entertainment it allows to take place on the premises is conducted in an orderly way.

3.5 Mr Domaille who is the Assistant Chief Constable in charge of Operations for the West Yorkshire Metropolitan Police put his views about the position of the police force in this way: "My main concern is that we are controlling breaches of the peace and that the public get to the ground safely and that there are sufficient police officers available to bring that about; also to see that there is a liaison between my local officers and the officers of the club." He went on to say, "It would be helpful to have a designated officer in the force responsible for visits to all sports grounds on a regular basis, to examine the problem of public safety, to discuss their resolution by reference to the Guide to Safety at Sports Grounds, especially at those grounds which are not currently subject to the safety at sports grounds legislation. In fact, insofar as the West Yorkshire Metropolitan Police is concerned, this responsibility has already been allocated by the Chief Constable as recognition of its importance."

3.6 In a report produced for the Minister of Housing and Local Government in November 1969, this paragraph appears: "14. The responsibility for controlling crowd behaviour is divided between the police and the club operating the ground. The broad line of division being that police are responsible for movement of spectators in public thoroughfares and from public thoroughfares into the ground, while the club is responsible for the control of spectators once they are on the club's premises. We think this division of responsibility is right, but because there can be circumstances in which doubt can arise where the precise responsibility begins and ends, and because police are employed by the club and because in the last resort the police are responsible for handling the situation if a breach of the peace becomes imminent inside the ground, there must be the closest understanding and co-operation between ground authorities and the police, both before a match, during the period of play and afterwards while the crowd is dispersing. The evidence available to us shows in general this co-operation exists today, it is essential all parties ensure that it continues freely and on a broad basis." I do not quarrel with that view.

3.7 In practice the police have to take charge and be responsible for controlling crowd behaviour. On a number of other grounds where there has been disorder, police have taken the view that it is better that disorderly fans who arrive should be admitted to the ground where they can be contained, rather than let them loose in the city where the police would have more difficulty in dealing with them. No doubt the football clubs could insist that the police do their best to prevent these people entering the ground, but in practice they rely on police expertise and judgement.

3.8 It follows, therefore, that as a matter of practice, while the physical safety of the building and the maintenance and good housekeeping of the ground must always be the responsibility of the club, the police have to take the de facto responsibility of organising the crowd, with all that entails, during the game. The significance of this aspect was highlighted by a number of questions raised about the responsibility for evacuation. It is clear that neither this police force, nor many other police forces, so far as we can ascertain have received any training or briefing in the question of evacuation. It was suggested that the fire service was more experienced in evacuation during fires. It seems to me, however, that the only organisation present and capable of supervising an evacuation is the police. Evacuation may be necessary for a number of reasons, there may be a bomb hoax, a part of a stand may collapse, there may be crowd disorder so that people need to be got out of a stand, there may be a fire. There may be other emergencies.

3.9 It follows that the police should now consider whether training for police officers for emergencies should not include some direction or training on how best to evacuate a particular ground. Although it may sound like a formidable undertaking, what is necessary is for the police to consider the particular ground which is under their control and to consider in the light of the exits presently available in each particular part of the ground, how best to organise the evacuation of spectators in those portions of the ground if an emergency should arise. It does not seem to me that any very great difficulty would arise. Mr Domaille made the point that if the police were to be responsible for evacuating sports grounds, they would be required to do the same at other types of premises. The answer to that is that the police generally are not present at other premises, nor need they be. Mr Domaille said that police officers were trained in a general way to react to all emergencies. He emphasised that police need to be flexible in their response to what occurs in grounds. In the situation which obtained at Bradford they behaved with commendable efficiency, even without formal training. They also behaved with enormous bravery.

I recommend therefore that evacuation procedure should be a matter of police training and form part of the briefing by police officers before a football match. Whether it is justifiable to go further in the more explicit allocation or responsibilities is something to which I shall give further thought.

3.10 Paragraph 10.7 of the Green Guide (which will need some alteration to cover police training and briefing) reads:-

"10.7 Emergency Procedure and Staff Training

10.7.1 It is essential that plans should be made for dealing with emergency situations. Joint consultation between the management of the ground, police, fire, ambulance and other emergency services should be held in order to produce agreed plans of action.

10.7.2 While the public are in the ground an adequate number of staff should be maintained to cover entrances, exits and other strategic points.

10.7.3 All such staff should be trained in the use of the fire fighting equipment provided and in the action to be taken in the event of a fire."

3.11 The number of policeman employed at football grounds has risen enormously over the last decade. Fears were expressed about the financing of police officers at football grounds; it is not within our terms of reference to consider that. I need only point out that the use of police officers at football grounds is a very expensive exercise, both financially and in manpower. Certainly, so far as the smaller clubs are concerned, it is a financial burden, which they may not be able fully to carry. This could have disastrous consequences for law and order. But if a football club wants to stage a function, and needs police within its premises they must either be properly paid for by the club or the function not take place. In the end it is a matter for the organisers of sporting [functions how they arrange their affairs.]

3.12 Mr Domaille disclaimed police responsibility for the state of the premises, and rightly so. What he said was this: "The club is a private enterprise, that is putting on a football match on private property. It has club members and other people are its customers. The management of the club, and the looking after of the people, as they come in, is a matter for the stewards, provided at the club, in the same way that usherettes act in a cinema." He went on to say, "I expect my officers to draw the attention of the club to whatever they thought was wise to draw the attention of the club towards. If then nothing happened then I would have thought that, if it was in respect of fire, we would talk to the fire brigade and if it were in respect of something structural and nothing was being done about it, we should contact the County Council if we were very concerned about it."

3.13 That is what they in fact did in June 1984. Superintendent Briggs had been to the ground in March or April 1984 when a ball was kicked against the lower part of the stand and a piece of wood dropped off. He also noticed that pieces of felting from the grandstand roof were being blown about onto the pitch. After the match he went and saw Mr Heginbotham. They went together to

look at the roof. They discussed the fact that the roof, as a result of the wind and the rain was, in a dangerous condition.

3.14 Mr Briggs subsequently saw Mr Tordoff who was the Vice-Chairman of the club. Mr Tordoff asked Mr Briggs if he would be prepared to confirm in writing an official police letter about the damage which had now become worse. As a result on 27 June 1984 Mr Briggs wrote to Mr Newman the Secretary of the Club, in these terms:

"Dear Mr Newman,

Dangerous Grandstand

I should like to bring to your attention the dangerous condition of the Valley Parade grandstand roof at your ground. Whilst appreciating it is due to fair wear and tear its condition is such that it could come down at any time. I am particularly concerned for the safety of spectators inside the ground should anything untoward occur before this is repaired, and additionally of the dangers which could be caused to other members of the public using the adjacent road. Your co-operation and early attention to this matter would be much appreciated please, Yours faithfully."

By January 1985 approval for the repair had apparently been given. By an irony the work was due to start on Monday 13 May, that is to say two days after this disaster.

3.15 So far as safety of the premises is concerned, the local authorities are responsible for issuing safety certificates in respect of designated grounds under the Safety of Sports Ground Act 1975. The local authority team for that purpose includes police officers. I recommend that this practice should continue.

Communication

3.16 The Green Guide provides at paragraph 17.6 that loud-hailers should be available for the use of stewards and police in directing or instructing spectators. Neither stewards nor police had loud-hailers. The difficulties of communicating in an emergency of this sort are illustrated by the fact that when a police officer asked for a fire extinguisher another officer thought he wanted the fire brigade. Although the communication difficulties played no part in

this disaster, there is undoubtedly a greater sense of urgency if instructions are given by a loud-hailer. There is also added authority. I endorse the provision in the Green Code.

3.17 There was no police radio control unit on this ground. It was located a half a mile away or so. It has to be a matter of judgement and of physical space where the control unit is situated. There is always the danger, if it is situated in the ground that that the control unit itself may be burnt down or vandalised. In a large well equipped ground it would obviously be better to have an officer in control of communication on the ground. He could see what was happening and direct matters accordingly. I shall be recommending the introduction of closed-circuit television as a weapon against hooliganism. If possible the officer, or officers, should be monitoring the cameras from a position in the ground where they themselves can see what is happening.

3.18 It is, however, up to each individual police force to locate their control unit as seems best to them to deal with the problems which arise. If the control is at headquarters there is available sophisticated communications and tape recording equipment. A lot of problems at any football ground are not only inside the ground but outside. Mr Domaille favoured having the control room in the ground at Bradford. Inspector Boocock who is a communications officer of the West Yorkshire Police had in fact been to the ground in the previous November with Mr Briggs to see if they could find a site for a control room. The only available accommodation was the drying room which was not satisfactory and accordingly control was operated from outside, without adverse effect.

3.19 The police enquiry into the events arising from the Luton/Millwall game had strong reservations about a control unit being sited on the ground. It must be a matter for each police force.

The Public Address System

3.20 There was at Bradford no means by which the police could cut into the public address system. On other grounds I have found the same thing. Quite often the only way for the police to get touch with the person in charge of the public address system is to use a telephone. This is obviously unsatisfactory. It is not possible for a civilian user of the public address system to be allowed to use the police radio network. The reasons for that are obvious. It is however clear that it is vital that the police should be able to cut into the public address system. The Green Guide in paragraph 17.5 says: "Preferably, the

system should be capable of being controlled from a central control point." I endorse that view.

3.21 Mr Thornton was the pools promotor employed by the Bradford City Football Club, and responsible for using the Public Address System. It was his practice to record play music before the match started, at half time and after the match. He made announcements about sponsorship, police messages, championship ceremonies and so on, as was necessary. There was to be a draw at half-time and he was to announce the winning ticket number. For that purpose he was in the manager's office and was trying to contact one of the players who was to make the draw.

3.22 As a result of something that was said, he saw some smoke. He went out onto the balcony and then saw a small fire. He then ran into the general office and asked the secretary to phone the fire brigade, which was done in his presence. He then went back to the Public Address System and announced a message to this effect: "Please do not panic, make your way to the front, on to the pitch".

3.23 He said in his evidence that he gave that message twice. He says he heard the message himself and he had spoken to a number of people since who did hear the message. He repeated it on a third occasion but he does not think that that got through.

3.24 There is an appreciable body of evidence that no message was in fact heard. Whether that was due to the excessive noise or due to the fact that the system was not working properly, due to the fire, it is not necessary to decide. I am satisfied that Mr Thornton did make the announcement which he said he did. Even if it had been heard, I think it unlikely it would have made any difference to the consequences of the fire.

3.25 Paragraph 17.5 of the Green Guide also says:-

"Public address equipment should be installed so that broadcast messages can be heard under reasonable conditions by all persons of normal hearing in any part of the ground to which the public has access....The power supply to the system should be such as to enable it to continue to operate in an emergency such as a fire, or a failure of the mains supply."

3.26 I endorse the recommendation that the system should be such as to enable it to operate in an emergency and not as happened here, so that once one speaker was out of action all the others were.

Police Radios

3.27 It is clear from the evidence given at the public inquiry, from the transcript of the tape and from hearing the tape myself that a number of problems arose from the use of police radios.

3.28 Each group of officers had a personal radio, not every officer. There can be no criticism of that. A special channel was arranged for reporting to control.

3.29 The problem of communication at Bradford, as indeed elsewhere, is that the personal radio sets are only devised for one officer to speak at a time. Thus an officer seeking to send a message, calls control. Control then replies. If another officer seeks to speak at the same time, the effect will be that neither officer can be properly understood by control.

3.30 Because of the enormous noise at any football ground, particularly during an emergency, it is very difficult for the reporting officer to make himself understood by control. There was a considerable body of evidence of officers having relayed messages to control which were not received, and of messages which were received, but not in full. One example has already been given at paragraph 2.4. Although the messages are exceedingly difficult for the untrained to decipher, the control operator who was trained and experienced, was able to understand enough of the vital messages so that the difficulties of communication played no part in the tragedy.

3.31 But the fact that there were difficulties in communication caused some disquiet. As a result I heard the evidence of Mr A Hulme, who is a Chief Telecommunications Engineer with the Home Office Directorate of Telecommunications. He described the operational system, namely a channel specially allocated for this particular exercise, personal radios of the Burndept type and control located at a base station on the top of an office block in Bradford. Normally everybody on the ground with a personal radio hears a message transmitted by control, but only control hears the message from the police officer's personal radio. It is possible, however, to operate on what is called the "talk through", so that every officer hears the message which his colleague is transmitting. That was the system which operated on this day. In addition to the problem of one officer talking over another officer there is the very real problem caused by the effect of the noise in the area where the

officer is trying to transmit. The personal radios with which we are concerned are the familiar type which effectively are boxes with a built-in microphone. There are more sophisticated microphones which serve to cut out background noise, described as noise cancelling type, but they are of head-set type installation. There is an operational objection to their use. It is undesirable that an officer wearing a head set should come into confrontation with a hooligan.

3.32 Mr Hulme said that in the range of equipment that they had at the moment there was no means of incorporating a better microphone into that box.

3.33 It is not only in relation to fire but also in relation to hooliganism that it is essential that a police officer can communicate and be clearly understood by control. I recommend therefore that early attention be given by the Home Office Directorate of Telecommunications to consider the practicality of producing a more suitable personal radio.

Access for Emergency Vehicles

3.34 Paragraph 11 of the Green Guide deals with access for emergency vehicles. It does not spell out that an area around the ground should be kept clear so that emergency vehicles can readily reach the ground. In the television film helpfully provided by Yorkshire Television it was clear that a fire appliance had to mount a pavement because of parked cars. No complaint was made by the fire brigade about this, nor any suggestion that it had any adverse effect on putting out the fire.

3.35 Cars were allowed to be parked in Burlington Street. It might appear from the plan that that connects with Valley Parade but it does not, in fact, do so. It was expected that emergency vehicles would come down Valley Parade and not Burlington Street. However, it is quite impossible during an emergency for every driver of an emergency vehicle to know precisely which road he should go down. Additionally, of course, a fire appliance may be needed at one part of the ground, an ambulance at another. Accordingly, I recommend that there should be incorporated in the Green Guide in paragraph 11 a provision that wherever practicable roads within a quarter of a mile of a sports ground should be kept entirely free of parked vehicles. I appreciate that at some grounds this may interfere with the control of buses bringing visiting supporters and add to the hooligan problem. In London and some other cities it may be impossible because of the location of the ground.

Power of Search

3.36 Some disquiet was expressed by the police about their powers to search in England and Wales. Those powers are now contained in the Police and Criminal Evidence Act 1984 which comes into effect on 1 January 1986. Section 1 reads:-

- (1) "A constable may exercise any power conferred by this section:-
 - (a) in any place to which at the time when he proposes to exercise the power the public or any section of the public has access, on payment or otherwise, as of right by virtue of express or implied permission
- (2) Subject to subsections (3) to (5) below, a constable:-
 - (a) may search:-
 - (i) any person or vehicle;
 - (ii) anything which is in or on a vehicle, for stolen or prohibited articles; and
 - (b) may detain a person or vehicle for the purpose of such a search.
- (3) This section does not give a constable power to search a person or vehicle or anything in or on a vehicle unless he has reasonable grounds for suspecting that he will find stolen or prohibited articles."
- (7) An article is prohibited for the purposes of this Part of this Act if it is:-
 - (a) an offensive weapon; or
 - (b) an article:-
 - (i) made or adapted for use in the course of or in connection with an offence to which this sub-paragraph applies: or
 - (ii) intended by the person having it with him for such use by him or by some other person."
- (9) In this Part of this Act:-

"offensive weapon" means any article:-

 - (a) made or adapted for use for causing injury to persons; or
 - (b) intended by the person having it with him for such use by him for such use by him or by some other person."

3.37 By Section 2, the constable is required to give his name and the name of his police station, the object of the proposed search and his grounds for proposing to make it.

3.38 It is quite clear that large numbers of people bring into football grounds offensive weapons. How this can be dealt with under the Act is a matter which will have to be considered hereafter. So far as fire is concerned, there is an increasing use of smoke bombs, which may well not come within the definition of an offensive weapon, (ie is "made or adapted for use for causing injury to persons") this makes the exercise of the power of the police to stop and search a person whom they suspect of carrying a smoke bomb, or even whom they can see is carrying a smoke bomb, exceedingly difficult.

3.39 It was suggested that it should be a condition of entry to a sports ground that a person is willing to be searched. That governs the problem once inside the ground, but does not deal with the problem of how to search spectators before entry. This however has plain practical difficulties. Once spectators are inside the ground, their numbers may be such that it is almost impossible to conduct a satisfactory search. It is also important that they should not get into the ground if they are carrying material which is likely to damage either property or persons.

3.40 Likewise it is quite impractical when there are very substantial numbers of supporters pouring through the gates to go through the routine of giving the name of the officer, the police station, the object of the proposed search and the grounds for proposing to make it. More particularly, an officer may have no reasonable grounds for suspecting that he may find a prohibited article on a particular spectator, other than the other fact that it is frequently brought into sports grounds.

3.41 If police officers can in fact be given the right to stop and search anyone when they have entered the ground (by making it a condition of entry) it would in my view be much more satisfactory that they should have the same right by statute before entry. Doubts have been raised whether the right of search before entry can be conveyed to a police officer by making the right a condition of entry. If there is no such right the police then have to fall back on the powers under the Police and Criminal Evidence Act which require "reasonable grounds for suspecting". While they may have reasonable grounds for suspecting in general they may have none in relation to a particular individual. I am minded to recommend, therefore, that *in* the police be given the unfettered right of search before entry to football grounds by statute.

3.42 Smoke bombs may do no actual damage but the panic which they are likely to engender among spectators is very great. I recommend that consideration be

in England & Wales

given to making it a criminal offence to have a smoke bomb or similar device at sports grounds.

Fire Services

3.43 It so happened that on the day before the match, fire officers had gone to the ground at the request of the football club, in order to help to water the pitch. They left on the ground some seven lengths of hose of 75 feet each. When the fire broke out on the Saturday afternoon, Leading Fireman Evers together with Fireman Hanney, finding the hose which was rolled up in front of G block, decided to try and get the hose up through the terracing to the fire hydrant which was outside the ground at the north end of South Parade. Having run out the hose on the sideline of the pitch they decided that it would be more useful if they discontinued trying to get the hose into operation and helped people over the wall. This they did.

3.44 Sub-Officer Greig was in charge of a water tender located about half a mile away from the ground which was the first fire appliance to arrive. He parked by the entrance to the Club. When he arrived there were a vast number of people running away from the ground, thick clouds of smoke, and flames lifting from the exit just at the left of the club ground.

3.45 The capacity of his water tender was insufficient to deal with the fire. He located the hydrants. A plan showing the hydrants was prepared for the Inquiry. The nearest ones were all 4" hydrants. Mr Greig said that for a fire of this magnitude they were not adequate, and the nearest hydrant which was a double hydrant of 12" was about half a mile away, at Snowden Street.

3.46 In a written submission to the Inquiry made by the Fire Brigades Union it was suggested that the water supplies adjacent to the ground were insufficient to deal with the severity of fire, and that it was the normal practice for water authorities to restrict the meter supplies at weekends.

3.47 Mr Greig was asked about that. He said: "The pressure was as it normally is in that area, it is just the fact that I knew there would not be sufficient water, which is the reason I decided to go for the double hydrant on Snowden Street, there was no other reason than that and my own local knowledge".

3.48 Having spoken to Leading Fireman Evers, Mr Greig asked for five pumps, two specials and four ambulances. He knew that the initial attendance would be two pumping appliances from Bradford. He also knew that he would get a Simonitor which is an appliance with an extendable boom at the head of which is a monitor for directing water. Thus he would have 10 appliances.

3.49 Mr Greig said that there were cars parked on Cornwall Road and Cornwall Terrace. They did not hinder his entrance at all; the problem was the people running away from the ground. He was instructed by the station officer from Bradford to look after the water supplies. He got hold of a police traffic motorcyclist, told him where he wanted his appliances and the police officer took them to the hydrants that Mr Greig identified. At that time two or three more pumping appliances had been asked for.

3.50 Mr Greig said that when he arrived there was no chance of putting out the fire. Having seen the film and looked at the timings that is clearly right.

3.51 The only difficulty encountered was spoken of by Fireman Wood who described three occasions of vehicles driving over and breaking the hose connections. These were emergency vehicles and by the time the hoses had been connected there was no chance of saving the stand.

3.52 Mr Kneale was the Assistant Chief Fire Officer for the West Yorkshire Fire Service and was on duty on the day at headquarters. He went to the ground. Noone in the fire service mentioned any specific difficulty in getting to the scene to him; and the driver of the appliance which appeared to have been held up on the television also did not complain to him.

Fire Precautions at the ground

3.53 The only fire extinguishers at the ground were the portable fire extinguishers in the club house. It is generally agreed that it is not possible to have fire extinguishers at a football ground in places which would otherwise be suitable, because of the dangers arising from their use by hooligans. It is very unlikely that even if there had been a fire extinguisher readily available it would have made the slightest difference to this fire.

3.54 However, it would obviously be prudent for thought to be given as to whether fire extinguishers could not be housed somewhere away from the eyes of supporters such as refreshment stands or stores. The provision of fire

equipment at designated grounds is governed by safety certificates. I recommend that those managing grounds not governed by safety certificates should give serious consideration, with the assistance of fire authorities, to the presence in a ground of suitable fire fighting equipment. Paragraph 10.5 of the Green Guide reads:

"10.5 Fire fighting equipment

10.5.1 In major grounds it may be necessary to provide a suitable water supply for fire fighting in the form of statutory or private fire hydrants.

10.5.2 For first aid fire fighting by members of the staff hydraulic hose reels should preferably be provided. These should be sufficient to provide adequate protection to the whole floor area, and should be installed in suitable positions by entrances, exits and stairways.

10.5.3 Where hose reels are not provided portable fire extinguishers should be installed in sufficient numbers to give adequate cover. The number and type will depend upon the size, layout, fire separation and risk in each building. Fire extinguishers should conform to the appropriate British Standard specification and be maintained in good working order.

10.5.4 Where high fire risk areas such as large storerooms and enclosed or underground car parks are situated under stands consideration should be given to the installation of an automatic fire extinguishing system such as sprinklers, or, alternatively, an automatic detection system.

10.5.5 Advice should be sought from the local fire authority on the type, amount and siting of fire fighting equipment required."

I endorse its views.

3.55 It is no use having reels of hose or fire extinguishers in a football ground unless someone is trained to use them. None of the stewards at Bradford, and I suspect elsewhere, had ever had any fire training. Some of the safety certificates that I have seen for designated grounds provide that stewards shall be trained. I recommend that this practice should be adopted in all sports grounds.

It was suggested to me that the presence of a fire officer throughout a match would be of assistance. At some grounds I have visited they go round the ground before the match and then leave. There are undoubted difficulties of financing and manning in the fire service, and it may well not be practical to have on every sports ground a trained fire officer. However it is essential that there should be a fire warning system to alert the staff in case of fire without causing panic to the public. On some grounds that I have visited this is done by means of a coded signal. Paragraph 10.3 of the Green Code recommends that there should be a fire warning system to alert the staff and I endorse that. There were no sprinklers in this ground. I have had many suggestions from

members of the public about the use of sprinklers and of permanent water pipes in and around the ground to control hooliganism. I do not regard these as either practical or desirable. So far as sprinklers to put out fire are concerned, there are problems about their use at football grounds. The risk of abuse by hooligans is substantial. But it is up to each local fire authority to decide on the fire precautions which are particularly appropriate to the premises which they have to consider.

3.56 Finally, I would like to commend the fire services for the efficient and expeditious way in which they dealt with this very serious fire.

The position of the Fire Authority at law

3.57 By Section 10.1 of the Fire Precautions Act, 1971, sub section 2, "If as regards any premises to which this section applies the Fire Authority are satisfied that the risk to persons in the case of fire is so serious that, until steps have been taken to reduce the risk to a reasonable level, the use of the premises ought to be prohibited or restricted, the authority may make a complaint to the court; and the court on being similarly satisfied may by order prohibit or restrict, to the extent appropriate in the circumstances of the case, the use of the premises until such steps had been taken as, in the opinion of the court, are necessary to reduce the risk to a reasonable level." "Court" means a magistrates court.

3.58 By the Safety of Sports Grounds Act, 1975, safety certificates are required in respect of premises designated under that Act. Safety certificates are issued by the local authority. One of the authorities concerned with the issue of that safety certificate is the Fire Authority. Detailed conditions are included in the safety certificate particularly relating to fire. A copy of a typical Safety certificate appears at Appendix 5.

3.59 The view that the Fire Authority took in this case about fire prevention in non-designated grounds was set out by Mr Byrom who is the Senior Divisional Officer of the West Yorkshire Fire Service. He was asked what he regarded as being the actual responsibility of the fire service for fire prevention in places like Bradford City football ground which is a non-designated ground. He said: "It would be the same as happens in all the other premises that the fire service are responsible for, and anywhere in the country where people work, play, meet, drink, whatever, we would give goodwill advice on request and it would then be the responsibility of the person receiving that advice to carry

out that request. It is an impossible task to be everywhere where everyone works or plays". Mr Byrom explained that the Fire Authority had neither the resources nor the finances to visit sports grounds, that if they were asked for their view about a particular problem they would give it, and that thereafter it was up to the owner of the premises to take such steps as he thought fit to deal with the problem.

3.60 So far as Section 10 of the Fire Precautions Act 1971 is concerned, it seems that fire authorities exercise their powers under that section only when the circumstances are such that there is an immediate danger to persons and that any delay whatsoever in taking action upon the dangerous circumstances could be tantamount to accepting there was no danger. Put another way, whatever interpretation is put on Section 10 of the Fire Precautions Act 1971, in practice it is only used where there is an immediate risk of a fire taking place. It was suggested that, if there is a duty to exercise the power under Section 10 there is also a corresponding duty to carry out inspections so as to ensure that premises have not got into a state where Section 10 should be invoked. The West Yorkshire Fire Authority do not accept that proposition, nor do I. Section 10 gives the power to a fire authority if a risk comes to its notice. They are not, however, required to take steps to ascertain the risks, nor does it have the resources so to do.

3.61 It was rightly pointed out to me that unless some responsibility is put upon the fire authority to examine sports grounds (apart from a ground which is designated and therefore requires a safety certificate) the risks of a fire on a Bradford scale will continue. There is much force in this argument. I am minded to make two recommendations - firstly that Section 10 of the Fire Precautions Act 1971 should be amended so that it reads:" if the Fire Authority is satisfied that the risk to persons in the case of fire is such that until steps have been taken to reduce the risk". Secondly that because of the greater ease of access there should be power for the Fire Authority to apply to the High Court for an injunction under Section 10. By changing the wording from "so serious" to "such" the Fire Authority will then have power to make the application where something less than an emergency exists. It is hoped that the power will be exercised in cases other than those which are now regarded as wholly exceptional.

