

Power, Ideology and the Regulation of Safety in the post-Piper Alpha Offshore Oil Industry

David Whyte

*A thesis submitted in partial fulfilment of the requirements of Liverpool John
Moore's University for the degree of Doctor of Philosophy*

January 1999

Contents

Abstract

Acknowledgements

Introduction	1
Chapter 1: Locating the Thesis in Existing Literature	6
Chapter 2: Method, Theory and Epistemology	62
Chapter 3: Gramsci , Ideology and the State	120
Chapter 4: Ideological Constraints on the State and the Doomsday Warnings of Capital	140
Chapter 5: Oil Capital, the North Sea and the British State	175
Chapter 6: Safety in the 'New Era': evidence from the fieldwork	247
Chapter 7: Assessing the New Regulatory Regime	280
Chapter 8: Workforce Involvement in Safety Organisation	313
Chapter 9: Conclusion	376
References	
Appendix: Interview Schedule for interviews with workers.	

Abstract

This thesis is concerned with a new health and safety regime in Britain's offshore oil and gas industry which was developed in the wake of the deaths of 167 offshore workers on the Piper Alpha platform in July 1988.

An assessment of the efficacy of the post-Piper Alpha offshore safety regime, based upon Lord Cullen's report of the public inquiry into the disaster, is presented. Integral to this assessment is an account of the regulation and management of safety in the sector, which places at its core an analysis of the relative power held by labour, capital and the state. In doing so, this thesis reaches beyond the assessments provided by official sources such as the regulatory authority Health and Safety Executive (HSE) and the oil companies operating in the North Sea. It thus makes a novel contribution to understandings of the regulation of health and safety in the offshore oil and gas industry.

Using a Gramscian framework, the thesis examines the relationship between the British state and oil capital at a structural level, with a focus on Britain's offshore oil industry. The regulation of health and safety in the offshore oil industry is understood as an important arena for capital in the struggle for hegemonic domination. With reference to Marxist formulations on fetishism and mystification, it seeks to understand the precise role of ideology in this struggle. This process is discussed within the context of the promotion by oil capital of a series of ideological and empirical claims which attempt to set limits upon the possibilities for state regulation.

Empirical data from a series of in-depth qualitative interviews with offshore workers, onshore managers and front-line government health and safety inspectors is presented and analysed. The data focuses upon respondents' perceptions of three broad aspects of health and safety: workforce involvement in safety organisation, the role of the HSE in the sector, and the impact of a recent oil company led cost-cutting campaign.

At a policy level, this thesis applies the theoretical and empirical findings developed here to evaluate the efficacy of the post-Cullen health and safety regime. It concludes by arguing that the new regulatory system has been unable to protect the offshore workforce from exposure to workplace risks, and that the HSE has systematically failed to prevent a gradual deterioration of the regulatory regime.

Acknowledgements

For putting me up and for putting up with me on numerous fieldwork trips North, I am extremely grateful to Jim Phillips and Anna Robertson, Kenny McLeod, Gill Kay and India, Martin Gemmell and Sally Gartside, and to my sister Maggie and my parents Iain and Isabel for their constant support. Carol Anderson and Davy Blackie deserve special thanks for musical and herbal remedies, and for being in Aberdeen, where I needed them most. Special thanks are also due to Kenny for his close monitoring of big oil and for his encouragement.

A great debt is owed to Ronnie MacDonald, Jake Malloy and Lorna Robertson at the OILC. The OILC generously provided me with an unrivalled source of oil industry information in their library and files. Without their expertise, this piece of work would have been a much more difficult task.

For advice and support in the early days of the project, I am also grateful to Bob Ballantyne and Ron Bird. Thanks also to Denis Smith for his assistance and for giving me room to develop this project at the outset. Don Lloyd and Helen Shannon deserve thanks for setting up management and company contacts.

For their expertise and insights into offshore life, I am immeasurably indebted to all of the offshore workers that gave up their time and allowed me to interrupt their journeys to home and to work.

For various forms of support, and for allowing me to bore them endlessly with my obsession at various stages during my research, many many thanks go to Annette Ballinger, Roy Coleman, Manus Conaghan, Jessica Healy, Emma MacDonald, Tesfa Mehari and Colm Power. Joe Sim has been particularly inspiring and encouraging as a colleague and friend.

Above all, I am extremely grateful to have had Steve Tombs supervising my work for the past four years. His extensive patience and his commitment to this piece of work have been a real inspiration. Without Steve's and support as a friend and comrade, I certainly would not have completed this thesis.

Introduction

The subject of the thesis is the management and regulation of safety in the UK offshore oil and gas industry since the establishment of a new safety regime in the wake of the Piper Alpha disaster. The thesis seeks to link the reported experiences of offshore workers, offshore and onshore managers and Health and Safety Executive (HSE) inspectors¹ of the safety process on offshore platforms to the wider political and economic structures which influence the actions of the oil companies and national government departments. The principal concern is with some observable aspects of the labour process at a micro level, and with particular aspects of political economy. A theoretical framework for this dissertation will be provided by: Marxist formulations on fetishism, ideology and on the role and function of the state; theories of regulation; and by Gramscian notions of hegemony and historical bloc.

The aim of the thesis will be to present an assessment of the efficacy of the post-Piper Alpha offshore safety regime. It further aims to present an account of the regulation and management of safety in the sector as one which places at its centre an analysis of the relative power held by labour, capital and the state. In doing so, this thesis will reach beyond the assessment provided by 'official' sources such as the HSE and the oil companies operating in the North Sea and aims to contribute to a more accurate understanding of the regulation of safety in the offshore oil and gas industry.

The first chapter will present a literature review of research on health and safety generally, and health and safety in the offshore oil industry in particular. The following chapter will identify

¹ A full discussion of the methodology used during the fieldwork follows in chapter 2.

the significant methodological and epistemological issues raised by the approach taken in this thesis. Feminist standpoint theory will be used to argue that research should be constructed from a particular standpoint. The beginnings of a Marxist framework will also be developed in chapter 2. This approach will then be placed within the broader context of the tradition of critical social research. Chapter 2 will also present an analysis of the political economy of social research, and of recent trends in the control over state-funded research agendas, with particular reference to the study of powerful organisations. This political economy will then be considered in more detail with reference to empirical evidence from the UK offshore oil industry. Details of fieldwork samples, interview methods, and the analysis and presentation of data will be included at the close of chapter 2.

Chapter 3 will consider how the social regulation of capital is limited by the character of the relationship between capital and the state and will argue for a Gramscian understanding of the state. This chapter will then present a brief outline of Gramsci's concept of hegemony and will outline the role of ideology in securing hegemony with particular emphasis on the dynamic of class struggle. Chapter 3 will finally demonstrate how Miliband's examination of the role played by elite groups in the struggle for hegemony can prove rewarding for the theoretical approach in this thesis.

Chapter 4 will outline a number of significant sets of empirical and ideological claims made by oil capital to which in their combination serve to construct a particular view of the world. These claims are viewed as a central elements of the struggle to achieve hegemony and to provide impetus to the political interventions of productive oil capital. Further, chapter 4 will show that although oil capital's view of the world is largely based upon false and distorted

claims, these empirical and ideological constructions assume a powerful material force. Since many of those constructions are based upon a conflation of the social as 'natural', in Marxist terms we can understand this process as fetishism; as a process of mystification.

Chapter 5 is split into two parts. The first will deal with the historical development of the relationship between the British state and oil capital. The second deals with the events which led to the Piper Alpha disaster and the deaths of one hundred and sixty seven offshore workers and the organised response to the disaster on the part of the British state and oil capital. Part one will thus outline the historical importance of oil to the capitalist mode of production and the strategic importance of oil to the British state. It will then present an overview of the relationship between oil capital and the British state after the discovery of oil in the North Sea. In relation to Gramscian notions of hegemony and historical bloc, chapter 5 will argue that 'productive oil capital' has more or less enjoyed a position as a dominant fraction of capital since the advent of Britain as a producer oil state. Further, this chapter will argue that the encouragement of the fast extraction of oil coincided with the political priorities of government and the demands of the finance sector in the UK and that it is within this context that we can understand the development of a separate health and safety regulatory system, a consistent reluctance on the part of the state to introduce production/depletion controls and the establishment of a lax offshore fiscal regime. Part two of chapter 5 will provide a context for the Piper Alpha disaster which examines the combined effects of a regime of unrestrained production, relatively weak labour in the sector and the operators' response to the price crash of 1985/86. An analysis of the Piper Alpha disaster and the Cullen Report will then be followed by an examination of the operating companies' attempts to offset the costs associated with Cullen.

Chapters 6, 7 and 8 will present data from fieldwork which will allow us to examine some key aspects of the new regulatory regime in finer detail, from the perspective of offshore workers, and help to illuminate the theoretical arguments developed in previous chapters. Chapter 6 will follow from the discussion of CRINE² and the 'new era' in chapter 5 by using interview data to measure the impact that CRINE and CRINE-related cost-cutting has had upon the working conditions on offshore platforms in the post-Piper Alpha 'new era'.

Chapter 7 will start by tracing the significant developments in the health and safety regulatory regime post-Piper Alpha. It will then use interview data to gauge the views of offshore workers, onshore managers, and inspectors on the impact of the new regime and on relationships between duty holder and regulator and between regulator and the offshore workforce. The chapter will conclude by locating previous data on the impact of CRINE and cost-cutting within the context of the new regime. It will thus present an analysis of the relationship between concepts of goal-setting and oil capital's claims in relation to the commercial 'realities' of North Sea production.

Chapter 8 will focus upon the degree to which the offshore workforce is involved in the day-to-day management of safety by presenting a general analysis of worker/manager relationships in the industry. In particular, it will use fieldwork data to examine the efficacy of the safety representatives and committees system and the degree to which the post-Piper Alpha safety regime has dealt with a fear of victimisation that has historically prevented the full involvement of the offshore workforce. In order to provide an insight into the worker/management

² Cost Reduction Initiative for the New Era, a cross-industry cost-cutting programme established in 1993.

relationship in more detail, this chapter will also provide an appraisal of the ways in which the industry involved the offshore workforce in the preparation of safety cases.

Whilst this thesis will argue that the offshore regulatory regime has been shown to be feeble, in terms of the HSE's enforcement of the legal duty of care upon operators, and vulnerable to de facto deregulation, the concluding chapter builds upon the argument presented in chapter 5 that this process was far from inevitable. A weak regulatory regime will be revealed not as the inevitable response to a relationship between capital and the state which has been balanced in favour of the former, but as a particular outcome of the class struggle for hegemony. It is this analysis which provides the context for a commentary upon the future for the regulation of offshore safety in the concluding chapter.

It is hoped that this thesis will make a contribution to the literature within one particular academic sub-discipline: the sociology of health and safety at work. Consequently, this chapter will provide an overview of the significant work in this area, and identify how this research project might relate to the existing literature.

Chapter 1: Locating the Thesis in Existing Literature

This chapter presents a selective literature review of the research which has formed a basis for this inquiry. In doing so, the chapter starts by providing an review of health and safety research in the UK over the past twenty five years. It then goes on to review some of the key literature which has examined worker safety in the UK offshore oil industry. The chapter concludes by setting out how some of the issues raised in this literature review have influenced the approach taken in this thesis.

Twenty Five Years of Health and Safety Research in the UK

One of the most striking facts about research on health and safety in the workplace is that there is very little work which has emerged from a sociological tradition over the years (Grunberg, 1986, Pearce and Tombs, 1996a). In 1975, Nichols had noted that:

"....aside from newsworthy events like the Flixborough explosion of 1974, safety is rarely an important public issue. Industry on one count, spends a mere 0.05 per cent of its R & D budget on research into safety at work. The fraction of energy expended by British sociologists is of a not dissimilar order."

(217)

Nichols' comments on the brief focus of public attention to workplace safety could equally be applied to the Piper Alpha disaster. Scrutiny of any broad sheet newspaper on any day of the week is likely to reveal at least one article which reports on the fortunes of one oil company or the other, on the projected revenue of the industry, estimated reserves in the UK continental

shelf, or on exploration and drilling finds. Articles in national newspapers which comment upon the safety record of the industry since the Piper Alpha disaster are few and far between.

With reference to the work of sociologists on health and safety, the situation has certainly not improved in any dramatic fashion in recent times (Fagan, 1995, Tombs and Pearce, 1996). Indeed, Fagan has noted that this gap is showing little signs of being filled, since research on health and safety isn't covered anywhere in the social sciences,

"in any adequate, analytical sense, and has thus been denied the chance to make a significant contribution to our understanding of the relationship between the state and citizen in contemporary society." (1995: 3)

This thesis seeks to contribute to an understanding of this relationship, and of the relationship between capital and the state, in the context of an extended case study of the UK offshore oil industry.

Whilst there has been a huge gap in the existing literature left by the lack of sociologists committed to working in this area, this is not a criticism that can be made against psychologists. Yet the contribution made by psychology has been problematic. As Nichols has pointed out:

"....of all the social sciences, it is psychology that dominates research into industrial accidents, and, of all the researches conducted by social scientists, few can rival that essentially asocial and mechanistic approach by some research to be found in this field" (1975: 219)

The importance of Nichols work to researchers of workplace health and safety in trying to escape the inadequacies of a 'forensic' analysis (Nichols and Armstrong, 1973 and Nichols, 1975) is undeniable. Steve Tombs has continued firmly in this tradition, arguing:

"...it is the task of sociologists, amongst others, to elaborate upon the specific ways in which accidents (and ill-health) are largely rooted in organisational features of the workplace and workplaces, rather than the behaviour and attitudes of "deviant individuals", that is, workers." (Tombs, 1988: 248)

The following sections in this chapter are aimed at providing an overview of work on health and safety in this country which has attempted to escape the "asocial and mechanistic approach" described by Nichols.

The Health and Safety at Work Act 1974

It is perhaps appropriate to start this literature review at the beginning of the 1970s, since this period was one of crucial significance to the regulation of worker safety and health in the UK. The Robens Report into health and safety at work (Robens, 1972) established a new philosophy that was to underpin the most significant change in health and safety law in recent years, the 1974 Health and Safety at Work (henceforth HASAW) Act . The HASAW Act a revised legal framework which encouraged employers to maximise safety standards voluntarily. It was envisaged that employers, employees and the regulator would work together to achieve this goal. This new approach was to be overseen by a new national regulatory authority, the HSE.

Until this period, the only sociological research of note in the field of health and safety at work had been Baldamus's studies of 'accidents' at work, (1969, 1971) (with its theoretical basis to be found in Merton's anomie theory 1938, 1968), and Carson's analysis of the development of the factories acts and the work of the factories inspectorate (1970 and later, 1974). This is not to underestimate the importance of these studies. Nichols notes on the work of the former, that "It is even possible that Baldamus's work may have played some part in changing the definition and analysis of accidents used by the Factory Inspectorate itself." (1975: 218) Carson's insights into the regulation of health and safety are important texts in the sub-discipline of corporate crime, since he seeks to place the discussion of health and safety law in the context of debates around the role of legal processes, and the criminalisation of corporations. These texts also formed the basis for his study of the offshore oil industry discussed below.

The Robens Philosophy

Whilst sociological research upon health and safety at work remained relatively sparse through the 1970s, the Robens Committee Report and the subsequent HASAW Act (as is noted above) did stimulate some interest amongst academics (for example, Nichols and Armstrong, 1973, Nichols, 1975, Atherly and others, 1975, Barrett, 1977 and Beaumont, 1979).

Notably, Nichols and Armstrong (1973) analysis of the Robens Report was highly critical of the approach taken by government and the Factories Inspectorate, and in particular of the direction taken by Robens. Nichols and Armstrong revealed a deep-seated lack of understanding of the social and economic context for accidents at work on the part of the

Robens Committee. The committee's obsession with the problem of 'worker apathy' led them to assert that "the greatest obstacles to better standards of safety and health at work are indifference and apathy" (Robens Report, para 46 cited in Nichols and Armstrong, 1973: 9)

Central to the Robens strategy was a reduction of the volume of law governing health and safety. Nichols and Armstrong summed up Robens views on this point:

"In a nutshell, they are saying that too much law encourages apathy. And apathy is what causes accidents at work. If industrial accidents are to be reduced, apathy must be overcome - by reducing the amount of law." (ibid: 8)

This key assumption was important in rationalising a 'self-regulation' approach recommended by Robens which would place more responsibility with managements for the regulation of safety in the workplace, and which intended to reduce reliance upon the legal system.

The committee also revealed a complete lack of understanding of the possibility for worker/management conflicts over health and safety issues. Nichols and Armstrong point out that in the report:

"there is greater natural identity of interest between 'the two sides' in relation to health and safety problems than in most other matters. There is no legitimate scope for 'bargaining' on safety and health issues...." (Robens Report para 66, cited in Nichols and Armstrong, 1973)

Noting a key point made by Robens, that "The best managements are in no need of persuasion or pressure. The problem is how to raise the general level of interest to the standards of the

best firms" (Robens Report, para 72 cited in Nichols and Armstrong, 1973: 9), Nichols and Armstrong set out to test some of the key assumptions made by Robens, by examining five accidents in a factory. This factory was one in which the authors expected to see an above average safety performance, since it was, "run by one of the most progressive managements in the country" (Nichols and Armstrong, 1973: 11), a workplace where management's motto was "Safety before Production" (ibid: 20)

Their study revealed that all five accidents occurred when workers were acting to maintain or restore production. Furthermore, the accidents have to be understood within the context of a productive system which meant:

1. Workers would have to make up for lost production.
2. Workers were under pressure from foremen to keep production going.
3. Production targets were linked to a bonus system

On the latter point, productive regimes that link output to wages have long been considered dangerous, since they provide an incentive for unsafe working practices (Marx, 1977). A case in point is the inherent dangers associated with piecework (see Wrench and Lee, 1982). In Nichols and Armstrong's study, "Risks were taken, not because men didn't care whether they took them or not, but for a very definite reason - to keep up production." (1973: 21), and dangerous situations were "Created, in short, by the problem of production, not by a problem of apathy." (ibid: 21)

For Codrington and Henley (1981), the major problem in the Robens approach was that it was founded upon a "partial analysis of the costs associated with health and safety" (ibid: 301)

which does not adequately account for the true costs of accident prevention and ignores the tendency that:

"the management decision as to whether to implement appropriate preventative measures is ultimately governed by consideration of the costs of such provisions and how far these can be borne without conflicting with the priorities of profitable production." (ibid: 301)

More recently, Cutler and James' (1996) critique of the HSE document, the Costs of Accidents at Work (1993) argues that the HSE view that good safety practice is always cost effective is flawed in that it does not recognise that a 'safe system' will always be vulnerable to operational (or productive) pressures (the key reference for Cutler and James here is Nichols and Armstrong, 1973). The logic of the HSE's view is that the main purpose of the HSE should be to educate employers that it is in their financial interests to improve safety standards. This has implications for the HSE's regulatory strategy which might mean not only that prosecution will continue to be used as a last resort, but also that "enforcement activities could be viewed as virtually redundant." (Cutler and James: 765)

By using their empirical study to demonstrate that many of the assumptions made by Robens were completely misguided, Nichols and Armstrong (1973) exposed the conceptual weaknesses of an approach that was to underpin the most significant change in health and safety law in recent years. Particularly important points are made in this respect about the relationship between the committee's conviction that apathy was the root of the problem and their acceptance of the view that "safety is mainly a matter of the day to day attitudes and reactions of the individual." (Robens Report para 13, cited in Nichols and Armstrong, 1973)

After conducting a detailed description of the systematic nature of accidents at work and the particular dangers inherent in the productive process, what is referred to as the "homespun psychology which informed the report" (ibid: 8) makes the Robens Committee look particularly naive.

Solicitor Anthony Woolf, writing in 1973 also questioned Robens assumptions on apathy, arguing that: "if they are false, as I believe them to be, the role envisaged by Robens for law and order enforcement will itself have to be examined." (89) Woolf points out that the weakness of Robens philosophy is principally located in its inability to grasp that:

"nearly all accidents are the inevitable result of unsafe working systems which could themselves be made safe by the employers, by a combination of hazard analysis, planning, training and supervision." (ibid.: 90)

He cites a survey of two thousand accidents published by the National Institute of Industrial Psychology in 1972 to support his case. The survey revealed firstly, that "risks were so much an integral part of work systems....that the more work done, the more accidents occurred." Secondly, "that the risks which accompanied each task were specific and could be changed by changing details of the task." And thirdly,

"that people reduced their accident rate by gaining experience i.e. they learned to avoid risks. But this experience was also highly specific and became blurred after time spent on other tasks." (ibid.:90).

In this context, for Woolf, virtually every 'accident' in the workplace could be understood as resulting from a breach of the employer's common law duty. Furthermore, the Robens Committee's inability to understand this point meant that the proposed legislation would change this common law duty to a statutory duty. Yet, Woolf argued, without a much larger regulatory authority, and a stricter enforcement policy than that followed by the Factories Inspectorate, employers would continue to escape punishment.

Forensic Analyses of Accidents at Work

In 1975, Nichols returned to some of the issues raised in the earlier piece co-authored with Armstrong and expanded upon the dangerous influence of psychological and individualistic explanations of workplace accidents. In this essay, Nichols uses the same five accidents and again systematically demonstrates the problem of production to describe the weaknesses of a 'forensic' approach which locates explanations for industrial injuries in particular personality traits and failings of individual workers.