3.62 On 18 July 1984, as a result of a visit by an engineer of the West Yorkshire Metropolitan County Council, a letter was written to the Secretary of Bradford City Football Club about the state of the ground. There were two matters of fire risk mentioned, and they were these:

"Main grandstand (B) - The timber construction is a fire hazard and in particular there is a build up of combustible materials in the voids beneath seats. The carelessly discarded cigarette could give rise to a fire risk. (C) - Egress from the grandstand should be achievable in 2.5 minutes."

3.63 A copy of that letter was sent to the fire service, they took the view that it was a matter of good housekeeping for the occupiers of the football ground to deal with and saw no reason to take the matter any further.

The local authority

3.64 West Yorkshire Metropolitan County Council is the responsible local authority under the terms of the Safety of Sports Ground Act 1975. The only ground in their area which was designated and certified was the ground at Elland Road belonging to Leeds United. A copy of their safety certificate appears at Appendix 5. As a result of a decision of the Fire Services Committee on 5 March 1976, a working team was set up. It consisted of a representative of the Directorate of Engineering, a representative of the Chief Fire Officer, the Assistant Clerk Special Services, and an administrative officer both from the Chief Executive's and the Clerk's Department. In addition, the team was augmented by a senior police officer for the Division where the particular stadium was located, and by a representative of the building control officer of that district.

3.65 The West Yorkshire Metropolitan County Council Fire Services Committee, following meetings held in 1975 and 1976 resolved on the 2 June 1977:

- a) That the Executive Director of Engineering, the Chief Fire Officer and the Director of Administration (or their nominees) be designated "Authorised Officers" under Section 1 of the Safety of Sports Ground Act 1975.
- b) That the Director of Administration in consultation with the Chief Constable and the Local Building Authority be authorised to issue safety certificates under the Act.

3.66 The time scale of designation in relation to a 3rd Division club being promoted to the 2nd Division was considered. It involved waiting for a club actually to be promoted, and as a result of that a whole season could elapse with a club playing in the 2nd Division before the whole of the safety requirements had been fulfilled.

3.67 It was also thought important by West Yorkshire Metropolitan County Council to promote safety at non-designated grounds which nevertheless might stage matches which attracted considerable crowds. On 3rd August 1982 a letter was written to Huddersfield Town Football Club, Halifax Town Football Club, Bradford City Football Club, Yorkshire County Cricket Club, and Leeds Rugby Football Club, pointing out that, while they were not yet subject to the Safety at Sports Grounds Act 1975, County Council officers were willing to give guidance on what might be required, by asking the grounds to accept the offer of assistance and to arrange a meeting. No reply was received to that invitation from Bradford City Football Club. In February 1976 and twice in March 1976 as a result of a request by the police, an official from the Directorate made visits to the ground and put a maximum capacity on the number of people who could use the ground. The club was visited in November 1981 for inspection of the floodlight towers.

3.68 The next time there was any contact between the Council and the Club was just prior to 4 July 1984, when Mr Newman, the Club Secretary inquired whether the County Council would be prepared to provide a letter which could help the Club in obtaining a grant from the Football Ground Improvement Trust to assist with the repair and recovering of the main grandstand at Valley Parade.

3.69 Mr Shaw, who was the principal engineer dealing with the matter, arranged to meet Mr Newman on 4 July 1984. Mr Newman explained to him the problem concerning the roof covering and reference was made to a report prepared by the Timber, Research and Development Association (T.R.A.D.A.) concerning the necessary repairs.

3.70 Having looked initially at the main stand roof structure and made notes, Mr Shaw then had a quick look around the ground while Mr Newman was looking for the timber report.

3.71 Two letters were then drafted on behalf of the Council to be sent to the Club, the first dated 11 July 1984 read as follows:

"I refer to my engineer's visit to your ground on 4 July 1984 and a copy of the inspection report by T.R.A.D.A. of the west grandstand roof covering, passed to him. I wish to confirm the findings of that report that the existing felt roof covering and the areas of decayed boarding resulting, consequently creates an unacceptable crowd safety hazard and should be rectified as soon as possible."

Mr Shaw agreed that the "unacceptable crowd safety hazard" referred to the condition of the roof covering and that the opinion of Mr Townend of T.R.A.D.A. in his report was "from the information gained from the inspection there would appear to be no major immediate danger to the crowd using the stand, other than from water leaking through. Mr Shaw said that he wrote letter of the 11 July in order to help the club obtain a grant. Unless the County Council had said that the repairs were necessary as a matter of safety the grant would not be obtainable.

3.72 That letter was sent, together with a letter of 18 July 1984, which read as follows:

Dear Sir

Safety in Sports Grounds

Bradford City AFC

Further to my engineer's visit to your ground of 4 July 1984, I am pleased to enclose a letter which may assist you in obtaining a grant from the Sports Ground Trust, towards the cost of re-covering the main grandstand roof. Nothing in that letter should be construed as implied approval of the condition or structural adequacy of the stand.

As the West Yorkshire Metropolitan County Council is the Licensing Authority under the Safety of Sports Ground Act 1975, it may assist you to know what some of the Council's other considerations would be, should at some time in the future the provisions of the Act apply to Bradford City AFC ground.

These are:-

1. Main Grandstand
 - a) The unusual construction of this stand makes an appraisal of structural adequacy desirable.
 - b) The timber construction is a fire hazard and in particular, there is a build-up of combustible materials in the voids beneath the seats. A carelessly discarded cigarette could give rise to a fire risk.
 - c) Egress from the grandstand should be achievable in 2.5 minutes.

2. Other Stands

- a) Appraise for structural adequacy, and maintain to adequate corrosion protection standards.
- b) Repair defective roof sheeting.

3. Perimeter and Crowd Control Fences

- a) Repair and strengthen to acceptable standard.

4. Crush Barriers

- a) Test, strengthen and repair to acceptable standard.
- b) Lack of barriers reduces the safe spectator density on terraces.

5. Terraces

- a) Overhaul terracing to provide acceptable surfacing and slope.
- b) Provide adequate exits from terracing.

These considerations are contained within the publication "Guide to Safety at Sports Grounds - Football" published by H.M.S.O.

In concluding may I point out that the above considerations would form part of the statutory consultation process required under the provisions of the Act. The County Council is obliged by law to have regard to other considerations eg. Fire Safety/Precautions (Chief Fire Officer); crowd control/supervision (Chief Constable); and local building control requirements (Bradford Metropolitan District Council).

Yours faithfully,

Executive Director of Engineering.

3.73 There was no reply to that letter. On 30 April 1985 the County Council wrote again "I am sure that the people of the county are pleased with your success in getting promotion to the 2nd Division of the Football League. Congratulations are due to all concerned on this achievement. As you know your ground will probably eventually require a general safety certificate since it is normal practice for the Secretary of State to designate grounds within the 2nd Division as needing such a certificate under the terms of the above Act. This duty is the responsibility of this authority. There are several disciplines, police, fire service, structural engineering and building control, which are involved in such matters, and I think that an early meeting of these officers, together with club officials, would be useful so that a general discussion on procedure, requirements etc, can take place. Perhaps you might let me have a few dates on which this preliminary meeting might take place".

That meeting was scheduled for the Wednesday after this disaster.

3.74 The County Council took the same view as the Fire Service, namely that having offered to give advice they were under no obligation to take any further steps. They took the same attitude towards Section 10 of the Safety of Sports Grounds Act 1975 as the Fire Service had to Section 10 of the Fire Precautions Act 1971.

Section 10 of the Safety of Sports Grounds Act 1975 reads:

"If the court is satisfied, on the application of the local authority, that the risk to spectators at a sports ground is so great that, until steps have been taken to reduce it to a reasonable level, their admission ought to be prohibited or restricted, the court may by order prohibit or restrict to the extent the court considers appropriate in the circumstances of the case, admission of spectators to the whole or any part of the ground, until such steps have been taken as, in the opinion of the court, are necessary to reduce the risk to a reasonable level."

3.75 The local authority regarded their powers under section 10 as emergency powers. The note alongside Section 10 says in the Act: "Emergency Procedure". In August 1975, just before the Act came into force, the Home Office issued a guidance note to the Chief Executives of County Councils which reads inter alia: "Section 10 is an important emergency power. Should a magistrates' court, on the application of a local authority, consider that the risk to spectators at any sports ground is so great that their admission should be prohibited or

restricted until remedial action has been taken, the court may make an order accordingly. This power applies to any sports ground whether or not it is required to have a safety certificate. In practice it is not expected that the power will often need to be exercised. "In the case of a small football stadium, for example not subject to the designation order procedure, consultations between the local authority and the club concerned are expected to secure the provision of a reasonable standard of safety on a voluntary basis".

3.76 The local authority explained that they had neither the resources in manpower nor in finance to examine every single sports ground and take offenders to court. I am minded to make a recommendation similar to that in respect of the fire authority, namely that section 10 of the Safety of Sports Grounds Act 1975 should be amended in like manner to section 10 of the Fire Precautions Act 1971, and that an application for an injunction to the High Court should be an alternative remedy.

3.77 I am satisfied that the Local Authorities have set up a proper organisation for implementing the Safety of Sports Grounds Act 1975 and operate it in a satisfactory manner.

The Health & Safety Executive

3.78 The Health & Safety Executive are the government body responsible for enforcing the provisions of a number of statutory provisions, most notably the Health & Safety at Work Act 1974. The Health & Safety Executive were given responsibility under the Fire Precautions Act 1971 for a very limited range of specialised purposes where the manufacture or storage of highly hazardous materials create special problems arising from processes. Section 3 of the Health & Safety at Work Act 1974 states, " It should be the duty of every employer to conduct his undertaking in such a way as to ensure so far as is reasonably practicable, that persons not in his employment who may be affected thereby are not exposed to risks to their health or safety".

3.79 When that Bill was going through Parliament, the Department of Employment made it clear that responsibility for fire matters would not fall to the Health & Safety Executive but would be the concern of the Fire Authorities. A number of instructions were issued to the Factory Inspectorate and they can be summarised as follows:

- A) The primary responsibility for the general fire precautions in the place of work will rest with the Fire Authorities under the Fire Precautions Act 1971.
- B) Because of the very broad terms of the Health & Safety at Work Act 1974 inspectors have authority to deal with all aspects of safety, and so there will inevitably be a certain dual responsibility for fire safety. It must be borne in mind that the enforcing authority under the Fire Precautions Act 1971 has the prime responsibility and the provisions in that Act should be used wherever possible. That authority is the Fire Authority. Inspectors must avoid any appearance of interfering in the Fire Authority's duty.
- C) Inspectors will not normally inspect general fire precautions when undertaking inspection on premises other than special premises. This policy has reconfirmed by the Chief Inspector within the last two years.
- D) However, if matters of serious concern are discovered with regard to general fire precautions but no immediate risk to life is involved, they should be discussed with the appropriate officer of the Fire Authority. Inspectors should not, without consulting their Area Director, issue improvement notices in respect of general fire precautions in premises where the primary responsibility rests with the Fire Authority.
- E) Where an immediate risk to life is involved, the responsibility of issuing an immediate prohibition notice should be considered; if it is decided to issue such a notice the inspector should telephone the Fire Authority with a view to taking joint action.

3.80 Although it is accepted that under Section 3 of the Health & Safety at Work Act 1974 the Factory Inspectorate could enforce measures to afford protection to the public, faced with the all embracing nature of the Section they had to consider how to enforce it in such a way as to make the best use of their resources. They were also anxious not to cut across the duties of other local authorities responsible for specific aspects of public safety.

3.81 They therefore adopted a policy of concentrating the enforcement of Section 3 on the remedying of hazards which were not caught within the net of other legislation. The effect of that was that, so far as fire was concerned, except in special premises, they did not regard it as their concern.

3.82 In September 1980, before the present Bradford Football Club was formed, Mr Laird, who is the Principal Officer at Leeds employed by the Health & Safety Executive attended at the ground and saw Mr Newman. The report on that visit is set out in a contemporaneous note made by Mr Laird. The relevant part of the note reads as follows: "There was very little compliance with the Guide to Safety at Sports Grounds, and Mr Newman said that although he knew of the existence of the Guide it was not really his responsibility to see whether or not particular recommendations of the Guide were met. Responsibility for structural safety at the grounds was with Mr Garside, a Director at the Club, who was also a builder. It was agreed with Mr Newman that I would write outlining some of the matters requiring attention and in due course meet Mr Garside to discuss the Club's view of these matters".

3.83 On 10 September 1980 Mr Laird did indeed write a letter. Having pointed out in numbered paragraphs that part of the terracing at the Spion Kop was badly broken and that the surfaces of the gangways were not level and that access from the Spion Kop to the Midland Road exit was extremely steep and the toilet arrangements behind the Midland Road stand were unhygienic, Mr Laird wrote this:

"Other matters which I noted which do not present the same degree of hazard to those referred to above included cracks in the wall between Midland Road stand and the pitch. The lack of some crash barriers at the Bradford end and the maintenance of barriers at that end of the ground; arrangements for the painting of the Bradford end roof structure should be made. In the main stand the void area between the concrete supporting structure and the wood floor should, after removal of rubbish, be completely blanked off The foregoing matters, particularly the numbered ones, are in my opinion as to order of seriousness of the matters observed. I would suggest, therefore, you consider these matters and we arrange to meet in about one month's time in order that we may discuss possible action".

3.84 Mr Laird did not draw that recommendation about the rubbish in the void to the attention of any other enforcing authority. The reason was that it said in the Green Guide that that was a fire hazard and was therefore the responsibility of the fire brigade. He considered it inconceivable that there could be a ground the size of Bradford City's in the middle of Bradford which the fire brigade did not know about. He was doing no more than following the recommendations made by the Department.

3.85 On 15 January 1981 Mr Laird again visited the Club, still under the old management. The Secretary was not available but there had been work done to some of the terracing at the Spion Kop. On 26 January 1981 there was a record of a telephone call which reads as follows: "Mr Newman said that the Midland Road exit, that's the exit from the Kop, was not used. Toilet accommodation would be reviewed at a meeting in April, other matters would be attended to as time and funds became available".

3.86 On 1 July 1981 Mr Bennett from Health and Safety Executive called. Nobody in a responsible position on behalf of the club was available. The same position obtained a fortnight later. However, on 16 July 1981 Mr Bennett carried out a basic inspection. He recorded: "Progress is being made on some of the matters identified by Mr Laird at the beginning of the 1980/81 season. For example repairs to the Spion Kop terracing is continuing, additional crash barriers have been installed, and the re-decorating done. The most serious outstanding matter is undoubtedly the very steep exit to Midland Road from the corner of the Spion Kop/Midland Road stand. Mr Newman said application had been made for planning permission to redevelop the Midland Road side of the ground, but this depended on finances becoming available, in view of the club's present League position, Division 4, I do not think this will be in the immediate foreseeable future"

3.87 On 22 July 1981 Mr Bennett wrote a letter to the Club in which he said:

"There were a number of areas in which you did not comply with the recommendations of the code, I would therefore ask you to consider these and draw up proposals on a time scale for implementing suitable modifications. In my opinion the most serious area is the very steep exit from the corner of the Spion Kop/Midland Road stand to Midland Road and this therefore should be given priority. I would also ask you to consider the evacuation procedure for the main stand, this is largely constructed of wood and from paragraph 8 of the code you will see that it should be

capable of evacuation in 2½ minutes. Please consider the above points and write to me detailing your proposals."

There was no response to that letter.

3.88 Mr Bennett wrote on 3 November 1981, drawing attention to his letter of 22 July making particular mention of the Midland Road exit. He asked that his letter of 22 July should be given urgent attention.

3.89 There was a letter from the Club on 6 January 1982 to the Health & Safety Executive which reads as follows:

"With reference to your letter of 22 July and 3 November last it is our intention to make Midland Road into executive private suites for next season and therefore the entrances will be modified appropriately."

3.90 Dr Hartley who is also an Inspector of the Health & Safety Executive visited the Club on 6 April 1984, and had a look round the premises. By this time the new Club had been formed. His note refers to two new floodlight towers being erected, but that very little seemed to have been done about the steep exit to Midland Road.

3.91 On 1 August 1984 Mr Laird visited the ground with the intention of seeing what work had been done. He inspected the exit from the Spion Kop to Midland Road. The note on the contemporaneous document was that Mr Laird would check by telephone by April 1985 to find out what the position was about the exit from the Spion Kop to Midland Road.

3.92 The reason why the visits were so limited was explained by Mr Laird. The Health and Safety Executive have a form in which the Inspector assesses the quality or otherwise of the compliance with the statutory obligations. If it is a high standard of compliance it is not necessary to make a frequent inspection; if it is a very poor standard or non-compliance it is necessary to make a more frequent inspection. In September 1980, the ground was rated as being relatively low priority for inspection and the same applied in 1981 and 1984.

3.93 The inspection rating document, however, records that in 1981 and 1984, there was a finding that there was a substantial risk to the public; and that that risk was "fire, place of work and means of access." Mr Laird explained that the substantial risk to the public, which he had in mind, related to the exit to Midland Road from the Spion Kop and to the possibility of people slipping, with consequences similar to that which occurred at Ibrox Park, when many people were killed.

3.94 It is clear from the foregoing that Mr Laird was doing no more than following the directive from his Department. It does, however, highlight the problem of dual responsibility. There is a serious risk of duplication of work, resulting in a waste of resources. There is also a risk that information, available to one authority responsible for safety, will not reach another authority. If the prime responsibility for the safety of premises in relation to fire is to lie with the Fire Authority (and it is essential that one authority should be given the responsibility), then it is absolutely vital that any information coming to the Health & Safety Executive about danger from fire, should instantly be communicated to the Fire Authority.

3.95 It is also essential that any information coming to the Fire Authority about matters for which the Health & Safety Executive are responsible, should be brought to their attention. Mr Laird said that if, every time they found some litter lying about which might constitute a fire hazard, they had to notify the Fire Authority, they would never get any work done; it was really a matter for the occupier to be responsible for his own good housekeeping. Naturally it must be a matter of degree but I recommend that there should be urgent consultation between the Health & Safety Executive and the Fire Authorities and local authorities as to how best to co-ordinate and communicate their inspections and reports.

The Ambulance Service

3.96 Oral evidence was not given by the Ambulance Service. However, a very large number of statements by those involved were available to the public inquiry. There were some criticisms about staffing levels, about a fault developing in the telephone lines and some criticism of the facilities for calling in staff. There can be no doubt but that the Ambulance Service performed with its usual high degree of efficiency and devotion. Such criticism as individual officers have will, no doubt, be considered by the appropriate authorities and it is not necessary for me to deal with them further.

St John's Ambulance

3.97 There were on duty at the ground 10 members of the St John's Ambulance Brigade. No oral evidence was given by their members but their statements were before me. Additionally a written submission from them was received making the following points:

- a) there was no statutory requirement for adequate first aid to be provided at any football ground and in many cases a first aid room and other facilities were either inadequately provided or not provided at all;
- b) there was a feeling that the members did not receive proper recognition at football matches, nor was appropriate recompense paid to the St John's Ambulance.

3.98 Everyone recognises the value of the work done by members of the St John's Ambulance. The 10 members on the ground undoubtedly did an enormously valuable service attending to those injured. They assisted in arranging for the injured to be taken to the ambulance, and there can be no doubt that, but for their help, the casualty rate would have been higher.

3.99 The value of the presence of St John's Ambulance at a sports ground cannot be over-estimated. If it be the case that a first aid room is either not provided or inadequately provided then that should be remedied, and I recommend that, where practicable, that should be done. I recommend that on grounds which are designated it should be a term of the safety certificate.

The Hospital Services

3.100 While not strictly within the terms of our Inquiry, we have received a number of letters praising the work of the hospital staff. It is right that this should be publicly recorded.

The Club Stewards

3.101 The stewards at Bradford City Football Club were under the general direction of Mr Chappell who was a General Secretary employed by the Bradford Council Social Services Department. He had been acting as a steward at the football ground for a period of some 36 to 37 years; there had been no formal

instructions to the stewards, but Mr Chappell said that the stewards were responsible people and they discussed on an informal basis those matter, which they considered relevant. He described his stewards as a team of people who sold cushions and assisted or directed people to designated seats.

3.102 There were stewards at the back of Blocks A, B, C, E, F and G. They ranged in age from 73 to 12 and they were 9 in number. They regarded their job as simply to arrange for the easy entry of spectators to their seats and to direct them to the part of the ground to which they wished to go. Some of them had distinctive jackets, but not all. Mr Anthony Keating described the reason for not wearing his this way: "We used to have a steward pinny on but we got spotted out too easily with them you know, we got more trouble that what it was worth so we didn't bother wearing them after that". When asked why he got trouble, he said: "Because if they see a steward you get a load of mouth after you, booting you up and everything".

3.103 The stewards were not paid. They did it because they were loyal supporters of the club. They had no training in fire fighting nor in crowd evacuation nor in crowd control in the sense of dealing with hooligans. It is clear that the stewards could have done nothing more to have prevented this fire from starting or spreading.

3.104 I recommend, as happens in designated grounds, that stewards should be trained and instructed firstly about fire fighting, and secondly on how best to assist the police in evacuation. (See also 3.8. and 3.9).

3.105 There were two Keating brothers in the main stand on duty on this day, acting as stewards. The whole of their family had been involved in the club in one way or another for some time. Mr Anthony Keating who is now 27 had been involved for some 13 years, Mr Peter Keating who is 26 had been involved also for 14 years. A set of keys to the doors was kept on a board in the gatesman's room. It was Mr Peter Keating's responsibility to look after the doors and gates leading into South Parade. It was his practice to unlock those doors some 20 minutes before time. The reason for that was to prevent spectators inside the ground from opening the doors and allowing spectators outside the ground to come in. This was not only because they would not have paid, but more importantly because it would then not be possible to segregate visiting supporters from home supporters, with all the consequential difficulties resulting therefrom. This practice seems to be prevalent at a number of clubs.

3.106 Just before half time he went and opened gate B. Having done so he stood there with his brother Anthony which was his normal practice until five minutes or so after half time when he would have closed the gate. He saw gate E being opened by two policeman. Accordingly he walked up to that gate along the road outside the ground. He then saw people coming out of gate S onto South Parade from the Paddock. On a previous occasion he had seen people coming out from the Paddock with the idea of getting into the back of the stand without paying. Accordingly he walked along South Parade in order to see what they were going to do. When he got there he could see a lot of smoke. He was asked by a policeman to open gate X, he tried to do this but was driven back by the smoke. In fact it was not locked because the turnstile operator at T had unlocked it earlier. It was then quite impossible for him to open door R because of the fire. This was the only door which was in fact locked and could not be opened by the simple process of opening the bolts and pushing at the doors. In fact it was kicked open during the fire.

3.107 At football matches there is a particular problem of locked doors because the club needs to be sure that spectators do not enter the ground, save through the turnstiles. I was given examples of cases where spectators had been able, through one means or another, to open doors which were not locked, and get in in substantial numbers, without paying. There have been other occasions when the stewards have been attacked, in order that the keys, which they hold, could be used.

3.108 It is, however, beyond doubt that all doors should be capable of being opened immediately, in an emergency. In theory there should be no difficulty, even if the door is padlocked, in having a steward manning a door, who can open it at a second's notice.

3.109 That does not take account of human failing. The steward may well want to go to have a cup of tea, go to the lavatory or, more likely, watch the game. The roar of a crowd at a promotion match or Cup game is likely to arouse the attention of even the most conscientious steward. On one ground which was visited the authorities explained that they did not pay their stewards but watching the game was the reward for their attendance.

3.110 At/^{one}ground I was told of stewards opening the exit doors towards the end of the second half and then themselves leaving the ground. This enabled supporters to move from one part of the ground to another and thus breach the segregation arrangements. This is yet another reason for doors permanently to be manned permanently.

3.111 Paragraph 6.14.6 of the Green Guide says:-

"All exit gates should be manned at all times while the ground is used by the public so that they can be opened immediately in an emergency".

I recommend amending this paragraph to read "All exit gates should be manned at all times while the ground is used by the public and be capable of being opened immediately, from inside, by anyone in an emergency";

3.112 It is not sufficient to have adequate and suitable exit facilities, unless an indication is given to spectators as to where they are. We endorse paragraph 6.6 of the Green Guide that an indication of where the exits are, should be given by way of sign or other direction.

3.113 In addition to the recommendation that exit doors should not be locked, I also endorse the view that exit doors should open outwards only. There have been disasters in public places where the crush of people inside has prevented doors, which will only open inwards, from being opened at all. See Green Guide paragraph 6.14.

3.114 The position of the stewards needs to be reconsidered. The safety certificate issued by the West Yorkshire Metropolitan County Council, in respect of Leeds United Football Ground, says inter alia:-

"The holder shall ensure the attendance at a specified activity, of stewards in the following numbers and with the following duties, that is to say:-

- (a) 22 stewards to man such exit doors and gate, as are not open continuously while the stadium is in use for the specified activity;
- (b) 50 stewards to control and direct spectators within the stadium and to patrol the stadium and deal with any emergency including raising the alarm and extinguishing fires; Provided that such numbers may from time to time be varied as directed by the police. Such stewards shall be required by the local authority and the police and shall be identifiable by dress and distributed (subject to any direction of the police) in such a manner as to discharge competently the functions specified above."

3.115 In addition the safety certificate requires the stewards to be properly trained to deal with an emergency. The certificate reads as follows:

"Written instructions approved by the local authority and the police about the action to be taken in case of emergency shall be readily available to all staff and stewards at all times, and in particular each member of staff and steward shall receive a personal copy of such instructions.

All members of staff and all stewards shall in the month of July in every year receive practical instruction and training appropriate to their responsibilities in case of emergency. Exercises for all staff and stewards shall be carried out regularly to ensure the smooth operation of procedures for dealing with an emergency. All members of staff and stewards shall receive refresher training once at least in the months of October and January in every year. All training instructions and exercises shall be carried out by a competent person".

3.116 It has to be remembered that the prime responsibility for the arrangement of affairs at the ground lies with the football club. To that end they should ensure that the stewards, particularly those that have to deal with what may be regarded as trouble spots, like manning doors, where there is a risk of unauthorised entry, are of a great deal more robust nature than some of those who are currently employed at football grounds. A number tend to be elderly and loyal servants of the club, who come along for an afternoon to see their old friends and watch a bit of football, others are young boys.

3.117 I am conscious that there are financial restraints on football clubs, but it is of vital importance that stewards should not regard themselves, nor should they be regarded, simply like usherettes at a cinema, showing people to their seats. They should have a real responsibility in regard to the safety of spectators at grounds. To that end I recommend that the Green Guide should contain a provision, in relation to stewards :

- (1) that they should be trained and instructed to deal with any emergency relating to fire or evacuation;
- (2) that they should be given written instructions about the action to be taken in cases of emergency;
- (3) that they should receive practical instruction and training appropriate to their responsibility;
- (4) that no one should be employed as a steward unless they have been so instructed and trained; and
- (5) that they should be adequate in number, physically and mentally capable of performing their duties, effectively deployed, efficiently supervised and readily identifiable.

The Club

3.118 There were two causes of this fire and the resultant casualties; the presence of litter under the seating, and the absence of sufficient exits.

3.119 There was some evidence that steps had been taken to keep the stands free from litter and to extract litter from voids when kick-boards were replaced. The fact remains that there were appreciable quantities of litter in the voids. With the construction of flooring as it was at Bradford, that was almost inevitable. To remedy the situation would have required greater expenditure of money and resources than was available to the Club.

3.120 The financial position of the club in 1983 was that it had debts in excess of £400,000. In order to retain its position in the League, who were anxious to reduce the number from 92 to 80, Mr Heginbotham said he had to persuade a number of those on the Management Committee of the Football League to ensure that League football was not taken away from Bradford.

3.121 The condition of remaining in the League was that the 1983 Company had to meet a large number of financial conditions. They had to pay the Football League debt, and the debt to the bank in full. The creditors of the old company had to be paid 60%. There was a potential loss of £100,000 in the first year of operation. There was a heavy emphasis on activities to raise the revenue from other sources, in addition to the gates, and a very low priority was given to additional expenditure.

3.122 The first priority of the Club was to ensure that it was financially viable within its own finances. Any work or improvement or alteration was wholly related to finances that were available. The letter from the Health & Safety Executive in June, 1981 was addressed to the old Club and Mr Heginbotham was unaware of it. He did not see the letter of 18 July 1984 until the Monday following the fire. The reason was explained by Mr Newman, the Secretary. He was visited by Mr Shaw in July 1984. He received the letter of 18 July 1984 through the Receiver, who was handling the affairs of the club. He showed the letter to Mr Tordoff, who was the Vice-Chairman. There was a Board meeting on 7 August, at which Mr Heginbotham was present; Mr Tordoff was away.

3.123 Mr Newman had with him, at the Board meeting, the letters of 11 July and 18 July. They were stapled together. The letter of 11 July was referred to but not the letter of 18 July. It was then put in a file marked "Football Ground Improvement Trust".

3.124 Mr Tordoff saw the letter of 18 July at the time. It referred to rubbish in the voids. He understood that to refer to some surface rubbish in the stand, on the seats, or the surface of the floor-boards, and not underneath the floor-boards. He said "We must have the area swept there". Likewise Mr Tordoff did not consider the question of evacuation in 2½ minutes. He had seen the stand evacuated with no problems at all, in very short periods of time, after matches had finished. He considered that the 2½ minutes was really a matter for the future.

3.125 Mr Heginbotham said that even if he had seen the letter of 18 July, he would not have taken any action, because he regarded it as a reference to a standard which a designated club should achieve. It occurred during the closed season. Shortly before there had been a religious meeting and he thought the system of clearing the litter was perfectly satisfactory.

3.126 He was aware of litter being able to accumulate when kick-boards were knocked off, but he said it would have been a major task, almost a dismantling of the stand, to have removed litter that was likely to have gone under broken kick-boards. He accepted that it should not have been there, but said that the cost would have been considerable and it would have been a major task. The stand had been there for 75 years. By an irony it was the second last game before the timber flooring would have been replaced by concrete. That work would have started on the following Monday.

3.127 The problem facing Mr Heginbotham and his Board of Directors was a problem facing a great number of directors of clubs in the Third and Fourth Divisions. That was the problem of finance. It is, however, a problem that cannot simply be dismissed on that account, because the public are entitled to expect that sports grounds will be reasonably safe.

Perimeter Fence

3.128 A number of witnesses pointed out that if there had been closed perimeter fences at Bradford, the casualties would have been on a substantially higher scale. That is undoubtedly true. It is undesirable that there should be closed perimeter fences where there is risk of fire. However, perimeter fences exist in front of non-combustible stands, where there is always a risk of a bomb-hoax or some form of riot necessitating emergency evacuation.

3.129 Most of the perimeter fences I have seen have a facility enabling them to be opened. The usual reason is to allow the press of people, who have been pushed against the fence, to be let out to reduce the crush, to rescue innocent spectators who want to get out or to enable police to enter to control or arrest spectators.

3.130 Clearly, the perimeter fences need to have gates in them and the facility for immediate opening in an emergency. The local authority will have to decide, in respect of each ground, whether a perimeter fence can properly be put up, if there be not one now, and in those cases where there are perimeter fences, to ensure that there are sufficient and adequate means of exit, including exits through the perimeter fence itself. Paragraph 7.9.1 of the Green Guide applies.

The Future

3.131 How then can such a disaster be prevented in the future? As I indicated in paragraph 2.26, the construction of this wooden stand, the fact that it was a wooden stand and the inadequacy of the exits were the causes of the fire and resultant casualties.

3.132 I would like totally to prohibit permanent wooden stands (including those made from combustible materials) and I recommend that the building of new permanent stands of combustible materials be prohibited as a general rule. I recognise, however, that there are a very large number of them in existence and that to forbid their use would be a draconian step to take. I would seek to avoid taking this step if reasonable measures to protect the public could be taken as an alternative.

3.133 I was told it is not economic or practical to treat stands with fire resistant substance and also that it may give a false sense of security if it is done and not renewed.

3.134 The difficulty is this: although there are a large number of wooden stands at sports grounds, they are not necessarily particularly large in size. Thus, a sports ground may comprise only a wooden stand, from which exits are inadequate. It matters not, whether the ground is capable of holding 20,000, 2,000 or 200. If there is a stand for 200 people, which is likely to suffer the same fate as the Bradford stand, the danger is as great even if there is no other accommodation at that sports ground.

3.135 It is clear that while paragraph 10.6 of the Green Guide (namely that every effort should be made to reduce the hazard caused from the accumulation of waste paper) is a sensible recommendation, in practice, floor-boards are going to get damaged, gaps are going to appear and debris is going to be dropped. Given the problem of supervision at a number of clubs, it is not practicable to prevent this.

3.136 Thus, if wooden stands remain, there is going to be a continuing risk of fire from the accidental dropping of a match through gaps in the floor-boards onto litter which has accumulated below. But the fact that there is a risk of fire does not necessitate the immediate prohibition on the use of wooden stands. Many private and public premises are similarly made of wood or other combustible material. What is necessary, and very important, is that even if there is a risk of fire, the risk of danger to life caused by that fire, should be eliminated.

3.137 The fire service view seems to be, that as a general rule, wooden stands should be replaced by non-combustible stands. They are equally of the view, that provided adequate exits are available, they will, for the time being at any rate, be not unwilling to sanction the continued use of wooden stands.

3.138 The provision and maintenance of suitable and adequate exits is the main means of escape and I recommend that suitable and adequate exits shall be provided in all sports grounds.
There are other fire precautions which I have already outlined in the course of this report: they are good housekeeping; the provision for proper warning of fire; the provision of fire fighting equipment; the training of stewards; appropriate evacuation procedures and adequate communication arrangements.

3.139 The Home Office has already asked chief fire officers to visit all sports stadia in their areas. I understand that the results of those visits are already known. It is thus possible, so far as fire is concerned, for the Fire Authority to determine what is necessary to ensure safety in wooden stands.

3.140 It is, therefore, not necessary to extend the scope of the Safety of Sports Grounds Act 1975 by designating every sports club who happens to have a wooden stand. It will be appreciated that there are other matters of safety, apart from fire. But having regard to what happened at Bradford, I believe there is urgent necessity for dealing with the fire problem.

3.141 There is clear evidence that the risk of a lighted match remaining alight after being dropped is quite high. The risk thereafter, to wooden stands, from that lighted match setting fire to debris which has not been cleared is also quite high. I recommend that no smoking should take place in combustibile stands, that this should be a condition of entry to the ground and that signs to that effect should be prominently displayed.

3.142 I recommend that the Fire Authorities should identify and visit all sports grounds in their areas and should prohibit or restrict the use of any stands, which in their view constitute a risk to spectators, because of the inadequacy of the fire precautions. I am sure clubs will behave responsibly and voluntarily agree to the recommendations of the Fire Authorities. If they do not, it may be necessary for additional powers to be provided. It is worth noting that in the years 1977 to 1983 in the UK alone there were no fewer than 86 fires in grandstands, and in 1983 there were 200 fires elsewhere in sports grounds.

3.143 I recognise that there may be some clubs to whom this will be a death knell. However, in the light of the events at Bradford, I must put the safety of the public above the interests of the club. I do recognise the part that local clubs play in the affairs of the community. Over 180,000 people enjoyed watching football at Valley Parade in the 1984/85 Season, but like other places, to which the public are admitted, such as shops, offices, hotels, theatres and cinemas, a reasonable standard of safety is necessary.

3.144 Wooden stands are found, not only at Association Football grounds, but also at Cricket grounds, Rugby League grounds, Rugby Union grounds, at Speedway and Athletics grounds and Race tracks and courses. You have indicated that you are to designate grounds in the Third and Fourth Divisions of the Football League. There is no logic in not designating all other sports grounds which are capable of holding a number of spectators. There is, for instance, no reason to believe that a football ground of a club outside the League is any safer than one within the League. Indeed, it is likely to be much less safe. Other sports must be treated in the same way.

3.145 To that end I am minded to recommend that the designation in the Safety of Sports Ground Act 1975 should be amended in two ways. Firstly that you should exercise your power to designate all sports grounds, whatever their size. This will enable you to control simply the safety of sport grounds. Secondly sports grounds should include indoor as well as outdoor activities.

3.146 It will then be open to you to decide, having regard to the practical difficulties involved, how best to set a timetable for when, if ever, each club, or class of club, is designated. I have in mind to recommend immediate designation of any ground capable of holding over 5,000 spectators. This will cover all sorts of grounds, not merely football grounds. But this must be subject to further detailed consideration.

3.147 Some idea of the extent of the financial and practical problems emerged in evidence at Bradford. Although the Home Office originally thought 17 days work would be sufficient to prepare a safety certificate, practice has shown that it takes three or four times that figure. Both the local authority and the fire authority expressed concern at the scale of work involved if we recommend designation at 5,000.

3.148 Mr F A Sims, who is a Chief Officer of West Yorkshire Metropolitan County Council, has estimated that "for 50 additional clubs to be designated it would take 3,500 man days, 10 man years work; so we are talking about an additional staff of ten men". Mr Karran, the Chief Fire Officer of West Yorkshire, said he would need up to 12 additional officers of sufficient experience and training to cope with another 50 clubs. While I accept this evidence was given in good faith, I cannot be sure it necessarily reflects the position elsewhere.

3.149 I recognise the problem of finance and manpower, but the numbers of those who attend sports grounds each week is probably over a million people. They are entitled to reasonable degrees of safety and are entitled to look to those who manage sports grounds to ensure their safety and to central and local Government to enforce compliance with safety standards.

3.150 In order to ensure that a complete record of sports grounds (as defined in the Safety of Sports Grounds Act 1975) is available, I recommend a local registration system be set up.

3.151 Fears have also been expressed about temporary stands and marquees, which are equally capable of giving rise to dangerous situations. As far as I can ascertain, there seems to be no provision preventing their use at non-designated grounds. I recommend that consideration be given as how best to deal with them.

3.152 A number of certificates which I have seen issued by local authorities are very detailed and cover all the sort of points raised in the Green Guide. I have considered whether a statutory obligation should be cast upon those

responsible for managing sports grounds, similar to the Shops and Offices Act or by making the Green Guide statutory.

3.153 However, I consider the supervisory role, which the local authority exercises at present, is a more practical way of ensuring safety. It has the positive effect that a sports ground has to operate under a safety certificate. Sporting authorities need help and advice, particularly on the fire aspect, and especially in relation to good housekeeping. Some of the grounds I visited, for instance, contained petrol, paint, fertiliser, gas cylinders and chemicals all stored together under, what appeared to be fire-proof stands. Practical measures which need to be taken and applied to individual grounds.

3.154 There seems to be a general view that the Green Guide has no application, unless the ground is designated. Nothing could be more misconceived. I recommend that the next edition of the Green Guide should make it clear that it applies to all sports grounds, not simply those designated. It contains so much good advice that it should be compulsory reading for all those who run any sports grounds. I shall be giving further detailed consideration to the provisions of the Green Guide.

3.155 Finally I cannot finish this section of the report without paying tribute to the enormous heroism shown by a very large number of people at Bradford. It would be invidious to single out any individual or group of individuals. They came from all walks of life. They all played their part in saving lives.

Chapter 4

Birmingham

How did the riot start?

4.1 On 11 May 1985, Birmingham City Football Club played Leeds United Football Club at St Andrew's, Birmingham. It was the final fixture of the 1984/85 Season. Birmingham City had already secured promotion to the First Division in the position of runners-up. If they defeated Leeds United, and Oxford United lost in another fixture being simultaneously played, then Birmingham City would become champions of Division Two. In the event Oxford United won their fixture.

4.2 In order to be promoted to Division One, Leeds United had to win at Birmingham. If Manchester City, who were playing a simultaneous fixture elsewhere also won, Leeds United would not be promoted.

4.3 There was good liaison between Birmingham City Football Club and the police and with Leeds United Football Club. The Secretary of Birmingham Football Club described the planning for the match as, "along the lines of a military operation". The number of policemen was fixed at 207, with the ability to increase that number to some 400.

4.4 On 1 May 1985, club officials met with senior police officers and a number of decisions were made:-

1. Alcohol would not be available to the public in the ground; the only alcohol available would be in the executive suite and the private members boxes.
2. Seating in the Paddock Area of the Grandstand would only be available to season ticket holders and not to the general public.
3. Tickets for seats in other areas of the ground would be available to the general public between 9.30 am and 12.00 noon on the day of the match, so as to eliminate sales to the Leeds United supporters.
4. Strict segregation was to be enforced so that the Leeds United supporters were at the Tilton Road end.

4.5 There were a number of other police actions relating to adjoining premises and there was advice to the club about its stewards and about missiles on the ground.

4.6 In Birmingham on that day there were also a number of other activities which had a potential for disorder and required a substantial police presence. There was a march organised by the 'Troops Out of Ireland Movement' which was scheduled to arrive in the City Centre at 4pm. Arsenal supporters were travelling to West Bromwich Albion and some were likely to come by way of Birmingham. Chelsea were due to play Stoke City in the morning and it was thought some Chelsea supporters might pass through Birmingham in the afternoon.

4.7 The police considered altering the kick-off time to the morning, but, having regard to the other activities, it was felt there might be a real problem if troublesome supporters after the game came into confrontation with the other supporters or with the marchers.

4.8 It was anticipated that approximately 10,000 Leeds United supporters would arrive by various means. Many came by train, many came by coaches but a large number came in hired mini-buses. It has been the practice, in most clubs, for the police to escort visiting fans from a railway station to the ground and to escort them back again. Thus they are unable to confront the home supporters. Likewise coaches carrying visiting supporters are driven to an area where they can be segregated from home supporters and the visiting supporters moved directly into their accommodation.

4.9 It has, however, also become the practice over a number of years, for many who seek to cause trouble at grounds, to avoid anything like official transport where they can be more easily controlled and segregated. On trains it is now the practice for alcohol not to be available. Official supporters' buses are usually controlled by officials of the visiting club. Normally drink is unavailable. Ordinary hire coaches going to football matches are not/usually allowed to have drink on them as a condition of their licence. But in practice this is almost impossible to enforce. The luckless bus driver, when surrounded by 30 drunken hooligans, has little or no control.

4.10 Before the visiting supporters had even reached the ground, 150 had become involved in street brawls at Birmingham New Street. There were problems in public houses. In one public house, the visiting supporters threw everything they could lay their hands on out of the windows, all of which were broken. There was serious trouble, due to football coaches at Burton-on-Trent, in Nottinghamshire and at Leicester.

The Ground

4.11 At the West end is the Railway Stand (also known as the City End) which will seat some 4,000 supporters. The home supporters occupied it. It was unfenced. At the North end is the main stand. It has a number of private boxes. There is a large seating area which was kept empty. This is called the Paddock seating. At the East end are terraces divided into tiers with double compartment fences and perimeter fencing. This is the Tilton Road end occupied by visiting supporters. On the South side is Spion Kop which is a long terrace for home supporters surrounded by a perimeter fence. A plan is at Appendix 6.

Arrival at the Ground

4.12 The arrival of the visiting supporters and their behaviour outside the ground gives some small idea of the problems of hooliganism at football matches. One coach, with Leeds supporters in, was directed to a coach park. It would have meant that supporters would have had to walk some 300 yards back to the stadium. Finding this to be an unacceptable imposition, and perhaps wanting to husband their energies for later violence, they just kicked out the side windows and left the coach that way.

4.13 Naturally, supporters have to pass through turnstiles. A number however found that the pace at which spectators ahead of them were moving was too slow for their liking. They simply scaled the walls and fences, climbing over barbed wire barriers into the ground.

4.14 Those who were unwilling or unable to negotiate that obstacle course, then turned their attention to breaking inⁱⁿ some other way. They started to storm the main gate. Those inside sought to assist them.

Meanwhile they had bombarded police with missiles of all sorts. Eventually, in order to reduce the missile attacks and relieve severe public disorder on the highway outside the ground, a decision was taken to open the large gate, so that a substantial number of fans entered without paying.

4.15 Police Superintendent Fowler described the attack on one gate in this way: "My attention was drawn to loud banging behind me at the exit gates 'F' and 'G'. I investigated this noise by looking through the centre gaps of these double gates, which were of solid construction of metal bars and rods with an external metal sheet cladding. They were secured by flat metal bars and securely padlocked. I could see large groups of fans launching themselves against these two gates and kicking them outwards. With each assault on these gates, the bolts on the bases were dragging outwards and were eventually no further use in securing the gates. The gates were then only secured by the central securing bolts carrying the padlocks. I then became aware of a group of six fans using a battering ram against these gates. They were using a piece of concrete with steel reinforcing rods which was approximately seven feet in length and three to four inches square."

*before
de Hest*

4.16 Superintendent Fowler then radioed for some assistance, his description of events continues: "Moments later gates 'F' and 'G' burst open and the fans in Tilton Road surged forward, hurling bricks and other missiles at myself and PC Waleczek. I was hit on the left wrist by a brick and received an inch long cut and heavy bruising. PC Waleczek was hit by several missiles and sustained broken bones in his foot. Approximately 150 fans pushed us aside and ran through the breached gates into the Tilton Road stand and disappeared into the crowds inside the ground."

4.17 One group of supporters, who were not prepared to wait, smashed down 40 or 50ft of metal railings and wooden doors, together with part of a small brick wall. They then used the bricks as missiles. There was no doubt that a large number of these supporters had taken drink.

First Half

4.18 Once inside the ground, the Leeds United supporters were contained in two compartments of the Tilton Road end. They were flanked by a sterile area, separating them from Birmingham supporters. On entering the ground a number of supporters continued to throw missiles, including cans, bricks and £1 coins.

4.19 The terraces on which they stood were made of concrete. Some supporters managed to dislodge part of the concrete terracing. One used a pick axe. They thus found themselves in possession of lengths of reinforced concrete which they subsequently used as missiles and as battering rams.

4.20 Because of the constant throwing of missiles, pieces of concrete, pieces of wood and coins, the police had to move from the perimeter out of range and take up position elsewhere.

4.21 A refreshment hut, at the top of the terrace, provided for the convenience of the fans, was broken into and was ransacked. About 20 or 30 spectators had climbed onto the roof. The hut was left in complete disorder. The staff managed to escape. A large wooden shutter, which had been covering the serving hatches at the front of the hut, was passed over the heads of the supporters towards the front of the enclosure and then disappeared into the crowd.

4.22 It was obvious that the Leeds supporters, who had climbed onto the perimeter fencing were shaking it violently in what was a deliberate attempt to pull it over. The hail of missiles continued throughout the first half.

4.23 The police report summarised the events of the first half as follows:

1. Leeds United fans maintained bombardment of nearby police and they scaled the fence in preparation for invading the pitch;
2. At the City End, young Birmingham supporters descended from the upper tier of the stand to the lower tier of seating;

3. The roof of the refreshment bar at the Tilton Road end was dismantled and passed through spectators to the front.
4. Birmingham supporters at the City end threw missiles at the police, although to a lesser extent than Leeds supporters.
5. After 42 minutes, ie, 3 minutes before half-time, Birmingham City scored what was to prove the solitary goal of the game;
6. The unruly supporters at the City end were reinforced by many scaling the fences at Spion Kop and joining the unruly element behind the goal;
7. The fencing at Tilton Road end held back the Leeds supporters but missiles were thrown at the police when within range.

Half Time

4.24 The first half ended at about 3.46pm. Both the police and Birmingham City Football Club have video film of what occurred during the game. Like the dramatic scenes of the fire at Bradford, they create a vivid and startling picture of the riot which occurred, which cannot fully be conveyed in print.

4.25 The police report continues: "The half-time whistle signalled a pitch invasion from both ends of the ground. The invasion by Birmingham City supporters was greater in number than Leeds, but Leeds supporters made greater use of missiles. Police were ready for this invasion and formed a double cordon across the pitch to keep the factions apart. Missiles thrown at the police included concrete, bricks, coins, boards and advertising hoardings."

4.26 The continual bombardment of police officers with missiles, necessitated two immediate courses of action: firstly to instruct baton charges to push both factions back to the boundary fencing; secondly to issue NATO type helmets to officers of the Operational Support Unit, primarily engaged at the Tilton Road end.

4.27 Inspector Turner, who was in charge of the West Midlands Police Mounted Branch, was asked to bring his mounted officers onto the pitch to assist with clearing supporters. They, together with officers deployed by Chief Inspector Allen, prevented a violent clash in the middle of the pitch between fans.

4.28 It is a matter of congratulation that in the face of the violence shown to them, the police were able to keep the supporters apart and finally to restore order.

4.29 There were other problems facing the police. Birmingham supporters climbed over the fencing at Spion Kop and joined their associates in the seated area, behind the City End goal. They also gained access to the Paddock seating at the City End side of the central tunnel. Leeds United supporters gained access to the Paddock seating at the Tilton Road side of the central tunnel. Thus both lots of supporters were close to each other in seating without fencing. Missiles discharging smoke were thrown at each end of the ground.

4.30 A number of Leeds United supporters went onto the pitch, purporting to clear the Tilton Road end by removing missiles. This was not quite the philanthropic exercise it might appear: a number of the supporters simply used what they had picked up to replenish their ammunition.

4.31 In addition to the physical clearing of spectators from the pitch by the police, officials sought to encourage spectators to return to their proper place. Mr Gray, the Leeds United Manager, came onto the pitch to seek to placate the Leeds fans. All he got for his pains was a stoning.

4.32 A number of police officers were caught in the narrow gangways between the two compartments of the terraces at the Tilton Road end. They had to run the gauntlet and suffer violent assault by large numbers of visiting supporters. Rocks, sticks and advertising hoardings were among

the weapons used on them. The police on the pitch had to make repeated efforts to rescue their colleagues.

4.33 One particular group seized hold of a large piece of concrete and used it as a battering ram inside the pen in order to force the gate. In this they were unsuccessful.

Second Half

4.34 The game recommenced at 4.32pm and was uninterrupted. Throughout the second half, the police continued to be the subject of missile attacks and spitting.

4.35 At the final whistle, the pitch was invaded by both the Leeds and Birmingham supporters. Once again the police managed to keep the fans apart, but they were subjected to a considerable bombardment. The Birmingham supporters began throwing boardings and broken seats. The Leeds supporters were also ripping up seats and throwing them. As a variation they also dug up the concrete terracing and started using pieces to pelt the executive boxes. Some began tearing the goal netting down. Yet another group tried to set fire to the refreshment hut on top of the Tilton Road terraces. The wooden poles of the advertising hoardings were used as missiles at the mounted police.

4.36 Inspector Turner described it in this way. "As the barrage of missiles increased I ordered the mounted officers to draw their batons to defend themselves and drive the supporters back into the seating area and back over the wire fence. After a pitched battle, which lasted some 20 minutes, the Birmingham supporters were forced out of the ground, through the Emmeline Street entrance and away from the ground itself. The Leeds supporters were contained behind the wire fence and they began to leave the ground by the Tilton Road exit".

4.37 A number of the mounted officers had NATO style helmets - it did not prevent Sergeant Fitzmaurice from having his nose broken by a lump of flying concrete and his clothes were drenched with blood. WPC Nagle described how she was hit by a missile and received wounds necessitating six stitches. The three male policemen alongside her became stretcher cases.

4.38 Inspector Turner's description of the events as a pitched battle is accurate and succinct. It does not begin to convey the frightening and terrifying scene depicted on the video film which more clearly resembled the Battle of Agincourt than a football match. Still photos of some of the missiles and damage appear in Appendix 7.

4.39 Although the Birmingham supporters started to leave, they were unwilling to give up the battle easily and they continued to throw large stones and other materials, including advertising hoardings, seats and pieces of wood. The police had to equip themselves with defensive shields to disperse a large group of several hundred strong in a play area outside the ground. Youths were pulling up a children's slide from the concrete, taking swings down and removing the chains from the swing seats. Eventually they were put to flight.

4.40 There were many subsequent confrontations between rival fans and between fans and the police. Vehicles and property were indiscriminately damaged. A party of Asians returning from a wedding, in a coach, were stoned and injured. The vehicle was severely damaged.

4.41 Finally, about 7pm, a sort of peace descended on St Andrews.

4.42 Only the timely and courageous intervention of the police between the rival supporters prevented a disaster of Brussels proportion. Apart from the damage to property, which is estimated at some £85,000, the casualties known to the police are as follows:-

	<u>Police</u>	<u>Non-police</u>
Injured	148	88
Conveyed to hospital	21	60
Subsequently unfit for duty	27	-

In addition there were many more members of the public who received immediate first-aid treatment in the St John's First Aid Centre below the main stand. Sheer volume necessitated the St John's Ambulance Service discontinuing their recording procedures. They are thought to amount to some 400 persons. One lady member of St John's was kicked while tending a patient.

Collapse of the Wall

4.43 The game finished at 5.17pm. Some 35 minutes later, a wall which ran between the Tilton Road terrace and the car park collapsed. Tragically, a 15 year old boy, Ian George Hambridge, received fatal injuries. There were injuries sustained by 17 other members of the public, three police officers as well as damage to vehicles.