Latterly, contributions on this point have been set out by Sass and Crook (1981) and Tombs (1991). The focus of Tombs's piece is the "ideology of accident proneness" (ibid: 59) which allows the blame for most industrial accidents to be placed on operator error, and creates the myth of the accident prone worker. This ideology is convenient because it allows victims to be blamed and managers to deflect criticism and escape sanction. Tombs uses this argument to call for managements to progress "from its location within a managerialist problematic to an organisational one." (ibid: 73)

A misplaced focus on the worker as an individual is also Tombs's starting point for his 1988 article which examines the "impoverished" theory of worker autonomy and the dangers of eulogising the small firm as a safer employer. Tombs argues that despite contradictory evidence from one study (Hopkins and Palser, 1987) the smaller firm is no more likely to be a safer employer, since trade union organisation tends to be weaker in smaller workplaces. Given the lack of research on safety and the size of the firm at the time, Tombs's theoretical argument deserves much credit. Subsequently, his position has been strengthened by the findings of some empirical research. For example, Nichols has more recently developed work with colleagues on the relationship between the size of employer and injury rates (Nichols and others, 1995). Using data from the Workplace Industrial Relations Survey, the authors explain why previous evidence from the HSE (1987) is inconclusive and shows that the data points to a significantly higher injury rate in smaller establishments.

The work conducted by Nichols and Armstrong in the 1970s is also notable for its treatment of the place of regulation and the role of the state. This work was conducted at a time when sweeping changes to the regulation of health and safety were about to be ushered in by the HASAW Act and subsequently, by the Safety Representatives Regulations. By pointing out that worker organisation, productive demands and the wider political economy would remain the dominant factors in the struggle for health and safety rights, Nichols and Armstrong established a tradition of research that warned against us viewing legislation and regulatory strategies in isolation from other factors, or as a panacea for all ills. As Tombs was to argue later:

"There are a whole series of influences upon injury and death rates which extend far beyond regulatory agencies and the law....Not least amongst these factors are the following: the relative powers of capital and labour at various levels; the nature and extent of pro regulatory or opposition forces; levels of, and trends in, unemployment, trends in labour markets and employment patterns....; the nature of, and changes in, contractual arrangements and methods of payment; corporate and organisational restructuring; and the introduction of new technologies and new forms of work organisation..." (1996: 310)

However, changes in legislation and the regulatory structure in the 70s, and changes in government regulatory strategy were to place unavoidably issues of regulation and the role of the law at the centre of research agendas of academic inquiry into health and safety in the 1980s and 1990s. Not least of these changes was the introduction of the HASAW Act in 1974 which established the principle of self-regulation as central to the new health and safety regime in the UK. Whilst Nichols and Armstrong acutely predicted some misconceptions and practical problems endemic to the Robens philosophy upon which the act was based, it was not until 1988 that a comprehensive assessment of the impact of the Act had been published. This work, titled 'Safety at Work: the limits of self regulation' (Dawson and others, 1988) is thus a key text in the literature. Dawson and others use three case studies (Chemicals, Construction and Retailing industries) and an in-depth examination of the role of the regulatory institutions, the Health and Safety Commission (HSC), the HSE, the Factories Inspectorate and Environmental Health departments, to measure the effectiveness of the HASAW Act and the new mechanisms of self-regulation. The authors conclude with four points:

1. Self regulation can only be effective if regulatory agencies are adequately resourced and backed up by strict enforcement.

2. General government policies of deregulation will prevent and cause a deterioration in effective self regulation.
3. As a key measure of the performance of self regulation, published accident statistics indicate a failure of the new system.
4. This failure is particularly apparent in "sectors characterised by small firms, subcontracting, low pay, weak trade unionism and productivity improvements." (ibid: 268)

Moreover, these points are underpinned by the assertion that Robens' reluctance to establish excessive external enforcement or legislation for fear of encouraging 'apathy' was misplaced:

"A more significant fear, it has transpired, is that without it being 'forced' on them, many people will simply not think about safety at all, until direct contact with death or serious injury temporarily reminds them to take care....the basic requirements for local self regulation of knowledge, capacity and willingness to act will only be generated and maintained if those involved are held seriously to account for their performance in health and safety." (ibid: 268)

Consequently, the first major assessment of the implementation of Robens and the HASAW Act charged the new philosophy of self-regulation with failing to protect workers from deteriorating safety standards and increasing industrial injuries and fatalities.

Dawson and others were, however, careful to note that while the system of safety committees were a crucial component of effective local regulation, considerable barriers existed to the effectiveness of the system in non-unionised workplaces (ibid: 277). The relationship between strong trade union organisation and health and safety performance, crucial to discussions relating to the system of offshore safety representatives in subsequent chapters, is a central

concern of those researchers who have examined the impact of the Safety Representatives and Safety Committee Regulations.

Worker Involvement in Safety

Beaumont (1979) has pointed out that prior to the HASAW Act and the subsequent introduction of statutory safety committees, formal union participation in health and safety was not particularly widespread: "In Britain, collective bargaining over health and safety matters has occurred in only a few special cases." (ibid: 6) Health and safety matters tended to be covered by informal or localised agreements: "There is some evidence that health and safety questions have figured quite prominently in the bargaining activities of shop stewards." (ibid: 7) Beaumont predicts that although the new safety committees were likely to remain consultative fora, collective bargaining over health and safety was likely to be expanded due to the legal rights of information and inspection afforded under the HASAW Act.

Later work by Beaumont and his colleagues on the impact of the system of statutory safety representatives (Beaumont and others, 1982 and Beaumont and Leopold, 1982) presented findings from a survey of 51 workplaces which showed that (according to management and workers representatives) the committees were considered to be broadly effective. The survey indicated that the committees were indeed acting as largely consultative bodies. A clear example of this was that they would rarely be able to take decisions which involved "large" sums of money. But perhaps more significantly, they found communication between workers and their representatives on the work of the committees to be unsatisfactory in comparison to other trade union matters. In attempting to explain this phenomenon, the authors argue that

local union representatives and their members are less concerned with acting to improve health and safety conditions than other conditions of work (see table in Beaumont and Leopold, 1982: 280). The authors also point out that Department of Employment figures indicate an unwillingness on the part of workers to take industrial action over health and safety. An explanation for this has echoes of Nichols (1975) description of 'forensic' understandings of accident causation:

"the majority of employee representatives and the vast majority of employer representatives believed that in general accidents were caused by carelessness on the part of the individual worker....If the person who takes on the post of safety representative believes this, and further believes that they personally are not careless, then an elitist, paternalistic attitude towards the rest of the workforce as a whole can develop." (Beaumont and Leopold, 1982: 281)

Yet, in describing this particular barrier to effective representation as a problem which can be located in the attitudes of individual safety representatives, the authors expose themselves to criticism for adopting an individualist rather than collectivist analysis. A concluding comment that: "There is some evidence from the safety committees that they can be and sometimes are being dominated by senior managers and technical experts" (ibid: 282), alludes to problems which may be inherent in the character of employee/employer relations in the workplace, and one wonders if this research might have been more fruitful if the impact of unequal power relationships on safety committees had been more fully explored.

Other observers have used analyses which place the power relationship between workers and managers at their core. Glendon and Booth (1982) point out: "the degree of management support or opposition to worker participation is likely to be an important factor...." (ibid: 23)

and "it remains the case that economic and business criteria are crucial factors in shaping the degree of participation in health and safety." (ibid: 23) Their assessment is that: "Safety committee operation as an effective method for significantly improving health and safety in Britain remains to be proved." (ibid: 22)

Codrington and Henley (1981) argue that workers are ultimately seen by the Robens committee as the subjects of a new safety regime who must accept responsibility for taking precautions and complying with safe working practices:

"Encouraging workers to obey safety rules and to be cautious in hazardous situations seems unlikely to alter construction workers priorities, since it leaves unchallenged the methods of working which give rise to and encourage unsafe working practices." (ibid: 303)

It was this point that the authors argued was the key to understanding the context for a number of problems associated with the new system of safety committees in the construction industry.

Particular concerns focus upon:

1. An over cautious approach on the part of the HSE, whose inspectors are reluctant to enforce SRSC regulations unless asked to do so by the trade unions or safety representatives.
2. The fragmented trade union membership and organisation on construction sites, and related casualisation of the workforce leaves many safety representatives with "very little power or authority." (ibid: 308) The regulations are "effectively confined to those who are, arguably, least likely to need or rely on such legislative provisions." (308)

The former point is illustrative of the same effect to that identified by Nichols (1986) when he refers to "structures of vulnerability" This concept shows how more vulnerable groups of workers (for example, casualised or non-unionised workers) suffer disproportionately greater dangers at work because of their vulnerability within the social relations of production. Work by Lee and Wrench (1980) which examined the popular claim that migrant populations experience higher rates of industrial injury because of language difficulties, cultural differences and poor communication with workmates is revealing here. They found that, contrary to popular belief, migrant workers were exposed to greater danger in the workplace because they "were represented in the more dangerous work and this alone led to the higher accident rates for these workers." (Wrench, 1996: 4)

Coddrington and Henley characterise the process of safety management in construction sites as a struggle between workers (using the formal recognition to influence this process granted by the HASAW Act) and managers' assertion of the right to control methods of work. Their conclusion is that the HASAW Act can only bring improvements in safety conditions for construction workers where they are organised in trade unions. This point is significant since safety issues tend to be resolved through collective bargaining and not through consultation. This point is made in contrast to the principle underpinning Robens that safety was a matter for consultation, and that employers and employees will both seek improvements in health and safety conditions, since health and safety was not a matter where there was no conflict of interest between employers and employees. As Barrett noted, some academics had argued that "the distinction between negotiation and consultation was obsolete" (1977: 177). For her, this was an indication that the law may not offer enough protection for some workers:

"...the fact that the law requires the employer only to consult with his employees over safety will not prevent employees making such an issue a matter for negotiation, and even the subject of industrial action." (ibid: 178)

The lack of trade union organisation in the construction industry also lead Codrington and Henley to be pessimistic about prospects for improving conditions on sites even if safety matters were to become assimilated into the bargaining process. They make the point that poor standards of safety may even be legitimised by weak safety monitoring structures. The argument here is that employers can point to their safety committees for evidence of their concern with safety matters and fulfilment of legal obligations, but at the same time, poor trade union protection may marginalise workers within these structures. This is an important point that will be returned to in detail in later chapters in the context of the offshore oil industry.

Latterly, the work of David Walters and colleagues has established a positive link between strong trade union organisation and the effectiveness of safety committees in improving safety performance in the UK (Walters and Gourlay, 1990), and also in comparative research in Europe (Walters and others, 1993). This point, generally applied in relation to employers health and safety performance is commonplace in the literature (for example, Caldwell and others, 1980, Clutterbuck, 1980, Walters, 1993). Indeed, according to Nichols (1990), it was the comparative strength of the trade union movement in Britain in the 70s and not the HASAW Act per se which was the key factor in improving the safety performance of British industry.

One particularly well established aspect of the positive intervention of the trade unions has been the delivery of TUC and individual union organised training for safety representatives (see Department of Employment, 1978). Woolfson (1995a) notes that two hundred thousand safety representatives have attended TUC organised training courses. Woolfson notes that safety representatives training has become increasingly more important,

"at a time when modern safety management requires that workforce representatives have more extensive and sophisticated training if they are able to make a contribution in the form of independent audit of increasingly complex safety assessments." (ibid: 31)

A study by Walters (1987) of the printing industry also demonstrates that the understanding and commitment of safety representatives of health and safety matters is crucial to effective safety management. Yet these are factors that trade unions are intimately involved in, since they are:

"...most closely associated with experience of [trade union] training in health and safety and, to some extent, [training] is therefore associated with employers' willingness to honour the representatives legal rights of time off." (ibid.: 48).

Despite in a major set back in 1995 when the government grant which supported TUC training for safety representatives was abolished, and despite a series of deregulatory and anti-trade union pressures, the TUC have sustained this role as major training providers (Nichols, 1997).

Regulating Safety and Strategies of Enforcement

In her examination of the impact of the Robens philosophy and the HASAW Act on the regulation of health and safety in the workplace, Hutter's 1993 piece focused upon Robens' "emphasis upon employees as participatory rather than passive agents in the workplace" (Hutter, 1993: 452) and the Act's twin objectives in this respect: firstly, that employees be involved in consultation processes over health and safety matters; and secondly that health and safety inspectors were to devote their attention to employees as well as employers (prior to the act, inspectors were expected to deal with employers exclusively) and a that a tripartite system of health and safety regulation should evolve.

Hutter's study of the implementation of the new regulatory regime by two inspectorates, the Factories Inspectorate and the Railways Inspectorate found that whilst contact between inspectors and managers remained high, the higher level of contact between inspectors and workers than was evident prior to the introduction of the HASAW Act had not been achieved. The importance of higher level of contact between inspectors and workers had been stressed by Robens. For Hutter, one problem lay in the co-operative, accommodative approach taken by inspectorates to seek employers compliance with the legislation. This had the effect of excluding workers from the process: "Not only have those enforcement relationships tended to be bipartite, but their consensual nature had not easily allowed for the introduction of the employee/employer relationship." (ibid: 465) Thus, "the traditional separation of occupational health and safety issues from industrial relations has doubtless proved another obstacle to the implementation of the Robens recommendations" (ibid: 465).

Although Hutter does not specifically identify inadequacies in the Robens philosophy, this piece of work identifies endemic problems in the system of health and safety inspection based on a 'compliance strategy'. As part of the Oxford Centre for Socio-legal studies, the work of Hutter and her colleagues³ had, in contrast with Hutter's article discussed above, the effect of providing a rationale for regulatory agencies to "act as consultants rather than policemen" (Pearce and Tombs, 1990). The principle theoretical theme of this work was that the most effective way to ensure compliance is by a co-operative, non-adversarial approach, and in this way employers had to be encouraged to comply with their legal duties. This, of course is an approach which is very much in line with Robens philosophy. The main arguments in this thesis are perhaps best summed up in a debate between Hawkins (1990 and 1991) and Pearce and Tombs (1990 and 1991) conducted in the pages of the British Journal of Criminology.

Hawkins's arguments are concerned with protecting the relationship between the regulator and the regulated. It is his contention that "the regulatory agency needs the co-operation of regulated business" (Hawkins, 1990: 458) for a variety of reasons. Not least of those reasons is the dependency of the regulatory body upon the regulated to provide specialised or unique information about plant hazards, and warning/reporting of incidents as soon as they happen, to enable repair work to be done quickly. If regulators seek to pursue a more punitive approach, they may lose the co-operation of those they regulate and damage the possibility of effective regulation. So, for example,

"One consequence of a more punitive enforcement strategy might well be to imbalance this relationship and lead to businesses withdrawing their co-operation to some degree which in turn might perversely

³ For a summary of the Centre's research agenda, see Centre for Socio-legal Studies, 1983; for examples of work that emerged from the centre, see Hawkins, 1983 and 1984, Hutter, 1986, and Richardson and others, 1983

lead to an increase in the incidence of the events and problems which the regulatory agency is trying to control." (ibid: 458)

Hawkins's reasoning is also related to the assumption that corporate violations are committed by a minority of 'bad' apples. For Pearce and Tombs, the problem lies much deeper than this. Their critique of the compliance school has at its centre a key point on the theorisation of corporate behaviour: that corporations are amoral calculators. Thus,

"...the claim that certain corporations can do anything other than attempt to maximise long term profitability is theoretically untenable. Even if a corporation wished to act with a primary commitment to social responsibility, this would entail ignoring the very rationale of the corporation and the nature of the existing economic system." (1990: 425)

What is important for Pearce and Tombs is that regulatory strategies must be considered within this context. The poverty in the analysis of those who promote compliance strategies lies in the assumption that we should expect corporations to attempt high standards of behaviour simply because it is in the long term interests of the corporation to do so.

For example, it is claimed by the compliance school that most organisations are:

"guided by some conception of long term interest. They are concerned about their reputations in the market place, maintaining smooth labour relations, preventing lawsuits, and avoiding the stigma of being labelled a socially irresponsible lawbreaker" (Bardach and Kagan, 1982 quoted in Hawkins, 1990: 458).

In other words, a type of 'enlightened self interest' will act to prevent violations of the law.

This analysis rests upon the assumption that organisations are highly logical, rational thinkers. Of course, in the sense that organisations have highly logical and rational goals, and present themselves to the outside world as logical and rational, this is true (Pearce and Tombs, 1997). In the context of the arguments proposed by the 'compliance school', the assumption that organisations are 'rational' actors establishes (theoretically at least) the potential for organisations to act 'morally'. For Pearce and Tombs, the issue of whether corporations act rationally and morally or not in this way is somewhat redundant, since: "...there are no coherent reasons in support of the claim that corporations can act according to a rationale other than profit maximisation..." and it is

"...crucial to understand the particular economic, political and legal conditions within which such calculations are made, so that the balance of class forces in particular and the extent and nature of other external pressures upon corporations in general must be taken into account." (86).

Thus, arguments which attribute corporate violations to the minority of 'bad' apples or to immoral/deviant behaviour miss the point somewhat (for another version of this position, see Braithwaite and Fisse, 1983). As we have seen earlier in this chapter, in the context of the Robens approach, such analyses do not take account of the tendency of organisations to change strategies, to cut expenditure on health and safety, or to intensify productive demands under certain market conditions. A common symptom of this is that corporations are pushed, by market pressures, into committing criminal acts (violations of health and safety law). In many cases, such strategic changes may even be essential to the very survival of the

organisation in question. Therefore, it is perhaps a little naive to talk of controlling the behaviour of a minority of bad apples, when as Pearce and Tombs argue, the problem is rooted in the structure of capitalist social relations.

A related theme (that the regulation of safety cannot be separated from the external pressures of the market) is one which has been the focus for a significant body of research in the early nineties. This literature is reviewed in the following section.

A Critical Agenda

A significant part of 'critical' work on regulation and the role of the law has, perhaps unsurprisingly, emerged from the trade union movement, workers' organisations and pressure groups (Foley, 1990, Bergman, 1991 and 1994, Dalton, 1991, Moore, 1991, James, 1993 and Woolfson, 1995a). Woolfson examines the extent to which the deregulation programme followed by successive Conservative governments has had the effect of dismantling the UK system of health and safety protection for workers. He outlines how a series of attacks on the HSE, including: "imposed budgetary cuts, market testing, reduced inspections and a staff recruitment freeze" (1995a: 16), together with a generalised weakening of enforcement strategy, have significantly reduced their ability to act as regulators. Moreover, the DTI's deregulation initiative has had the direct effect of undermining the legal standard of 'reasonable practicability', the standard of safety provision all employers have to ensure.

The author argues that despite this rather depressing picture which has taken Britain close to a "health and safety regime that owes more to laissez-faire 19th century attitudes on the part of

employers." (ibid: 32), the government has been unable to launch a "full scale legislative assault." (ibid: 2) Thus, Woolfson argues, it is now possible for the trade union movement to argue for a different agenda: "one that demands that employers take more, rather than less, responsibility for the welfare of their employees and that where they fail to do so, they should suffer appropriate penalties." (ibid.: 2)

Similarly, Dalton's 1991 pamphlet sets out a campaigning agenda for workers and their trade unions which draws on a growing body of empirical evidence on workplace hazards and places this within the political context of Conservative governments' concerted deregulatory strategies. For Dalton, a particularly useful focus for the struggle for health and safety rights has been Europe: "It is very doubtful whether we would have had any major new health and safety law in the UK in the past ten years had we not been a member of the European Community." (1991: 20)

James's work on the European legal dimension also argues that Europe has proven a relatively positive force for the securing of health and safety rights in the UK. He points out that article 118A of the Treaty of Rome (which gave the European Commission authority to take action in respect of health and safety matters) has

"undoubtedly encouraged a dramatic increase in the scale of EC legislation on health and safety at work, both in terms of the number of proposals put forward and the speed with which these have been adopted." (1993: 5)

However, the author does note that some member states have seen a deterioration of their own national standards since EC harmonisation can have the effect of driving standards down as well as up. This is not a problem for workers in the UK who have endured lower standards than their European counterparts, but, it is argued, workers in countries such as Denmark and Germany have suffered due to "downward harmonisation." (ibid: 7)

Another significant development is the emergence of the Framework Directive for the harmonised statutory system of health and safety regulation. Although the Framework Directive is likely to introduce more specific duties and standards that employers must comply with, and should be welcomed, there is little provision for the enforcement of these regulations. The varying standards of health and safety protection and enforcement between European member countries, and the fact that the UK record on enforcement is actually better than some other member states means that it is unlikely that the Commission will bring proceedings against the UK government for a lack of enforcement. This leads us to the conclusion that:

"...the UK need not feel under any obligation to improve the resources available to the HSE for enforcement, despite the fact that inspectors are in the process of acquiring a vast new body of law to enforce as a consequence of the Framework Directive itself and the various directives adopted under its umbrella." (ibid: 33)

Thus, James also proposes a campaigning agenda which focuses upon weaknesses associated with the enforcement of legislation and includes demands that: companies disclose certain types of health and safety information; an EC directive on enforcement of health and safety law be passed; workers' involvement in health and safety at a workplace level be strengthened;

funding for the HSE should be increased; and raising the punitive measures used against those employers breaching health and safety law.