4.44 Between the end of the game and the collapse of the wall there were still a number of supporters in the Tilton Road terraces. Missiles were being thrown at the executive accommodation in the main stand. A loud-hailer warning given by the police had little effect. The police entered the enclosure in order to disperse missile throwers and those surrounding the refreshment bar. As a number of people were leaving the enclosure, going towards the car park, the wall collapsed.

4.45 There are differing explanations of how that came about. First that spectators were climbing over the wall; second, that it was deliberately pushed; third, that the collapse was caused by the crush of spectators who were leaning on it or were being pursued by police officers; and finally that it simply collapsed without any intervention.

4.46 A number of spectators and police officers at the game described their experiences. Mr Hudson described being on the terrace and going out through a door at the exit end of the stand. He said "There were a few people going through the door just in front of me, there wasn't a rush to get through, but I had moved forward in the queue to get through the door. Just as I got to the door I looked back behind me into the terrace and I could see the Leeds fans running up the terrace. I couldn't see any police at that stage. I walked through the door." Then he described the wall falling on him.

4.47 Mr Pugh described seeing police on the terracing who were coming up towards the refreshment hut and the wall. He described bricks being thrown over the wall from inside the ground and he was between a couple of cars when the wall fell on him.

4.48 Mr Garfield described being in the car park, he saw the wall come out, it struck him. It appeared to him that some supporters had come over with the wall. He said that when he had walked down the steps and out of

the door leading into the car park, there was just a steady trickle of people leaving and there was no pushing or shoving.

4.49 Miss Kathy Dwan was also in the car park. She saw the wall coming slowly down towards her. She said: "I don't know what caused the wall to collapse but I remember seeing some fans sitting on top of the wall before it came down."

4.50 Mr Thomas Phillips said "I heard someone call that the police were coming. At this time I was right up against the wall pressed against it. I heard the wall creaking and saw it split away and come out from its joints. I pushed Maria away from the wall and tried to steady myself but I fell with the wall down quite a drop ... I think it was the pressure on the wall with all the fans coming down which made it collapse."

4.51 Mr Matthews said that after the game he drifted with the crowd across the terraces towards a point below the refreshment hut. "I ran down the wide steps to a wall There was a crowd about four or five deep trying to get through the door. I joined the crowd and quite physically forced my way into the side of this crowd. There was about another three deep behind me. Suddenly many more joined on behind the crowd as the police arrived. I was trying to get out because I didn't want to get batonned. I was catapulted through by the pressure of the crowd and shot across the car park. I think the wall collapsed purely by the pressure of the crowd trying to get away from the police. People were literally terrified."

4.52 Mr Pearce described it in this way. "I was standing by my car with my friend Brian when I saw the fans inside the ground rocking the wall. There was about a couple of hundred of them and a general melee behind them. They were rocking the wall backwards and forwards and chanting. This went on for some minutes and I said to my friend Brian that I thought the wall was going to go any minute. I could see the heads and shoulders of the fans over the top of the wall and the wall went. It came away from the stand end first. It all seemed in slow motion When the wall collapsed there were only a few, about ten who came down with the wall. There were others who just jumped down on top of the fallen bricks and ran off. There was no crush behind where the wall collapsed."

4.53 Mr Broadhead said he saw people lined up along the pathway alongside the wall and they were trying to leave the terraces through the gate. "It was only a small gate and there were plenty of people trying to get through. I didn't see any people trying to climb over the wall. Then about four or five policemen came across the terrace. I first saw them at the end of the stand and continued towards the gate also at the end of the stand. When the police reached the crowd by the gate they started to panic and began to run alongside the wall from the direction of the gate towards the end of the terrace. It was then that the pressure of people against the wall caused it to collapse. I didn't see anybody kicking the wall there were too many crushed up for them to have enough room for them to swing their legs. I didn't see anybody trying to climb over the wall. I saw the wall collapse out away from the terraces."

4.54 PC Claydon described a mass of persons trying to get through a small doorway alongside the brick wall when it suddenly collapsed over a length of some 60 feet. PC Suthers was in the car park with other officers. He said: "I saw another group of youths had gathered near the parked cars beside the ground perimeter wall..... As we approached and were about 30 feet away from the wall I saw people climbing over the top from inside the ground. I then saw the wall begin to bulge and slowly fall forward towards the cars."

4.55 Chief Inspector Allen described the clearing of the Tilton Road terraces in this way: "Once my officers had reached the perimeter fencing at the front of the Tilton Road terrace, I instructed them to enter the terraces and to form a cordon from the bottom to the top. This they did. Missiles continued to be thrown at us, particularly by those fans who had been throwing at the directors' boxes. I instructed my officers to move across the terraces. The cordon moved across the terraces towards the exit gates by the refreshment hut. I saw Sergeant Dunkin and his officers make their way across the bottom of the terraces, in advance of the cordon in pursuit of the missile throwers who continued to bombard the officers. As they did so I could see that missiles were still being thrown into the ground from the directors' car park. At this point I would estimate that only about 400 fans were left in the ground..... The police advance across the terraces had been a controlled exercise with the intention of clearing the terraces, it was not a 'charge'; the purpose was to 'shepherd' the remaining fans from the ground."

Chief Inspector Allen heard the collapse and estimated there were no more than 30 fans standing on the concrete landing when he emerged into the car park, which was only seconds after it had collapsed.

4.56 Chief Inspector MacDonald said that at no time did officers under his command charge up the terrace towards the Leeds fans as it was a controlled advance designed to push them out of the ground via the large double gates at the rear which were open for that purpose. He described about 40 feet of the wall collapsing for no apparent reason. He said that he had policed most of the matches at St Andrew's this year. On at least four occasions he had seen more people either against the wall or sitting on it. In particular during the Oxford United and Manchester City matches visiting supporters climbed onto and pressed against the wall in order to taunt home supporters in the directors' car park.

4.57 PC Grant was on the terrace. He saw a number of police officers directing supporters out of the large gateway. He could also see some of the Leeds supporters jumping against the wall in front of him in an effort to see over it. When he was at the wall there were about 90 youths milling around on the terracing in front of the wall when suddenly a large section of the wall collapsed and the fans who had been standing next to it fell over the edge. PC Grant was only a matter of feet away at the time the wall collapsed and could see no apparent reason for the collapse. There did not seem to be any undue pressure as most of the supporters appeared to be moving to the right towards the exits. He said that he saw no crush or undue pressure on the wall and there was no panic among the crowd who were moving in a reasonably orderly way to the exit.

4.58 Sergeant Biddle was in front of the refreshment hut. He saw there about 100 fans alongside the wall adjacent to the directors' car park and a number of them were looking over the wall into the car park. He shouted to the fans to move away towards the exit gates and as the nearest ones began to move to his right, the wall, suddenly without warning, collapsed onto the directors' car park.

4.59 Sergeant Dunkin was at the top of the terrace. He saw the police officers directing people towards the gates at the rear of the Tilton Road end. In front of him there were approximately 80 to 100 supporters milling around on the level by a high brick wall. He said some were scrambling onto

the wall just getting their head over it and peering over it into the directors' car park. He described the wall collapsing in one section of about 30 feet. He said that there appeared to be no undue pressure on the wall. Most of the supporters appeared to be moving towards his right to the exits.

4.60 PC Jarratt was at the rear of the kiosk and could see a group throwing missiles down the terracing. One youth was sitting on top of the wall and three others were trying to climb onto it.

4.61 PC Lewis approached the top of the terracing. He could see that the refreshment hut was burning. As he neared the rear of the refreshment hut he could see approximately 40 supporters, some of whom were throwing missiles down onto the terraces,. His attention was then drawn to a youth sitting on the perimeter wall and three others trying to climb onto it. It was at this stage, he said, that he saw the wall collapse and a number of people fall with it. He added that as far as he could see, there was no excessive pushing and people were moving in an orderly fashion.

4.62 PC Wood, who was in the car park, said that stones were being thrown and fans climbing out of the ground over the perimeter wall. It suddenly bulged and came down and a number of fans fell on top of the wall from inside the ground.

4.63 PC Brindley was in the car park when he saw fans inside the ground begin to climb over the perimeter wall into the car park. The wall slowly collapsed in one piece.

4.64 PC Scrimgeour was about 50 or 60 yards from the wall. He said there were a large number of fans on the top of the wall visible from the waist upwards. He thought there seemed to be a surge of fans from inside the ground pushing up against the wall when it suddenly, without any warning, moved outwards. Neither he nor PC Suthers, who was with him, saw anyone climbing over the wall prior to its falling.

4.65 PC Nichols saw a large number of people by the wall and some on it. He thought the fall was caused by people pushing against it.

4.66 Superintendent Fowler was aware of six or seven youths who ran out of a small door; he saw two policemen run out through the same door

and follow them. He was not aware of a large number of people being pressed against the door or of large numbers of people falling with the wall.

4.67 There is some evidence that coping on the top of the wall had been removed by a number of supporters earlier in the match.

4.68 PC Tipping was close by the wall. He saw fans on the terrace surge down the side of the terrace towards the side wall, presumably heading towards the exit gate, when it collapsed outwards.

4.69 PC Lovell was manning a barrier in the car park. He could see Leeds supporters on the terraces gathering together in a large crowd and police officers moving up the terraces in order to disperse the supporters. They were not making any threatening manoeuvres. As they did so, the Leeds supporters massed together in a crush and were still throwing missiles. He saw the whole length and height of the brick wall lean outwards and then break up into large lumps of brick and concrete and he said the supporters had also been standing on top of the wall. They jumped off and those behind it fell onto the collapsed wall.

4.70 PC Belcher and PC Davies described fans leaving by a gate to the East of the stand. PC Davies says there was a tremendous surge of people waiting to leave and he had difficulty assisting them through the doorway when he was suddenly aware of shouts and the wall collapsing.

4.71 Inspector Turner was in the car park; he saw people climbing over the top of the wall from inside the ground. He then saw the wall begin to bulge and fall slowly forwards.

4.72 The wall itself has been the subject of a report by the County Surveyor for the West Midlands County Council. The report states that it was 30 years old and had been increased in height by 2 feet about eight years ago. It was one brick thick and it was free standing. The materials from which the wall was constructed were in a satisfactory condition, although the mortar used appears to have been a weak mix. The collapse appeared to be due either to sustained pressure by a large number of people from the side, or to people shaking the wall. It is not thought that people climbing over or on it would have caused the collapse.

4.73 It is not possible for me to be sure how the brick wall came to fall but in my judgement the most likely explanation is the surge of people. The collapse of the wall caused injuries to members of the public and three police officers. It also caused the death of Ian George Hambridge aged 15.

4.74 This was his first visit to a football match. He came from a respectable family. He went with three friends to the game and became separated from them. There is nothing to indicate that he was involved in any violence or was other than the innocent victim of the collapse of the wall.

Why did the riot start?

5.1 I have described what happened and how it happened and the next question is why? A number of reasons have been suggested to me.

Drink

5.2 There is no doubt but that drink was a substantial contributor to the violence that took place. The visiting supporters had opportunities to purchase and consume quantities of liquor outside the ground. One of the difficulties facing police, when a large number of spectators present themselves outside football grounds in a state of inebriation, is how best to deal with them. The police find it easier to control them if they are inside a ground, penned, than if they are turned away with all the aggravation that involves and are let loose on a comparatively unprotected town or city. It is also equally certain that a number of the fans remained sober, so as to organise and co-ordinate the troubles which took place.

5.3 In the ground there were two areas only where drink could be obtained. One was at the Birmingham City Supporters Club and the other at "D" Club - a licensed members' club. Membership was essential before drink could be obtained there. No problems arose from there being drink available at those parts of the ground. Thus there was no drink available to the general public on the ground on the day of the riot. Ironically it was the only match of the season when it was not available.

5.4 There is no doubt that the late entry of fans into the ground had an adverse effect on crowd behaviour. One of the unintended consequences of making drink unavailable inside grounds, is that there is a tendency for fans to hang about in public houses until the last possible minute and for them then to become frustrated and angry when they have to queue to gain entry to the match. One of the factors causing the crowd outside to break into the ground at Birmingham was their belief that they would not be able to enter the ground in the proper way before the football match commenced.

Political Activity

5.5 There is a good deal of evidence from responsible witnesses that political activists are involved in troubles at football grounds in England, although it seems not to be a problem in Scotland. To some extent grounds are used for recruiting for these political activists. There were found on the Birmingham ground a number of leaflets belonging to the National Front. One fan - who for obvious reasons shall be nameless - said: "Quite early on in the game I heard a rumpus behind me in the seats and turned to see two policemen escorting a teenage Pakistani youth from the stand onto the back of the stand. As this was going on I could hear about 50 of the Leeds fans chanting 'Sieg Heil, Sieg Heil.' They were standing up with a Nazi salute aimed towards the police. I could see that several people near me were wearing Nazi arm-bands, mainly teenagers, there were a few skin-heads among them. The arm-bands were with a red background, white circle and a black swastika in the middle."

5.6 A transit van returning to Leeds after the Birmingham incident was seen to be carrying Leeds supporters, sporting swastika arm-bands. Sociological research on the activities of the politically far right at football matches suggests that many young fans who espouse racist views, or who join in racist chants, have little real idea of the politics of groups like the National Front and the British Movement. I shall need to inquire more deeply in due course into this aspect.

5.7 So far as Birmingham City Football Club is concerned, Chief Superintendent Gilbert, who carried out a detailed inquiry into what happened on this day, said: "During the season just concluded, I have not detected any political lobbying adjacent to the ground on match days. I have not detected political activists recruiting or provoking problems." He accepted that activities in political demonstrations which attract an element of youngsters prone to disorderly conduct are also present in activities surrounding league football. It must be anticipated that some would be active in both spheres of public disorder.

5.8 He concluded "Obviously I am mindful of the reported development of political incitement but if there are trends they have not overtly manifested at St. Andrew's." He went on to say "It is worthy of note that the troublesome Birmingham supporters comprise assorted ethnic groups." Certainly those who took part in the riot, and were visible on the video, comprised spectators of different colours and race.

The Club

5.9 Birmingham City has quite a good record so far as crowd violence is concerned. The Railway Stand, which is all seating in two tiers, has no perimeter fence in front of it. It was designed to encourage families to occupy it and to make them feel that they were not being treated as violent spectators. It is the aim of the club to encourage the development of a family area there, though that has not fully succeeded. Because the spectators in the Railway Stand were able to get out, and were joined by home supporters who got out of the Spion Kop, the police take the view, and rightly, that the blame, so far as supporters were concerned, was equally divided.

5.10 It is fair to say that the club had had little or no trouble from the Railway Stand before, that it must be good policy to seek to trust supporters, and that it was the continual bombardment by Leeds fans of the police which initially started the trouble.

5.11 The police and the Football Club correctly anticipated the number of visiting supporters. They deployed sufficient police to cope with the number. They adopted the proper tactics for segregating fans. It may be said that if the Birmingham fans in the Railway Stand had been behind a perimeter fence there would have been less trouble. This is true. It is one matter of criticism which can be made, in my view, about the arrangements for the match. The other is that spectators were able to climb over the fence at the Tilton Road end and the Spion Kop.

5.12 Some criticism has been voiced to me that, if the police had taken more robust steps to clear the Leeds supporters from the refreshment hut at the top the terrace at Tilton Road end and had not urged fans by means of a loud-speaker to get off the roof, considerable trouble might have been avoided. Having regard to the numbers and behaviour of the fans who were in the terraces at Tilton Road end, I do not think there is anything more that the police could reasonably have done to prevent violence occurring.

5.13 It has also been said that the involvement of Birmingham fans in these incidents was to a considerable extent a consequence of the visit of a large Leeds contingent at a particularly sensitive stage of the season, and that it was the largely Leeds inspired disorders, which began the build up to the seriously violent scenes inside St. Andrew's involving both sets of supporters. It was the disorderly behaviour in the beginning of a small number of Leeds fans, which around half-time provoked a disruptive response from young Birmingham City followers. At the end of the game these roles were to an extent reversed, with the actions of local fans arguably fanning the flames of disturbance.

5.14 Criticism was made of the fact that there were no, or insufficient, police officers inside the pens housing visiting supporters. This, it was said, provided a greater feeling of immunity from arrest among the fans, and enabled supporters more easily to attack the police when earlier and firmer control might have prevented it. Having seen the film and heard how the police were deployed at the Tilton Road end, I do not myself subscribe to this view.

The Turnstiles

5.15 The turnstiles at the Tilton Road end were antiquated and poorly sited. Only five out of eight were in use because of the failure of their operators to appear. Although some visiting supporters arrived in very good time, there were a large number of visitors who appeared simultaneously shortly after 2 p.m.; this caused considerable problems at the turnstiles.

5.16 The truculence and inebriation of a number of fans made entry even more difficult. Some simply vaulted the turnstiles, others got into the ground in other ways. It is unlikely, even if there had been more turnstiles, that trouble would have been avoided.

Conclusion

5.17 The reason why there was disorder was that a substantial number of visiting supporters, full of drink, came to Birmingham deliberately to cause trouble, and thereby sparked off the Birmingham supporters whose subsequent behaviour was as bad as, if not worse than, that of the visitors.

CHAPTER 6

What lessons are to be learned?

6.1 I have made it clear throughout this inquiry both at Bradford and Birmingham that I am not going to apportion blame. I wish to identify what lessons are to be learned so that they may be applied in the future.

6.2 There seem to me to be four ways, apart from abolishing football altogether, in which hooliganism can be prevented at football grounds. They are:

1. Physically to prevent hooligans who are in the ground from disturbing football matches.
2. If that is not possible, to prevent them attending football matches.
3. When they do behave like hooligans, to identify them.
4. When they are identified, to apprehend and punish them severely.

Preventing hooligans who are in the ground from disturbing football matches

6.3 So far as preventing spectators from behaving like hooligans at a football ground is concerned, most reputable clubs now follow the memorandum to Football League Clubs regarding crowd control written by the Football Association and dated 17 August 1983. A copy is at Appendix 8. It will be seen that it is mandatory for clubs to make arrangements for segregation of rival supporters; to make detailed prior planning in conjunction with the police, the opposing clubs, rail and coach operators and supporters travel clubs, at least ten days before a match; to ensure that terraces are kept free of objects that can be used as missiles; and to liaise with the police for the escorting of visiting supporters to and from the ground. There are several other recommendations in the document.

6.4 Criticisms have been made of particular clubs that their preparations for reception of visiting supporters have not been very good. Those to whom I have talked seem to me to show a high degree of efficiency and conscientiousness and to co-operate with all the other authorities over segregation problems. There is a great sense of responsibility among the club officials and a desire to tackle the problem energetically.

in England and Wales

6.5 Most football grounds are now built like medieval fortresses, with pens at each end, with barriers designed to prevent spectators climbing over; with gates, fences and protective wire to prevent rival fans bombarding each other; and with the use of what is called a **sterile area** - a no man's land. The pens are built so as to ensure that the rival fans are, for practical purposes, locked in during the course of the game, so that they are not able to get at the opposition.

6.6 These arrangements have evolved over the years. Their use is deplored in some circles. They enable fans to identify with other supporters. They create a sense of camaraderie and immunity from attack. They polarise the respective factions. They may create a worse standard of behaviour because the fans feel they are being treated as violent people. For practical reasons, however, it is not now possible to allow rival fans to be present at a ground unless they are both segregated and penned in.

6.7 Some time before a match is played, the police and the club will normally liaise, and like members of the general staff preparing for battle, discuss the strategy for the particular match. Police forces now have a member of their staff whose job it is to deal with football problems in the area. Intelligence about supporters is gathered by police football liaison officers. Consideration is given to the history and past conduct of both home and away supporters; the estimated size of the crowd; the estimated number of away supporters and the mode of travel; the history of the previous encounters; the importance of the result; the absence of close proximity of other matches in the area and the press and other media reports.

6.8 Naturally, police have to take into account other functions which may need their attention, as occurred at Birmingham on the day of the match. The clubs have to consider whether to make it an all-ticket game; whether to sell tickets at an earlier date; and whether to have it in the morning or afternoon. The railway authorities have to arrange special trains. Motor vehicles are hired in large numbers for transport of supporters. The clubs have to arrange for their supporters clubs to be taken to the ground and to be stewarded. Thus, long before the game is actually played, a very large number of people are engaged in trying to devise a safe way of ensuring that a game of football takes place. The expenditure of time and resources is enormous.

6.9 When the game actually takes place, the number of police deployed at football matches, both inside and outside the club, is very great. It is an enormous drain on the resources of the police, and on rate-payers and tax-payers

who eventually pay the greater part of the cost. At Birmingham on 11 May, 207 police officers were designated to cover the fixture but it was arranged that there should be the facility to increase the presence to approximately 400. At Norwich City in 1984/85 at a low priority game (i.e one where no troubles were expected) there were between 135 and 194 officers involved, for a medium priority game 225, and, for a high priority game, as many as 353 police officers were required.

6.10 The figures for the number of police officers deployed at league matches in England and Wales on 23 March 1985 averaged 216 in the First Division with as many as 330 at Leicester City. In the Second Division there were as many as 280 at Sheffield United. In the Third Division there were 106 at Derby County and in the Fourth Division there were as many as 90 at Darlington. Officers deployed at Luton Town represented nearly 23% of the local police force. At Norwich on one occasion it represented nearly 33%. At Chelsea normally about 500 officers are on duty whenever they have a home game. On 23 March 1985, in all 4,457 officers were deployed to deal with some 329,000 spectators. This was about 1 officer for every 75 spectators.

6.11 The number of arrests does not necessarily give a true picture of what happens at a football ground. If there is a riot the police officers may be so engaged in defending themselves, or protecting opposing fans, that they may have little or no opportunity to make arrests. There may also be cases where, because of the very substantial number of police, there may be no trouble at all. Thus at Birmingham on 11 May 1985, there were 63 people arrested prior to the match and outside the ground, 38 at the ground and some 22 after the match outside the ground.

6.12 The figures for league games in England and Wales played on 23 March 1985 show that there were 38 arrests in the First Division, 65 in the Second Division, 10 in the Third Division and 10 in the Fourth Division. The number of arrests on 23 March was thus 123 out of 329,000 spectators, which represents roughly one arrest for every 3,000 spectators. The figures provided by Leeds United show that in the 1984/85 season, with a total attendance of some 372,000, the number of arrests was 148. In the 1970/71 season the number of arrests was not substantially more (a total of 174) but the attendance was over one million, i.e., three times the present number.

6.13 These figures tend to support the view which has been expressed to me that notwithstanding the ever increasing police presence, the number of arrests

and the level of violence has increased. In 1969, the figure of one policeman for every 1,000 spectators was regarded as the norm. It is now one policeman to 75 spectators.

6.14 It is also important not to exaggerate the amount of trouble at football grounds. Many clubs go through a season with little or no trouble; others have trouble only infrequently, many are trouble-free even when visited by supporters who have acquired a reputation for violence.

6.15 Responsible football clubs have, over the last ten or fifteen years, done all they reasonably can to prevent trouble. They prepare with the police a battle plan. They construct the ground with pens, concrete terraces, iron gates, grills, bars and fences. They instruct their stewards, they arrange for the presence of large numbers of police officers. But what is quite clear, and it emerges with startling clarity from what happened at Birmingham, is that notwithstanding all the precautions which are taken, which include preventing drink being sold in the ground, policing to and from the station, the provision of special trains and the segregation of fans, trouble still continues.

Seating

6.16 One of the ideas for controlling violence was to introduce "all seating". That appeared on the face of it to be a sensible idea. It failed however to take account of the idiosyncracies of football fans. A lot of them it seems do not wish to sit down; they wish to stand. They wish to stand, apparently, because there is for them a special atmosphere in being on the terraces. If seating is provided for them, they may well tip back the seats and stand in front of them; then stand on the seats; and finally rip up the seats and use them as weapons. Coventry City, between 1981 and 1984, tried an all-seater football ground. It was not a success for a variety of reasons and it may be the experiment should be pursued. *Certainly, at Aberdeen and Ibrox Park it has proved a success.* But all the evidence from the football authorities is that it is by no means a complete answer to the problem.

Drink

6.17 One view expressed to me was that if bars inside grounds were opened before matches for a short period (because it is not always possible to obtain a drink in a ground very quickly) the amount of drinking would thereby be cut down; people would enter the ground in proper time and the problems of drink and late arrival would be avoided. Since ^I started this Inquiry you have taken steps

to deal with the drink problem by means of the Sporting Events (Control of Alcohol etc) Bill. It is therefore no longer a problem for me to consider.

6.18 It is worth observing that a similar provision in Scotland (the Criminal Justice (Scotland) Act 1980) had a quite outstanding effect. The number of police at Celtic for instance was reduced by 50% after the introduction of the Act. Missiles in the form of bottles and cans have substantially disappeared and whereas in the Celtic/Rangers game of 1980 (before the Act) there were 219 arrests, in 1983 there were 38). Experience this last football season, however, does not confirm this view.

Violence

6.19 It is said that these are hooligans who use violence at football matches; that they are not football's hooligans and that if only a cure were found for violence then football hooliganism could be cured overnight. There is much force in this argument. A football ground is a magnet which draws violence towards it. That is not, in my view, the fault of the football authorities.

These hooligans could easily go to a rugby league ground or a cricket ground or a race track. There has always been violence in society. It seems to me impossible to prevent people being violent anymore than it is possible to prevent people being dishonest. There are those who link violence and dishonesty to the social state of the nation. It is beyond the scope of this interim report to offer suggestions for preventing violence in general anymore than it is possible to suggest answers to dishonesty in general. Nor does preventing hooligans from being violent at football matches stop them being violent elsewhere.

6.20 It is because football regularly attracts groups in large numbers, ready to confront each other, that it is substantially different from other activities. It is the scale of violence when it occurs which is so worrying. Ideally one should seek the underlying causes of violence and deal with them if that is possible. But I believe that there will always be people who are violent, no matter what their condition in life, or the economic circumstance of the environment in which they live. They will never alter their ways. Even if the causes were known, to remedy them is likely to be a very long term process. What is needed immediately is relief for ordinary people both inside and outside the football ground from being victims of attack.

6.21 Given that football clubs in general terms have done all they can to physically prevent hooligans who are in the ground from disturbing football matches, and have not succeeded, what other precautions can now be taken?

Preventing hooligans entering the ground

6.22 Hooliganism at football matches is nothing new. There are records of incidents in the 1880s and 1890s. It is a matter which has been the subject of almost annual inquiries by many knowledgeable and diverse bodies.