The penalising of employers for breaches of health and safety law is the central concern of Bergman's work (1991 and 1994). He concentrates on the failure of the legal system to bring successful prosecutions in cases where workers are killed in the workplace. In his first report (1991), Bergman's starting point is that, according to the HSE, over 70% of workplace deaths are the fault of management, yet,

"this violence is rarely defined in the vocabulary of the criminal justice system. No criminals are caught; workers are never considered the victims of assault, battery or manslaughter, but simply of 'accidents.' There are no police investigations, no crown court trials, and no sentences of imprisonment in such cases. Companies only have to face an inspector from the HSE, a half hour hearing in the magistrates court (sandwiched between petty offences of shoplifting and pub brawls) and a fine of a few hundred pounds. Such prosecutions are scarce in any case." (1991: 3)

Bergman documents in detail numerous cases of workplace deaths, and in doing so, exposes deficiencies in investigation and prosecution policy and practice and inquest procedure which have:

"allowed companies and their senior officials - however reckless they may have been, and whatever injuries they may have caused - to escape the reach of the criminal law and the consequences of being defined 'criminal.'" (1991: 5)

The same author's 1994 report develops arguments around the particular difficulties in bringing the charge of corporate manslaughter against negligent and reckless employers. Again, Bergman draws attention to deficiencies in the investigation and prosecution of companies under existing law, analysing in detail a number of cases of deaths at work where there was sufficient evidence either to charge a senior manager with the crime of manslaughter, or to justify an immediate police investigation. Neither of these remedies were used in any case. This evidence allows Bergman to argue for a number of reforms to the criminal justice system. Those include: the creation of new offences relating to health and safety crimes, amendment of the crime of corporate manslaughter to allow for aggregated responsibility, and the introduction of tougher sentence measures.

Foley uses a similar approach to that of Bergman in drawing attention to problems faced by workers, their families and legal representatives in attempts to bring cases against reckless and negligent employers in the building industry. The author conducts a study of the industry which assembles qualitative and quantitative data and argues that because of the fragmented organisation of work on building sites, poor health and safety performance has long been established as a consequence of sub-contracting in the industry (Mayhew and Quinlan, 1997), and the fact that building site 'accidents' are not deemed newsworthy, the massive scale of avoidable deaths and injuries is largely hidden from the public eye.

Foley locates the main obstacles to achieving safer building sites, not only in bias in the law, legal procedures and legal institutions, but also in the widespread casualisation of the workforce who remain unprotected in an industry which is particularly prone to 'corner-cutting': "Since a building firm's biggest variable cost will be labour, it is not surprising that

companies seek to push their workers as hard as possible and are tempted to cut corners on safety." (1990: 4) Thus,

"the deterrent effects of such [corporate manslaughter] prosecutions, particularly if they lead to the imprisonment of negligent employers, would be considerable. But a reform of the building industry itself is needed to make building sites safer places in which to work." (ibid: 23)

This location of the problem of ensuring employers comply with health and safety duties within the way in which building work is organised has similarities with Moore's contribution to the literature (1991). Moore examines the creeping casualisation of the organisation of work in a number of industries and, in the context of a deregulated economy and the reassertion of the supremacy of the market, describes the result as "cash-nexus carnage." As many before him did (for example, Nichols and Armstrong, 1973, Carson, 1981), Moore sees the intensification of increasingly unfettered markets as the greatest threat to the health and safety of workers:

"Apparently, when it comes to the disbursement of harm, the market does not discriminate. Rather, the blind pursuit of self interest and the fetish of 'competition at any price' has a universal cost in safety terms; and importantly a negative welfare outcome, as workers and the public alike bear the cost burdens of falling safety standards and attendant increases of risk." (1991: 25)

Safety and Business Cycles: revisiting the Nichols/Tombs debate?

The point that the 'market' cannot effectively control dangers in the workplace is, perhaps unsurprisingly, a key point in the contributions made by trade unions to the debate, and, of course, it is a point that we can find central to the thesis of Nichols and Armstrong (1973).

However, there is a lack of research which looks at the processes involved in the relationship between external political and economic conditions and their impact upon health and safety in any great detail (Grunberg, 1986).

Leo Grunberg's work published in the 1980s (*ibid.*; 1983) is one exception to this. In these papers, which used comparisons between two Chrysler plants, one in Poisy, France and one in Ryton, England, he found that labour-management relations at both plants were crucial to safety performance. Yet changes in the external political economy (such as high unemployment and government attacks on shopfloor power) played a determining role in levels of work intensity and safety performance. In other words, when the social relations of production changed to weaken labour, this markedly increased the dangers faced by the workforce. Thus, he argued that left governments, where they had the effect of strengthening labour, could make meaningful interventions which would improve safety in the workplace. But, for Grunberg, policy directions taken both French and British governments were also ultimately "circumscribed by cyclical and structural economic conditions." (1986 : 521)

It is these conclusions that provide a context for a debate between Nichols and Steve Tombs. This debate, conducted in the pages of the *Sociological Review*, has been described by one observer as "somewhat acrimonious" (Fagan, 1995: 3). Revisiting the debate, it is difficult to see exactly why it was acrimonious.

The origins of the debate are to be found in a paper published by Nichols in 1986 where he began to raise questions about the relationship between the business cycle and injury/fatality rates. Here, Nichols set out two possible broad relationships based upon the assumption of the

'intensification model'⁴: 'intensification A' (which predicts that during economic downswing, labour becomes weaker and managements deprioritise demands for safe working) and conversely 'intensification B' (which predicts that since managements may be unable to shed labour at the rate of decline in productivity, productive demands upon workers may actually be reduced and thus injury rates reduced). Consequently, intensification A suggests that higher injury rates are likely during periods of economic downswing whilst intensification B suggests the opposite.

The investigation into cyclical business rate trends and injury/fatality rates is pursued in a later article (Nichols, 1989). Here Nichols outlines the arguments of an American researcher whose work in the 1930s and 1940s (Kossoris, 1938 and 1943) provides evidence for an intensification B-type argument. Although Kossoris', and indeed Nichols', argument is more complex than the intensification B thesis, both argue that there is a pro-cyclical relationship between the business cycle and industrial accident rates. Furthermore, using quantitative data, Nichols shows how fatality rates (as opposed to the more problematic and less accurate major and minor injury rates) have a close positive correlation with employee engagement rates (which Nichols argues "happen to tally well with the conventional periodisation of the business cycle." (Nichols, 1989: 544).

The response (Tombs, 1990) can be crudely summarised as follows: Falling injury rates in the UK between 1975 and 1979, a period of relative economic boom and labour intensification, reveals a contradiction in Nichols argument, and that this can be explained by considering "the particular strength of organised labour in Britain during much of the seventies, and the

⁴ Nichols's intensification model was based upon the assumption that a weakening of labour would lead to an increase in incidents and a strengthening of labour would lead to a decrease in incidents.

particular strength of the subsequent attack upon organised labour from 1979 onwards." (ibid: 326) Furthermore, a reduction in resourcing of the Factories Inspectorate has led to the regulator shifting further from a preventative to a reactive strategy which has, in recent years, been inadequate to stop industrial injury and fatality rates rising, and has, along with a weakening of labour vis-a-vis capital contributed to the disintegration of self-regulation and the onslaught of "de facto deregulation" (ibid: 338). Thus, Tombs argues that the dialectical relationship between tripartite forces capital, labour and the state, is key to the understanding of trends in industrial accidents, and that an approach which focuses upon the significance of the business cycle is inadequate in itself to explain such trends.

Nichols response to Tombs' critique (Nichols, 1991) was highly charged, accusing Tombs of misrepresenting his arguments and of distorting and overstating the significance of the injury rate data used by Tombs. These are important methodological issues for social scientists to confront, understand and debate constructively, but since much of the article is spent responding to a few minor points raised by Tombs's critique, it does not advance the debate particularly usefully. Nichols dismisses the criticism that he has underplayed the importance of the balance of power between capital and labour by referring the reader to his own previous work on these questions (in particular, Nichols and Armstrong, 1973) and by pointing out that he actually cautions the reader in his first (1989) article that : "it does not follow that the level of safety in factories is unaffected by the balance of power between labour and capital or by the extent to which the state protects, or attacks, labour..." (Nichols, 1989: 547). Yet, in his 1989 article, by focusing his discussion almost exclusively on the association between the business cycle and safety, there can be little doubt that emphasis is on cyclical tendencies to the exclusion of other factors. Yet in the course of this debate, Nichols identifies a multiplicity of

problems with using HSE injury and fatality data that are undeniably important as a starting point for any researcher examining incident trends in British industry. And, since this debate he has continued to do so (for example, Nichols, 1994).

The final word on the matter went to Tombs (1992), and, although some important points are introduced in this piece (for example, he points out that the introduction of the Safety Representatives and Safety Committees in 1978 were an important development in the political economy of industrial accidents and would have had an impact on incidence rates, *ibid*: 139), they are obscured by the authors need to respond to some particularly scathing criticisms made by Nichols in his 1991 article.

Thus, some important debates, not only in relation to the nature and significance of the relationship between business rates and industrial accidents, but also in relation to the interpretation and use of official data, were obscured and still remain largely unresolved (Fagan, 1995). The antagonistic nature of the debate between Tombs and Nichols is dispiriting when one considers the enormous contribution both have made to the sociology of health and safety. It is even more dispiriting when one considers that the theoretical heritage of both researchers is firmly rooted in the Marxist tradition. The significance of such debates, often conducted in relatively isolated academic contexts, can be overestimated.

If there is one comment to be made in relation to the Nichols/Tombs debate, it is that many of the important theoretical points raised by the authors were submerged by the bitterness of the debate (and, it must be said, particularly by the bitterness of Nichols' (1991) response to Tombs). Yet, the way in which the debate turned sour is perhaps understandable if we

consider that both researchers have contributed as much as anyone else to a field of study which remains largely ignored by British sociology. And for this very reason, the stakes are raised automatically. That is to say, if relatively few people are willing to engage in these debates, it becomes even more crucial for those who do engage to 'get it right.'

Another Price? the literature on Offshore Safety

With the notable exception of Carson's (1981) classic study, the general observations about the poverty of health and safety research at the start of this chapter could also be applied to the offshore oil industry prior to the Piper Alpha disaster in 1988. In the years following Piper Alpha, there has been a profusion of research work on offshore safety, particularly in the natural sciences, in psychology, and in newly emerging sub-disciplines related to business and management studies such as 'risk management' (see for example, Marek and others, 1987 and Smallman, 1994) 'risk analysis' (for differing approaches, see for example, Blackmore and Shannon, 1995 and Brighton and others, 1995), and the study of 'human factors'⁵ (which draws upon research from the disciplines of psychology and management studies). Collectively, this represents a huge body of work. Yet this work tends, almost without exception, towards an analysis which either focuses on the role, characteristics or skills of individual workers, or the responses of managements to particular 'crisis' situations. That is to say, very little of this work

⁵ The 'human factors' approach to workplace safety analysis is defined by a researcher at the Offshore Management Centre at the Robert Gordon University (now at the University of Aberdeen) as follows: "Human factors as a subject addresses issues regarding safety and accidents at the individual, group, and organisational levels. At the individual level (i.e. optimisation of the human-machine interface), the indicators, signals, controls, alarm systems and visual display units are evaluated. Health risks (such as work overload) and the contribution of human error to the probability of accidents are also of concern. At the group level, the relationships between members of a work group, and between individuals and their supervisors, have the potential to influence the safety of an installation, as does the design of the workplace. Third, at the organisational level, various factors may contribute to an increase in incidents and accidents, including cost-cutting programmes and the level of communication between offshore and onshore management." (Gordon, 1993: 158)

places safety within a structural context. Thus, for example, the labour process is not viewed as important to the safety process, and structural forces such as changes in corporate strategy or government policy tend to be seen as less relevant than the particular actions of individual managers and workers in particular situations.

There are, however, some notable exceptions. One particularly impressive example is the work of safety engineer Elizabeth Pate-Cornell (1993 and 1995) who made a study of the Piper Alpha platform using engineering and organisational perspectives. The author relates the development of design and structural alterations on the platform to the external economic and productive pressures placed on the platform by senior management. The result is an analysis which uses her technical knowledge to understand the particular organisational circumstances surrounding the disaster.

Another exception is the work of Colin MacFarlane, a marine engineer at Strathclyde University. He has produced research which argues that engineering solutions to safety problems are futile without full participation of the workforce in the management of safety (MacFarlane, 1993 and 1995). Unfortunately, however, exceptions to the rule, such as the work of MacFarlane and Pate-Cornell, are few and far between.

It should also be noted at this point that one of the most significant contributions to the literature on health and safety in recent years was actually a study of the offshore oil industry: *The Other Price of Britain's Oil* written by W.G. Carson and published in 1982. Carson set out to document the price paid by offshore workers in terms of injury and death for ensuring the speedy development of an industry which was to make Britain a self sufficient oil exporter and

stabilise the national economy in the mid 1970s just as it was reaching the brink of financial crisis. Carson compared offshore fatality rates with those in the most dangerous onshore industries:

"...the likelihood of being killed in the course of employment on offshore installations operating in the British sector of the North Sea had risen to around eleven times that of accidental death in the construction industry, to nearly nine times that of becoming a fatal casualty in mining, and to nearly six times that of being killed as a quarryman." (1982: 21)

Corresponding fatality rates for those employed as divers were astoundingly high. Carson found that the annual fatality rate for divers in the North Sea was "twenty six times its equivalent for quarrying, thirty eight times the average for mining, and fifty times the comparable figure for the construction industry." (ibid: 24)

Searching for reasons to explain the inordinately high rate of accidents in the offshore oil industry, Carson argues that the popular conceptions of offshore work as inherently dangerous and that "the price which has been paid in casualties is simply the by-product of operations which take place at the very frontiers of technology and in adverse conditions" (ibid: 6) are largely misguided. Chapter 3, 'Images of Danger' is important for its analysis of a series of fatal accident inquiry reports. In this chapter, Carson systematically describes incident after incident in detail and finds that the vast majority of accidents result from relatively conventional causes, that is, the same causes that are commonly found in reports of industrial accidents onshore.

Furthermore, Carson identifies a certain reluctance on the part of the state to deal with this or even view abnormally high rates of injuries and fatalities as a significant social problem. The apparent acceptance of disproportionately high fatalities and injuries in the industry was, within the regulatory system, a result of "the institutionalisation of tolerance" (ibid: 235) He found that a series of legal anomalies, jurisdictional gaps, an alarming lack of resources and general reluctance to enforce legislation on the part of the regulatory authority had to be understood within the political economy of the newly emerging industry:

"...the loopholes which have indeed on occasion been skilfully manipulated often have a more substantial aetiology than inadvertence...no small measure of chaos was added to the problems of enforcement by the fact that the regulation of safety was conceived largely within the broad context of 'British' interests." (ibid: 232)

Thus, perhaps most important for Carson's narrative was the structural economic background to the regulation of safety. A growing need to rescue the country's balance of payments crisis coupled with Britain's reliance on multinational investment to develop the North Sea resulted in the state's capitulation to the productive priorities of oil extraction at as fast possible. It was this scenario that Carson dubbed the "political economy of speed." (ibid: 84) As the political economy of speed gathered pace, the particularly high levels of death and injury inflicted upon workers in the industry became obscured by the intensification of productive demands.

Carson's contribution was to endure, and many of his conceptual arguments are still relevant today, as we shall see in further chapters. In particular, the relevance of Carson's analysis was demonstrated in the aftermath of the Piper Alpha disaster.

In 1982, Carson had made a series of recommendations for the offshore safety regime. His first had been to take responsibility for the regulatory function from the Department of Energy (the same department responsible for encouraging a fast rate of extraction) and place it with the HSE. Amongst Carson's other recommendations had been the extension of the Safety Representatives and Safety Committee Regulations (which had previously only applied to onshore workplaces) to the offshore sector. Within three months of the Piper Alpha disaster (more than six years after the publication of Carson's text) the then Secretary of State for Energy, Cecil Parkinson made provision for the latter as a knee-jerk reaction to deflect criticism for not acting earlier. The former recommendation was to be the main plank of Lord Cullen's official report into the disaster, and of the subsequent Offshore Safety Act which established the new offshore regime. The regulatory changes enacted a full seven years after the publication of Carson's study, and only after the shock of the world's worst offshore disaster had forced the state into a response, stands as solid testimony to the force and relevance of Carson's analysis.

More recently, the work of Charles Woolfson and colleagues (Foster and Woolfson, 1992, Foster and Woolfson, 1993, Woolfson and Beck, 1995, Woolfson, 1995b and Woolfson and others, 1996) has followed firmly in the tradition of Carson. Their work is brought together in one text, 'Paying for the Piper' (Woolfson and others, 1996) which seeks to analyse the history of health and safety regulation in the industry within an industrial relations context. A substantial section of the text is devoted to measuring the safety record of the industry and this includes a revealing and significant assessment of the post-Piper Alpha offshore safety record.

Woolfson and colleagues trace the origins of relationship between the British state and capital at the outset of the industry. Echoing Carson, they argue that a defining feature of offshore development was that the US multinationals were granted "no hindrance whatsoever to the speed of extraction or to the utilisation of oil." (ibid: 39) The outcome for offshore workers was that a distinctively North American style of industrial relations emerged, one that was characterised by an

"individualistic, macho, 'kick-ass' and anti-union culture....A man could be ordered back to shore on the next helicopter, simply because the foreman didn't like the look on his face, didn't like long hair, and in one legendary case, didn't like any Frenchmen on the rig." (ibid: 47)

Thus workers and their unions had very little opportunity to fight for improved safety conditions offshore. Workers' safety rights became systematically neglected. Piper Alpha was thus, for the authors, "an inevitable outcome of these [industrial relations] developments." (ibid: 1)

Other research has overwhelmingly supported their view that the marginalisation of the workforce was a key contributory factor to the disaster. Tombs (1991) described the situation on the Piper Alpha where, due to 'distorted communication' between workers and management, repeated warnings of unsafe working practices and suspected hydrocarbon leaks made by workers were systematically ignored. Lavalette and Wright (1991) locate the events leading to the disaster in the enormous pressure of production placed on the workforce, a casualised, un-unionised workforce that was unable to resist the worst excesses of the authoritarian rule of a management intent on maximising production at any cost.

Woolfson and his colleagues go on to document how the post-Piper Alpha industry was hit by a series of (unofficial) industrial disputes in the late 1980s and early 1990s which were organised around a safety agenda, and how the official trade union movement failed to take the campaign around safety further.

The operators response to the restructuring of the post-Piper Alpha offshore industry is described by the authors as a "strategy of containment" (Woolfson and others: 328). After Piper Alpha had provided a period of exposure for the appalling safety record in the industry, the onus was upon the HSE to demonstrate that it could ensure compliance with the new regime. According to the authors, they have failed miserably:

"Initially, HSE staff involved in this effort were perhaps enthusiastic. However, this commitment wore off as more managerial staff, anxious to reduce conflict, were added or gained the upper hand. Meanwhile, the Agency's supporting constituency, the media, and in part the offshore workers, has withered away, while the opposition, organised under UKOOA, has become increasingly demanding and vociferous. This weakening of the regulator, in turn, has encouraged the regulated business to make less effort in complying with the newly established rules, further reducing the credibility of the regulator." (ibid: 365)

Their comprehensive analysis of the post-Piper Alpha safety record is also impressive for its scope and level of analysis. Woolfson and colleagues used HSE figures for fatalities and serious injuries combined, excluding minor injuries in order to minimise reporting problems, to analyse changes in injury rates over two separate periods of time. They also used more accurate estimates of the total workforce using local authority (Grampian Regional Council)

figures. Firstly, they examined the impact on incident rates of the 1985 oil prices crash and the consequent budget cuts in the North Sea. They found an average combined incident rate of two hundred and eighty three per hundred thousand workers per year for the pre-1985 period (1980-84), while the post 1985 period (1985-93) revealed a significantly higher average rate of three hundred and sixty three per hundred thousand workers. Secondly, they compared the combined rate for two periods of five years before and after the Piper Alpha disaster (excluding the number of fatalities and serious injuries associated with the disaster itself) amongst three particularly high risk groups of offshore workers.⁶ For the five year period preceding Piper Alpha, the combined rate averages two hundred and eighty for accidents per hundred thousand workers each year, yet for the five years following the disaster, the average rises to two hundred and ninety three. The evidence indicates that there has been no improvement in safety performance over the most recent periods examined. Furthermore, Woolfson and others assert that despite the new safety regime, the offshore oil industry is the second most dangerous industry in the UK, second only to the privatised coal industry.

Because of their unrivalled analysis of the industry, both of the above texts must be considered as definitive in terms of their contribution to the study of the offshore safety regime. The influence of Carson and of some of Woolfson and colleagues earlier work on this thesis can not be overestimated. This section only provides a brief summary of this research which does not do justice to the depth and insight provided by these analyses. Both texts will be referred to extensively in the following chapters.

⁶ The three groups of workers chosen by Woolfson and colleagues were: Construction, Maintenance and Production; Drilling; and Sea and Air Transport.

Although the integrity of Woolfson and colleagues analysis and methods are not disputed here, it should be noted that they have relied largely on their use of secondary sources. It is argued in the following chapter that to construct a detailed picture of the safety process on offshore platforms, it is necessary to conduct extensive primary research, to collate, at length, the perceptions and experiences of those who work on offshore platforms and those who manage safety in onshore positions. This is not to say that the work of Woolfson and others is in any way weakened by their approach and methods, but it is to say that there is real value in conducting a different type of exercise.

The following paragraphs examine a study which does make use of considerable empirical survey data, but, as we shall see, this research is problematic for a number of reasons, many of which relate to its function as part of the 'official' research process.

Some Official Findings

This 'official' assessment of the post-Piper safety regime comes from researchers in the University of Aberdeen Offshore Study Group working on behalf of the HSE (Spaven and others, 1993). This work is significant in that it uses the largest quantitative samples of offshore workers and managers of any sociological work on offshore safety.

Spaven and colleagues conducted an evaluation of the new safety representatives system introduced in the wake of the Piper Alpha disaster (statutory instrument SI 971). The research used a variety of data collection methods: a questionnaire survey of 2,500 offshore workers, a postal questionnaire sent to safety representatives, and qualitative interviews with offshore

personnel. The report identified a number of serious shortfalls in the operation of the system. The following is a brief summary of the issues raised by Spaven and colleagues which are particularly relevant to this thesis.

Responses to general questions appeared to reflect positively on safety representatives perceptions of the new system:

* Over 70% of safety representatives responding to the questionnaire said that "the health and safety issues with which they had been involved were dealt with satisfactorily either in 'every case' or 'most cases.'" (ibid: 64)

* A nominal majority (55.5%) of safety representatives responding to the questionnaire "believed that they had been able to deal effectively with the most serious health and safety matter raised by their constituents." (ibid: 65)

Despite the general picture, a number of serious problems relating to particular issues were identified:

* Safety representatives are much more positive about their own effectiveness than the general workforce.

* A quarter of safety representatives judged the system to be ineffective.

* The number of contested elections has declined in frequency since the introduction of SI 971.

* Although many left their post because of redundancy or transfer, a sizeable minority left because they experienced conflict or friction with management.

* No formal methods of communication between safety representatives and their constituents were in place

* Safety representatives are concerned that they are being used to police safety in a similar role to that of foremen or supervisors.

* Some safety representatives were perceived to have too close a relationship with management.

* A contradiction was identified between the emphasis of the Regulations upon the need to establish direct contact between platform management and safety representatives and HSE advice to safety representatives to raise safety issues through line management.

* Although fear of career disadvantage was not a disincentive to taking up the post as safety representatives, two thirds of former safety representatives interviewed said they "feared being disadvantaged by pursuing a particular issue" (ibid: 112) and "Two thirds of former safety representative interviewees said they had specific knowledge of cases of victimisation." (ibid: 112)

The above summary excludes findings which comment on particular characteristics of safety representatives and the effectiveness of their performance. The authors go into such details at length and construct a typology of safety representatives which is worth noting here because it will inform our consideration of the methods used by Spaven and others discussed in the next chapter. The typology constructs four different safety representative types: pro-active, activist, reactive, and disillusioned. This typology is interesting for its illustration of how different types of safety representatives may hold completely different perceptions of their role. For example, the pro-active safety representative apparently has no interest in stopping hazardous work, yet the activist sees this as a central role. It also reveals how different types of safety representative may have differing relationships with workers, managers, other representatives and external bodies. Thus, the pro-active type enjoys a good relationship with managers,

perceives those who elected him to be apathetic about safety and sees no role for trade unions in the safety process. The activist has a confrontational relationship with management, values the views of workers and is likely to be a trade unionist. Reactive safety representatives tend to be unclear about their relationships with managers and workers and become safety representatives without considering the role, whilst disillusioned safety representatives view management as hostile, workers as uninterested in using the system, and the HSE and trade unions as ineffective.

Despite the demonstrated problems associated with the efficacy of the system documented in the report, the report has been criticised by Vulliamy (1993) for not going far enough in its analysis of the system. Vulliamy's concerns largely (though not exclusively) focus upon the lack of attention to the lack of trade union representation on health and safety for what "should surely have been a key focus for their attention." (1993: 88) Furthermore:

"The Aberdeen Group makes no explicit commitment to either the management or trade union position, but the effect of its silence on a key issue, especially taken with its practical conclusions, is to place its analysis firmly within a discredited Robens perspective." (ibid: 88-89)

It is principally for this reason that Vulliamy argues the report lacks analysis and insight and concludes with a number of recommendations which "lack merit and suggest fundamental misunderstandings of the role of Safety Representatives and the source of their authority." (ibid: 90) In other words, Spaven and others' report bears the hallmarks of an uncritical, relatively uncontroversial piece of 'official' research. One of these hallmarks is that the

research questions tackled by the report appear to be closer to the concerns of managers, and not those of workers or the trade unions:

"No evidence is provided on areas where the trade unions seem to have grounds for concern - particularly the abuse by OIMs of the power, within statutory constraints, to influence constituency definition and sizes so as to secure a more friendly team of representatives, and a related disproportionate number of representatives from supervisory and managerial grades." (ibid: 89)

It is significant that UKOOA and the HSE have claimed that the report provides evidence to show that the introduction of SI 971 was broadly successful. In particular, it was claimed that the report showed a lack of support for trade union appointed safety representatives and, by implication, positive support for the status quo (Woolfson and others, 1996: 551). Yet, as Vulliamy points out, evidence on the trade union role was represented disingenuously, since the trade union issue was treated as peripheral, not worthy of proper investigation: "Just 6 of the report's 144 pages deal specifically with the trade union dimension." (1993, 88)

This study can also be criticised for its 'forensic' approach which highlights the importance of overcoming failings of individual workers, rather than failings caused by a particular approach to management or, of the failing of a particularly demanding productive regime. Thus, for example, it concludes that:

"The biggest identifiable change in workers' perceptions of changes in the way they carry out their work over the last two years was in the awareness of safety and the care taken by workers. This suggests a movement towards greater attention to behavioural, cultural and managerial aspects of safety, and may

also indicate that one of the key aspects of the goal setting approach - the acceptance of personal responsibility for safety - is having some impact on the workforce as a whole." (HSE, 1995a: 32)

One of Spaven's co-authors of this research, Chris Wright, had produced sociological research on offshore safety in the past, and his contribution is worth mentioning here. His study of fatal accidents in the industry (Wright, 1986) showed that accidents in the offshore industry tended to be the result of situations where written procedures and official work guidelines bore little similarity to the reality of working practices on offshore installations. Thus, whilst fatalities and injuries are not generally caused as a result of workers following the written procedures, they are commonly the outcome of normal, official working practices. In light of Carson's view that offshore work is not inherently dangerous, this is a particularly important perspective, since Wright argued that dangerous work hazards are part of a process of normalisation in an environment where workers are forced to quickly accept the hazards of the job. Later work by Wright (1993 and 1994) looks at the particular circumstances surrounding the Piper Alpha disaster. In one of these pieces of work (1994), Wright examines the failure of the permit to work system on the night of the disaster and uses this to describe a state of 'institutionalised irrationality' in the industry. Again, the author makes the point that the failure to follow procedures was normal practice in the industry. This time, the problem is located in the state of 'organisational irrationality':

"although this system generates managerial advantage in enabling numerical flexibility and distancing from industrial relations disputes, it also produces incoherent information flow and, consequently, ineffective implementation of plans and inefficient co-ordination of effort..." (Wright, 1994: 79-80, references omitted).

Thus, instead of viewing unsafe systems of work as an outcome of the wider political economy (Carson, 1982) or of particularly brutal industrial relations (Woolfson and others, 1996) as others have, Wright's (largely Weberian) analysis is distinctive since it locates the problem in the conflict between a managerial goal (the need for managers to maintain maximum control over the labour process) and a bureaucratic goal (the need to maximise the general level of information and effective implementation of procedure).

This approach is distinctive in that it does not reject or deny the possibility for these conflicting goals to be resolved. Whilst Carson's and Woolfson and others' analysis indicates that we can only explain injury and fatality rates on offshore platforms by examining the political and economic context for the existence of particular productive and regulatory regimes, Wright's focus is upon flaws and 'irrationality' in the bureaucratic organisation of the oil companies. This approach is limited because it confines its analysis to the organisation itself, an approach that suggests that general market pressures (for example fluctuations in the price of oil) or regulatory pressures are of secondary importance to safety management strategies. There will be plenty of evidence in the forthcoming chapters to show that such factors are of key importance to the safety and health of workers on offshore platforms.

Another significant 'official' assessment of the post-Piper Alpha offshore safety regime was published by HSE (1995a). This piece of work, an evaluation of the new safety case regime also included a research project conducted by researchers from the Offshore Study Group at Aberdeen University. The research is based upon qualitative interviews with managers in twenty one operating companies and a questionnaire completed by over a thousand workers.

The survey revealed that both managers and workers perceived the introduction of safety cases to have been smoothly implemented, with the most widely expressed concern of managers being that the new regulations were too prescriptive in their application (ibid: 7). Yet, the conclusions of the survey raised important research questions for the survey presented in this thesis and published in limited form elsewhere (Whyte and others, 1995).

For example, some key areas of conflict between workers and managers on offshore platforms surrounding the implementation of safety cases are completely ignored. One significant example of such conflict is struggle over the implementation of Temporary Safe Refuges (TSRs) (Woolfson, 1995b; a more detailed overview of the struggle over the provision of TSRs follows in Chapter 7). Again, the same points which relate to the research process are relevant here. The contrast between some findings of 'official' research and findings of research conducted outside the official process is stark. This theme is discussed in further detail in the following chapter on methodology.

Now we turn to a discussion of another body of 'official' research conducted in the offshore industry by social scientists (mainly psychologists) at the Robert Gordon University in Aberdeen. This work also reveals much about the process of officially funded research.

During the eighties, after the publication of Carson's study, social science research on safety in the oil industry was extremely threadbare and largely limited to internal company studies, most of which remained unpublished. Some work did, however, emerge from the psychology department at the Robert Gordon University. A principal theme of this research related to the positive relationship between employment practices upon the high levels of stress associated

with offshore work upon the workforce (for examples of this research, see Sutherland and Cooper, 1986 and Sutherland and Cooper, 1991)

Over the past few years, the Offshore Management Centre at Robert Gordon University has emerged to continue the legacy of Sutherland and her colleagues. The Centre conducts research on a range of offshore management related themes. Most of the Centre's research takes a 'human factors' approach to offshore management and most of its researchers have a psychology background. Workforce safety is a central concern in most of the centre's research.

In the main, the centre's research aims to produce findings which can be used practically by the operating and contracting companies in the industry, and it is perhaps unsurprising that much of the research is aimed at practitioners, since the funding for most of the research is provided by the industry (for details on industry funding, see the following chapter). Given the close relationship with operating and contracting companies enjoyed by the Offshore Management Centre, the authors enjoy unrivalled access to workers and managers on offshore platforms and in onshore headquarters.

The most comprehensive collection of the centre's work is brought together in one text (Flin and Slaven (ed.) 1996) The text, is primarily aimed at managers in the offshore industry, and a selected list of chapters in the book provides an indication of the variety of areas that this research covers: 'Selecting and Training the Offshore Workforce'; 'Managers and Supervisors on Offshore Installations'; 'Offshore Shiftwork and Rotation Patterns'; 'Emergency Response:

Command and Control'; 'Risk Perception and Attitudes to Safety'; and 'Industrial Relations on Offshore Installations.'

The work of the centre which is based upon an exclusively psychological analysis is not included here, since this is less relevant for our purposes than the material which uses a 'human factors' approach to the management of safety. One dominant theme which runs through the text is particularly worth noting here: problems currently facing offshore managers have managerial solutions. Thus, the text relies heavily upon a managerialist analysis: that by adapting or learning new skills, or by increasing control over the workforce, managers can 'manage out' safety problems.

For example, safety issues raised by the offshore oil industry's over-reliance on sub-contracted labour are contained in a discourse which considers what individual managers can do and underestimates problems which are intimately related to the structure of the workforce in the industry. Georgina Slaven's chapter on 'Selecting and Training the Offshore Workforce' outlines recruitment procedure in the form of a 'human resource management' checklist. The emphasis of this chapter is upon ensuring worker competency and maximising worker 'performance'. The author notes that a key problem is the extraordinarily high turnover rate of employees in the industry. Around 80% of the UK offshore workforce is sub-contracted (Channel 4, 1994). The chapter concludes that increasing management control over recruitment procedure can serve as an antidote to potential safety problems. Improving 'competency' measures will improve standards of safety, "Offshore disasters, such as Piper Alpha have emphasised the need to check the veracity of candidates' qualifications and training certificates."(1996: 12) Although it is difficult to take issue with this statement, this approach

masks the very particular problems associated with recruiting a mainly sub-contracted workforce. It is widely recognised that a major contributory factor to the Piper Alpha disaster was such a high proportion (83%) of the workforce on the platform were sub-contracted. This lead to serious communication problems between groups of workers (Tombs, 1991a) and prevented the smooth execution of safety critical work (Lavalette and Wright, 1991).

A further example of this heavily managerialist approach can be found in Chapter 4 ('Managers and Supervisors on Offshore Installations' by Flin and others). The chapter comments on the oil company instigated cost crisis that has hit the industry in recent years: "...additional changes due to multiskilling, work rotation patterns, down manning, and the increasing status of the contracting companies" stress the "changing demands of the [management] role" (1996: 57), and further, "As installations move to lower manning levels the emphasis on team working appears ready to increase." (ibid: 62) Yet, the authors appear to be able to identify a managerial solution. The antidote to cost-cutting is that managers should acquire skills in the 'management of change.' Furthermore, "In the United Kingdom recent emphasis on operating cost reduction has increased the level of budgetary responsibility and accountability placed on the offshore management team." (ibid: 46) The solution proposed by the authors is for managers to acquire more budgeting skills or management of change skills. This approach, again is problematic, because it implies that operational budget cuts imposed by senior management can be dealt with if managers are prepared to adapt and learn new skills. In turn, by focusing the problem on the particular abilities, traits and skills of individuals, this discourse serves to weaken our understanding of the structural implications of such budgetary cuts.

A more concrete appraisal of the cost cutting crisis confronting offshore management have, however, been highlighted by the same team of researchers in other, unpublished sources. Documents leaked to the offshore trade union OILC and released to the press in early 1997 (Flin and others, 1996) clearly identify serious safety problems, albeit on one particular platform. However, as we shall see later in this thesis, these problems are not particular, but are common to many operating companies and many offshore platforms.

What is particularly interesting for our purposes is that the analysis offered by the leaked report is incompatible with the type of analysis offered by the Offshore Management Centre's published material. The published work of the centre presents the industry as one which has safety as its primary concern, and one which is constantly (and successfully) striving to improve its safety record. Furthermore, the published material locates safety problems in 'human factors' or in the failures of individual workers on one hand, and on the abilities of managers on the other. Conversely, the unpublished report includes: evidence that the accident figures are "massaged" (ibid.: 7 and 12); routine management disregard for workers' safety concerns (ibid.: 7) and "serious concerns" raised about the permit to work system (ibid.: 7). Most significantly, the report locates these problems not in the responses and abilities of individual workers and managers, but in the systematic economic and productive demands of management. Thus: "senior management were overtly focused on productivity and had lost sight of safety." (ibid.: 9)

The exclusion of an analysis which identifies these problems as systematic from the published work of the centre is disappointing, but perhaps not surprising, given the sensitive nature of issues of safety to the industry. Yet, it is easy to see how by adopting a less cautious

approach, the centre could expand their analysis and escape the narrow managerialism that frustrates a comprehensive academic enquiry. This problem will be considered in more detail in our discussion of the political economy of research in the following chapter.

A 'Structural' Approach to Workplace Safety

One explicit starting point for this thesis is, very simply, that it represents an attempt to make a further contribution to the study of health and safety at work. If nothing else, this thesis will attempt to overcome some of the problems that the sub-discipline has faced due to this general lack of sociological attention by adopting a slightly different approach to that adopted by previous work in the field. As Grunberg argued in 1983,

"The interrelationships between workers safety, productivity, and the social relations of production have long been recognised in the social science literature....but they have rarely been the subject of systematic empirical study." (621)

As we have seen, much of health and safety research in the 1990s has largely focused on the impact of policy agendas of successive conservative governments, and has broadly advanced a 'structural' understanding of the exposure of workers to hazards in the workplace (Moore, 1991, Woolfson, 1995a, Tombs, 1995 and 1996b). This has proven to be a valuable exercise.

This thesis seeks to build upon this work and continues in the sociological tradition of qualitative research by using empirical data gathered from structured interviews (bringing the perspectives of managers, workers, their trade union officials and HSE inspectors together),

shaped by a framework provided by the literature review in this chapter. The literature review has provided this thesis with important background, in terms of the work that has been conducted in this area. This chapter has thus presented a series of issues and themes that emerge from this work. The following issues will have a particular significance for this exercise:

1. Nichols and Armstrong's (1973) classic critique of the ideology of worker apathy and the tendency for incidents to be blamed on the victim (see also Tombs, 1991), rather than within a wider structural context will be revealed to have a continuing relevance on offshore oil platforms.
2. Further, Nichols and Armstrong's work, and the work of others (for example, Carson, 1982, Glendon and Booth, 1982, Woolfson and others, 1996, Pearce and Tombs, 1998) has demonstrated the importance of understanding industrial injuries within the context of management demands to maintain or restore production.
3. Relatedly, the importance of worker involvement and organisation is key to achieving an understanding of safety issues, particularly in an industry tainted with a fearsome reputation for almost Victorian industrial relations. The significant point here is that there is a sizable body of work, which demonstrates overwhelmingly the positive relationship between strong trade union organisation and effective safety performance. Further, changes in the structure of social relations and the labour process are determinant factors in workplace safety, and understandings of this relationship are key to the approach followed in this thesis.

4. An analysis of the regulatory approach and the particular strategies adopted by the Offshore Safety Division (OSD) of the HSE is an important indicator for understanding the structural relationship between capital, labour and the state. The review of the literature on 'compliance' strategies of regulation will inform this discussion.

5. The poverty of a managerialist approach, such as that adopted by the Offshore Management Centre, will be elaborated upon in relation to a discussion of the importance of structural economic conditions to management strategies. An equally significant strand of the argument relates to perceived changes in the global market, the development of particular economic conditions in the UK oil industry, and their impact upon working practices and the management of safety on offshore installations.

This thesis will argue that the experience of those who work on offshore installations is central to understanding the ongoing struggle between capital, labour and the state. Although a 'structural' approach can be found in much of the literature on health and safety, it has not been used in particular detail as a basis for explaining the struggle for health and safety rights in the workplace. This suggests that we are left with a gap in the literature. For example (as is mentioned above) although we have extensive discussion of the impact of Thatcher governments and the New Right upon regulatory strategy, we have no detailed examination of the relationship between capital and the state during this period. An extended case study of one industry offers an opportunity to conduct such an examination in detail here, and, in particular, to discuss the relevance of this relationship for workers.

Furthermore, this approach has, as we have seen, a strong tradition in research upon offshore safety. It is hoped that by combining this 'structural' approach with extensive empirical evidence derived from interviews with offshore workers and managers, onshore managers, HSE inspectors and trade union officials that a valuable and novel contribution to the sociology of health and safety can be achieved.

Chapter 2: Method, Theory and Epistemology

This chapter begins with a discussion of some of the peculiar features of conducting fieldwork interviews in the UK offshore oil industry. It uses this discussion to identify some significant methodological and epistemological issues, and in particular, to introduce a brief commentary on issues relating to the notion of conducting value-laden social science. The value of feminist standpoint theories in this context is considered. Whilst criticisms relating to the use of a standpoint approach are recognised, it is argued that the theoretical framework used in this thesis can overcome the problems identified by critics of the standpoint position.

The beginnings of a Marxist theoretical framework for this thesis is established in this chapter. The establishment of such a framework is important since it provides theoretical rationale for adopting a class position. This approach is then placed within the broader context of the tradition of critical social research.

The chapter then turns to an examination of some methodological issues raised by research which focuses upon powerful organisations. In particular, recent trends in the control over state-funded research agendas are discussed. The use of some particular techniques of control (by the agents of both state and corporate structures) are then considered with reference to empirical evidence from the UK offshore oil industry, before an analysis of the 'political economy of North Sea safety research' is presented.

Finally, details of fieldwork samples, interview methods, and the analysis and presentation of data are included at the close of this chapter.

Conducting Interviews in the Offshore Oil Industry

Since this chapter deals with the process of gathering interview data in this thesis, it is perhaps appropriate to start by commenting upon one of the first findings uncovered in the course of conducting fieldwork interviews with offshore workers. It became obvious from an early stage that the subject of safety of offshore installations is treated with extreme sensitivity by the oil companies operating in the North Sea. This can be measured, at least anecdotally, by the reactions of offshore workers to requests for interviews on this subject.

The recruitment of workers for the interviews was far from unproblematic. Since the North Sea workforce is recruited from all over the UK, and most workers travel to their offshore installation directly from home, and return straight home after their trip offshore is over, it is a population that is particularly difficult to reach, unless, of course, the researcher has official permission to visit offshore installations. Yet, as we shall see, there are particular problems with conducting interviews with offshore workers in their workplace. Offshore workers were recruited for this study in the places that they tend to frequent in transit: hotel bars, public houses in the vicinity of the train station and the airport, and on trains as they travelled to and from Aberdeen Airport, the principal heliport for transfer to offshore installations in the North Sea.