6.23 The English, Scottish and Welsh football authorities are equally anxious to find a solution; so are the police, the Government (responsible for law and order), the ordinary spectator who wants only to enjoy an afternoon's harmless entertainment, and the householder or shop-keeper who lives close by a football ground and simply wants to be left in peace. I have to say, therefore, that if there were a simple solution to the problem it would have been found years ago.

6.24 It is important to recognise that I am asked to deal with the problem of hooliganism inside the ground. There is a danger in thinking that if hooliganism inside the ground can be prevented it will vanish outside the ground. Nothing can be further from the truth. Those who live in the cities or towns where football takes place know only too well what a Saturday afternoon can be like when fans go on the rampage. There is damage to shops, houses and motor cars. There is violence threatened or violence offered. There is vulgar abuse from fans, who leave in their wake destruction, frustration, anger and resentment. There are many instances reported to me of groups waiting outside the ground or at the railway station to ambush the opposition.

6.25 It is important too to recognise that the hooligan is not always a football supporter, nor is he necessarily interested in the results of the particular match or in football in general. An outing to a football match is for him an opportunity to display fighting ability and to take part as a gang in an attack on an opposing gang. There are, of course, a large number of people at a football match who may rush onto the field or behave contrary to their natural inclination because of the excitement of the moment. It is not with those that I am concerned. It is important to recognise that hooligans form a tiny minority of the spectators and that most supporters are keen to enjoy the game they love. They are law abiding and responsible. Those genuinely interested in football form a substantial proportion of the population.

6.26 There is clear evidence that there are among groups, particularly of visiting supporters, organised gangs whose object on a particular occasion is to engage in tribal warfare with the rival supporters and additionally with the police. They are drawn to football grounds like bees to honey. They find the use of a football ground particularly attractive, firstly, because the date, time and place are fixed; secondly because they know there will be an opposing gang there; thirdly, they know there will be police there who can be attacked; fourthly, they will be supported by those who surround them who otherwise would not be involved; and, finally, they will get the marvellous publicity which attends any form of public violence.

6.27 If they were not at a football ground behaving in this way, at least some of them would be involved in gang warfare on the street corner or running amok in the city centre.

6.28 One of the statistics which emerges is that visiting fans are more likely to be arrested than home fans. This could be due to the enthusiasm of the "home" police. But more likely it supports the view generally expressed by football management that it is the presence of visiting supporters which generally leads to trouble at football grounds. At Chelsea, for instance, the breakdown of arrests both inside and outside the ground shows that Chelsea supporters arrested represented one in every 1,500 spectators while visitors represented one in every 300. In 1976, when Glasgow Celtic played away, there were a total of 185 arrests out of a total crowd of 330,000 which was roughly one in every 2,000; when they played at home there were 232 arrests with attendances of 750,000, that is one in every 3,000.

6.29 The position was even more marked with Glasgow Rangers. In 1976, when Rangers played away, there were 233 arrests with a total attendance of 432,000 which again represents one in every 2,000 attending, whereas at home there were 102 arrests in 736,000 which is one for every 7,000 spectators. The figures for Leeds United in 1970/71 show that there were eight matches in which there were no arrests and four of them were at games where overseas clubs were playing.

6.30 It is impossible for a club fully to control their supporters when they play away. It can get the supporters to join the supporters' club, send them away in supporters' coaches or supporters' trains with their stewards, and, so far as they represent the Club, exercise some control over their behaviour. If they do not behave when they are at an away ground their membership of the

supporters' club can no doubt be withdrawn. But that fails to take account of those who call themselves supporters of a particular club, but whose affiliation with that club is tenuous, and who seek to avoid travelling officially in order to escape the sort of discipline which a club can exercise.

6.31 Instead of going on the supervised train or the supervised coach they will travel in hired minibuses, they will have acquired a considerable amount of drink either on the way or while driving, they represent no-one but themselves, and the object of some of them at any rate is simply to enjoy the battle. Hooligans no longer necessarily dress the part. They are well organised and take care to keep out of the limelight before the battle starts.

6.32 While a number of clubs have a very bad reputation because of their so-called fans there is really very little that they can do to control them. It is because of them that the substantial trouble arises.

6.33 Thus it is now quite clear that away supporters cannot be controlled by the club whom they purport to represent. The only control which can be exercised over them is that by the police, inside the ground. The number of police who have to be deployed is increasing; it is now an immense burden on them and on the community. It is quite wrong that the police should be subjected to the violence which occurs at football matches, or that the public should continue so to be subjected. The football authorities in England and Scotland have suggested that police presence should be increased. It would, I suppose, theoretically be possible so to increase the size of the police force, that violence could be totally controlled. One officer to 1,000 spectators was the norm in 1969. It is now one officer to 75. By 1995 will it be 1 to 1? Alternatively, it is suggested a more repressive style of policing could be introduced even though that would be totally alien to our way of life. Neither course seems particularly attractive.

6.34 It is not therefore unreasonable to ask why, if a function such as a football match acts as a magnet to violence, the public should have to put up with it or why the police and the public should be required to spend so much money and time in controlling it, or why the damage to property and life and limb should be allowed to continue.

6.35 In Europe the problem has been solved by banning English supporters. The time has not yet come in Great Britain when it would be right to say that if

football continues to attract violence then football must cease. But given that it is not possible to control determined violence without injury and damage, even when all precautions have been taken, other steps must now be taken to prevent the situation continuing.

6.36 If it be a correct analysis that substantial violence at football matches arises by reason of the confrontation of rival fans, then one solution would be to ensure that rival fans were not present at the same game. Attempts have already been made to prevent this by having all-ticket matches. This is done by various means, either by selling the tickets during the week (which opposing fans cannot readily buy), by having vouchers in programmes, and by other means. It may also be decided to play a game early in the day to discourage rival fans from travelling.

6.37 Unfortunately while these attempts have in some cases been successful they have not been universally so. Thus, while it may be possible to prevent Chelsea fans from getting tickets at Newcastle, it is not possible to prevent Everton fans getting tickets at Liverpool, or Ranger at Celtic, or Arsenal at Tottenham. Likewise, starting a game at 11 am, while sometimes successful, has on occasion resulted in fans arriving overnight with nowhere to go and nothing to do, save to drink, with chaos and violence ensuing in that particular town.

6.38 There has been an additional problem, which is that even when it has been announced that a game is all-ticket, fans have arrived without tickets at a ground and demanded entrance. For reasons of security, the police would rather have the fans inside the ground and accordingly they have been let in. This has become such common knowledge that all-ticket games are not regarded now as being the complete solution to the problem.

6.39 However, all-ticket games are ^{at least in England and Wales} one of the ways to ensure that only home supporters are admitted to the ground. Chelsea contemplated introducing a sophisticated scheme, with the use of computers, for membership of its ground. Membership would have entitled a fan to sit in the best parts of the ground. It was not, however, intended to exclude other fans, who would have been admitted only to less favourable parts of the ground.

6.40 It was, however, a limited type of membership scheme. Going one step further, there is no reason why each club should not introduce a system, so as to ensure that only their own supporters are able to visit their own club.

6.41 Quite clearly, nothing of that sort could possibly be introduced in the immediate future at all 92 League clubs. However, it seems to me that membership of a club, and of that club only as the condition of entry may go some way to reducing the level and quantity of violence at a football ground. One suggestion made is that each club should have a registered membership and that admittance to the ground would be forbidden to non members. If the only people allowed into the ground of club A had to be registered members of club A, there is evidence that the amount of violence at club A is likely to be reduced. That scheme envisages no visiting fans at all and membership restricted to one club.

6.42 It has, of course, obvious disadvantages for the club. Firstly all gates are made up to some extent of visiting supporters; numbers vary from match to match and club to club, but on average they amount to some 10% of the gate. Most clubs, I suspect, would be willing to lose the revenue from that 10% if they could have a violence free game.

6.43 Membership of a club will also effectively prevent the man or woman who on the spur of the moment wishes to go along to a match, the "casual" visitor from so doing. That, in my view, is a price which the public and the club have to pay to try and reduce football violence. It will also prevent a fan from belonging to more than one club.

6.44 Alternatively if club A were willing, when playing club B, to allow registered members of club B to enter the ground that would be up to club A, but it would force club B to take responsibility for their own members and ensure that those to whom they issued membership cards were responsible.

6.45 At the present time the visiting club has no knowledge of the so called supporters, or control over them, and quite rightly disclaims responsibility. If a club is to be made responsible for its members it must take steps to ensure that it knows who they are and that they are people whom they are prepared to have in their ground.

6.46 Then, it is pointed out, that it may be an interference with the liberty of the subject to have to have some form of membership or identity card with a photograph. But nobody objects if they have to show a season ticket on the railway or have their photograph on a rail-card. Clubs already have season ticket holders - a number have supporters' clubs which, in some cases, is a form of membership. It is an everyday occurrence to prove identity in some form,

either at work to obtain credit, or in the use of a motor vehicle. No doubt there will be difficulties at the turnstiles, if someone is challenged. There is, as always, room for abuse, each club will have to be alert to ensure that a particular fan does not join more than one club. Additionally, there will be problems which arise when a non-League club plays a League club in a cup game. Thus it may be necessary for non-league clubs to have membership cards.

6.47 But these are problems which can, with goodwill and effort, be overcome. Unless urgent steps are taken to produce some more efficient method of separating fans, football may not be able to continue in its present form much longer.

6.48 The English and Scottish football authorities are against the introduction of a membership scheme, although the Football League in England has set up a working party to examine the problem. ^{It does not appear to be necessary in Scotland.} I am aware of the difficulties. It may be that straightforward membership of one club is not the only answer to the problem. But that is the easiest to administer and it is simple. Experience will no doubt show what in practice is the best scheme to retain the desirable supporters and exclude the undesirable.

I therefore recommend that urgent consideration be given by football clubs ^{in England and Wales} to introducing a membership system so as to exclude visiting fans.

6.49 I do not pretend that this is the perfect solution, because home fans can be troublesome (as they were at Birmingham) and decent fans may be kept away. Nor can I guarantee that it will cure football hooliganism. It is not, however, possible for the present situation any longer to continue.

6.50 For some reason crowd control does not appear to be such a serious problem with other forms of sport in this country. That is not to say that there are not unhappy signs in other sports of too much drink being consumed, rowdiness, unpleasant racial overtones and a degree of violence. It is not necessary yet to recommend the application of a membership rule to other sports but the matter should be kept under review.

Identification

6.51 The third way in which the problem of football hooliganism can be dealt with is by identifying the hooligans in the ground when they behave like

hooligans. At some grounds I have visited, because a local police force is involved, the same officers are able to be present at the ground at each home fixture, they regularly go to the same part of the ground and they are able to identify the trouble makers. However, at a ground like Chelsea, because a large number of officers are drawn from a wide area of the Metropolis, this is not possible.

6.52 Closed-circuit television of one sort or another has been introduced at a number of grounds and it is clear that it has two very great advantages. Firstly, it may deter a hooligan to know that his acts are being recorded and secondly, it enables the police, even when a game is over and an arrest has not immediately been made, subsequently to identify a hooligan, to charge him and to prove to the magistrates, by clear evidence, the identity of the hooligan.

6.53 The introduction of closed-circuit television cameras at grounds will, in my view, have a marked effect on the incidence of hooliganism and the apprehension of offenders. One of the difficulties the police have in identification and apprehension is that they may be too busy defending themselves or preventing rival fans from attacking each other so that they do not have the time or the ability to pick out an offender. Nor are they able, subsequently in court, to give a clear picture of what happened. This the camera does in the most graphic way.

6.54 I therefore recommend the introduction of closed-circuit television at League football grounds. It may well be that because of cost and location this should only apply in the 1st and 2nd Divisions in England and Wales and at those clubs in the 3rd and 4th Divisions where there is some history of violence. In Scotland I recommend their use in the Premier Division. When and where must be matters for both the football authorities to decide.

Punishment

6.55 A constant criticism which I have received from the football authorities and the public is that the police do not prefer sufficiently serious charges and that magistrates do not impose sufficiently strong penalties. I believe there is a good deal of justification for this view.

6.56 It is important to recognise that the offences that the hooligans commit are offences recognised at law, the maximum penalties for which are not insubstantial. They include the offences of riot, affray, assaults of various

sorts, offences against public order and breach of the peace. There is, however, one matter which may well escape the criminal law and that is throwing missiles.

6.57 Throwing missiles in a sports stadium is easy to do, difficult to detect, and dangerous in its result. I recommend that there should be a specific offence of throwing a missile (and anything thrown will constitute a missile) at sports grounds.

6.58 While the independence of the judiciary of the executive is an important feature of our constitution and courts must feel free to impose in a particular case a sentence which they consider appropriate, it is worth repeating the trenchant words of Lord Justice Lawton giving his judgement in the case of Regina against Wood in the Court of Appeal (Criminal Division) in January 1984: "Before we leave this matter, however, we want to make a few observations about violence at or near football grounds. The kind of conduct which was revealed by the evidence in this case has become common in football grounds all over the British Isles. It is conduct which is causing disquiet. From time to time arrests are made. Sometimes there are as many arrests as were made in this case. The courts during the period since this kind of violence at football grounds has become common have tried to deal with it in various ways. In the past they have usually not imposed custodial sentences unless serious injury was caused. The most usual penalty has been a fine. But violence at or near football grounds continues. We infer that those who have a propensity to use violence are not deterred by fines or by orders imposing only a limited restriction on liberty. It follows, so it seems to us, that the time has come for the courts to impose sentences which may deter those who are minded to use violence at or near football grounds. Unless there are exceptional mitigating circumstances - and it is not easy to see what they could be - youths between the ages of 17 and 21 who are convicted of any offence involving violence towards police officers or others trying to maintain order or to spectators who are not themselves involved in the violence should receive a custodial sentence. In most cases a short detention centre order should be adequate; but if any weapon has been used or a disabling injury was caused or there is evidence that the convicted youth is addicted to the use of violence, a youth custody order would be appropriate. If the injury should be such to amount to grievous bodily harm, as is likely to arise from stabbing, a longer sentence may be necessary. In general, however, there will be a need to ensure a deterrent element in all sentences.

6.59 A number of other suggestions have been made to me as to the cause of football violence.

Attitudes towards the police

6.60 When people in responsible positions in public life fail to condemn violence against the police whenever it happens or worse still actually condone it, it does little to lead the young to believe that throwing pieces of concrete or other missiles at the police is other than a pretty harmless exercise. One young policeman at Birmingham said "I didn't join the police force to be dressed up in protective armour and to be a target for rocks and stones from hooligans at football matches on a Saturday afternoon."

Unemployment

6.61 The evidence tends to show that immediately after the war there was very little football violence as we recognise it today, and that it started again in the 1960's at a time when there was full employment. The cost of travelling to a ground, of buying drink, of hiring conveyance, of buying a ticket does not tend to suggest that those who go to football grounds are particularly poor. Missiles at Birmingham consisted in part of one pound coins. Some who have been fined £500 were apparently able to pay with rolls of £5 notes.

Turnstiles

6.62 A lot of grounds are old. The turnstiles were perfectly adequate to admit fans into the ground at a time when it mattered not on which terrace they stood. Now that there is segregation the siting of a number of turnstiles I have seen leaves much to be desired. Likewise they are often manned by elderly friends of the club who may decide, because they are volunteers or at best part-time employees, not to appear at the match. The inability of fans speedily to go through the turnstiles is a cause of considerable aggravation. I recommend that football clubs review their arrangements for entry and the organisation of their turnstiles.

Perimeter Fences

6.63 At Birmingham they proved no obstacle. There is no doubt a limit to the amount of fortification which a club can reasonably introduce. But a standard

efficient perimeter fence with proper exits should not be difficult to design and provide. I therefore recommend that consideration be given to the design of a standard efficient perimeter fence with proper exits.

Why violence at football grounds and not generally elsewhere?

6.64 This has baffled inquiries and sociologists. It is said that football is a working man's game and that accounts for the violence. But the same violence is happily not present (certainly to the same degree) at, for example, rugby league grounds nor at race tracks or courses. At Halifax Town, for instance, there are ten times as many police on a Saturday looking after 1,500 spectators as there are on the same ground on a Sunday when speedway takes place with some three times as many spectators. No one who has submitted evidence, or to whom I have talked, has so far been able to throw much light on this question. I hope that when further evidence is forthcoming and the matter more fully discussed an answer may appear.

Other Matters

6.65 I have also considered the position of those who run on to the pitch and whether that ought to be a separate criminal offence. There are conflicting views. One is that running on to the pitch, while very tiresome and tedious, would be the least serious of offences committed, that it would be much better that the police should arrest those who are plainly guilty of serious violence and charge them with as serious an offence as is possible. Additionally, it is said that a number of spectators come onto the pitch in order to avoid being squashed in pens, being attacked in the pens, or simply because they want to leave and cannot get out elsewhere. The contrary argument is that if it is an offence, people will be deterred from coming on to the pitch and therefore trouble will be avoided before it gets out of hand. I shall need to consider this later at further length.

6.66 One of the advantages of close circuit television is that it enables hooligans to be detected at a subsequent time. It appears, however, doubtful whether the powers of arrest under Section 5 of the Public Order Act 1936 will enable the police to arrest a hooligan subsequent to the offence. I am minded therefore recommend that consideration be given to providing the police with this power.

6.67 One of the disagreeable features of the behaviour of spectators is the chanting of obscene and racist abuse. It appears that this is not treated presently as a criminal offence. I am minded to recommend that consideration should be given to creating a specific offence at a sports ground.

Postscript

6.68 Finally may I repeat that this is an interim report only. I am grateful for all the material which I have received so far. I look forward to receiving further detailed evidence from any responsible person or organisation and to discussing any relevant matter with them before I make a final report.

6.69 I have raised a number of issues in this report and highlighted problems and suggested answers where there appears to be urgency because of the approach of the next football season. I shall need to give further consideration and report in more detail when I have had time to consider those representations.

6.70 It is, I hope, apparent that there is no single clear-cut or instant answer to the problem of crowd control. I shall however continue to pursue my task with vigour, remembering the words of Anton Chekov, "It seemed that the next minute they would find a solution. Yet it was clear to both of them that the end was still far, far off, and that the hardest and most complicated part was only just beginning."

CHAPTER 7

SUMMARY OF RECOMMENDATIONS AND PROVISIONAL RECOMMENDATIONS

RECOMMENDATIONS

1. Evacuation procedures should be a matter of police training and form part of the briefing by police officers before a football match. (Paragraph 3.9).

2. The local authority team responsible for issuing safety certificates in respect of designated grounds should, as heretofore, include police officers. (Paragraph 3.15)

3. Early attention should be given by the Home Office Directorate of Telecommunications to consider the practicality of producing a more suitable personal radio for the police. (Paragraph 3.33)

4. The Green Guide should be amended to include in Paragraph 11 a provision that, wherever practicable, roads within a quarter of a mile of a sports ground should be kept entirely free of parked vehicles. (Paragraph 3.35)

5. Consideration should be given to making it a criminal offence ^{in England and Wales} to have a smoke bomb or similar device at sports grounds. (Paragraph 3.42)

6. Those managing sports grounds not governed by safety certificates should give serious consideration, with the assistance of fire authorities, to the presence in a ground of suitable fire fighting equipment. (Paragraph 3.54)

7. Stewards at all sports grounds should be trained in fire fighting. (Paragraph 3.55)

8. In designated grounds it should be a term of the safety certificate that an adequate first-aid room should be provided.

(Paragraph 3.65)

9. There should be urgent consultation between the Health & Safety Executive and the fire authorities and local authorities as to how best to co-ordinate and communicate their inspections and reports.

(Paragraph 3.95)

10. Stewards in all grounds should not only be trained in fire precautions and fire-fighting (see Recommendation 7 above) but should also be trained in how best to help the police in evacuation.

(Paragraph 3.104)

11. Paragraph 6.14.6 of the Green Guide should be amended to read: "All exit gates should be manned at all times while the ground is used by the public and be capable of being opened immediately from inside by anyone in an emergency." (Paragraph 3.111)

12. The Green Guide should be amended to contain a specific provision, in relation to stewards,

(i) that they should be trained and instructed to deal with any emergency relating to fire or evacuation (see also Recommendations 7 and 10);

(ii) that they should be given written instructions about the action to be taken in cases of emergency;

(iii) that they should receive practical instruction and training appropriate to their responsibility;

(iv) that no one should be employed as a steward unless they have been so instructed and trained; and

(v) that they should be adequate in number, physically and mentally capable of performing their duties, effectively deployed, effectively supervised and readily identifiable.
(Paragraph 3.117)

13. Building of new permanent stands of combustible materials should be prohibited as a general rule. (Paragraph 3.132)

14. Suitable and adequate exits should be provided in all sports grounds. (Paragraph 3.138)

15. No smoking should take place in combustible stands, signs to that effect should be prominently displayed and this should be a condition of entry to the ground. (Paragraph 3.141)

16. Fire Authorities should identify and visit all sports stadia in their areas and should prohibit or restrict the use of any stands which, in their view, constitute a risk to spectators because of the inadequacy of the fire precautions. (Paragraph 3.142)

17. In order to ensure a complete record of sports grounds a local registration system should be set up. (Paragraph 3.150)

18. Consideration should be given as how best to deal with temporary stands and marquees. (Paragraph 3.151)

19. The next edition of the Green Guide should make it clear that it applies to all sports grounds. (Paragraph 3.154)

20. Urgent consideration should be given to introducing a membership system so as to exclude visiting fans. (Paragraph 6.48)
by football clubs in England and Wales

21. Closed circuit television should be introduced at League football grounds in England and Wales and in the Premier Division in Scotland. (Paragraph 6.54)

22. There should be a specific offence of throwing a missile at sports grounds. (Paragraph 6.57)

23. Football clubs should review their arrangements for entry and the organisation of their turnstiles. (Paragraph 6.62)

24. Consideration should be given to the design of a standard, efficient perimeter fence, with proper exits. (Paragraph 6.63)

PROVISIONAL RECOMMENDATIONS

(To be reviewed in the Final Report)

1. I am minded to recommend that ^{in England and Wales} the police should be given the unfettered right of search before entry to football grounds by statute. (Paragraph 3.41)

2. Section 10 of the Fire Precautions Act 1971 should be amended with a view to giving the Fire Authority power in cases other than those which are regarded as wholly exceptional. (Paragraph 3.61)

3. Linked with the above, consideration should be given to introducing legislation giving powers for the Fire Authority to apply to the High Court for an injunction under Section 10 of the Fire Precautions Act 1971. (Paragraph 3.61)

4. Section 10 of the Safety at Sports Grounds Act 1975 should be amended in like manner to Section 10 of the Fire Precautions Act 1971 (see Provisional Recommendations 2 and 3) and an application to the High Court for an injunction should be an alternative remedy. (Paragraph 3.76)

5. The Secretary of State should exercise his powers to designate all sports grounds, whatever their size, to include indoor as well as outdoor activities. (Paragraph 3.145)

6. I am minded to recommend immediate designation of any ground capable of holding over 5,000 spectators, to cover all sports grounds, not merely football grounds. (Paragraph 3.146)

7. I am minded to recommend that consideration should be given to providing the police with additional powers of arrest under the Public Order Act, 1936. (Paragraph 6.66)

8. I am minded to recommend that consideration should be given to creating a specific offence of chanting obscene or racialist abuse at a sports ground. (Paragraph 6.67)

LIST OF ORGANISATIONS WHO SUBMITTED WRITTEN EVIDENCE TO THE INQUIRY

AMATEUR BOXING ASSOCIATION OF ENGLAND

AMATEUR SWIMMING ASSOCIATION

ASSOCIATION OF CHIEF POLICE OFFICERS

ASSOCIATION OF CHIEF POLICE OFFICERS (SCOTLAND)

ASSOCIATION OF COUNTY COUNCILS

ASSOCIATION OF SCOTTISH POLICE SUPERINTENDENTS

ASSOCIATION OF SHOW & AGRICULTURAL ORGANISATIONS

BRITISH AUTOMATIC SPRINKLER ASSOCIATION

BRITISH CYCLING FEDERATION

BRITISH SAFETY COUNCIL

CENTRE FOR CONTEMPORARY STUDIES

CHIEF AND ASSISTANT CHIEF FIRE OFFICERS' ASSOCIATION

COMMUNITY RIGHTS PROJECT LTD

CONVENTION OF SCOTTISH LOCAL AUTHORITIES

CRICKET COUNCIL

FIRE BRIGADES UNION

FIRE PROTECTION ASSOCIATION

FIRE RESEARCH STATION (DEPARTMENT OF ENVIRONMENT)

FOOTBALL ASSOCIATION LTD

FOOTBALL GROUNDS IMPROVEMENT TRUST

FOOTBALL LEAGUE LTD

FOOTBALL TRUST

GREATER LONDON COUNCIL

HEALTH AND SAFETY EXECUTIVE
HOCKEY ASSOCIATION
HOME OFFICE

INSTITUTION OF FIRE ENGINEERS
KENNEDY STREET ENTERPRISES

LEEDS UNITED ASSOCIATION FOOTBALL CLUB LTD

LITTLEWOODS POOLS LTD

LEICESTER UNIVERSITY, DEPARTMENT OF SOCIOLOGY

LONDON FIRE BRIGADE

NATIONAL ASSOCIATION OF FIRE OFFICERS

NATIONAL FEDERATION OF FOOTBALL SUPPORTERS' CLUBS

NATIONAL GREYHOUND RACING CLUB

NEWCASTLE ERGONOMICS

NORTHERN IRELAND DEPARTMENT OF EDUCATION (COMMUNITY SERVICE DIVISION)