A clear majority of those approached, perhaps unsurprisingly, immediately declined to participate in the study. Indeed it has to be said that, despite the overtly stated guarantees of anonymity, and the introductory statement to the interview which made it clear that they would

not be asked to give the name of the platform on which they worked, or even the name of the company, all of those interviewed expressed some sort of suspicion about the notes that I was taking, and what they would be used for. Now, these were not the normal types of suspicions that a social researcher might be faced with. They were not simply concerns about why someone from a university was snooping about with a note book approaching strangers to ask questions about their work. Those concerns were, without exception, related to the possibility that the notes may find their way to the employer and that the employer would find out that one of their platform workers had spoken freely about the organisation of safety management on the platform. On countless occasions, I was asked which company I was working for, and found it difficult to persuade workers to participate in interviews until I had convinced them that I was not conducting research on behalf of an oil company, or even the HSE. Even after I had done so, some were still sceptical. For example, one worker respondent repeated: "I've got to be careful what I say in front of you" throughout the interview. Several respondents asked to check my notes in case I had noted down names of individuals, names of companies, or names of platforms. On one occasion, I was actually asked to leave one public house because the clientele (every one of them either currently worked, or had worked in the past on an offshore platform) did not trust me and thought I was either a journalist or was working for one of the oil companies.

This climate is summed up by one worker from a standby support vessel: "There's far too much secrecy going on. If they [the respondent's employer] knew I was speaking to you, I'd be in big trouble." Another contract worker recalled how, after witnessing an incident that almost caused a fatality,

"When we got back to the beach, we were all given a bottle of whisky and told the accident never happened....our bosses and the oil company had a pretty close relationship - so they got together to make sure this was hushed up."

All of this strongly suggested that a veil of fear and secrecy surrounds issues of offshore safety, even outside the workplace. This veil of secrecy was particularly apparent during group interviews where supervisors were present. On several occasions after approaching a group of workers to outline the purpose of the survey and to ask if they would like to participate, they declined and told me that I should talk to their supervisor about such matters. In one case, I was told that their senior supervisor would give me "all the answers", since he also happened to be their safety representative. Offshore workers are, in most cases, clearly reluctant to talk about safety issues in front of their supervisors.

The reluctance to discuss such matters is symptomatic of the highly secretive treatment by the operating oil companies and their contractors of issues of worker safety, whether it be in terms of their own accident and injury statistics or the effectiveness of their safety strategies. This treatment is especially sensitive when it comes to the views and opinions of workers themselves, whether these views are expressed in public or in private to colleagues. As we shall see, the sacking of offshore workers, and even their safety representatives, for speaking their mind on matters of workplace safety is commonplace, indeed routine, on many platforms in the North Sea.

Huw Beynon has stated that since he has always viewed sociological research "as a means of building and extending a dialogue between the sociologist and the public" (1988: 29), he has

tended to avoid anonymity and has tried, as far as possible to surmount any problems this might cause by fully discussing his results and the implications of presenting those results in public with those affected by it. In the context of a relatively powerful and unionised workforce in the car manufacturing or pre-miners' strike coal industry, this was perhaps possible. Indeed, in Beynon's published work (*ibid.*), he makes reference to several private discussions between union officials and managers at Ford Halewood, and indeed used his privileged access to make media interventions.

For reasons already outlined, it is almost inconceivable that offshore workers would allow themselves to be identified in an industry which routinely disposes of people who dare to express their opinions. This renders the type of approach advocated by Beynon somewhat inappropriate in this case. Yet the guiding principle of Beynon's method is, however, useful. Beynon's general approach is to produce research which has an open and positive relationship with one group involved in industrial enterprise as particularly rewarding. His own approach to 'action research' has tended to attach researchers to groups of workers/shop stewards/trade union representatives (see, for example, Beynon 1984 and Nichols and Beynon, 1977), and he characterises this approach as the other side of the coin to the established branch of action research; management consultancy. As we shall see, the methods used in gathering data for this thesis have close parallels with those advocated by Beynon.

Although my access to offshore installations was necessarily much more limited than Huw Beynon's study of work at Ford's Halewood plant in Liverpool (which involved numerous visits to the plant and access to shop stewards and management meetings), it follows firmly in this tradition. Beynon notes that:

"I sat at tables in the canteens and at benches around the coffee vending machines at break times. I talked with workers as they queued up for dinner, for buses or to clock their cards at the beginning and the end of every day." (1984: 13)

Similarly, I frequented the hotel bars and public bars used by offshore workers and travelled with them on trains between Glasgow, Edinburgh and Aberdeen. Although the data was largely obtained by conducting a series of formal interviews, a vital element of the process was the numerous casual chats with those workers who did not wish to participate in formal interviews, but were willing to give me their views and share their experiences in the crowded corridors of so-called Sprinter trains, the Scot Rail buffet cars, and the saloon bars and hotel bars of Aberdeen. For these contributions, I am in debt to many more offshore workers than those I have included in the interview totals.

Access to conduct interviews with workers and managers at all levels of the organisation was negotiated in one operating company (although this level of access was attempted with and refused by each of the twenty operating and twelve contracting companies contacted). I managed to persuade senior management in this company that the access arrangement would be mutually beneficial since I offered to provide them with an evaluation of their 'Safety Management System'⁷. Gaining access to the company concerned was also made easier since it is one of the smaller operating companies in the North sea, and is not subject to the same level of internal security or layered bureaucracy as companies of the size of BP and Shell. Consequently, I was able to negotiate the terms of access directly with managers at senior

⁷ Both installations that were supposed to be included in this exercise ceased production shortly after my visit. The company, therefore, did not require me to submit my evaluation document. The data gathered during this exercise is, however, used in this thesis.

levels, and was not required to pass through several layers of bureaucracy. During this exercise, I enjoyed a positive relationship with management, and was certainly perceived by both managers and managed as an ally of management. Of course, this was problematic during my visit to the installations, since I was understandably viewed with suspicion by the workforce. Consequently they were hardly likely to engage with me in an uninhibited manner.

Of course, the doubts and suspicions expressed by workers who were interviewed were not without good reason. The process of research and the pursuit of the holy grail of the research finding can often obscure the purpose of conducting research in the first place, and, more seriously, can result in compromising the position of those being 'researched'. The unwritten ethical code in social research is riddled with such contradictions.⁸

⁸ The ethical contradictions of conducting social research were partially brought home to me after attending a week long course on conducting qualitative research organised by Social, Community and Planning Research in London in January 1994. During a session on Research Ethics, a widely published and respected sociologist described an incident during an interview with a former child sex offender. The interviewee revealed that he had recently re-offended, and named the child involved. The sociologist did not contact social services or the police, and did not attempt to resolve the situation in any way. Her defence was that she had informed the interviewee that the interview would be confidential, and therefore a breach of confidentiality would be a breach of the (unwritten) ethical code of the social researcher. The sociologist later described a situation where she was conducting interviews with users of an international Airport in London. One potential respondent that she approached appeared to be acting "suspiciously". So much so that the sociologist reported the individual to the airport authorities because she thought he might be a danger to the public. This course of action was similarly justified by the sociologist who asserted that she had approached the individual, she had not commenced an interview, had not guaranteed anonymity, and by inference could not be protected by the unwritten code to which she adhered and advocated. I was among a minority of participants in the session who objected to what we viewed as an arbitrary use of an arbitrary code of ethics. Although we cannot be sure whether either of those incidents actually took place, the point is that researchers may, at some level, have power over their subjects. This is the point where attempts to maintain an objective distance from the subject may not be possible. Yet, the ethical stance adopted by some researchers may be an attempt to retain some semblance of 'objectivity,' and authority in their work. Furthermore, the danger is that adherence to an ethical code can allow the researcher to relegate or even relinquish his/her responsibility to the subject. The implication here is that the researcher does not need to confront these dilemmas since they will not arise if the code is followed. By following the code, those researchers who fall into this trap may assume that the impact upon subjects of research may be minimal, or may at least be less intrusive. Yet the research process is inevitably intrusive upon the subjects of research by virtue of the power dynamic that often exists between the researcher and the researched. A so-called ethical code can not eradicate the researcher's responsibility to the communities and situations that they research. This piece of research followed no formal ethical code, yet it is hoped that those involved in the course of the research suffered minimal interference to their privacy.

Value Bias and Social Research

There is, in relation to the points elaborated upon above, an issue raised here in relation to the emergence of two conflicting sets of 'truths'; on one hand from the 'official' , or capital/state perspective, and on the other, from the workers' perspective. In one sense, the researcher has to chose between the two. Of course, this does not mean that he/she must adopt a position which accepts the received wisdom, common sense (Gramsci, 1996: 419-425) and produced knowledge of one group only, to the exclusion of others. Identification with one group does mean, however, that the researcher is bound to be influenced by one particular version of the truth. And perhaps this must be recognised as a potential source of bias in the research process.

Yet it should be noted at this stage that those who conduct research for powerful interests are rarely accused of bias, or of pursuing a particular agenda which might taint or corrupt their work: "...the thin disguise of a special interest afforded by foundation names or government agency labels permits relations with such entities to be used as badges of honour rather than as suggestions of bias." (McClung Lee, 1978: 90)

There is an extensive literature which examines the possibility for a value-free and objective social science (for an overview of this literature, see Keat and Urry, 1982). One of the most significant contributions to this literature was made by Max Weber, who urged that social scientists should not make judgements of value in their work. For Weber, this rule was to be applied to both written work and to teaching, but particularly to the latter (for analyses of Weber on value-free social science, see *ibid*; Giddens, 1990; and Gouldner, 1973)

Contra-Weber, Keat and Urry neatly sum up two significant points in this debate:

"Many academics who defend value-neutrality in their work as teachers and writers do so on a doubly erroneous basis. First, they present their stand as following from the fact that value-judgements cannot be logically derived from the results of social science. They thus disguise a value-judgement as a purely methodological claim. Second, they equate their responsibilities as people working in universities with what they mistakenly regard as the methodological requirements of their role as professional academics. By thus identifying themselves with their professional roles, they further justify their commitment to neutrality. But both manoeuvres are wrong, the first logically, and the second morally." (1982: 201)

Whose Side Are We On?

Arguments set out by Howard Becker in his piece 'Whose Side Are We On?' (1967) are also of significance on the issue of value freedom. Becker notes that liberal or critical social scientists who adopt a position that is sympathetic to the group of 'subjects' that they study are often accused (and indeed often accuse themselves) of bias. These accusations are particularly acute when those subjects of research are viewed by society as "unfit in one or another respect for the deference ordinarily accorded a fellow citizen." (ibid.: 240) Here, Becker is specifically talking about the study of 'deviant' groups. He counters such accusations by pointing out that those groups of people being researched are often subordinate to other groups who are relatively more powerful. For example, in relation to superordinate police or social work departments, individuals identified as illicit drug users tend to be subordinated in the power structure. Becker's concept of the "hierarchy of credibility" (ibid.: 241) is at the heart of this argument:

"In any system of ranked groups, participants take it as given that members of the highest group have the right to define how things really are.....credibility and the right to be heard are differentially distributed through the ranks of the system. As sociologists, we provoke the charge of bias in ourselves and others, by refusing to give credence and deference to an established status order, in which knowledge of truth and the right to be heard are not equally distributed." (ibid.: 241-242)

Thus, the accusations of bias waged against social scientists have to be understood within this hierarchy. This is Becker's rejection of the traditional view of the sociologist as objective, unbiased and non-partisan. For Becker, adopting a position which is sympathetic to a group that is subordinate in the social hierarchy, is not necessarily any more or less biased. Indeed, he argues that this approach can be fruitful since it allows the researcher to stand outside the dominant perceptions and ideologies created within hierarchies of credibility. The piece not only argues emphatically for a partisan approach to be adopted by sociologists who should openly declare whose side they are on, but points out that partisanship is, in any case, inevitable.

In response to Becker's piece, Alvin Gouldner (1973: 27-68) published a powerful critique. Whilst Gouldner's arguments are extensive and complex, some are of particular relevance to the general approach adopted in this thesis. The following three points are reproduced for their relevance here.

Firstly, Gouldner argues that Becker's identification with the underdog is expressed vaguely; it is not clear exactly what he means by 'subordinates' and 'superordinates'. Gouldner thus points out:

"To recommend that sociological researches be undertaken from the standpoint of subordinates or underdogs creates as many problems as it resolves. Whilst such a standpoint expresses a sympathy that I share, I still feel obliged to ask: How do we know an underdog when we see one? Who and what are underdogs? What marks someone as an underdog?" (Gouldner, 1973: 34)

In its vagueness, Becker's approach lacks intellectual rigour and leaves the researcher open to criticism on this basis. Equally importantly, this approach leaves us without a rationale for commitment to a particular group: "A commitment made on the basis of an unexamined ideology may allow us to feel a manly righteousness, but it leaves us blind." (ibid: 34) More than this, it can also blunt a potentially sharp critical edge.

Secondly, in order to overcome this weakness Gouldner offers his reason for identifying with the underdog. For him, this reason is not to be found in the subject's position within a 'hierarchy of credibility', and the power this gives some to construct particular truths and realities, but

"rather that these dominant conceptions of reality, sustained and fostered by the managers of society, have one common effect: they fail to grasp a very special type of reality, specifically the reality of the suffering of those beneath them." (ibid: 36)

For Gouldner, if there is a purpose to adopting the standpoint that Becker advocates, it must be to expose particular types of suffering as both real and avoidable.

Thirdly, Gouldner accuses Becker of conceptualising the 'underdog' as a victim, and not as someone who suffers or who is capable of fighting back: "It is not man-fighting-back that wins Becker's sympathy, but rather, man-on-his-back that piques his curiosity." (ibid: 39) For Gouldner, this approach is intimately related to a certain pre-occupation with the mismanagement and control of deviants by "bureaucratic officialdom." (ibid: 38) An approach which views the deviant as victim leads us towards a view that the most important task is improving the management of deviants by welfare institutions and mitigating the immediate effects of control processes and techniques. In turn, this view allows us to avoid more fundamental questions about unequal power relations in society and questions about resistance/fighting back against the powerful. Becker's concern is not, therefore how a fight back should be waged against those who wield political and economic power at a structural level. This is what marks Becker out as a 'liberal' and not a 'radical' social scientist. Developing this point, Gouldner asserts that:

"....I think that radical sociologists differ from liberals in that, while they take the standpoint of the underdog, they apply it to the study of overdogs. Radical sociologists want to study 'power elites', the leaders or masters of men; liberal sociologists focus their efforts upon underdogs and victims and their immediate bureaucratic caretakers." (ibid: 51)

After Gouldner, this thesis seeks to use the standpoint of the offshore worker and apply it to the study of the 'overdogs'. Whilst accepting that the preceding arguments relate specifically to Becker's study of deviant groups, it is argued here that it is entirely feasible to generalise this framework to studies of 'underdogs' and 'overdogs'. in other social spheres. Of course, we are still left with the problem identified by Gouldner of how we identify or define underdogs and

overdogs; the subordinates and superordinates. At the moment this distinction remains underdeveloped, and requires theoretical elaboration. A theoretical basis for this distinction will be developed later in this chapter.

For the moment, this chapter turns to an examination of a body of work which provides us with some more recent epistemological arguments surrounding the significance and value of adopting a particular standpoint within social research.

Feminist Standpoint Theory

This body of work has been developed by feminist researchers; those who advocate a 'feminist standpoint' approach to research (see Cain, 1990, Harding, 1986 and 1991, Hartsock, 1983, Smith, 1988, and Rose, 1983). Central to the feminist standpoint position is the assumption that hitherto, all scientific (and indeed, social-scientific) knowledge has been dominated by a masculinist perspective, and therefore is irrevocably biased in its development: "in systems of domination the vision available to the rulers will be both partial and perverse." (Hartsock, 1983: 285) Thus, not only do we have a biased knowledge, but we also have an incomplete and distorted knowledge since the understandings of those in power are limited and constrained by the power structure within which they operate (Harding, 1991).

Moreover, it is argued that the standpoint of women, since they are subordinated in patriarchal power structures, and thus do not hold the same "partial and perverse" vision, can be used to construct more accurate accounts of social phenomena, and a more accurate 'knowledge':

"Knowledge, they [standpoint theorists] observe, is supposed to be based in some detectable way upon experience - highly refined and controlled experience, of course. Thus, the reason the feminist claims can turn out to be scientifically preferable is that they originate in, and are tested against, a more complete and less distorting kind of scientific experience." (ibid.: 107)

Further:

"....social subordination generates specific critical insights into dominant mindsets, and these often truly major insights, once accepted, do tend to become installed as part of new or emergent quasi-universalist outlooks. The political and social point of view which generates those insights, in other words, undoubtedly, and militantly, enlarges and modifies the general state of knowledge." (McLellan, 1995: 397)

Thus, by adopting a standpoint position, it is argued, a more complete and indeed objective knowledge can be attained.

Importantly, standpoint theory demonstrates how alternative discourses can be constructed by utilising the views and experiences of those who have been excluded and marginalised by research work which emerges from traditional or established epistemological constructions.

Whilst the feminist standpoint is concerned with the construction of a new epistemology, this doesn't mean we must regard all of the scientific and ideological constructions of dominant and powerful agents as illegitimate or useless. The dangers of adopting an extreme relativist position have been well established (for an overview of critiques of this position, see Hollis and Lukes, 1982, and Harris, 1992). Use of official statistics or the findings of official or orthodox

research is often crucial to critiques of the dominant ideology, since they may contain progressive or regressive tendencies (Harding, 1991). Moreover, there is a level at which researchers must engage with the proponents of the dominant ideology if they are to make some input to academic debate.

Standpoint Theory and Empiricism

A common methodological criticism of feminist standpoint theory is that it is empiricist. That is, it "relies from the outset on the idea that the 'truth' or authenticity of experience leads to the validity of theory." (McLellan, 1995: 397) The criticism is that standpoint theory is weakened by an approach which advocates a movement from experience and observable phenomenon to theory, from the concrete to the abstract. At one level, the significance of theory lies in the importance of an approach that seeks to account for more than experience alone. To argue that the use of experience in research is a valid method is not to argue that experience can provide a complete explanation. The use of theory is necessary to move beyond this level.

Central to Maureen Cain's realist approach to the standpoint position is a defence of the importance of using theory. In this defence, Cain's argument is that since theory uses a series of concepts as a discursive means for explaining phenomenon, it is easier to share than other knowledges. Although, as with other types of knowledge, theory is culturally specific, the concepts within theory are connected through a series of logical relationships. The logical character of theory means that it can be communicated and received in broadly similar ways, whoever it is communicated or received by. This gives theory a certain objectivity which may not be found in other knowledges and renders it more persuasive than other forms of

knowledge. It thus follows that this objectivity allows theory to be more easily defended than 'common-sense' knowledges, or knowledges which are based upon experience only.

It is argued here that we can confine the use of grounded experiences to constructing alternative discourses at the level of this experience without allowing empirical findings of research to 'lead' arguments around theoretical concepts. We can thus minimise the dangers of producing empiricist/subjective research (in other words, we can avoid problems that may arise if we allow observable phenomenon or fieldwork data to shape the theoretical structure). In other words, using a standpoint position for this thesis is useful in so far as we can use the experiences of workers to construct alternative accounts of offshore work, within a broader theoretical framework.

Using a Marxist Framework

If we view research as a process which must utilise particular concepts and understandings of the phenomenon being researched, then we must accept that the research process always relies upon a particular understanding of the world. This is not to say that all research is conducted within a rigid and rigorous theoretical framework, but it is to argue that all research has a certain theoretical baggage, and already relies upon a particular epistemology. It then follows that the data gathered in the research process has already been the subject of a particular theoretical interpretation (Echeverria, 1989, Lukacs, 1971). In other words, it is not possible to separate empirical observation from theory in any case. This is as true for feminist researchers who represent the experience of women in their work as it is for those who conduct research for powerful corporations. For Maureen Cain, it is imperative that

researchers acknowledge this relationship as part of a process she describes as theoretical reflexivity (Cain, 1990).

Thus, if we do acknowledge that the existence of a relationship between empirical and theoretical knowledges is unavoidable, a question that may follow is that of exactly how theory might be used. The following section argues for the use of a Marxist theoretical framework by briefly outlining Marxist concepts of class struggle, alienation and fetishism and discussing how they might be applied in this thesis.

Class Analysis: Alienation and Domination

Of course, in the context of this thesis, the question raised earlier remains unresolved: who exactly are the underdogs and the overdogs, and what is it that defines them as such? Close examination of Gouldner's critique of Becker does not actually allow us to make much progress on this question. To resolve this issue, an alternative theoretical approach has to be utilised. The argument here is that the most fruitful theoretical approach that sorts the 'underdogs' from the 'overdogs' (although this is not the preferred terminology) is a Marxist one.

Let us develop this argument for a moment. In the workplace (as in society generally) workers can be identified as 'underdogs' in class terms; in terms of their relationship to the capitalist class. In this case, largely in terms of their relationship to those who purchase their labour power, the oil companies (although more accurately in terms of the relationship with the capital class generally). Within a Marxist framework, this relationship has one defining

moment; the struggle between workers and capital over the expropriation of surplus value. This is the moment of capitalist domination. That is, the specific form of class domination that occurs in capitalist society is "exercised by the totality of economic relations...." (Geras, 1972: 288). In Marxist terms, this is the process of alienation, whereby the product of labour is conceived as having only an abstract relation to the worker; the relation between product of labour and the worker is an alien one. The worker does not own the product of his/her labour, and this product appears as independent, separating value from the activity which creates value. This represents an absolute divorce between property and labour. In turn, this manifestation of property, as something which is independent and alien, is a hostile force, used to dominate workers within capitalist social relations.