NOTTINGHAMSHIRE COUNTY COUNCIL

POLICE FEDERATION OF ENGLAND AND WALES

POLICE SUPERINTENDENTS' ASSOCIATION OF ENGLAND AND WALES

PROFESSIONAL FOOTBALLERS' ASSOCIATION

ROYAL AGRICULTURAL SOCIETY OF ENGLAND

ROYAL AND ANCIENT GOLF CLUB OF ST ANDREWS, FIFE

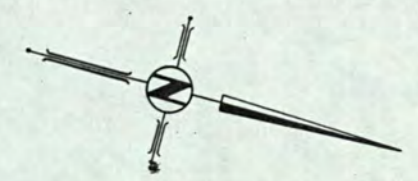
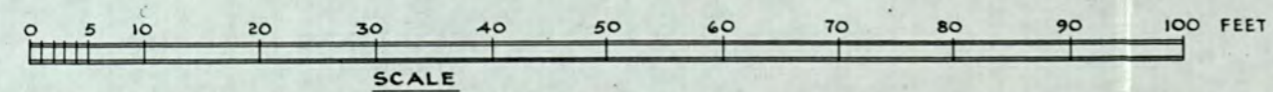
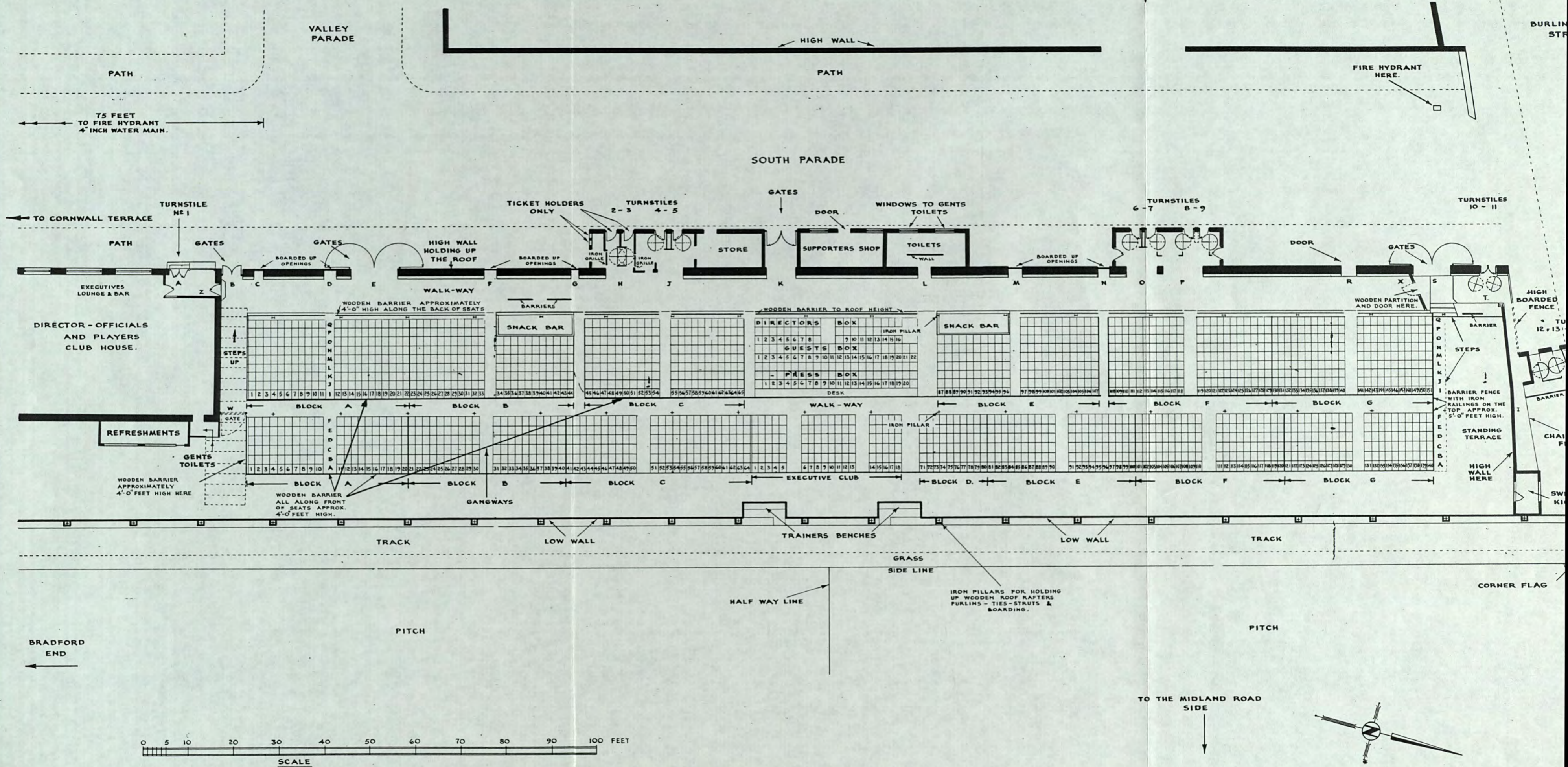
RAC MOTOR SPORTS ASSOCIATION LTD

RUGBY FOOTBALL UNION

SCOTTISH FOOTBALL ASSOCIATION
SCOTTISH FOOTBALL LEAGUE
SCOTTISH LAWN TENNIS ASSOCIATION
SCOTTISH OFFICE
SCOTTISH POLICE FEDERATION
SCOTTISH RUGBY UNION
SCOTTISH WOMENS AMATEUR ATHLETIC ASSOCIATION
SHROPSHIRE COUNTY COUNCIL
SPEEDWAY CONTROL BOARD LTD
SPORTS COUNCIL
SPORTS COUNCIL FOR WALES
STRATHCLYDE FIREMASTER
STRATHCLYDE REGIONAL COUNCIL
WELSH COUNTIES COMMITTEE
WELSH OFFICE
WELSH SPORTS ASSOCIATION
WEST MIDLANDS COUNTY COUNCIL
WEST YORKSHIRE FIRE SERVICE

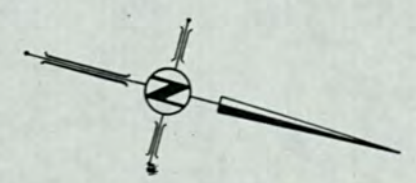
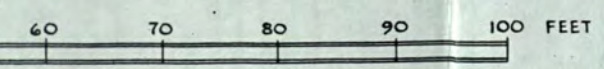
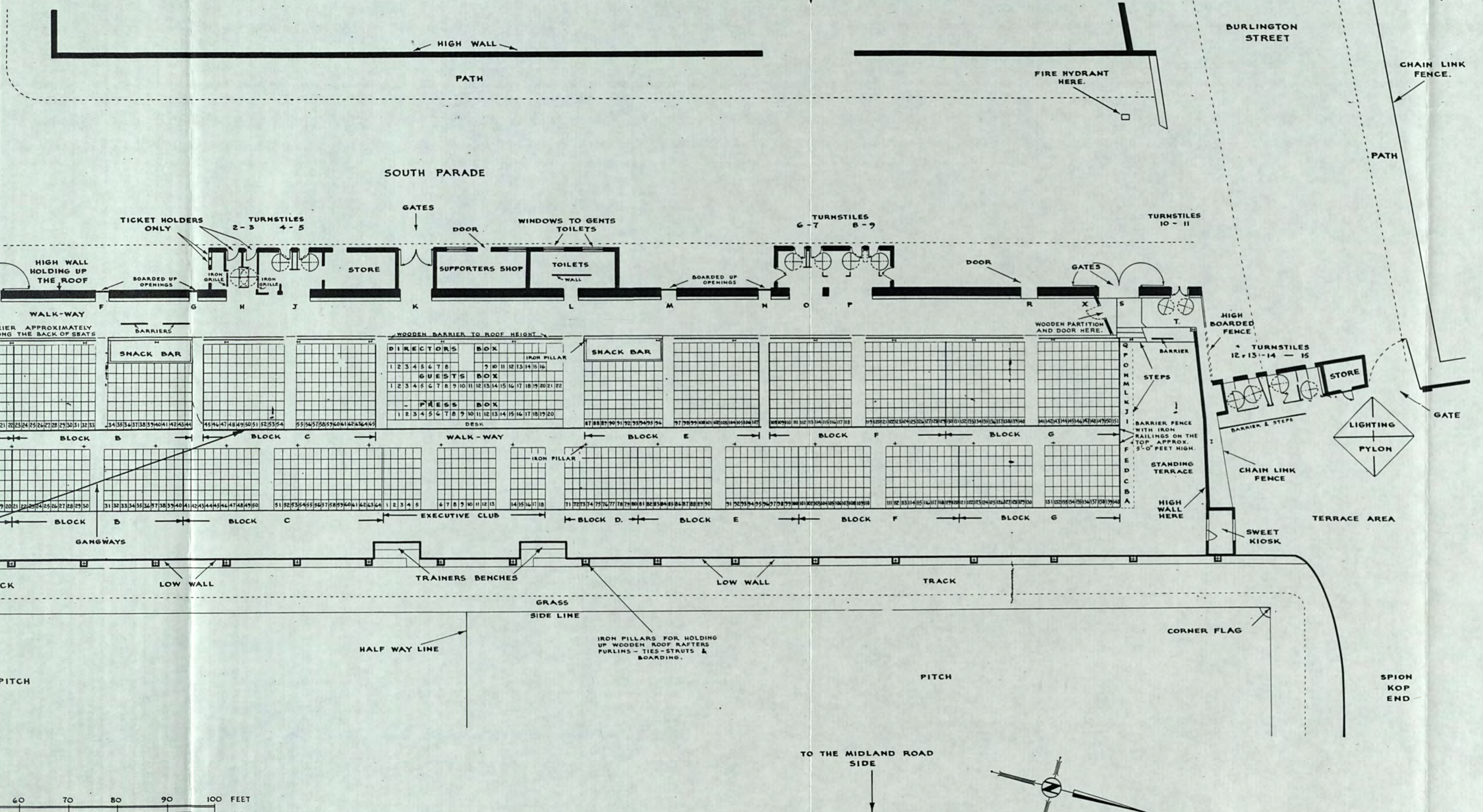
Written evidence was also submitted by several Members of Parliament and over 200 letters were received from members of the public

PLAN OF BRADFORD CITY FOOTBALL CLUB, SHOWING PART OF THE PITCH AND MAIN STAND ON SOUTH PARADE ~ VALLEY PARADE, MANNINGHAM, BRADFORD, S.



2

PLAN OF BRADFORD CITY FOOTBALL CLUB, SHOWING PART OF THE PITCH AND MAIN STAND ON SOUTH PARADE ~ VALLEY PARADE, MANNINGHAM, BRADFORD, B.



22nd MAY 1985
3795.

DEPARTMENT OF THE ENVIRONMENT
BUILDING RESEARCH ESTABLISHMENT
FIRE RESEARCH STATION

FRO 237/15

APPENDIX TO
FIRE AT VALLEY PARADE, BRADFORD, 11 MAY 1985

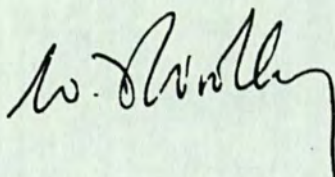
TECHNICAL ASSESSMENTS

These technical assessments have been prepared at short notice at the Fire Research Station to assist the Committee of Inquiry into Crowd Safety and Control at Sports Grounds, as proposed in the Fire Research Station report FRO 237/15, dated 3 June 1985.

The information given here has been collected together from general research studies and experience of fires at the Fire Research Station over many years. It includes technical judgements and opinions of issues of relevance to the Bradford Inquiry. Since it draws on information available at the time of writing, some parts of the assessment may lose their relevance as new facts come to light.

The Fire Research Station welcomes the opportunity to make these assessments available to the Inquiry to help understand the events of the Bradford fire which led to such tragic consequences on 11 May 1985.

Many experts from the Fire Research Station have contributed to the assessments. In particular, thanks are due to Mr A J M Heselden for his assistance.



Fire Research Station
Melrose Avenue
BOREHAMWOOD
Herts WD6 2BL

Tel. No: 01-953-6177
Telex: 8951648

10 June 1985

FIRE AT VALLEY PARADE, BRADFORD, 11 MAY 1985

SUMMARY

Technical assessments have been carried out on different aspects of the Bradford, Valley Parade, fire. These assessments show that the overall mechanism is complex involving a number of intermediate steps of fire development. Conditions appear to have existed by way of building construction, materials and design such that fire development on each step was severe and near the upper limit of what might be expected from research knowledge and experience of fires.

This applies to the growth of fire in the rubbish (aided by adequate ventilation through the gaps etc in the stand) to give sufficient intensities to ignite timbers beneath the floor, the emergence of flames (again aided by the gaps) to give a growing fire beneath and above the floor, the spread of flames to the ceiling and subsequent spread beneath the combustible roof.

These features coupled with the reluctance of persons present to evacuate quickly, the design of escape routes (leading persons upwards to a corridor incapable of dealing with the necessary flow under emergency conditions), the rapid deterioration in visibility and increase in toxic gases in the corridor, and rapid flame spread beneath the roof (with very high levels of downward radiation) produced the tragic situation.

The attached table summarises the sequence and times of events as projected from those feasible from research experience, in comparison with actual times and events.

MINUTES	<u>Fire</u>	<u>Brigade/Police and other events</u>	<u>Smoke</u>	<u>Escape</u>
15.40	0 - Ignition of rubbish	Smell of burning		
15.41	1 - Serious waste fire - 0.1 MW			
15.42	2 - Burning of timbers beneath floor			
15.43	3 - Flames above floor	Call to brigade		Serious local escape
15.44	4 - Flame above floor (several m ²)	TV commences	Serious problems in back corridor	Main escape precipitated
15.45	5 - Flame under roof (fire at floor level about 10m ²).		Substantial parts of back corridor blocked and lethal	
15.46	6 - Serious spread under roof and involving roof	Fire Brigade arrives		
15.47	7 - Stand completely alight			

Projected sequence of events (Bradford fire) with intermediate predictions.

TECHNICAL ASSESSMENT 1

IGNITION OF WASTE MATERIAL

Types of waste material

Waste materials discarded at football matches are likely to cover a wide spectrum of types. It is reasonable to assume that these will include:

- a) Smokers' materials : cigarette stubs, spent matches, cigarette packets (including shrink wraps and foil), match boxes etc.
- b) Food packaging : crisp packets, confectionery wrappings, plastics and paper cups, bags, metal cans etc.
- c) Cleaning equipment : tissues, paper napkins.
- d) Reading and related material : programmes, magazines, newspapers, tickets etc.
- e) Other materials : toilet rolls, etc.

Ignition of waste by smokers' materials

Matches

Based on research experience, most of the above items (excluding metal cans), would be expected to ignite readily from flaming matches held deliberately in contact with the material. It is less easy to ignite materials with discarded flaming matches since they tend to extinguish during a fall. Normally the match head is allowed to burn before a match is used. If then discarded, whilst still burning, from normal hand height (about 1.2 m above the floor) a test has shown that out of 48 matches, 35 self extinguished during the fall, 12 were still burning on the floor and capable of igniting waste material. It was not always apparent that the match was still burning without close examination. One match illustrated an important point in that it fractured during striking such that the head was still burning during the fall.

Discarded matches (flaming) therefore represent a potential source of ignition to waste material. The ignition potential is increased markedly when the head is still burning during a fall, following accidental breakage, because of mishandling during striking or purposeful action.

Cigarettes

Full cigarettes can smoulder for periods between about 15 and 40 minutes depending upon their environment; discarded stubs considerably less. Most lighted cigarettes do not extinguish during a fall. Further it is not always easy to recognise that a cigarette has not been fully extinguished and therefore still smouldering when discarded.

Waste materials vary markedly in their propensity to smoulder when in contact with a lighted cigarette. Smouldering is usually associated with natural rather than synthetic materials.

For smouldering to take place, the cigarette needs to be in good contact with the material. This can be assisted when the smouldering zone of the cigarette reaches an optimum position for local material involvement. With some materials (cotton, tissues) transfer of smouldering may be rapid. Local smouldering of the item may persist with the possibility of subsequent transfer to flames, particularly if assisted by a draught. When flaming occurs growth is likely to be the same as that from direct flaming ignition. It is unlikely that the mixture of rubbish would show signs of bulk smouldering for long periods. The effect is more likely to be a local effect.

Pipe material

Smouldering tobacco from a pipe will exhibit similar effects to those given for cigarettes above. There is the possibility that since the glowing zone may be larger than with cigarettes the effect, particularly inducing materials to smoulder locally and flame, will be greater.

Conclusion:

Research experience supported by recent tests shows that waste materials can be ignited by lighted matches including those discarded whilst still burning. It would seem quite feasible for a lighted match dropped through a gap in the flooring of the stand to ignite rubbish beneath. Ignition would be almost immediate.

The possibility of ignition by a lighted cigarette discarded into the cavity is also feasible but the cigarette would have to fall into a critical position against critical materials. A delay would be involved before flaming occurred.

TECHNICAL ASSESSMENT 2

FIRES IN CONCEALED SPACES

The concealed space beneath the wooden floor of the main stand varied in depth from about 50mm to some 0.5m as formed by the steps on the hillside. Various sizes of timbers were present in the cavity including 'sleeper size' timbers set into the hillside to provide wooden foundations. Support timbers for the bench seats and walkways would be expected to be at least 4in x 2in timbers finished with $\frac{1}{2}$ in or 1 in loosely fitted planks. There is evidence that other cellulosic boarding had been used vertically to seal the cavity and for repair work. Gaps in the woodwork, holes etc capable of collecting rubbish, also form routes by which air could gain access to a cavity fire. Assuming that the cavity was undivided for long lengths then air access would not be unduly restricted.

Flames originating from a small source in the rubbish within such a cavity would be expected to grow quickly particularly if sufficient rubbish existed to form a layer (not unreasonable at the bottom of a slope within the cavity). In the open air a 10cm deep layer of rubbish, 0.5m x 0.5m in area was ignited in a test at FRS by a dropped match at the fifth attempt. (Others extinguished in the fall) giving flames 0.5m high over the whole area in 90s. Such a fire would not be unrealistic within the stand cavity without growth being restricted unduly by inadequate ventilation. Such a fire would be hot and likely to be noticed by a person above even during the early stages. Smoke would develop progressively over this period and plastics waste in the rubbish would add distinctive odours.

The 90s example quoted above relates to a defined configuration of rubbish; the speed of development could vary in other practical situations depending on the packing density and on the proximity of the vertical cavity wall boards, and a wider area of rubbish would provide the opportunity for more extensive spread.

Such a rubbish fire (about 100kW requiring some $0.03\text{m}^3/\text{s}$ air) would be expected to give a local heat flux onto the surface of adjacent timber sheeting of about $20 - 40 \text{ kW}/\text{m}^2$. Under these conditions ignition of the timber would occur in less than 30 seconds with the subsequent burning of the timber surface generating some $100\text{ kW}/\text{m}^2$. Early spread onto the underside of the timber planking (particularly on vertical surfaces) would then have accelerated due to cross radiation, provided adequate air was available under the platform.

It is not unreasonable to suppose that flames would now rapidly emerge over several square metres of flooring through the gaps. At this stage the fire below the platform would generate about 30 kW per square metre, provided the air requirement of about $0.1\text{ m}^3/\text{s}$ were met. The flow of air to the fire area could well have been supplemented at this stage by the failure of thin sheets of plywood or hardboard; this would have significantly increased the rate of fire growth.

Ignition of the upper face of the planking over a wide area would then have further accelerated spread with large areas of timber burning, and with virtually no restriction of air supply a merging of the flames would have occurred above the platform in addition to that below. These conditions

TA/2

would have represented a fire generating some 0.5 to 1 MW/m^2 of floor; involvement at this stage of an area of about 4m^2 would have represented a fire output of some 2 - 4 MW.

Smoke would have increased throughout the burning period; during the early stages of the rubbish fire, adequate ventilation would have tended to produce clean flames and, provided the plastics content of the rubbish was relatively low, the smoke would have been grey. Nevertheless, significant amounts of smoke would have been emitted in the vicinity of the fire before flaming was apparent above the timbers.

Paint or preservative finishes would not have been expected to affect significantly the rate of fire development under such severe exposure conditions but large numbers of polyurethane cushions might have increased the risk of early ignition of the upper surface of the timber platform; smoke emission from these would have been rapid.

Conclusions

The development of fire in a layer of rubbish beneath the floor could have been rapid since gaps in woodwork large enough to allow rubbish to collect would also have provided access of air. Such a fire could have been intense locally in the cavity. A substantial rubbish fire may have developed within 90 seconds, capable of igniting adjacent timbers within about 30 seconds.

Flames are likely to have spread in the cavity beneath the floor aided by local failure of timbers, with emergence of flames to upper surfaces through the gaps. This is an effective means for rapid flame spread to a wide area of surface above. A substantial fire involving several seats and rows may have developed in about 2 or 3 minutes from exposure of the timbers to the rubbish fire.

Initially the rubbish might have burned cleanly. Smoke would have developed as fire intensity increased, probably grey during the early stages.

TECHNICAL ASSESSMENT 3

EARLY GROWTH OF FIRE ABOVE THE STADIUM WOODEN FLOORING COMPONENTS

Once fire had broken through the stadium flooring or lining under the benches then conditions within the stadium would have begun to be significantly affected. The video recording of the early stages of fire shows flame appearing at points away from the earliest established flames and rapidly joining up with them. Thus the initial increase in fire size above the 'flooring' was much faster than would have been expected from a small ignition source spreading over wooden flooring and benches without the reinforcement from below. Heating from below and above would in any case give fast decomposition of thin wood boarding or hardboard. Spread up the slope would be expected to be faster than sideways both because the fire in the cavity would naturally have burned upwards and because the fuel (benches) on the tiers of seats above the fire would have been more strongly heated by the flames than benches to the side of (or lower than) the fire.

A plume of hot smoke-laden combustion gases would have risen above the fire towards the roof. With a sideways wind this would have been deflected sideways somewhat but as the fire increased in size the gases would soon be reaching the roof cavity over the fire in some quantity. Here because they would have been hot and therefore buoyant, they would form a stable layer which would flow in both directions along the channel created by the roof geometry. The fire occurred near one end of the stadium and when the layer travelling towards this end reached the vertical screen filling in the end of the roof channel, it would become relatively stagnant, gradually deepening and the flow of gases would then be essentially in only one direction - towards the other end of the stand.

A strong side wind could not have prevented the formation of a smoke layer from a sizeable fire nor its flow in the shelter of the roof channel, but could have interfered somewhat with it.

Conclusion

The fire in accumulated rubbish beneath the stadium caused a very rapid increase in fire size once it had appeared above the stadium flooring. The fire would very soon be producing large quantities of hot smoky gases which would rise and flow along the channels in the roof, probably with some interference from the wind.

TECHNICAL ASSESSMENT 4

FIRE GROWTH TO STAGE WHERE FLAMES WERE REACHING ROOF

Whilst a plausible explanation for the initial very rapid increase in fire size exists, it could be difficult to predict this from basic relationships. Therefore in order to assess the resulting fire conditions occurring in the stadium it has been necessary to use the video recording to provide information on the fire size at various times for use in established engineering calculations.

Three times (from the West Yorks TV timed recording) have been selected to illustrate the further processes occurring, viz. 15.44.4, when the fire appeared to be involving an area about 3 seats wide and 4 tiers of seating deep, 15.45.0 when the fire appeared to be involving an area about 5 seats wide and 6 tiers of seating deep, and 15.45.5 when the area of the fire appeared to correspond to the whole of the G-block on the one side of the gangway down the tiers, ie. a block of 11 seats x 9 tiers. At this latter time flame can clearly be seen in the video recording to run rapidly some distance along the top of the wooden fence just in front of the wooden seating area, forming a good time marker, and an indication of the fire severity at that time.

With a rapidly growing fire such as this, complex calculations would be required to predict the flow rate, temperature, depth etc. of the hot gases produced and time has not permitted such sophistication. Calculations have accordingly been made for a number of fire sizes, each calculation obtaining the flow conditions as though the fire were constant in size. The calculations are admittedly in this way approximate but are nevertheless revealing in terms of flame and smoke spread.

For each of these fires the mass and volume rate of smoky gases reaching the layer in the roof channel, the initial depth of the layer flowing in the roof channel, the flame height, the initial temperature of the gases in the layer and hence the radiation from the layer, have been obtained. For this, relationships developed at the Fire Research Station and elsewhere have been used; these are summarised in BRE Current Paper 66/78 'Studies of fire and smoke behaviour relevant to tunnels'. Flame height has been derived from the correlation of Cox and Chitty (Combustion and Flame 39, p191, 1980).

The precise heat release rate of the fire is not known but probably lay between 0.5 & 1 MW/m² of horizontal floor area, and therefore the calculations have been made from both values. For the present purpose it has been necessary to imagine each roof section replaced by a rectangular section channel of the same width, springing from the same height at eaves level and of cross-sectional area equal to the actual roof. The dimensions of the roof are only known approximately at present but with a height from eaves to ridge taken as 2.2 m, this gives an equivalent depth for the rectangular channel of 1.1 m. The centre of all the fires is assumed to be 4 m below the eaves.

The results of the calculations are shown in Table 1. Running down the first column, this fire would have given a flow of 11.5 kg/s (14.5 m³/s) of smoky gas into the layer. With an output of 0.5 MW/m² the temperature of the gases entering the layer would be 150 deg C above ambient and if they flowed into

TA 4

one section of the roof they would travel along the section at about 1.8 m/s (assuming one-directional flow), and would take up a depth of about 1.25 m. The predicted flame height is 3.9 m, so that flame does not reach roof level. If we assume the smoky layer is a black body radiator the irradiance immediately above the layer (ie. that to which the roof material is exposed), and also immediately below the layer is only 2 kW/m^2 .

The first significant result of the values just quoted is that with the fire feeding smoky gases into only one roof channel, the gases cannot be wholly contained within that channel, since the calculated layer depth of 1.25 m is larger than that of the equivalent rectangular channel (1.1 m). Thus even at this stage smoke should have been flowing into the rear 'corridor' section of roof. Whilst it should have tended to remain largely in a layer, where it came into contact with the outside wall some downflow due to cooling by the wall could be expected. Furthermore the actual roof shape with sloping sides would have been less effective in containing the layer in the region where the gases were rising up from the fire and there was a horizontal velocity component across the roof channel in the gases first forming a layer. Finally wind turbulence at stanchions or any other similar projecting objects could locally disturb the layer and cause some smoke to be brought to lower levels of the corridor.

The flames from the 3 x 4 fire would not have reached the roof and the heating caused by the hot gas layer (2 kW/m^2) was insufficient to ignite the roof material. The downward radiation from the layer, which in other circumstances would have been very noticeable to any one underneath, here would have been masked by direct radiation from the primary fire.

Continuing with Table 1 it can be seen that assuming an output of 1 MW/m^2 gives higher temperatures but that the heating from the layer is still much too low for ignition of the roof material. For example, pilot ignition (ie. ignition of a heated material in the presence of a pilot flame) occurs for wood at an irradiance of about 25 kW/m^2 in 25 secs. In the absence of direct experimental data this has to be assumed as applying to wood in a roof, even though this might be exposed in an atmosphere which was vitiated to some extent. It is in any case a measure of the rate of decomposition - even pyrolysis - of wood.

This discounts convection transfer to the roof, which would be likely to be appreciably less than radiation transfer for these temperatures.

A velocity of the layer in the region of 2 m/s means that the smoky gases could have travelled half-way down the length of the stadium (50 m) in some 25 secs, even had the fire not been growing rapidly in size.

Examining the data in Table 1 for the 5 x 6 fire it is seen that the initial depth in one roof channel calculated as 1.6 m means that smoky gases would have flowed in bulk into all channels. Therefore the calculation for this and for the larger fires has taken the width of the effective roof channel to be 15 m, the full width of the roof.

TABLE 1

Quantity	Fire						
	3 seat x 4 tier		5 seat x 6 tier			11 seat x 9 tier	
Time	44.4		45.0			45.5	
Area m ²	3.4		8.4			28	
Mass rate of flow of smoky gases into layer kg/s	11.5		18			31.5	
Volumetric rate m ³ /s	14.5	19.5	27	39	66	105	
Heat output of fire MW/m ²	0.5	1	0.5	1	0.5	1	
Initial temperature of layer above ambient deg C	150	300	235	470	440	875	
Roof channel width m	6	6	6	15	15	15	
Initial velocity of layer (one direction only) m/s	1.8	2.5	2.6	1.9	2.8	3.2	4.7
Initial depth of layer m	1.25	1.2	1.6	0.95	0.95	1.4	1.5
Flame height (equivalent in open air) m	3.9	5.2	5.6	5.6	7.4	9.1	12.0
Length of horizontal flame under roof (nominal) m	0	0	0	0	7	15	30
Radiation from layer kW/m ²	2	6.5	4	4	18	15	100

TA 4

Conclusions

In order to illustrate the fire phenomena occurring, three fire sizes have been selected over a period judged to be crucial in terms of fire growth, and estimates made of a number of quantities using established engineering relationships. A number of simplifying assumptions have had to be made.

These estimates show that with a fire occupying an area 3 seat widths by 4 tiers the smoky gases produced could not have been contained within one section of the roof and therefore the corridor area at the rear of the stand could have been affected. Smoky gases from this fire could have travelled half-way along the stand in less than 25 secs, but they would not have ignited the material in the roof.

For a larger fire (5 seats x 6 tiers) smoky gases would have flowed in bulk into all roof channels.

TECHNICAL ASSESSMENT 5

SPREAD OF SMOKE AND FLAME BENEATH ROOF

The stage at which the flames from a growing fire in a compartment reach the ceiling usually marks a change, often dramatically sudden, in the speed of fire growth.

Flames impinging on the underside of a ceiling or roof, even of ^{non-}combustible material, will 'mushroom'; ie elongate very considerably, because it then becomes more difficult for them to entrain air and they have to elongate to entrain enough air for combustion. These elongated flames will radiate strongly downwards over increasing distances so that the spread of fire at low level accelerates, resulting in still greater flames under the ceiling and hence even faster fire spread.

Very soon the downward radiation from the flames, together with that from the ceiling which they have heated, can give spontaneous ignition of flammable objects away from the primary fire, and 'flashover' in the compartment.

With combustible ceiling or roof linings, the lining can itself burn and hasten the process, but it is important to realise that the phenomenon can occur with non-combustible ceiling linings, given a primary fire large enough for large flames to impinge on the ceiling.

Experiments by P L Hinkley (Fire Research Note 712) showed that flames channelled to travel in one direction under a ceiling could be about 5 times longer than the height they would rise to above the ceiling height, if the ceiling were removed. For example - 10 m high flames from a fire in the open could give flames 25 m long if the flames were constrained to flow in one direction along a channel 5 m above the base of the fire.

For illustrative purposes nominal flame lengths under the roof have been included in Table 1. It is more reasonable now in terms of flame impingement on the roof to consider the height to ridge, ie about 6 m. A conservative value for flame extension by a factor of 5 has been assumed. Thus in the 5th column, the flame length of 7 m is arrived at by subtracting 6 m from the flame height of 7.4 m and multiplying by 5.

The results in Table 1 for the 5 seat x 6 tier fire show that for the higher rate of heat release of 1 MW/m², flames could have been reaching the roof and flowing along several metres under it. Ignition of the roof material would be expected soon under these conditions, at least locally where the flame was impinging. Even apart from the flaming under the roof the layer near the fire would have been hot enough (470°C above ambient) to give very severe radiation exposure to people underneath it.

The layer of smoky gases would at this time be expected to be extending over the whole width of the stadium roof and should have travelled at least halfway along the length of the roof.

Considering now the 11 seat x 9 tier fire we see that the predicted length of flames under the roof is substantial (15 - 30 m) and the quantity of smoky gases reaching the roof and the speed of their travel under the roof are high. The flames would be likely to be mainly travelling along the central roof channel though there might have been some spill over into the 'corridor' section of the roof, if the sloping seating tended to give flame rising more towards the rear of the seating block.

TA 5

The difficulties of the precise prediction of the radiation from the layer near the fire are illustrated in the last line.

If an output of 0.5 MW/m^2 is assumed for the primary fire, the temperature of the layer close to the fire (but outside the flame zone itself) would have been 440°C above ambient, high enough to be a very severe radiation exposure for people underneath, but not high enough for rapid ignition of combustibles below the layer. On the other hand the assumption of 1 MW/m^2 leads to a level of radiation from the layer (100 kW/m^2) high enough for pilot ignition within a few seconds.

In view of the rapid spread of flame along the top of the wooden fence which occurred at this time, this suggests that the higher value for heat release rate would be more appropriate at this time (though not necessarily at the earlier times).

Rough estimates can be made of the layer temperature at various distances along the roof using the relationship in CP66/78 and assuming a heat transfer coefficient of $20 \text{ Wm}^{-2} \text{ }^\circ\text{C}^{-1}$. These represent conditions with a constant fire and with the layer fully established along the roof and clearly can only give an approximation for the conditions which would have prevailed in practice. Nevertheless the tendency for extremely severe downward radiation conditions to be generated over considerable distances is clear (Table 2)

When the whole roof volume down to the level of the lower edge of the downstand was full of smoky gases, they would have spilled under the downstand. With a fast developing fire such spillage would first have occurred at the fire end of the roof. With a smoke layer developed down to this level, conditions in the 'corridor' at the rear of the stand would have been extremely serious.

As the fire grew larger, more and more of the roof would have become involved. In the earlier stages of ignition and burning of the roofing material, the flames above the primary fire might have been carrying sufficient air into the layer for flaming from the roofing material to occur close to the ceiling, augmenting downward radiation from the layer of smoky gases. Later on, with a larger primary fire and greater areas of roof material under attack, the situation may well have changed to the 'fuel-rich' condition described by Hinkley (Fire Research Station Note 712) where the layer in contact with the ceiling contains flammable volatile materials derived from the heating up of the ceiling, but too little oxygen for them to burn there. In this case flames are produced at the base of the layer of smoky gases where they are in contact with the air underneath.

Whichever condition actually prevailed, very severe downward radiation would have occurred.

After the stage corresponding to the 11 seat x 9 tier fire, it becomes difficult to make quantitative predictions, but it is clear that the flames under the roof would be rapidly increasing in size, with involvement of the roofing material and increasingly fast spread of fire over the seating, until all of the roof and all of the seating was in flames.

In this condition the flames would be radiating strongly out into the football pitch itself, and estimates can be made of the variation of irradiance at a horizontal surface with position (see attached Figure); this assumes in particular that there is a sheet of flame at 1000°C at the level of the bottom of the downstand.

TABLE 2
Temperature and layer radiation for 11 seat x 9 tier fire

Distance from fire m	Assuming 0.5 MW/m ² heat release rate		Assuming 1.0 MW/m ² heat release rate	
	Temperature above ambient deg C	Layer radiation kW/m ²	Temperature above ambient deg C	Layer radiation kW/m ²
0	440	15	875	100
10	395	12	-	-
20	360	10	-	-
22	-	-	700	50
30	325	8	650	-
50	265	5	530	-
83	-	-	380	10

Polypropylene is a thermoplastics material and softens at elevated temperatures. Under the effects of high irradiance, melting would take place with the slabs of polypropylene first distorting then dripping to the concrete floor. Polypropylene does not ignite readily by this mechanism, but burning debris from the roof would provide means for ignition. Although the potential heat output per unit mass of polypropylene is greater than that for wood, it is not anticipated that the seating density would give rise to unusual burning or rapid spread characteristics, with the polypropylene acting mainly as an additional combustible in the stand. When burning severely polypropylene generates very thick black smoke. The TV videos did not show evidence that the front of the stand was quickly smoke logged.

Conclusions

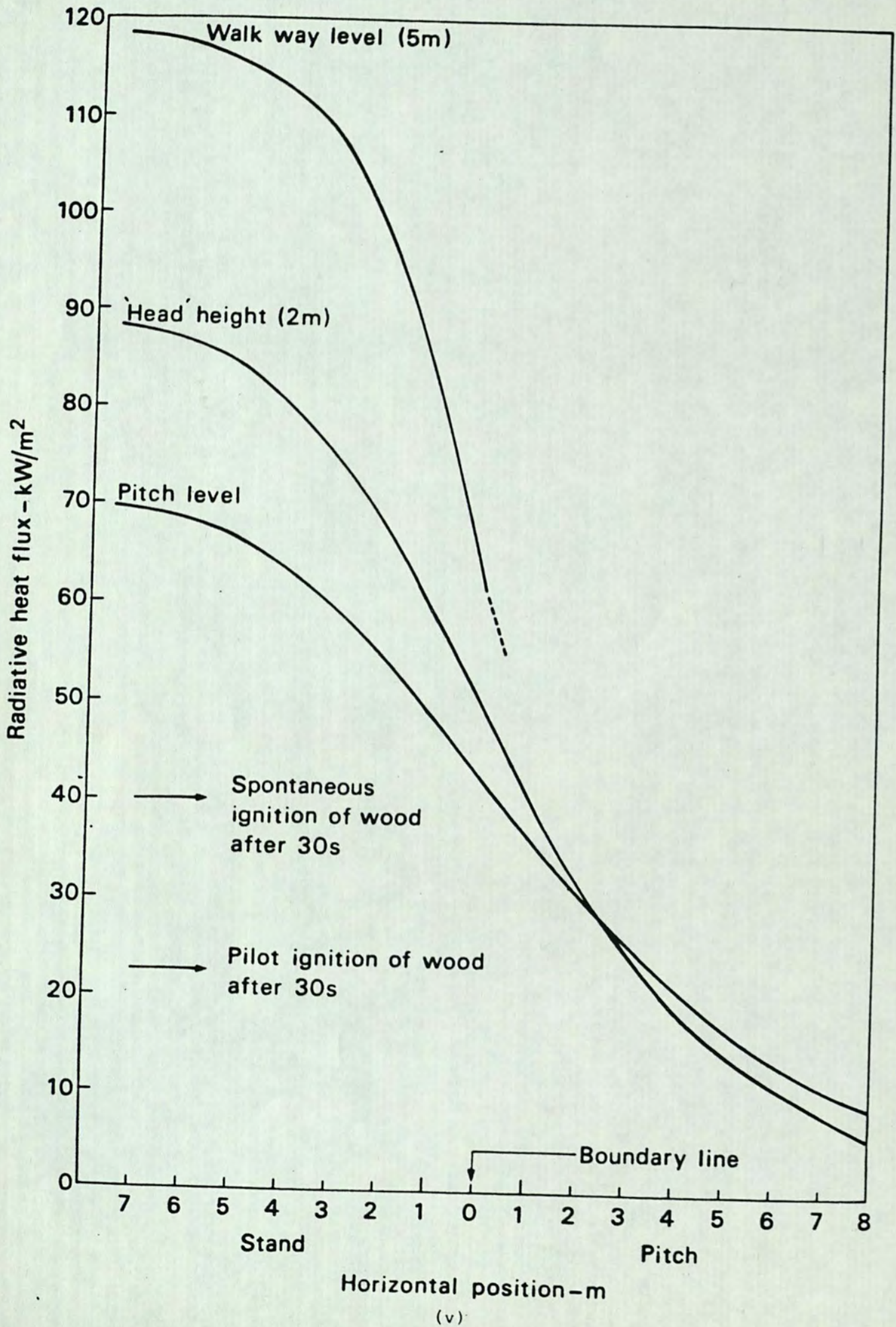
The 'mushrooming' or elongation of flames reaching a ceiling or roof usually leads to rapidly accelerating fire spread and involvement of all the combustibles. This can occur with non-combustible linings, although the processes can be hastened if the lining is flammable.

TA 5

For a 5 seat x 6 tier fire, flames might have reached the roof, and be flowing several metres along under it, given a high rate of heat release per unit floor area. At least local ignition of the roof could then have occurred, and a severe radiation exposure generated under the layer.

For the 11 seat x 9 tier fire the smoky gases would be hot enough to create very severe radiation exposure over long distances. Flames possibly 15-30 m long could be produced under the roof, producing rapid involvement of the roof material and accelerating growth of the primary fire until all the roof and seating areas were in flames, when strong radiation would be felt well out into the football pitch itself.

Polypropylene in the seating is unlikely to have played an important role other than by a contribution to the overall fuel available at floor level.



TECHNICAL ASSESSMENT 6

EFFECTS OF FIRE ON PEOPLE

Fire 'products' are dangerous to people in a number of ways.

Fire atmospheres:-

- 1) may be hot. Temperatures as high as 1000°C may be present in flame zones. Exposure to elevated temperatures can cause burn injuries both by direct contact and radiative processes.
- 2) may contain toxic and narcotic gases. The most important product in fires is carbon monoxide which is formed during the incomplete combustion of organic materials of both natural and synthetic origin. One percent of carbon monoxide is immediately hazardous to life.
- 3) may contain irritants. Virtually all fire gases are irritant to the eyes and inhalation tracts, including those from wood. Some synthetic products produce additional irritants.
- 4) may be low in oxygen because of combustion. Low oxygen concentration can be harmful and lead to death. In most cases carbon monoxide predominates.
- 5) may be rich in particulate material to obscure vision and hinder escape and/or rescue.

In building fires, the combustion products cannot escape quickly and most deaths occur as a result of the inhalation of smoke and gases. The Valley Parade fire was unusual in that it occurred within a large 'building' with 3 open sides. The design permitted initial containment of smoke (and subsequent flame) within the roof spaces and adjacent areas, then with overspill to outside. Consequently quite different mechanisms of fire exposure would be expected for persons in different areas of the stand and during their escape.

Smoke and toxic gases

People in the immediate vicinity of the fire during the early stages would be expected to experience some local smoke at ground level due to lack of buoyancy from cooling and movement of smoke by wind effects. Such smoke (normally light in colour during the early stages) would cause serious discomfort due to the irritants in the smoke. Substantial amounts of smoke would be generated and in increasing amounts as the fire developed rapidly from beneath the floor cavity to upper parts of the wooden stand. Following the arguments presented in Appendices 3 to 5 inclusive this hot smoke would soon fill, and then overspill the section formed by the pitched roof in the region above the fire. Such overspill would tend to fill not only the adjacent pitched roof section but also flow into the corridor, with cooling to bring the smoke to low levels.

The design of the stand with the upward sloping floor and low ceiling height at the back would encourage smoke travel to the corridor area. During the early stages when flames were beginning to develop above the floor, the fire although visible to many people may not have appeared to pose a serious threat to them in spite of warnings by the Police. Experience of other fire incidents shows that there is often a failure to respond to early warning signals and evacuation only begins when a fire suddenly changes to one of an obvious life threat. In the Valley Parade fire, escape was precipitated seriously when flames involved several seats and rows. At this time it is likely that the back corridor would already be seriously affected with people crowding into a dimly lit and smoky corridor, incapable of dealing with such flow under emergency conditions. It is not unreasonable in view of the subsequent fire growth that within a further one minute much of the corridor would be impassible and very dangerous to life. Additionally, deteriorating conditions would induce great urgency to escape through any route (by way of toilet, turnstiles etc).

Heat radiation

Persons in the vicinity of the developing fire, particularly at a stage involving both several seats and rows would experience considerable heat from the flames, predominantly in a horizontal direction by direct radiation. This effect undoubtedly helped to precipitate urgent and essential evacuation, and would increase significantly as flames increased towards the roof. The substantial lengthening of flames beneath the roof and involvement of the combustibles in the roof would produce an intense source of downward radiation, rapidly extending beneath the whole roof of the stadium and overspilling the edges.

Once spreading flames occurred in the roof, persons beneath would be faced with an advancing front of intense heat radiation and the importance of immediate escape would be apparent. Those initially choosing the 'corridor' and finding the route impassible by smoke and crowding might turn back to follow others attempting to climb over the fences to the safety of the field. The timescales involved in fire development would permit little choice for those already in the corridor, and much nearer to the source of high level radiation moving down the stand.

Downward radiation from the flames beneath the roof would be intense for all those beneath, and in the vicinity. Added to this the severe fire in the combustibles of the roof, known to be unsound constructionally, would quickly lead to falling debris including burning timbers, parts of burning tarpaulins, burning felt and bitumen etc. to substantially increase the risk of physical injury, direct burns and burns by ignition of clothing (in many cases already heated to near ignition point by the heat radiation).

Because of adequate air available beneath the flames, persons would experience heat radiation without the large amounts of smoke and toxic gases normally associated with fires.

Irradiances beneath and in the vicinity of the stand have been calculated in an earlier section with certain assumptions about the flames beneath the ceiling and view factors. To assist in the interpretation of these, unbearable pain is reported to occur with an irradiance of 1.26 kW/m^2 after 10 minutes, with pain discomfort at 6.3 kW/m^2 (20s). About 10 kW/m^2 gives pain in 10 seconds; when 50 kW/m^2 is reached severe burn injury occurs in seconds.

Clothing can initially protect the skin but heat penetration will occur depending on such factors as the reflectivity, thermal resistance, melting characteristics and moisture content of the clothing. Once burning of clothing commences the heat to the body increases substantially with the molten burning synthetic polymers (now used widely in clothing, anoraks etc) increasing the local heat transfer considerably. Flames from the burning clothing also cause serious burn injuries to exposed skin.

Based on predictions of heat radiation beneath the flames the levels at the front wall (near the pitch) would exceed 40 kW/m^2 , capable of causing rapid ignition of clothing and hair, with severe burn injuries to exposed skin within seconds. Within the stand, conditions would be even more severe. High levels of radiation would also be experienced by those on the field during escape and rescue. Pain is likely to have occurred in 10 seconds to those exposed to the fire even some 8 metres away.

Conclusion:

Two different mechanisms may have prevailed in the stand during the fire to cause injury and death. The design of the stand permits smoke travel to the rear corridor, following underspill from the roof section. Response to the fire was not immediate and persons escaping upwards to this region following pathways familiar to them would be crowded into a corridor, rapidly filling with smoke and toxic gases, incapable of dealing with the flow under the emergency conditions.

The blocking of this corridor may have prompted many to follow others escaping down the stand, over walls to the pitch. Urgency was essential due to the rapid spread of flames beneath the ceiling to give high levels of downward radiation capable of causing almost immediate ignition of clothing and hair and causing severe burn injuries.

TECHNICAL ASSESSMENT 7

REMEDIAL MEASURES

The assessments presented earlier in this report show that an issue of great importance was the short time available for escape once the urgency of the situation had been recognised by the people in the stand. The escape corridor at the rear of the stand was sufficiently high in the building to be seriously affected by the buoyant layer of fire gases and smoke filling the roof space. This layer became sufficiently deep to endanger people in the corridor and render it unusable before gases spilled out under the free (field) edge of the roof. This happened in less than 2½ minutes from people appreciating the urgency of the situation. This situation would not have been affected by opening more exits from the corridor - more people might have escaped, but anyone still in the corridor would have experienced similar conditions.

It is not practical to expect people to escape in a shorter time especially if they are elderly or have restricted mobility.

The use of wooden stands in the future may need to be seriously reviewed in the light of the Bradford tragedy. Where their continued use is permitted, any difficulties in ensuring adequate escape will direct attention to other means of fire protection, in particular to prevent or slow down the rate of fire growth and/or the spread of smoke and fire gases along the stand.

Clearly a fire of such complexity precludes the recommendation of simple remedial measures with current knowledge, and further research will be essential. However a preliminary assessment of the effectiveness of different measures may be valuable to the Inquiry. The assessments carried out in connection with the Bradford fire showed that a number of different fire processes were involved, which merit separate consideration in proposing remedial measures. Some of these will overlap with measures recommended in the Guide to Safety at Sports Grounds.

Fire in the stand

It is obviously of great importance that flammable litter should not be allowed to gather where it might start a serious fire. This points to the importance of good housekeeping. Any cavities where litter might collect might be sealed off, filled with inert material, or else provided with access for cleaning.

The structure and seating should be chosen where possible to be of low combustibility. Treatment of timbers by impregnation to reduce ignitability and subsequent heat release may be very difficult in situ. Surface treatment would need to cover both upper and lower surfaces. Such treatment would be difficult to apply to lower surfaces and would degrade by weathering and wear on upper surfaces. Considerable research and validation would be necessary to establish effectiveness of these treatments.

First-aid fire fighting can be effective in reducing fire risks but is not always successful in untrained hands. The Bradford fire would have been difficult to extinguish even during the early stages beneath the floor. Where vandalism prevents such equipment being placed in the stand, consideration might be given to locating it on the field for use by stewards or police.

Fire in the roof

In general the roofing materials will not of themselves significantly affect the hazards to life in the earliest stages even of a rapidly developing stand fire. At later stages, combustibles in the roof may contribute significantly to flaming under the roof with falling debris (eg molten bitumen). It is possible to underdraw the roof with a board of limited combustibility to reduce contribution to the fire from combustible roof materials and to prevent any molten asphalt or bitumen from falling. It is of course crucial that the roof be structurally sound, and should remain so during evacuation.

Control of smoke and fire gases

If the fire is kept small by appropriate measures, smoke and fire gases should not present a serious problem. Where such measures are deficient, it becomes critically important to extend the times taken for fire products to endanger the rest of the stand. The relevant measures are influenced by the roof construction.

A good design of a roof is one which slopes upwards toward the field, with a free edge having no downstand. Such a roof should preferably have shallow downstands running from the rear to the free edge to channel smoke gases upward and limit lateral travel.

With a more conventional roof construction, downstand screens could be used to divide the roof into zones, perhaps one zone per block of seats with each screen located above an aisle. These screens should be sufficiently deeper than the free edge of the roof at the field, to channel smoke out past this edge, thus preventing lateral spread and venting the smoke. Any such downstand screen should of course maintain its integrity under fire conditions.

Walkways in the upper part of the stand are vulnerable to smoke and toxic gases. Where walkways cannot be resited, or protected, then alternative venting eg by automatically-opening vents, could be considered. The design of such a system for venting would require a careful study and research.

With any of these venting options it should be recognised that, if most of the seating area below a zone is ablaze, there is a possibility of radiative ignition of materials in neighbouring zones. It follows that these venting options by themselves will only buy extra time for escape and fire fighting.

Additional comments

In principle, sprinklers can be effective in the control of rapidly growing fires. There are no major difficulties in the installation in football stands but special precautions would be necessary to prevent frost damage and possible malfunctions (due to bird nests etc.) There are major technical difficulties to be overcome to ensure that response is rapid under a large roof construction, before substantial fire spread has occurred. A further difficulty is that such constructions can lead to the opening of many sprinkler heads. Interactions between the water sprays and buoyant smoke layers may bring smoke to low level and create some escape difficulties. Research studies would be necessary.

WEST YORKSHIRE METROPOLITAN COUNTY COUNCIL

SAFETY OF SPORTS GROUNDS ACT 1975

GENERAL SAFETY CERTIFICATE

ISSUED TO LEEDS UNITED ASSOCIATION FOOTBALL CLUB

1 APRIL 1985

SAFETY OF SPORTS GROUNDS ACT 1975

1. It is important to know all the provisions of the Safety of Sports Grounds Act 1975, which are relevant to premises within its scope. These are explained, without legal force, in the booklet "Guide to Safety at Sports Grounds - Football", obtainable from Her Majesty's Stationery Office. The following points are particularly important but reference should be made to the Act itself for authoritative information.

OFFENCES AND PENALTIES

2. For the following offences, that is to say:-
 - (a) Contravening any term or condition of this certificate, admitting spectators to the Stadium at a time when a safety certificate is not in force or in contravention of a Court Order, the penalty is, on summary conviction, a fine not exceeding £2,000 or, on conviction on indictment, a fine or imprisonment for a term not exceeding two years, or both.
 - (b) Failing to give notice of an alteration or extension to the Stadium or obstructing an authorised officer, the penalty is on summary conviction, a fine not exceeding £2,000.

CHANGES OF CONDITIONS

3. In accordance with Section 11 of the Act authorised officers have power to inspect premises to which the Act applies to see whether conditions therein have changed to the extent that the safety measures for spectators are diminished.
4. Regardless of this, however, you must inform the Local Authority in advance if you are proposing to make alterations or extensions to the Stadium or any of its installations other than by way of routine maintenance works.

RIGHTS OF APPEAL

5. The Act gives rights of appeal against decisions of the Local Authority or the inclusion of any of the terms or conditions in this Certificate. The periods within which appeals must be lodged and the procedures to be followed are laid down in the Safety of Sports Grounds Regulations 1976.

SAFETY OF SPORTS GROUNDS ACT 1975

GENERAL SAFETY CERTIFICATE

To: Leeds United Association Football Club Limited

WHEREAS on 1 November 1979 West Yorkshire Metropolitan County Council (hereinafter called "the Local Authority") issued pursuant to the Safety of Sports Grounds Act 1975 to Leeds United Association Football Club Limited a general safety certificate for the sports stadium known as Leeds United Football Club ground at Elland Road Leeds (being a designated stadium for the purposes of the said Act) shown on the plans nos. 516/4G, 516/6D, 516/7D, 516/8C, 516/9E, 516/10C and 516/15E hereto annexed.

AND WHEREAS the Local Authority is satisfied that the said Leeds United Association Football Club Limited is a person likely to be in a position to prevent contravention of the terms and conditions of a safety certificate.

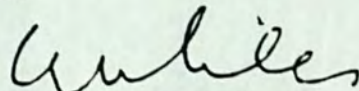
NOW the Local Authority in exercise of the powers conferred by Sections 2, 3 and 4 of the Safety of Sports Grounds Act 1975 and of all other enabling powers HEREBY CERTIFIES the said stadium in respect of the use thereof for:-

- (a) the playing of football matches;
- (b) the following ancillary activities for periods of not more than 2 hours before the start and 1 hour after the end of the football match, that is to say -
 - (1) the playing of music and singing;
 - (2) the provision of news and comment associated with football;
 - (3) the sale of tickets for forthcoming activities, programmes, newsheets and souvenirs;
 - (4) the sale and consumption of refreshments;
 - (5) public collections previously approved in writing by the chief officer of police;
- (c) any activity ancillary to or connected with football previously approved in writing by the Local Authority or the chief officer of police;

from the date hereof SUBJECT to the terms and conditions contained in Schedules 1, 2 and 3 hereto being such as the Local Authority consider necessary or expedient to secure reasonable safety at the said stadium when it is in use for the activities specified above, this Certificate being in replacement for the Certificate issued on 1 November 1979 which shall cease to have effect.