One symptom of alienation and class domination is that workers are locked in a continual struggle with capital to assert a variety of rights (for example the right to organise freely in trade unions or the right to exert control over the productive demands of their employers), and, relatedly, continual struggles to improve the conditions of their employment (for example wage disputes, disputes over shift lengths). At the root of these struggles is, of course, the struggle to extract surplus value.

Marx's description of the processes of the alienation of workers and the externalisation of labour reveals the effect of this relationship as it reveals itself in meeting the productive and social demands of capital:

"On examination, we notice that capital regulates, according to its need to exploit, this production of the labour force itself, the production of human masses to be exploited. Thus capital does not only produce

capital, it also produces a growing mass of workers, the substance thanks to which it can function alone as additional capital....Capitalist production is not simply a reproduction of this relationship, it is reproduction on an ever increasing scale; and precisely to the extent that, with the capitalist mode of production, the social productivity of labour increases, the wealth over against the workers grows and dominates him as capital. Opposite him is deployed the world of wealth, this world which is alien to him and oppresses him, and his poverty, shame and personal subjection increase in the same proportion." (Arkiv Marкса i Engelsa, 1933: 197, quoted in McLennan, 1972)

In the workplace, alienation is revealed particularly starkly:

"Since the labourer passes the greater proportion of his life in the process of production, the conditions of the production process are largely the conditions of his active living process, or his living conditions, and economy in these living conditions is a method of raising the rate of profit....Such economy extends to overcrowding close and unsanitary premises with labourers, or, as capitalists put it, to space saving; to crowding dangerous machinery into close quarters without using safety devices; to neglecting safety rules in production processes pernicious to health, or, as in mining, bound up with danger etc. Not to mention the absence of all provisions to render the production process human, agreeable, or at least bearable." (Marx, 1984: 86)

Now, the fact that Marx wrote these words in the 1860s as part of a commentary upon relatively primitive and developing stages of British capitalism gives these comments a certain historical specificity. Yet, as we shall see, his conceptualisation of the nature of capitalist work organisation has particular resonance in the case of the UK offshore oil industry. Furthermore, it must be noted that the use of Marxist theory and analysis for current studies of the labour process have, in the past three decades, been more relevant, fruitful and influential than any

other approach (the resurgence of this influence is claimed to have started with Braverman, 1974; for an overview of these developments, see Thompson, 1989).

In particular, this thesis deals with the class struggle of offshore oil workers in terms of one of the symptoms of this struggle: the degree to which they can exert control over the hazards they are exposed to in the workplace. A core theme in this research, as we shall discover in more detail as the thesis develops is that workers are faced with a constant struggle to reduce the hazards they are exposed to on a daily basis, are faced with sustained and effective resistance to these demands by employers, and (not incidentally) are killed and maimed in the course of their normal work.

One strength of Marx's analysis lay in his proposition that the world can only be accurately understood from one of two major class positions. It is the contention of this thesis that this proposition holds as true for this analysis of the UK offshore oil industry as it did for Marx's general understanding of capitalist organisation. For the purposes of this exercise, we can either construct an understanding of the state of worker safety from either the perspective of those who work in the industry, or from the perspective of those who extract profit from those who work in the industry. We are thus left with a choice between the two major class positions.

The Process of Mystification

A precondition for scientific enquiry, according to Marx, is that the conceptual distinction between 'appearance' and 'reality' (essence) is necessary for the discovery of 'valid' knowledge

(Geras, 1972). The problem of essence/appearance is caused by a process of mystification which masks the real relationships between objects and their human producers. The real relationships can not be understood by simply observing the appearance of things. For Marx, overcoming the obviousness of appearance is thus a central requirement of scientific method.

Marx's concept of fetishism, the process whereby the objects of human production, the world of commodities, are (falsely) granted a certain independence from the realm of human relations, is key to understanding the distinction between appearance and 'reality'. In other words those objects, and relationships between objects that are created by humans are invested with a certain autonomy. The relationship between commodities is thus falsely seen as being a 'natural' relation between objects. For example, commodity prices and markets are seen as an expression of the real relationship between commodities as opposed to being merely an expression of social relations that result in their production. In this way, understandings of the world that rely upon fetishism are the foundations of a knowledge which is based upon appearance, rather than essence, a knowledge that is based upon objective reality.

Yet mystification is only one element of fetishism. For fetishism is also imposed in the form of class domination. Indeed, both mystification and domination are important elements, since: "...men are in no position to control, rather than submit to, social relations which they do not correctly understand." (ibid.: 287) Thus, both elements of fetishism complement each other. One sets up a false or distorted view of the world, and the other ensures that this view of the world is allowed to flourish under capitalist social relations and the resultant process of alienation.

Geras' reading of Marx's concept of fetishism (and, in particular, the mystification element of fetishism) reveals two distinct elements of this process of mystification. Firstly, there are those appearances that do at one level correspond to an objective reality and secondly there are those appearance that "...are quite simply false, illusions in the full sense...." (ibid.: 291). That is, illusions that correspond to no objective reality.

As an example of the former, Geras cites value relations between commodities and as an example of the latter, he cites the wage form. Importantly, Geras asserts that although the value relationship between objects, products of labour is understood as the product of social relations, this is not to say that value relations, or the notional market value of objects in the sphere of exchange are 'imaginary.' Whilst values and value relations (expressed as prices and markets) are not a natural manifestation and may be merely an expression of human relations, they are also real:

"...the fact that the material forms of capitalist social relations are not natural ones, does not deprive them of their objectivity, that is to say, of their character of being objects, which become independent vis-a-vis the social agents, dominate them according to their own laws, and cannot be ascribed to human subjectivity, either as their source or their explanation." (ibid: 297)

Thus, mystification may be an effect of the representation of what is 'social' as 'natural'.

On the other hand, the wage form is purely illusionary since it assumes the (false) value of labour. It is this type of mystification that creates the illusion of an equal exchange between the purchaser of labour-power and the worker.

Geras' analysis of the concept of fetishism and especially of the mystification element has shaped the approach taken in this thesis. This influence will become more obvious as arguments are developed around the role of ideology, and common sense understandings and representations of the world. In particular, the idea of globalisation is represented by powerful corporate and government sources as an inevitable, almost natural process with an independence which renders it uncontrollable or unregulatable. Globalisation as an ideological manifestation contains elements of both illusionary mystification and mystifications that are, in part at least, are based upon material realities. It will be argued that at one level, the doctrinal representations of globalisation actually boil down to little more than an illusionary myth with very little basis in objective reality. Yet the operationalisation of the idea of globalisation, in practice, has some very real and material (or non-imaginary) effects upon value relations and upon human social relations.

The Critical Tradition

Since this thesis follows in the traditions of feminist standpoint and Marxist theory, the general approach to conducting this research can be broadly located within a tradition that has been described by Lee Harvey as 'critical social research.' (Harvey, 1990) This tradition, which is comparable to developments in critical theory (for a description of the origins and development of critical theory, see Kellner, 1989), according to Harvey, includes all who have criticised

contemporary social order: So, for example, he includes Marx's 'Capital', C. Wright Mills' 'The Power Elite', as well as feminist research and research which focuses on racist power structures as part of the critical tradition. Harvey's conceptual framework is useful in setting out the general analytical approach used here, and it is of no coincidence that his framework draws heavily upon the Marxist tradition. As he points out himself:

"In many respects Marx's lifetime work established a basis for class oriented critical social research. Most, if not all, subsequent work has been a development of, or has at least referred to, the work Marx undertook." (ibid.: 35)

The critical approach is also aware of the problems engendered in research which tends to move from the observable to the abstract, that is, to construct abstract theoretical assumptions from a set of 'factual' research findings. Critical social research seeks to reverse this process because it recognises that 'facts' "do not exist independently of their theoretical context." (ibid.: 20) and consequently can not form the basis for general abstractions or theories. Critical social research, therefore, moves in the opposite direction, from the abstract to the concrete in order to understand social phenomena. Furthermore,

"Critical social research involves a perspective which sees social structure as an oppressive mechanism of one kind or another. This oppression is legitimated via dominant ideology....The critical analytic process is one of deconstructing taken-for-granted concepts and theoretical relationships by asking how these taken-for-granted elements actually relate to wider oppressive structures and how these structures legitimate and conceal their oppressive mechanisms." (ibid.: 32)

This thesis is concerned, at least partly, with critically examining the validity of common sense assumptions constructed and propagated by particular groups of capital and the state. Furthermore, the argument presented here is that dominant ideological constructs are key to the stability and predominance of 'oppressive social structures'. Thus, a principle aim of this piece of work is to reconstruct an alternative account of the organisation of safety in the North Sea oil industry; an account which rejects the "neutrally coded messages" (ibid.: 212) and dominant versions of the 'realities' of offshore work, and indeed of economic 'realities' which can be understood (in the context of the process of mystification) in the Marxist sense as appearance. The methods employed in this task will examine the historical development of these relationships, and will draw upon documented sources which provide an understanding of political, economic and legal processes which structure the industry.

The thesis that follows is, in essence, Marxist critical social research. By adopting the standpoint of the offshore worker, it unashamedly attempts to overcome preconceptions and distortions created by the dominant ideology of the capitalist class. The argument that will be developed here is that in constructing a critique of the dominant view of the state of the UK offshore oil industry, a Marxist analysis is crucial to understanding the organisation of work and productive forces on offshore installations and relating these forces to wider political, economic and social structures. Specifically, in constructing an alternative understanding of the role of the state, the relationship between international capital and the state, and the ways in which these have had a direct impact upon the lives of offshore workers, Gramsci's conceptions of historical bloc and hegemony will have particular resonance. As we shall discover, these are key concepts in understanding the construction of dominant ideologies which inform the strategies adopted by the state and organised capital which pervade 'common

sense' understandings of the political, legal and economic conditions surrounding the UK offshore oil industry.

The preceding paragraphs highlight some epistemological issues and theoretical approaches which have informed the method of enquiry followed in this thesis. The following paragraphs discuss how the role of a critical Marxist position may be particularly important within the context of an industry which has been exposed to very little critical analysis.

Researching the Powerful

There are particular difficulties associated with researching powerful organisations. Historically, a major source of these difficulties is that private corporations and government departments have tended to use social research in pursuit of their own corporate interests and policy goals. In 1976, American sociologist Gertrud Lenzer warned of the dangers of increasing corporate control of research agendas:

"There are signs to be seen everywhere that mounting social as well as economic pressures are leading to the initiation of large-scale efforts for the systematic planning and managing of the social R&D [research and development] efforts that might leave in their wake a profound restructuring of the social sciences as we know them today....[The] so-called clients of our knowledge have now begun to insist openly upon the true nature and prerogatives of their role in this relationship, namely, that of being owners of the means and therefore, of the products of mental production." (Lentzer, 1976, quoted in McClung Lee, 1978: 14)

Similarly, the state assuming the role of controller, or producer of social research agendas, or using its mechanisms to discredit social research that it doesn't happen to agree with has been an endemic problem since governments started to take seriously and commission the work of social scientists (Vaughan, 1967).

The Tightening of Control over State-funded research

In terms of state funded socio-legal research, Hillyard and Sim (1997) have identified a number of trends which have emerged over the past decade to have a restrictive and regressive impact on research. Particularly relevant here are their comments upon changes in government contracting for research and intensification of the control and governance of research. Government terms and conditions for contracted researchers are becoming tighter, as are the controls over the subject matter investigated, research questions and over the publication and dissemination of findings. Censorship of research findings is a real issue for those who produce government funded work that does not sit comfortably with contemporary government or departmental policy. One example of this cited by Hillyard and Sim is the case where Home Office ministers in the last government had suppressed a report which revealed, contrary to government claims, that the introduction of boot camps for young offenders was likely to have little effect on the crime rate (for other examples of government censorship of research, see Lee, 1993 and Hughes, 1996).

The tightening of government research agendas also has an impact upon the policy implications of research findings. This is partially a question of the constraining effect of the setting of

boundaries which define what is and what isn't possible to achieve, or even suggest, in terms of the reform or development of policy. More fundamentally:

"There is an almost universal expectation that the results should point to clear and direct policy implications. As a result most government research is short term and principally focused on the questions determined by government and their civil servants." (ibid: 57-58)

Thus, policy-led research tends to focus upon short-term topics which are of concern to administrators and managers and unlikely to consider more fundamental questions: "...to study why change occurs as well as what has occurred; to study controls over the system as well as controls within the system." (Sanders, 1997: 200)

Finally, since the 'success' of policy-led research tends to be measured by its impact upon the policy process, such research is likely to tend towards essentially conservative conclusions.

The prioritisation of particular, non-critical, types of research has been a strategy that (although not new or exclusive to the conservative governments of the 1980s and 1990s) has intensified over the past two decades. Social research has thus been assimilated into the business-friendly policy environment which rewards those who are "one of us" (Hillyard and Sim: 58), that is, academics, advisors and policy and research organisations who are perceived as allies by those with power over the research process. Relatedly, the promotion of business friendly agendas and the intensifying of the rigours of the research 'market' will increasingly become part and parcel of the commissioning and bidding process as we move further towards a commodification of social research (Hunt, 1994).

Consequently, those who can wield economic power in the market place will increase their power over research agendas, and over the research process generally. This has particular implications for those who pursue critical or alternative research agendas:

"Historically, the rich and powerful have encouraged hagiography, not critical investigation. And, unlike the poor and weak, they have been in a position to determine the way they are investigated and the manner of their public exposure. They have also, when confronted with critical research findings, been quick to use this power to neutralise the critical impact." (Beynon, 1988: 23)

Neutralising Critical Research

The use of powers to neutralise critical research is based upon a range of authoritarian techniques from the extreme to the slightly more subtle. Of course, censorship is one particularly extreme measure. One example of how state funded research into occupational health and safety has been dealt with in this way is the recent withdrawal by the Department of Health of Cooper and Cartwright's (1995) report. The report was printed and ready for distribution when the Department decided at the last minute to recall it for pulp. This decision was apparently made on the basis of the following offending sentence: "Research has shown that working more than 48 hours a week doubles the rate of coronary heart disease." (ibid.: 12) (personal communication with author) It is instructive that the report was due to be published in the midst of a British Government appeal to the European Court which sought to establish that an EC directive aimed at limiting working hours should not be defined as a health and safety measure (see Health and Safety Europe, November 1995).

The use of libel laws and other legal techniques (such as the application of the Official Secrets Act in this country) as a means to neutralise critical research also has an established history. In the 1940s, Edwin Sutherland was forced into a protracted battle with his publisher over the naming of companies analysed in his seminal text, *White Collar Crime* (1983). The publisher was fearful of libel suits in response to the description of corporations in the text as criminals. Sutherland was eventually forced to backdown (see Geis and Goff, 1983). Large corporations have become adept at using threats of libel action as a means to silence critical voices. The recent back-down by *The Ecologist* in the face of legal action by Monsanto is one indication of the ability of the threat of legal sanction to neutralise the critics of big business (see Monbiot, 1998).

A personal experience illustrates a slightly more subtle way in which the state attempts to neutralise critical research . In the early stages of this thesis I was granted limited access to the HSE OSD to conduct interviews with eight offshore inspectors. A colleague was present to assist in conducting this series of interviews. Towards the end of the final interview, conducted at one of the HSE's office buildings, a senior manager in the HSE interrupted and asked if we would come to his office for a "chat" after the interview had finished. At the end of the interview, we walked along the corridor to the senior manager's office and were invited in. On entering the room, it was noticeable that there was a photocopy of a paper we had presented two months previously at a conference on offshore safety organised by the Institute of Chemical engineers (Whyte and others, 1995). The paper was based upon the initial interviews that I had conducted with offshore workers, and was fairly critical of the operating and contracting companies approach to safety management, although, it has to be said, was not

particularly focused upon the HSE's role as regulator. The host commenced a polemical critique of our paper, pointing out that we may be giving a "distorted view"⁹, adding that "some people have a hidden agenda, so we (HSE) have to be careful." He was visibly angry about the data that had been presented in our paper, despite that fact that the paper merely represented a series of views and experiences of the offshore workforce (incidentally, an interview with a frontline inspector earlier that day had provided data which verified most of the controversial points made by workers in our paper). He questioned the accuracy of some of the factual material in the paper (material that we were able to verify) and accused us of "misrepresenting the truth".

The senior manager went on to stress the importance of the North Sea oil industry to the national economy, and the consequent importance to the nation of a "stable" oil industry particularly since the decline of the gas and coal market. Although I am not completely sure what the HSE manager meant by these remarks, it appeared at the time that he was making a comment on how critical research can act to destabilise the industry, and that this was to be avoided. He then added that there was a great deal of money available from the HSE for the type of research that I was undertaking: "We have a large pool of research funds. Six million pounds is a lot of money, you know." It was made clear, however, that this money would not be made available unconditionally, adding that he would be in support of "...winning this money for Merseyside..." but "...obviously you would have to be very careful about the way you put things."

⁹ All quotes here are taken from fieldwork notebooks. The meeting referred to took place in the HSE's Bootle offices on the 11th December, 1995.

Citing the 'national interest' is not an unusual tactic for government departments who wish to stifle or suppress critical research. As Cohen and Taylor have pointed out, in relation to their research on the prison experience:

".....there was a veiled threat that hung over most negotiations, to the effect that the authorities, as custodians of the public interest, knew that some of the things sociologists might get up to in talking to prisoners would be against the public interest." (1977: 78)

Furthermore, as we shall see, at regular intervals in the history of the offshore oil industry, the oil companies have used arguments which link the success of the industry to the national interest to justify deregulation in general, and more lax safety regulation in particular.

The offer made by the HSE manager clearly indicated that research funding would be forthcoming from the HSE as long as any future research was to follow their agenda, and to change "the way you put things". In other words, government funding would be forthcoming for research work that would be constructed around one particular (uncritical) agenda. Needless to say, his offer of funding was declined.

Public and Private Gatekeepers

Although access to the OSD Operations Branch had been negotiated successfully, it must be noted that these negotiations had been conducted successfully before the publication of the paper that the senior HSE manager had so strongly objected to. Negotiations for access to the

Policy Branch of the OSD was attempted after the publication of this paper and was unsuccessful.

Access was refused on the basis that:

"Firstly, the policy context of the offshore safety case regime is set out in the Cullen Report; in producing our new legislation we have not departed from that philosophy, and the arguments hold good today as they did at that time. This therefore provides the best starting point for the policy framework. Secondly, we have ourselves commissioned research on the evaluation of the safety case regime from Aberdeen University, including interviews with both management and with over 1000 members of the workforce.....I therefore have some reservations on whether interviews with policy staff would add further information to that which is already available." (Letter to author from HSE OSD Policy Branch, 15 November 1995)

There are two points to be made here in relation to this communication. First of all, in arguing that they have not departed from Cullen's philosophy, and that the Cullen report is therefore the reference point for all changes that have taken place in the safety regime, the HSE almost view themselves as being above scrutiny. Yet the implementation of Cullen has been the focus of a number of disputes and struggles between workers, management and the HSE, and has certainly not been implemented to the letter (Whyte, 1997). Secondly, there is an implicit (and perhaps unsurprising) assumption that the HSE's own commissioned research is definitive, and that they do not feel that any other research might add to their understanding of the offshore situation. Both points indicate that they do not see there is a need for research which is conducted independent of the HSE and the oil companies.

Of course, in terms of this piece of research, access to policy staff was not essential for the survival of the project. Yet this is not always the case. Researchers are only too aware that their research may stand or fall on the gatekeepers' decision to grant or refuse access. In this context, funding relationships may not be the chief means of influencing research.

Of course our discussion is not just relevant to publicly funded research, private corporations also enjoy and use such power actively. In the context of the oil companies operating in the North Sea, this point is neatly illuminated by UKOOA's attempt to shape the agenda of an HSE funded research project into the relationship between safety, health and working effectiveness and offshore shift patterns. This work, conducted by Dr Katherine Parkes and colleagues in the Department of Experimental Psychology at Oxford University, raised a number of concerns at the April 1994 meeting of the UKOOA Council, the principle decision making forum of the organisation. The researchers had sought UKOOA approval in order to gain access to member companies. The minutes from the meeting reported that members were anxious to establish not only the nature and the implications for the oil companies of the University of Oxford's research, but further: "...what steps could be taken to influence its terms of reference" (UKOOA, 1994). UKOOA's subsequent letter to the HSE seeking clarification is particularly illuminating, in that it detailed the particular concerns of members:

- "1. What is the basic justification for the study?
2. How have the results of the previous studies cited by Dr Parkes been interpreted and applied? In what ways will this proposed study take practical knowledge forward?

3. What does HSE plan to do with the results of the proposed study? In particular, will they be used to prepare new guidance on conditions of work offshore, which may restrict the Industry's current approaches?

It was evident from the discussion that there is considerable unease about the proposal. The academic motivation to "learn" more about proposed predictor variables is understood, but there is concern that such studies may not produce meaningful results or contribute to improved safety. Before recommending that Operators should provide necessary facilities and co-operation to progress the work, UKOOA would require reassurance on the questions noted above and individual operators would seek involvement in *steering the work* and in *reviewing the results prior to publication*.