SIGNED by authority of West Yorkshire
Metropolitan County Council

Dated 1 April 1985


Chief Executive and Clerk

SCHEDULE 1

GENERAL CONDITIONS

1. Interpretation

In this and the following Schedules where the context so admits:-

- 1.1 "the Act" means the Safety of Sports Grounds Act 1975;
- 1.2 "the Holder" means Leeds United Association Football Club Limited or such other person to whom this Certificate is transferred under Section 4(5) of the Act;
- 1.3 "the Local Authority" means the West Yorkshire Metropolitan County Council;
- 1.4 "the Police" means the chief officer of police or, as the case may require, the police officer having charge of the Stadium on the occasion of a specified activity;
- 1.5 "specified activity" means an activity or activities specified in this Certificate;
- 1.6 "the Stadium" means the sports stadium known as the Leeds United Football Club ground at Elland Road in the City of Leeds shown on plan no 516/6D;
- 1.7 Other expressions have the same meaning as in the Act;
- 1.8 References to plans are references to plans annexed to this Certificate.

2. Capacity of Stadium

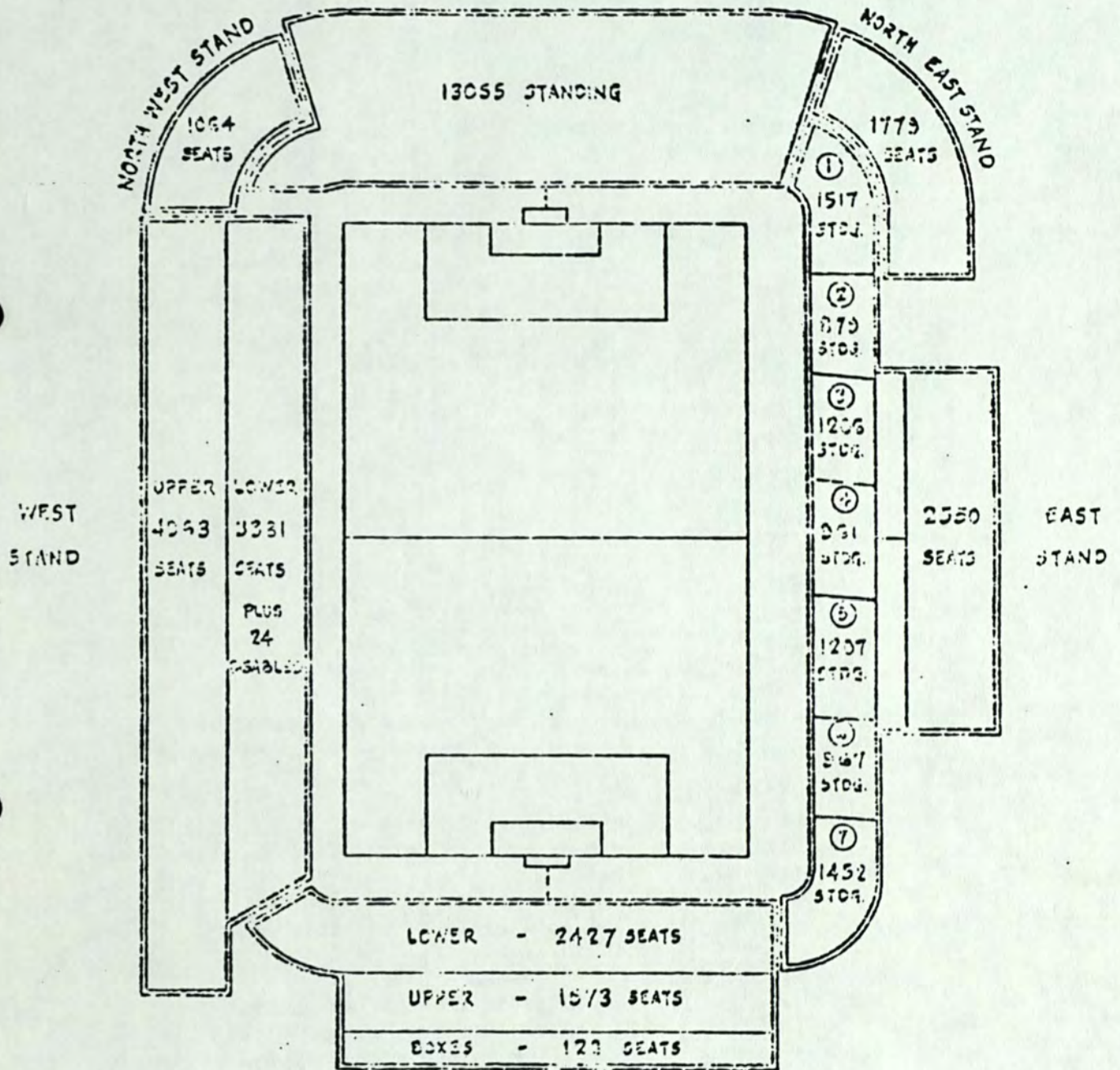
- 2.1 The number of spectators to be admitted to the Stadium shall not exceed 39,133.
- 2.2 The number of spectators to be admitted to each part of the Stadium as shown on the layout plan below shall (subject to Section 2.3 below) not exceed the number specified in the following table:-

<u>POSITION</u>	<u>SECTION</u>	<u>SEATING</u>	<u>TERRACING</u>	<u>TOTALS</u>
WEST	LOWER	3381+24 DISABLED		
	UPPER	4963		8368
NORTH WEST		1064		1064
NORTH			13055	13055
NORTH EAST		1779		1779
EAST		2550		
	1		1517	
	2		879	
	3		1206	
	4		961	
	5		1207	
	6		967	
	7		1452	
				10739
SOUTH	LOWER	2427		
	UPPER	1573		
	BOXES	128		
				4128
<u>TOTAL</u>		<u>17889</u>	<u>21244</u>	<u>39133</u>

LEEDS UNITED A.F.C.

MALIFAX/MUDDERSFIELD ← GELDERD ROAD → LEEDS

NORTH STAND



SOUTH STAND

CAR PARKS ← ELLAND ROAD → LEEDS

GROUND CAPACITY 30153

- 2.3 Provided that if the gate in the fence marked A-B on plan 516/4G is not manned in accordance with Section 6.1 below during a specified activity then for the number "10739" (being the terracing capacity of the area marked "E" on the layout plan above) there shall be substituted the number "8320".
- 2.4 Discretion to be available to the Chief Officer of Police, in consultation with the Club to determine, prior to each game, areas of crowd segregation.

3. Safety Measures

- 3.1 Crush barriers shall be provided and maintained to the satisfaction of the Local Authority in the positions shown on the plan number 516/15E.
- 3.2 A central control room shall be provided for the use of the Police and maintained with such other control points and ancillary facilities as the Police may from time to time require.
- 3.3 An emergency lighting system shall be provided and maintained so that in the event of failure of the general lighting system a generator complying with the following specification shall come into operation after a four-second delay and light all parts of the Stadium necessary for spectators to leave the Stadium:-

PARTICULARS OF GENERATOR

Dale Electrics diesel operated
Type MF/15 DSV
Serial Number 13731
AC 3 phase PF 0.8
415/240 voltage
Rating 150 KVA 120 KW 210 amps

- 3.4 Fire-fighting equipment shall be provided and maintained in accordance with Schedule 2 hereto in the positions shown on plans 516/7D and 516/8C.
- 3.5 A communication and warning system, including a public address system, shall be provided and maintained to the satisfaction of the Local Authority and the Police.
- 3.6 A suitably equipped first-aid room shall be provided and maintained for the use of persons attending a specified activity.
- 3.7 The Holder shall carry into effect at a specified activity such measures as the Police may from time to time require to control admission to the Stadium and to ensure the segregation of home and visiting supporters.
- 3.8 Clearly printed notices in the form set out in Schedule 3 hereto shall be exhibited and maintained in the following positions:-
- A Near each item of fire fighting equipment
- B In the Police Control Room, Press Room, First-Aid Room, Entrance to Manager's Office, Club Control Room, Club Reception, The 100 Club Room, the Directors' Club Room.

- 3.9 The notices required under Sections 3.8 above and 6.7 below shall at all times be maintained in the allotted positions and kept unobstructed and legible.
- 3.10 Fencing shall be provided and maintained to the satisfaction of the Local Authority in the position shown on the plan number 516/15E.
- 3.11 Wind speed measuring and recording equipment shall be provided and maintained and
- (a) In the event of 5 gusts of wind of 70 mph or more being recorded or observed in any 15 minute period on the day of a game the East Stand both seating and terracing shall not be used.
 - (b) In the event of the wind speed increasing during the time the stadium is in use for a specified activity to gusts of 70 mph or more the Holder shall if he considers it necessary arrange with the assistance of stewards and the police the evacuation of all or any part of the stadium.
 - (c) Following any occasion on which the wind gusts at 70 mph or more the East Stand shall not be used again except after consultation with the Local Authority.
 - (d) Records of wind speed shall be forwarded to the Local Authority at monthly intervals.

4. Inspections

- 4.1 Once at least in every 12 months commencing 1 May or at any other such occasion when requested so to do by the Local Authority the Holder shall arrange for the carrying out in accordance with any appropriate British Standard Code of Practice by properly qualified persons of inspections of the following matters:-
- A All electrical installations within or associated with the stadium.
 - B All fire-fighting equipment.
 - C The condition and operation of the wind speed measuring and recording equipment.
 - D 20% of all crush barriers, balustrades and handrails selected in accordance with a programme approved by the Local Authority and tested to meet the requirements of Section 13.3 of the "Guide to Safety at Sports Grounds - Football" (Home Office HMSO 1976).
 - E The general fabric and structure of the stadium.
 - F The condition of all crush barriers, balustrading and handrails, standing surfaces, seats, steps, stairs, ramps, doors, gates, fences, boundary walls and other structures within the stadium.
- 4.2 The results of the above inspections shall be recorded on the Annual Record of Inspection Sheet provided by the Local Authority, and where appropriate this shall be accompanied by reports or certificates from the persons carrying out the inspections.

- 4.3 Details of items requiring maintenance or repair are to be listed on a separate schedule, giving the dates of carrying out any necessary work.
- 4.4 Copies of the Annual Record of Inspection Sheets, Certificates, Reports and Repair and Maintenance Schedules shall be forwarded to the Local Authority not later than 1 August in each year. The Club shall provide to the Local Authority proposals for rectifying defects highlighted in the Inspection Reports, within 14 days of receipt of the reports by the Club.
- 4.5 On every occasion on which a specified activity takes place at the stadium, before the commencement of such activity the stadium and all facilities to be used by spectators therein shall be inspected to ensure that they are safe and fit for use and in particular all exit doors or gates shall be tested to ensure that they open freely and the emergency lighting system and the communication and warning and public address system shall be tested by a competent electrician.
- 4.6 After every occasion when a specified activity takes place at the stadium, the stadium and all facilities used by spectators therein, including the condition of terraces, viewing slopes, staircases, stand seats, crush barriers, perimeter fences, pen fences, gates and balustrades shall be inspected for any source of danger to spectators.
- 4.7 Inspections carried out under 4.5 and 4.6 shall be recorded in a log book kept at the ground for this purpose. Any defects shall be remedied before any specified activity takes place. The record shall include the date and details of the inspection, any faults found and steps taken to remedy such faults. The log book should be available for that inspection.
5. Attendance at Specified Activities
- 5.1 The Holder shall ensure that on every occasion when a specified activity takes place at the stadium an individual designated in writing by the Holder is in attendance who shall before the commencement of a specified activity be identified in writing to the Police shall be present at all times when the stadium is in use for that activity and shall ensure that the terms and conditions of this Certificate are complied with in relation to that activity.
- 5.2 The Holder shall ensure the attendance at a specified activity of an adequate number of persons appropriately qualified in first aid who shall be distributed (subject to any directions of the Police) in such a manner as to have reasonable access to all parts of the stadium.
- 5.3 The Holder shall arrange for the attendance at a specified activity of as many police officers within the stadium as the Police consider adequate to secure orderly and decent behaviour within the stadium.
- 5.4 The Holder shall ensure the attendance at a specified activity of Stewards in the following numbers and with the following duties, that is to say:-

- A 22 Stewards to man such exit doors and gates as are not open continuously while the stadium is in use for the specified activity;
- B 50 Stewards to control and direct spectators within the stadium and to patrol the stadium and deal with any emergency including raising the alarm and extinguishing fires;

provided that such numbers may from time to time be varied as directed by the Police. Such Stewards shall be required by the Local Authority and the Police and shall be identifiable by dress and distributed (subject to any directions of the Police) in such a manner as to discharge competently the functions specified above.

- 5.5 The Holder shall ensure the attendance at a specified activity of a competent electrician employed by the Holder.

- 6. Means of Egress

- 6.1 Except where otherwise marked on plans 516/9E and 516/10C, during a specified activity all doors and gates which form an egress route between accommodation for spectators and a public highway or other open space outside the stadium shall be so secured as to open immediately and easily from the inside. All final exit doors or gates (marked with a star on plan 516/9E) may be locked on condition that each door or gate is during a specified activity manned by at least one Steward and only one lock is fitted thereto to which the Steward (or one of the Stewards, if more than one) has the key continuously on his person during the specified activity. All such final exit doors or gates shall be opened by the Stewards at any time on evacuation of the Stadium or any part thereof on being ordered so to do by the Holder or by a police officer or by a person designated under Section 5.1 above. In order that the Stadium may be cleared at the end of a specified activity all doors or gates (including final exit doors or gates) shall be opened and all gates shall be secured in the fully opened position at such time before the end of the match as may be directed by the Police. Provided that the Police may direct that on any particular occasion of a specified activity the requirements of this Section shall not apply to such doors or gates as may be directed with the exception of doors or gates marked "Exit No. " and individually numbered on plan 516/9E which are essential for means of escape purposes irrespective of the activity, although this requirement may be varied by the Chief Officer of Police if and when only parts of the stadium are in use.
- 6.2 All routes for ingress to and egress from the Stadium shall be kept free from obstruction before, during and after every specified activity.
- 6.3 The direction of opening of doors indicated on plans 516/9E and 516/10C shall not be altered without the prior written approval of the Local Authority.
- 6.4 All doors fitted with self-closing devices shall be maintained self-closing at all times and shall not be kept in an open position.
- 6.5 All stairs, steps and passages forming part of any means of ingress to or egress from the stadium shall be maintained with non-slip and even surfaces, and all stair coverings shall be secured and maintained so as not to be in any way a source of danger to spectators.

- 6.6 No equipment or goods of mobile sales staff shall be positioned during a specified activity so as to obstruct any exit route. All facilities for mobile sales staff shall be sited in positions approved by the Police.
- 6.7 Exit signs shall be maintained of the size and in the positions shown on plans 516/9E and 516/10C.
- 6.8 The doors or gates in the perimeter fencing along the northern eastern and western sides of the playing area may be locked on condition that each door or gate is during a specified activity manned by at least one Steward and only one lock is fitted thereto to which the Steward (or one of the Stewards, if more than one) has the key continuously on his person during the specified activity. All such doors or gates shall be opened by the Stewards at any time on evacuation of the stadium or any part thereof on being ordered so to do by the Holder or by a police officer or by a person designated under Section 5.1 above. Provided that the Police may direct that on any particular occasion of a specified activity the requirements of this Section shall not apply to such doors or gates as may be directed.

7. Keeping of Records

- 7.1 The Holder shall cause to be kept the following records in such form as the Local Authority may from time to time direct:-

- A A record of the number of spectators admitted to the stadium and to each separate part (as specified in Section 2.2 above) of the stadium on every occasion when a specified activity takes place at the stadium.
- B A record of the inspections required to be carried out under Sections 4.1, to 4.7 (inclusive) above and of the findings of such inspection as to the condition or working order of the matters there specified.
- C A record of all training and instruction given and exercises held in accordance with Section 8 below, such record to include the following matters:-

Date and Time of Instruction and Exercise
Duration
Name of Person giving Instruction
Names of Persons receiving Instruction
Nature of Instruction or Exercise.

8. Emergency Action

- 8.1 Written instructions approved by the Local Authority and the Police about the action to be taken in case of emergency shall be readily available to all staff and Stewards at all times, and in particular each member of staff and Steward shall receive a personal copy of such instructions.
- 8.2 All members of staff and all Stewards shall in the month of July in every year receive practical instruction and training appropriate to their responsibilities in case of emergency. Exercises for all staff and Stewards shall be carried out regularly to ensure the smooth

operation of procedures for dealing with an emergency. All members of staff and Stewards shall receive refresher training once at least in the months of October and January in every year. All training instructions and exercises shall be carried out by a competent person.

8.3 The person designated in relation to any specified activity under Section 5.1 and every Steward shall take all such action as may be required by the Police to secure the evacuation of the stadium or any part thereof.

9. Media Personnel and Equipment

9.1 Members of the press and radio and television services having access to public and playing areas of the stadium shall be identifiable as such by badges or other marks and shall be restricted to positions approved by the Police.

10. Flammable Materials

10.1 No flammable gases or liquids shall be stored or used in any part of the stadium without the prior approval of the Local Authority.

10.2 No accumulation of combustible rubbish, dirt, surplus materials or goods shall be permitted to remain in any part of the Stadium except in a place and quantity approved in writing by the Local Authority.

11. Parking of Vehicles

11.1 No vehicle may be parked or left within the stadium except in accordance with the directions of a police officer.

12. Supplemental

12.1 Without prejudice to the foregoing conditions the Holder shall be at liberty to formulate conditions for the management of the stadium and for the admission of spectators thereto having first obtained any necessary approvals required under the terms and conditions of this Certificate.

SCHEDULE 2

FIRE FIGHTING EQUIPMENT

The following is a schedule of the fire fighting equipment provided throughout the ground

NORTH STAND

Ground Floor - 3 bars each having 2 x 2 gallon water extinguishers

NORTH EAST STAND

Ground Floor - 2 bars each having 2 x 2 gallon water extinguishers

First Floor - 2 bars - one has 2 x 2 gallon water extinguishers
- one has 1 x 2 gallon water extinguisher

EAST STAND

Ground Floor - 2 bars each having 1 x 7 lb Dry Powder extinguisher

First Floor - 3 bars - 2 having one 7lb Dry Powder extinguisher
- one bar has a 14 lb Dry Powder extinguisher

SOUTH STAND

Ground Floor - 2 bars each having one 7 lb Dry Powder extinguisher

First Floor - 2 bars each having one 7 lb Dry Powder extinguisher

Executive Lounge - 2 x 2 gallon water extinguishers

Executive Kitchen - 1 x 7lb Dry Powder extinguisher

Executive Boxes
Corridor - 3 x 2 gallon water extinguishers

WEST STAND

Ground floor - South End - one hose reel and one 7lb Dry Powder extinguisher
South of Centre - one hose reel
North of Centre - one hose reel, one 7 lb Dry Powder extinguisher
North End - one 7lb Dry Powder extinguisher
Groundsman's Store - 1 hose reel

First Floor - South End - 1 hose reel and one 7 lb Dry Powder extinguisher
South of Centre - one hose reel
North of Centre - one hose reel
- one 7 lb Dry Powder extinguisher
North End - one 14 lb Dry Powder extinguisher

NORTH WEST STAND

First Floor - One 14 lb Dry Powder extinguisher

FIRE INSTRUCTIONS

ON SUSPICION OR DISCOVERY OF A FIRE

1. If the fire can be quickly contained tackle the outbreak using the nearest fire fighting equipment.
2. Inform the Club Control Room and Police Control Room using the quickest communication system.

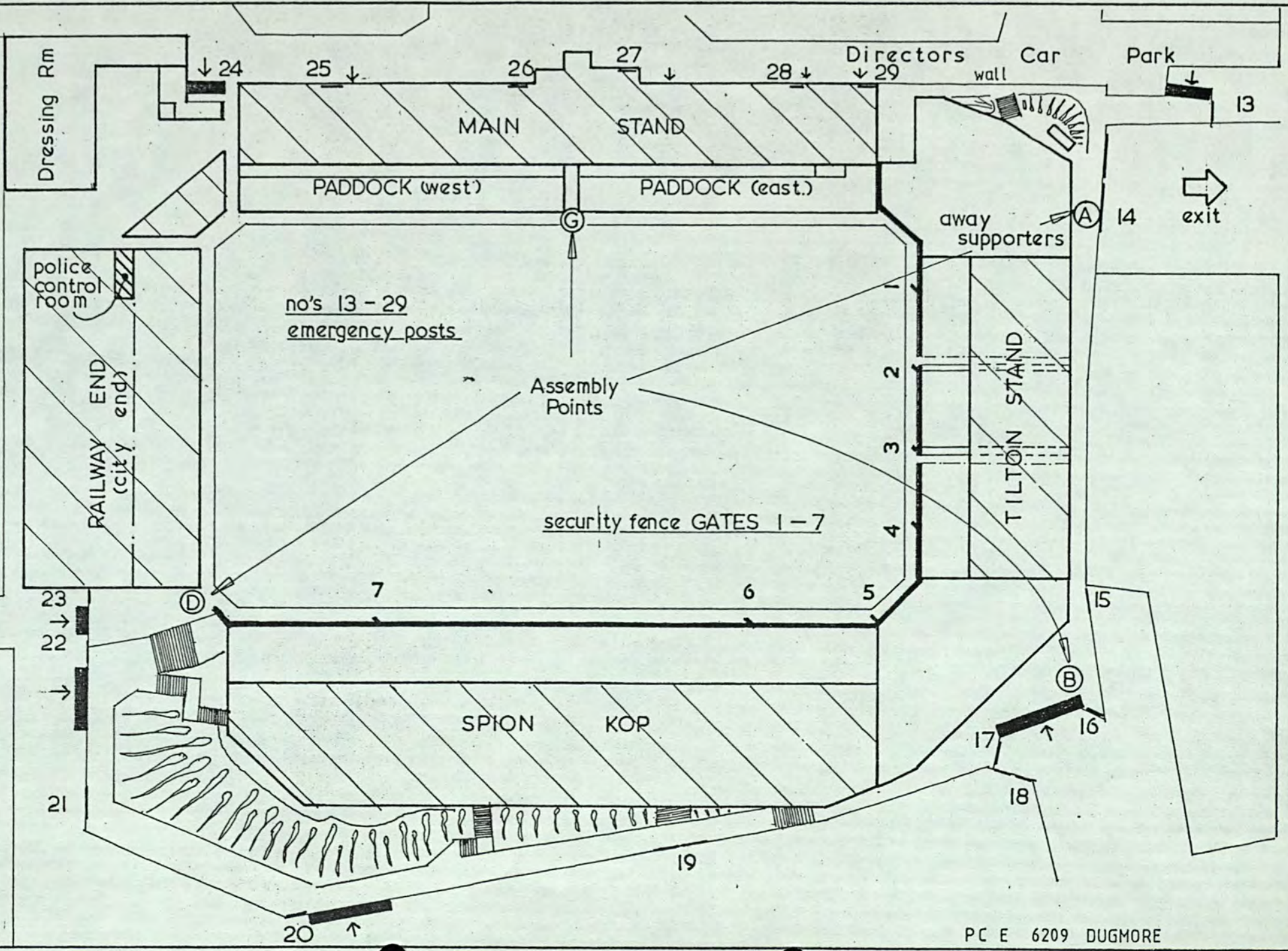
CALLING THE FIRE BRIGADE

In the event of a fire no matter how small, or on suspicion of a fire the Fire Brigade must be notified immediately using the 999 facility.

ACTION

Instructions on any further action required will be given by the Club or the Police.

6



MEMORANDUM TO FOOTBALL LEAGUE CLUBS REGARDING CROWD CONTROL1. CLUBS ONLYMANDATORY

- (a) Make adequate arrangements for segregation of rival supporters.
- (b) Detailed prior planning can solve many problems experienced both inside and outside of grounds. Clubs must, therefore, undertake detailed liaison with the Police, opposing Club, rail and coach operators and Supporters' Travel Clubs at least 10 days before a match to determine movement of spectators and arrangements. In the case of F.A. or League Cup Matches due consideration must be given, at the time of the draw, to possible replay arrangements.
- (c) Ensure that the terraces are kept free of objects that can be used as missiles.
- (d) Arrange where practicable, for visiting supporters to use turnstiles nearest to the coach parks.
- (e) Avoid all-night queues for tickets.

Strongly Recommended

- (f) Install double barriers and walkway systems to afford quick access to terraces should the need arise.
(MANDATORY FOR DESIGNATED CLUBS).
- (g) Take legal steps to ban known trouble-makers from the ground.
- (h) Co-operate as closely as possible with Magistrates.
- (i) Arrange for appeals for good behaviour to be made - possibly by leading players/Officials in programmes and over the public address system.

2. IN RELATION TO ALCOHOLMANDATORY

- (a) Ensure that drinks are sold in plastic containers.

Strongly Recommended

- (b) Liaise with the Police to obtain the co-operation of publicans, off-licence proprietors and all licence holders for sale of alcohol near the ground to close at appropriate time on match days.
- (c) Restrict or, on occasion, ban the sale of alcoholic drink within the stadium, except in approved areas.

3. CLUBS WITH THE POLICE

MANDATORY

- (a) Liaise with the Police to ensure proper deployment of stewards within grounds. Stewards should be properly trained and regularly briefed to ensure they are capable of working closely with Police. Stewards must be conspicuously dressed and easily identifiable.
- (b) Liaise with Police to arrange for the escort of visiting supporters from stations and coach parks to the ground and return. (See also Mandatory Recommendation 1(b)).
- (c) Arrange for Police surveillance at the turnstiles to prevent missiles and alcoholic drinks being taken into the ground.

Strongly Recommended

- (d) Liaise with Police over visits to motorway service areas by football supporters travelling to away matches.
- (e) Consider, in liaison with the Police, making potential problem games "all ticket" and give maximum publicity to the fact that tickets will not be available for purchase on the day of the match.

4. CLUBS AND SUPPORTERS' CLUBS

Strongly Recommended

- (a) Arrange with official Supporters' Club and Travel Clubs that charter coaches and trains only carry non-alcoholic drinks.
- (b) Develop and maintain close relationship with Supporters' Club.
- (c) Examine from time to time the arrangements made for the sale of tickets by Supporters' and Travel Clubs.
- (d) Encourage supporters to travel to away matches in chartered stewarded, responsible groups.
- (e) Consider with Supporters' Clubs the issue of combined travel and match tickets.

E.A. Croker

E.A. Croker
General Secretary

17th August, 1983.