If you can provide these assurances, I will arrange for the study proposal to be reviewed again at the Council meeting scheduled for 11 May." (letter from Brian Taylor, Director-Technical Affairs UKOOA to Bob Miles, HSE OSD, dated 14 April, 1994; my emphasis)

This letter shows quite clearly the process by which UKOOA seeks to structure research agendas and play an active role in "steering" the progress of the work, even to the point that they seek to have some form of editorial control over its contents. Their power, of course, relates to the ultimate sanction that they hold upon restricting access. For, without access, the work will not go ahead. This will have implications, not only for the 'reputation' of those involved in the project, but is also likely to damage their prospects for securing funding in the future.

The degree to which UKOOA were successful in their attempt to influence the University of Oxford's research is not known since, with no little irony, UKOOA denied me access to the

minutes of subsequent Council meetings. I was only able to obtain copies of a minutes of a limited number of meetings thanks to a certain lack of vigilance on the part of one disillusioned oil company librarian.

The Political Economy of Offshore Safety Research

It is argued here that such concerns are indicative of the HSE and the oil companys' general attitude to research which is in conflict with the official version of the truth. More than this, UKOOA's active attempt to influence the work of researchers with which they have no economic relationship is indicative of their desire to stifle and prevent any research that they cannot control, let alone research which may be critical.

The extent of corporate control of research agendas may be more fully understood if we turn now to a broader examination of the political economy of social research in the offshore oil industry. As we have seen, over the past two decades we have witnessed a tightening of controls upon research commissioned by government departments. Research agendas in social research funded by private corporations¹⁰ have, of course, always been tightly controlled and have tended to be aimed at supporting the interests of these corporations in some form. These tendencies are usually expressed in one of two aims; either to generate results that will promote the corporation to the outside world, for public relations or propaganda purposes, or to provide practical information which may guide the operations of the corporation (McClung Lee, 1978: 11). Social science research on safety in the offshore oil industry is no different in this respect, and the combined pressures of tighter government and company controls and the

¹⁰ Here the type of research referred to is research which employs both qualitative and quantitative social research techniques. For the purposes of this discussion, the commentary does not include market research.

promotion of corporate interests have acted to create a body of officially sanctioned and sponsored research which is uncritical, unreflective, lacks any depth of analysis, and in some cases, as we shall see, often deliberately conceals some of the harsher realities of the management of offshore safety.

To my knowledge, the only current, published research from the social sciences which focuses on the offshore oil industry and which is not funded by any section of the industry is work by myself and colleagues, Charles Woolfson and colleagues, and work for a PhD thesis being conducted in the University of Strathclyde Department of Government and Politics.

Conversely, the amount of officially funded social science research in the industry is much greater. In 1996, the HSE made available a budget of around £52m for research into improving safety in the industry (HSE, 1996). As we have already seen from the encounter with a senior official in the HSE described above, around £6m of this goes to the university sector (see also *ibid.*) But around a third of all HSE funded safety research projects are jointly funded by oil companies, to the tune of £18m (*ibid.*). Some universities and departments within universities depend on industry and HSE funding for much of their research activities. Thus, the Robert Gordon University in Aberdeen received between £325,000 and £600,000 from the HSE research budget in 1996 alone (figures estimated from *ibid.*). Of course, it should be noted that these figures do not include research commissioned by, and conducted internally by the oil companies alone.

The Principal of Aberdeen University recently revealed the extent to which his institution is tied to industry funding during a contribution to the oil companies propaganda campaign

during a treasury review of the offshore tax regime (for a more detailed account of this campaign, see chapter 4). This contribution was printed in the Aberdeen-based *Press and Journal*¹¹ in the form of an open letter to the Chancellor of the Exchequer Gordon Brown:

"Sir,

The North Sea tax issue is of immense importance to the whole of Scotland, especially the North East. The University of Aberdeen is inextricably linked to the oil industry and to the local economy. A dynamic oil industry creates employment for our graduates and funds our research activities. The North Sea oil industry is now mature. The Atlantic Margin is a more difficult operating environment and the exploration success rate, to date, has been relatively low. It is in such areas that the new technologies and scientific advances are most essential. These factors have to be given prominent weight in any decision to alter taxes. The University of Aberdeen is keen to promote informed debate on these issues, which are of critical importance both to the North East of Scotland and to the industry itself. A conference on taxation and the future of the North Sea is planned to take place soon after the consultation paper appears. We will host this event, at which our experts and others from Government and industry will take part. We look forward to a lively and constructive discussion. Professor C. Duncan Rice, principal and vice-chancellor, University of Aberdeen." (*Press and Journal*, 29 June 1998: 'The Dead Sea?' supplement p2)

There is no case being made here that all university departments are currently forced base their research activities upon the demands of the large grantholders, for some of the most important research in the social sciences is currently conducted without corporate or government funding (Sim, 1998). But once a university department has opted to structure its research agenda

¹¹ The *Press and Journal* is local broadsheet with a readership concentrated in the North East of Scotland. Due to the importance of the oil industry to the area, the *Press and Journal* carries detailed news of the offshore scene on a daily basis. Uniquely for a provincial local newspaper, it also has a wide circulation in oil company headquarters, and in the Department of Trade and Industry, in London.

around 'official' sources of funding in the way that the Robert Gordon University and the University of Aberdeen have, then they are, to a great extent, 'tied' to producing research as part of an 'official' agenda. Thus, for example, the loss of this funding may have implications for the long term sustainability of a university department's research output.

The previous chapter contained a discussion of the 'official' research of the Robert Gordon University Offshore Management Centre¹² and the Aberdeen University Offshore Study Group. Some comments which clarify their role as 'researchers for the powerful' are integral to the argument here.

The Offshore Management Centre

The Offshore Management Centre was launched in November 1993 with a purpose to "carry out research, training and consultancy for the offshore industry." (*Petroleum Review*, February 1994: 92) The Centre was established with funding commitments from a range of operating and contracting companies including: AMEC, BP, Brown and Root, Hamilton Oil and Shell. In return for this funding: "Consultancy services will be offered to business arising from the research activities and from staff experience." (*ibid.*: 92) It is not known exactly how much funding the centre has attracted since its inception, but one project commissioned in October 1995 provides an indication of the type of funding involved in the centre's work. This project which was set up to establish the link between "accidents" and "human error" attracted

¹² The main body of researchers at the Robert Gordon University Offshore Management Centre moved to a new centre at Aberdeen University in the summer of 1997. For purposes of clarity this group is referred to throughout the text as the Offshore Management Centre.

£140,000 jointly from the HSE, British Gas, BP, Conoco, Coflexip Stena, Elf, Texaco, Total, and the Offshore Contractors' Association (*Evening Express*, 5 September, 1995).

The centre has organised an annual conference for offshore installation managers (OIMs) since 1992. The OIM conference aims to "update managers from the British, Norwegian and Danish sectors with the very latest research findings and management thinking." (The Robert Gordon University, 1995: 2) Yet, the fact that the same researchers are involved in such work immediately gives them a particular role as management consultants. The argument here is that their role as researchers is also a particular one which serves the research agendas of the funders, and by their own admission, acts as a management consultancy for the operating and contracting companies.

Research agendas, and some of the methods used by the centre are discussed and approved at a steering committee where the funders of the Centre's research are represented (personal communication with Offshore Management Centre, 10.10.96). The power relationship on research matters is largely dictated by the economic relationship between the parties. At the very least, the Centre is always aware that if the funders are not happy with the results of research, they may opt to withdraw funding. This point has been made in public by the head of the Centre, Rhona Flin, who, on receiving another round of funding from the industry, remarked: "I can only presume that through this latest award, the companies are very happy with the work we're doing." (*Evening Express*, 5 September, 1995) Another indication of the controlling effect of this economic-power relationship is indicated by the comments of a researcher at the centre who had discovered in the course of his own research that some oil companies had been massaging their accident figures:

"When I ask these guys [oil company senior managers] about why the accident rates are changed for their own records, they tell me to shut up. Of course I do. Because you can't challenge what they say if you want to keep credibility." (personal communication with Offshore Management Centre, 10 September, 1996)

This position is made clear if we examine some of the methods used by the centre's researchers. Our best example comes from the leaked Brent Charlie report (Flin and others, 1996), elements of which have already been discussed in chapter 1. The most striking feature of the methodology is that researchers enjoy a remarkably close working relationship with managers while they are actually conducting the research. In the first place, supervisors were given a series of presentations on "effective safety management" (ibid: 5) by the researchers themselves at the start of their visit to the platform. Non-supervisory workers were not invited to attend. It is also instructive that an acknowledgement at the beginning of the Brent Charlie report states that:

"Particular credit for the successful completion of this project has been given to Mr. Philip Ley, Safety Manager at Wood Group Engineering Contractors Ltd. His accompaniment of the two researchers offshore and his guidance with the final report were invaluable." (ibid.: 'acknowledgements', my emphasis)

There is no accusation being made here that the Offshore Management Centre are deliberately manipulating the results of their work, or even are aware of any bias in their work, but, as we have already noted, it is very difficult to conduct accurate research in the offshore oil industry if you are perceived as being associated with the oil companies or 'on their side'. Since

offshore workers are less likely to express their opinions openly if they know that these opinions may be unpopular with management, an overtly close association with management may seriously affect the data gathered by the researchers. Thus, although the results of the Brent Charlie report are significant and notable for the issues that are raised, it is argued here that offshore workers might have been yet more negative about the management of safety of their platform had the research been conducted in a more neutral place, by researchers who did not enjoy such a close relationship with management. As we have seen in the previous chapter, research carried out by Aberdeen University Offshore Study Group has, in the same vein been criticised for having a management perspective, and for following a management, oil company or HSE agenda (Vulliamy, 1993).

In this 'official' work, we have classic examples of how research conducted on behalf of the powerful, from the standpoint of the powerful (the oil companies and the government regulator HSE) can be distorted and incomplete. This distortion is even evident in the way that the reports of these research findings are presented. Yet, in the unpublished Brent Charlie document, findings appear to be presented openly and undistorted. Where the unpublished report is flawed is in its conclusions, the action that is recommended for management.

Despite the numerous and serious safety problems that were found by the researchers on the Brent Charlie platform (detailed in the previous chapter), instead of taking workers views seriously, they argue that the best solution is to convince workers that their platform really is safe, rather than act upon the issues raised by workers:

"There was a general belief that senior management were not genuinely committed to safety for this project. As was said earlier, the reality of the situation is not the primary issue, what is important is how to change this perception. The difficulty is that it is much easier to lose the confidence of the workforce than it is to regain it." (Flin and others, 1996: 16)

Thus the final sentence in the report contains the only substantive recommendation, one which has the aim of changing perceptions:

"To reinforce this effort, it may be useful to write to each first line supervisor personally and restate senior management's commitment to safety and their role and responsibilities in ensuring a safe working environment for the entire workforce." (ibid.: 16)

Now this may not be a course of action that is likely to change safety conditions radically on the platform, but it is one which management may be more than willing to act upon.

Despite its relatively critical findings, this piece of work starts from an 'official' position; a position that accepts that there is little or nothing wrong with the organisation of safety on offshore platforms, and therefore, no matter how evident and serious the problems are in the results of their work, the conclusion is that only minor changes or reforms to existing systems and working relationships are required. Of course, neither the HSE nor the oil companies would welcome a report that suggests far reaching, or structural changes to the industry. For example, as Vulliamy (1993) points out, the Offshore Study Group review of the safety representatives and committees regulations demonstrates a clear need for the extension of the onshore system of trade union appointed safety representatives. Yet, this issue is not adequately tackled by the report. If we note that the oil companies have spent a great deal of

lobbying time and resources arguing against the case for trade union representation, and that the HSE has consistently been fairly ambivalent on this issue (Woolfson and others, 1996), then it is not unreasonable to conclude that such a conclusion would be unpopular with the grantholders of the research.

Critical research is not only important for its ability to escape policy-driven research agendas, or to overcome the problems outlined above, but critical research can also, as has been argued earlier, contribute to the construction of an alternative source of knowledge. The work of Charles Woolfson and colleagues (Woolfson and others, 1996) which was reviewed in chapter 1 is a case in point. To recap, they conducted a new analysis of offshore accident rates using HSE data, Grampian Regional Council figures for estimating the size of the offshore workforce, and data which mitigated the effects of under-reporting of accidents, and found that, contrary to the assertions of the HSE and the oil companies, there has been no improvement in safety performance over the most recent periods examined. Furthermore, they found that the offshore oil industry is the second most dangerous industry in the UK, second only to the privatised coal industry. UKOOA, the oil companies collective organisation had previously claimed that the industry was one of the safest in the UK, indeed, it had put the offshore oil and gas industry at number 22 on their league table of the most dangerous industries (*ibid.*: 388-340).

The evidence presented here suggests that the role of the Offshore Management Centre as management consultants to the offshore oil industry is one which seriously hampers the integrity of their findings. And, as has been noted more than once, similar comments have been applied to the work of the Offshore Study Group. Both start from a point of view that

accepts official wisdom that the industry is essentially safe (or, as UKOOA would have it, one of the safest industries in the UK, UKOOA, 1990). In the sense that it is constructed within, and contributes to, common sense accounts of the world according to the offshore oil industry, the research undertaken by those conducting 'official' research can be understood as a key component of the process of mystification.

In attempting to contribute to an alternative source of knowledge, this thesis comes from a different standpoint, the standpoint of the offshore worker. In one sense, to echo Huw Beynon, this approach is simply the other side of the coin to management consultancy, the established branch of 'action research'. In another sense, this approach has the potential to produce a more accurate assessment of the management of safety on offshore installations than that presented by the 'management consultant'-style researchers at the Offshore Management Centre, or the policy-driven agendas pursued by the Offshore Study Group.

Fieldwork Interviews

Empirical work for this thesis aimed at collecting views on the post-Piper Alpha safety regime from a range of different groups working in the industry. The fieldwork thus comprised a series of interviews with: offshore workers; middle managers in operating and contracting companies based onshore; HSE OSD inspectors; and trade union officials with responsibility for organising the offshore industry. In addition, a case study of one operating oil company was completed. Interviews were conducted with all personnel working on two of the company's offshore installations.

As the preceding paragraphs indicate, the thesis is unashamedly 'worker-led' in the sense that the research has been conducted from the standpoint of offshore workers. Practically, this meant that at the outset of the interviews, it was decided to conduct a number of limited 'pilot' interviews in order to obtain the perceptions of workers before interviewing other groups of respondents. This approach allowed for the interview schedules used in interviews with managers, HSE inspectors and trade union officials to be compiled after hearing the views of workers. Thus, although the schedule used for the initial interviews with workers remained unchanged¹³, the perceptions of workers were used to influence the questions raised in interviews with other groups.

Recruiting Respondents

Respondents were recruited using various techniques. The problem of recruiting offshore workers, largely due to the isolated locations they work at, has already been discussed. Workers therefore had to be recruited in the places that they could be found, in transit between their homes and their workplaces. Worker respondents were recruited, and interviews were conducted in the hotel bars, public houses in the vicinity of the train station and the airport, and on trains to and from Aberdeen. A total of 100 offshore workers were interviewed. The interviews comprised a mixture of group interviews and interviews with individuals. One criticism that was made of this methodology by one of the trade union representatives consulted early on in the study was that there was likely to be an imbalance in the sample. Specifically, it was felt that more senior offshore personnel such as OIMs and supervisors would be underrepresented since they were unlikely to frequent the same places as the non-

¹³ Interview schedules are reproduced in the appendix to this thesis.

managerial workforce. As it turned out, supervisors and senior supervisors were well represented, but it has to be acknowledged that OIMs are indeed not present in this sample. This problem has been counterbalanced to some extent by including 3 OIMs in the case study sample, and by interviewing a small number of former OIMs referred on by managers in operating and contracting companies. The sample included 18 employees of operating companies and 72 employees of contracting companies (the overall proportion of the contracted workforce in the industry fluctuates between 75% and 85% (Channel 4, 1994; for analysis of the core periphery structure of the industry, see Gasteen and Sewell, 1995 and Sewell, 1995) working in a variety of disciplines: welders, drillers, electricians, engineers, technicians, production operators, general deck crew, and support vessel crew. Also included in the sample were 9 safety representatives and 20 trade union members.

Unfortunately, it was not possible to identify places where other groups of respondents could be found in significant numbers on a regular basis, and thus similar problems to those already identified in the case of workers, the restrictive environment of the workplace, could not be overcome to the same extent. Onshore managers were identified in a number of ways: contact was made with some via existing contacts with another researcher who had worked in the industry previously; others were recruited at oil industry conferences; others were identified after "cold calling" by letter or over the phone to oil company headquarters; finally, some were referred by other managers who had already been interviewed. There were also problems encountered in recruiting managers. Again, around half of those contacted refused to be interviewed. A significant proportion declined on the basis that similar work had already been conducted (some of them cited research conducted by the Offshore Study Group and the Offshore Management Centre) and that therefore they did not see it as a worthwhile way to

spend valuable office time ("time is money...."). A total of 32 interviews were conducted with onshore managers, some with specific responsibility for safety management and some with operational responsibilities, at a variety of levels in the hierarchy in their respective companies. Twenty respondents were managers sampled from 14 operating oil companies, 3 from drilling contractors, 1 from a catering contracting company and 8 in the major service contracting companies.

Access to the OSD was negotiated after making contact with a senior manager in the HSE. Interviews were granted with 8 offshore inspectors, 6 of them were team leaders of small groups of basic grade inspectors. Interviews were conducted in HSE offices in Norwich and Bootle. For this part of the fieldwork, a colleague was present to assist in conducting interviews.

In addition, I met with 7 full time officials of offshore trade unions (the largest trade unions with members on offshore platforms). Whilst the opinions of those officials are not used formally as data in this thesis, the insights provided by those individuals and their organisations have been invaluable to understanding current 'live' issues in worker safety offshore.

Gaining Access to the 'case study' company

In addition to the 100 offshore workers and 32 onshore managers, a further 50 interviews were conducted in one operating company. Conducting this set of interviews within the 'case study'

company was important in gaining a broader understanding of the current 'live' issues in offshore safety. During this exercise, I was able to spend time with managers and workers, onshore and offshore and discuss with them in detail the issues they dealt with on a day-to-day basis.

Gaining access to the operating company was fairly straight forward. The only route to gain the level of access that I required was to persuade the organisation that my research may be of value to them. Thus, to gain full access to the organisation and to workers and managers at every level, I offered the company a 'management consultancy'. Using a contact I had already established with a senior manager in the company, I proposed to conduct a study of the effectiveness of their Safety Management System and submit a brief report after the exercise was completed. After two meetings to discuss this proposal, the company agreed full access to the company and their employees. Crompton and Jones note that this approach has proved effective for them in their research in 'white-collar' organisations:

"There is also a sense in which you require more than simple access alone; you require some kind of commitment to the project from management, employee associations and the respondents themselves. Grudging or forced access will lower your response rate and produce unwilling interviewees and elaborate interview 'performances' designed to hide as much as they reveal. It is for those reasons that you need to offer something in exchange for access. At one level, this can take the form of a report which is related to an issue of organisational concern." (1988: 70)

Subsequently, the report was never submitted, since the company decided to cease operations on both installations while I was conducting the exercise, and no longer required the report.

The company involved in the case study was a small independent operating company with responsibility for relatively few offshore installations. Access agreements had been attempted with some of the larger operators, but it became clear from the outset that none of those companies were going to allow me anything like the level of access I required. Again, problems of secrecy and sensitivity around the issue of offshore safety were significant. Whilst the willingness of middle, senior and even board level managers to spend time and speak openly on some matters was something that I had not experienced to the same extent during interviews with managers in non-case study interviews, the access I was given was, of course, not unconditional. Although my remit was to investigate the management of safety in the company, the parameters which set my agenda were, to some extent set by and regulated by senior managers. For example, I was not able to ask more senior personnel about particular incidents and accidents that had been reported to me by more junior personnel. In this sense, there were informal, yet very strict boundaries set by gatekeepers in the organisation.

I also experienced some resistance from workers. Interviews with offshore personnel were conducted during visits to the installations. Despite my assertions that all reported views would be anonymised, some were not as open about their perceptions of management as I had hoped, and some of them actually stated that their 'answers' were what they thought to be the 'correct' answers, or the answers that management would expect them to give me. Questions that were deemed to be more sensitive tended to prompt neutral, or 'no comment' type responses. Given preceding comments on the difficulties associated with interviewing offshore workers in their workplace, this picture is perhaps unsurprising.

Personnel involved onshore and offshore with the operation of two installations were interviewed: a floating production platform, and a floating oil storage unit linked to the production platform. Interviews were conducted with 16 onshore personnel and 34 offshore personnel between October 1995 and January 1996. Interviews were conducted with employees at all levels of the organisation: board level managers, senior and middle managers, offshore installation managers, offshore senior supervisors, offshore supervisors, operators, technicians, and general service crew. The data from the case study has been combined with other data presented here in chapters 6, 7 and 8.

Conducting Interviews

Interview data was recorded in fieldwork notebooks. The use of tape recorded interviews had been considered originally since this technique can allow the accuracy of recorded data to be checked more accurately. In the initial interviews, worker respondents were asked if they would object to having their voice recorded on tape. In each case, this was met with a negative response. Each of them stated that they would have been worried about anonymity had a tape recorder been used. Yet the use of tape recorders in this context may not only have been a disincentive to recruiting respondents but also may have affected the outcome of, and data gathered during, interviews. As Bulmer notes:

"More attention needs to be given to the presence of a tape recorder as influencing the course and outcome of an interview....Sometimes, for example, more interesting material is revealed when the tape recorder is switched off." (Bulmer, 1988: 154)

If this is true generally for qualitative research, then in research which deals with more sensitive or controversial issues, the use of tape recorders may have an even more pronounced effect on the material gained from interviews. Furthermore, at the end of each interview, respondents were invited to review the fieldwork notes to ensure that details they had provided were accurate, an option that is much less practical with tape recorded interviews. For those reasons, it was decided that notebooks should be used to record data in interviews with other groups of respondents.

The majority of interviews with workers were conducted with individuals. Of the 57 interviews, 30 were with individual workers and 27 were group interviews. In the case of the group interviews, interview schedules were used to structure the discussion as they were in individual interviews. Needless to say, group interviews were necessarily longer, since the views and experiences of each member of the group were sought. The duration of interviews varied greatly, and was (since many of the workers interviewed were in transit to and from work) to a large extent determined by the amount of time the respondent had before leaving to catch a train, or to get to the heliport. The shortest interviews lasted around twenty minutes and the longest, three hours.

Interview schedules were used for each interview to ensure comparability of data, and to ensure that the interviews had a loose structure guiding them. The interview schedule used for workers, managers and offshore inspectors was compiled with a number of research questions in mind. These questions focused upon: the effectiveness of the post-Piper Alpha regulatory regime and perceptions of the role of the HSE; the response of employers to the new regime; the impact of Lord Cullen's recommendations; and the impact of particular elements of the

offshore labour process upon safety. Interview schedules are reproduced in full in the appendix to this thesis.

A clear problem was the setting for the interviews. By necessity, these settings were typically noisy, crowded pubs and trains. Sometimes, respondents were drinking heavily during the interview (unsurprisingly, since they had been in an alcohol-free environment for up to three weeks), and in some cases interviews had to be terminated because the respondent was clearly affected by their drinking. With the exception of one interview with a particularly persuasive respondent, I managed to avoid drinking with the people I interviewed, although, it has to be said, this was not easy. After completion of the final interview, I was extremely relieved to be able to join a group of offshore workers for a good drink before they caught the last train to Glasgow. Despite these difficulties, these settings proved to be rewarding sites for the interviews. Not only was the much discussed problem of conducting interviews about a management-sensitive topic in a formal workplace setting avoided; the advantage in conducting interviews in informal settings, outside the workplace, was that there was (with the odd exception of some particularly vigilant supervisors) an absence of gatekeepers who may have sought to contain the subject matter explored in interviews to relatively unenlightening or sterile topics (Lee, 1993).

Furthermore, many of the difficulties outlined above were overcome by the willingness of those respondents who agreed to take part to fully engage themselves in the interview. As is the case in qualitative research generally, respondents will often enthusiastically engage in interviews which focus upon issues on which they have particularly strong views, or if they feel they have a vested interest in the subject (Finch, 1986). There was also a clear tendency

amongst respondents to want set the record straight about offshore safety to someone who was obviously less enlightened than they were.

Opportunistic Research Processes

Some data gathered during the fieldwork stages was gathered outside the formal interview process, in a piecemeal, and opportunistic manner. It is worth elaborating on the significance of these more informal processes. As Buchanan and colleagues point out, research in organisations is an opportunistic process, and opportunities to conduct interviews and gather data must be exploited when and as they arise:

"The practice of field research is the art of the possible. It is necessary to exploit the opportunities offered in the circumstances. If, when setting up the study, you ask to speak to someone who you have learned is likely to be a key informant, and your contact discovers that this informant can give you half an hour of his time immediately, you cannot reply, 'sorry, but I need a month to review the literature and pilot my questionnaire.'" (Buchanan and others, 1988: 55)

These comments reflect some of my own experiences. One example of this opportunistic process comes from a meeting with one manager in a large service contracting company who was not scheduled for a formal interview, but was introduced to me after one interview with a colleague had finished. Since it was 5pm and he had finished work for the day, he agreed to go to the local public house for a drink. This was not a formal interview setting (in other words, contemporaneous notes were not taken and no interview schedule was used) and the manager proceeded to contradict many of the views expressed by his colleague during the formal interview. In the pub, the manager revealed some particularly damning examples of his

organisation's approach to managing safety that had not been revealed in the formal interview. Needless to say, I went straight home from the pub and made detailed notes of our conversation.

There is a point to be made here (again) about the restrictive nature of interviewing in work environments. The preceding example clearly indicates that this applies not only to workers on offshore installations, but also to relatively powerful managers in onshore company headquarters. It became clear in a number of interviews that I was merely recording the official company view, nothing more and nothing less. Indeed, in one memorable interview, I was greeted by the respondent, a senior manager in a contracting company, with the words: "How did you manage to slip through the net?" The interview that followed was predictably farcical, and was merely a series of "yes" and "no" answers to my questions that were designed to prompt and shape a discursive 'in-depth' interview.

It has to be said that at the outset of the fieldwork, I was not confident that what would be generated in interviews with managers would be anything other than official company policy. Yet I was also aware that these views were views that would still be valuable for an understanding of the company perspective. However, the responses from managers were not always as sterile and unreflective as I had imagined they would be. Often this was the case because interviewees were willing to engage openly and honestly, but more often than not, I managed to elaborate upon the stock company statement type answers by gathering data in an opportunistic way: with informal conversations with managers, or by meeting them in situations outside the workplace (for example, two managers interviews were conducted at their homes).

During the periods of time that I spent in Aberdeen whilst conducting the fieldwork, I met many more offshore workers than I formally interviewed. Numerous brief conversations which invariably got on to the topic of offshore safety took place in the Intercity train buffet cars, and public houses. Some of these conversations gave me important insights into the subject, and as such were an important part of the qualitative process. The importance of these informal methods of data gathering have been recognised by other researchers, notably Cohen and Taylor (1980), and Hobbs (1988).

No apologies are made here for using data that has relied upon such opportunistic techniques, and has complemented data gathered in formal interview settings. This data is used occasionally in the chapters that follow. I also recognise that these informal processes have also had an unquantifiable yet significant influence on this thesis.

Analysing and Presenting Data

Qualitative data generated by interviews was analysed using standard techniques of analysis. After interviews had been completed, data was 'charted' by subdividing material into a series of headings. These headings formed the x-axis of large A1 paper charts, and the y-axis was used to chart the data generated in a particular interview. Personal details known about respondents were also entered on the y-axis. Thus, the data was easily compared across interviews. General trends in responses were also identified more easily since data from separate interviews could be considered simultaneously.

This approach also allowed responses to be considered in the appropriate context. Thus, where a particular set of responses were made on one topic, collective analysis of this data allowed for a more comprehensive understanding of the background these responses, than would have been possible if each interview had been analysed separately. Examples of these contexts related to particular changes in the way in which platforms were managed, or in terms of the impact of wider policy reforms.

Separate charts were prepared for each group of respondents to enable contrasts to be drawn between groups where they existed. The data was then written-up under the relevant subject headings. Since this is a qualitative exercise, no attempt has been made to quantify the results. However, where views were expressed by a majority, a minority, or where there was an overwhelming view, this is indicated in the text. Where there are conflicting responses that are deemed significant, these are also identified and discussed. Similarly, where particular examples or anecdotes are provided by one respondent, this is clearly indicated.

The data is presented in a variety of forms throughout the text. Quotes from interviews are indicated as 'worker', 'manager' or 'offshore inspector' in the text immediately preceding or following the quote. Further details on the presentation and analysis of data is included later in this chapter. Some passages present the responses of one particular group at length, whilst in other sections, data on a particular issue is compared across groups of respondents. On occasion, where an example or view provided by one interview is strong enough to stand alone, and is particularly useful in illuminating or illustrating a point in the text, it is used accordingly.

Using Secondary Sources

This thesis also extensively uses analyses of secondary data sources. These secondary data include: reports of local newspapers in Aberdeen; the Scottish and UK national press; industry news sources, such as *Lloyds List* and the *Petroleum Review*; publications produced by industry analysts such as *North Sea Report* (published by WoodMacKenzie); trade union publications such as *Blowout* (published by OILC) and *Offshore News* (published by MSF); HSE incident and enforcement data; oil industry conference proceedings; Department of Energy and Department of Trade and Industry reports; and reports published by the oil industry trade association, UKOOA.

Main sites for conducting research using secondary sources have been the Institute of Petroleum library in London, the HSE library in Bootle, and the files of the offshore trade union, OILC.

Chapter 3: Gramsci , Ideology and the State

The argument that will be developed in this chapter is that the limits of potential action within which the capitalist state operates vis-a-vis the economic and social regulation of capital are intimately related to the balance of the social forces of production at a given moment. It is argued that a Gramscian understanding of the state is essential to overcoming functionalist interpretations which view the state as a direct and immediate expression of the economic structure.

This chapter presents a brief outline of Gramsci's concept of hegemony and outlines the role of ideology in securing hegemony and in setting the possibilities for action taken by the state to regulate capital. The chapter then goes on to outline how the dynamic of class struggle is central to the concept of hegemony.

The well rehearsed debate between Miliband and Poulantzas is then briefly revisited to establish a rationale for the examination of the role played by elite groups in the struggle for hegemony.

Marxist Theories of the State

A key question for this inquiry is the extent to which state action is limited by economic structure. Although there is not the opportunity here to launch a detailed appraisal of theoretical debates on the precise form of the state, clearly, the form taken by the state in a particular society, and at a particular moment is of importance to its relationship with capital.

One Marxist, Eugen Pashukanis focused on this point in his formulation of the question:

“Why does the dominance of a class not continue to be that which it is - that is to say, the subordination in fact of one part of the population to another part? Why does it take on the form of official state domination? Or, which is the same thing, why is not the mechanism of state constraint created as the private mechanism of the dominating class? Why is it disassociated from the dominant class - taking the form of an impersonal mechanism of public authority isolated from society.” (cited in Hirsch, 1978: 58)

Pashukanis concentrates on the legal form, and argues that it is derived in essence from the capitalist system of commodity exchange. Although his argument was essentially abstract, this derivation occurs since the contradictory nature of market relations and the circulation of commodities requires a legal authority to arbitrate between formally free individuals, with the power to enforce rights in the interests of those involved in legal transactions. This is, of course an important starting point for an understanding of the role of the state, but, perhaps unsurprisingly, Pashukanis has been accused of economism for reducing the law purely to its economic function (Jessop, 1990a). Just as importantly, this type of approach has been criticised for not locating the basis of the state and of the law in capitalist relations of production (Poulantzas, 1978).

Altvater has also argued for a theory of the state which is located in (and derived from) capitalist relations of production. His summary of the functions of the state is useful for providing a basic concept of the role of the state and is reproduced here:

1. the provision of general material conditions of production

2. establishing and guaranteeing general legal relations, through which the relationships of legal subjects in capitalist society are performed
3. the regulation of the conflict between wage-labour and capital
4. safeguarding the existence and expansion of total national capital on the capitalist world market (Altvater, 1978: 42)

Yet, we should be careful of distorting our understanding of the state by relying upon an analysis which does not go beyond the deterministic level (Poulantzas, 1978), that is, where the actions of the state are, in the first instance, simply a response to the demands of the dominant class. The four functions of the state reproduced above form only a basis for developing our understanding of the relation between state and capital. This schema allows us only to conceptualise the state in functionalist terms in which the function of the state is merely an expression of the economic realm.

Anti-functionalist Notions of the State

As Gramsci argued:

"The claim (presented as an essential postulate of historical materialism) that every fluctuation of politics and ideology can be presented and expounded as an immediate expression of the structure, must be contested in theory as primitive infantilism..." (1996: 407).

Thus:

"Gramsci goes beyond a view of the state as an instrument of a class. The state is a class state in that it creates conditions under which a certain class can develop fully, but it acts in the name of universal interests...." (Showstack Sassoon, 1980: 119).

Yet, the logic of state action and the function of the state can always be related to the broad aim of sustaining the capitalist mode of production. To escape functionalist explanations (a deviation that Gramsci described as primitive infantilism), it may be less problematic to talk of the state, in broad terms, as a key formation in the struggle to maintain class domination. Thus we can interpret each action and strategy of the state not as a direct and immediate expression of the economic structure (whether in the realm of production or of commodity exchange), but, as part of a broader, longer term struggle to maintain the dominant position of the capital class.

Outlined here is a relationship between capital and the state which we can say creates the conditions to sustain the capitalist mode of production, not simply in functional terms, but as a result of class struggle. State strategies to maintain class domination, of course, take different forms in different states during different periods in history. Thus, for example, under fascism, we can observe the state's strategy of asserting domination clearly and overtly through repression, force and violence. In social democratic states, the apparatus of repression remains relatively hidden, and may be fully operationalised only in exceptional circumstances.

This observation, however, tells us little about the peculiar features of the dynamic between the state and capital, or of how exactly the state engages in the struggle to maintain the dominant position of the capitalist class. Clearly, to fulfil those functions set out by Altvater, the state has

to play the role of mediator between competing capitals (O'Conner, 1973). This point is perhaps of significance to the fundamental question on the formal disassociation of the state from the dominant class posed by Pashukanis. The state's role as 'mediator', whether between competing capitals, or where it regulates the conflict between classes, necessitates at least the appearance of being relatively neutral, disassociated, and even removed from the economic realm. This apparent class neutrality is important in maintaining legitimacy in relation to both capitalist class and other classes. For, if the state was to represent itself as it is, as defender and upholder of the dominance of the capitalist class, this would call into question the state's status as mediator.

In so far as the claims surrounding the state's class neutrality represent the perpetuation of a particular set of ideal truths or 'appearances' about the character of the state, much (if not all) of which is mythical, we can talk of the neutrality of the state as an ideological construction.

The 'ideology of the neutral state' may be an important element of the state's ability to sustain its political and legal authority and legitimacy, and should be understood as a set of ideas that are constructed within a complex process that seeks to build a consensus around its particular role in the capitalist mode of production; as law maker and law enforcer, as provider of health care, as provider of welfare benefits and so on.

Ideological State Apparatuses

The primary concern of Marxists before Gramsci was to demonstrate the nature of the repressive apparatuses of the state, and the effect of this physical repression (Poulantzas,

1972). For Gramsci, such analyses were inadequate in that they could not fully explain how bourgeois states managed to secure the consent to rule within a given society.

This problem, on a political level, has been summed up neatly by Miliband:

"Under conditions of relative, but never the less considerable political freedom, the parties of the working classes, the parties explicitly pledged to the defence and the liberation of the sub-ordinate classes have generally done much less well politically than their more or less conservative rivals, whose own purpose has pre-eminently included the maintenance of the capitalist system...these latter parties have regularly achieved much better results in elections than the working class parties, and have obviously done so because they have attracted very substantial sections of the subordinate classes, in addition to the largest part by far of the middle and upper classes." (Miliband, 1974: 162)

Marx himself had asserted that the state does not just function through repression or coercion only, but also has a powerful ideological role. One of his most quoted passages gives us an indication of his position:

"The ideas of the ruling class are in every epoch the ruling ideas: i.e. the class which is the ruling material force of society, is at the same time its ruling intellectual force. The class which has the means of material production at its disposal, has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it." (Marx, *The German Ideology*: 61, cited in McLennan, 1971; original emphasis)

Marx's analysis of the state went much further than the over-simplification that he has been accused of (often illustrated by reference to the statement in the *Communist Manifesto*: "...the

modern state is but a committee for managing the common affairs of the whole bourgeoisie."), and he did not always characterise the state simply as an instrument under the direction of the ruling class:

"Sometimes Marx said that the state need not be representative of the whole of a class but only a section of that class (for example, the financiers under Louis-Philippe); or that one class can control the state for the benefit of another class (for example, the Whigs on behalf of the middle class in England)...Indeed, Marx said that the state simply as an instrument of class domination was to be found in North America, where the state, unlike all other national structures, was from the start subordinated to bourgeois society and bourgeois production." (McLellan, 1971: 183)

Karl Marx's analysis of the state may have been more sophisticated than many critics have subsequently claimed, yet: "...although Marx established the natural necessities entailed in the capitalist laws of motion, he did not fully explore the contingencies involved in their realisation." (Jessop, 1990b: 176) Since his thesis on ideology, and the precise form or function of the state, was never fully formulated, Marx's writings hint at, but lack the detail and insight into, the complex role of ideology in the maintenance of class domination. Furthermore, the pre-occupation of early Marxists with a limited focus on the sphere of production, or circulation, served to deprioritise a detailed analysis of the subtle ways in which ideological control and manipulation supplemented the apparatuses of coercion and force (Althusser, 1971).

Central to the formulations of Gramsci was the assertion that no regime could sustain itself only through organised state power (or the repressive apparatuses), but required to harness consent through ideological means. For Gramsci, the term ideology can be understood as a

"system of ideas." (Gramsci, 1996: 370) This system of ideas is seen as operating in a sphere distinct from the structure, yet at the same time, this sphere is shaped by the structure. Thus, although particular political solutions and policies (which are themselves ideological) propose to change the structure, it is, in actuality, the structure that changes ideology. This occurs through the process of ideological hegemony: the permeation throughout civil society (the churches, schools, trade unions, the family and so on) of a particular view of the world, system of ideas, beliefs and morals which is supportive of, and reinforces, the dominant class.

Of course, debates between and within particular ideological positions also occur as part of this process. When we talk of systems of ideas, we are not talking about the construction of one 'world view' which predominates over all others. There is room for difference, or for a plurality of ideas. The effect of ideological hegemony is that it ensures that the plurality of ideas is defined within certain parameters. Thus, whilst this process may have the appearance of an open and 'democratic' one which encourages debate. Ultimately such debates are conducted within boundaries of what may be deemed 'acceptable' or 'legitimate'. It is in this sense that we can understand Gramsci's description of ideology as the cement of a society (Poulantzas, 1976a), a force which binds and reinforces social organisation under capitalism. As the dominant ideas of a society are promoted, disseminated and reproduced, they reach popular consciousness through a variety of means (not least, through the institutions of civil society). When these ideas are broadly accepted by the populus, they are said to have become accepted as 'common sense'. That is, these ideas, no matter how flawed they may be, common sense ideas become established as an accurate view of the world, set of truths, 'realities' and so on.

Whilst Gramsci emphasised the role of ideology to the exclusion of a more detailed treatment of the repressive apparatuses, he was also careful to emphasise the interdependence of both. The state can thus be conceptualised as "hegemony protected by the armour of coercion" (Gramsci, 1996: 263).

Historical Bloc and Leading Fractions of Capital

Structure in the Gramscian sense is rooted in the organisation of the means of production (or the social relations of production); a process which includes the technological level of production, the labour process, and "the classes that result from the organisation of this process." (Morera, 1990: 141) Superstructures, which significantly he refers to in the plural are defined as politics, ethics, law, philosophy, art, the whole realm of ideas (Joll, 1977). Consistent with the above discussion on the role of the state, the form and function of superstructures ultimately have their origin in the structure: "That is to say the complex, contradictory and discordant ensemble of the superstructures is the reflection of the ensemble of the social relations of production." (Gramsci, 1996: 366) Gramsci is careful to note that in relation to the superstructures, the structure, the mode of production, is permanent (Morera, 1990). Of course, the form of the structure can be changed, but this process necessarily involves fundamental change, and cannot be achieved by simply reforming the superstructures.

For Gramsci, the Marxist dialectic is defined as the relationship between structure and superstructures (Showstack-Sassoon, 1980). This reciprocal relationship between the two dimensions is a complex interaction, but is conceptualised in the moment of historical bloc.

Thus, historical bloc represents the unity between structure and superstructure. Moreover, the element of class is the link between the two dimensions (Morera, 1990). We therefore can say that the material substance of class power is realised in the moment of historical bloc. The primacy of the concept of historical bloc in relation to the repressive and ideological apparatuses of the state is neatly summed up as follows:

"[it is] historical bloc in which precisely material forces are the content and ideologies are the form, though this distinction between form and content has purely didactic value, since the material forces would be inconceivable historically without form and the ideologies would be individual fancies without the material forces." (Gramsci, 1996: 377)

The concept of historical bloc is clearly, at one level, a theoretical abstraction, yet at a material level, it represents a "historical grouping of social actors who have been organised and led by a fraction of the class who play a key role in the extraction of the surplus, in 'the decisive nucleus of the economy'" (Pearce and Tombs, 1998: 35-36)

Central to the process of struggle to achieve hegemony is the struggle between fractions of the ruling class, or fractions of capital (and struggles between fractions of the working class). It has been already noted that the historical bloc is a formation of the reciprocal relation between structure and superstructure, and as such represents and outcome of the hegemonic struggle for class domination. The historical bloc represents a coalition of forces, ultimately dominated by the leading fraction(s) of capital. Thus, to understand the nature of hegemonic struggle at any period of time, it is necessary to identify the leading or dominant fraction of capital in the struggle. The following chapter will include an attempt to identify the dominant fraction of

capital in struggles around the regulation of the North Sea industry, and, more generally, the UK economy.

The State as an Unequal Structure of Representation

It is important to recognise that state institutions do not act as unmovable monolithic organisms. Neither are their strategies always co-ordinated to follow one purpose. As Gramsci pointed out, although politics as a superstructure must in some way reflect the tendencies of the development of the structure, these tendencies may not always come to fruition. A particular political act or strategy may be an error of calculation, either as a result of an individual miscalculation, or as a result of attempts by other groups to bid for hegemony. In addition, political acts may be the result of the internal demands of the organisation which may arise as a result of the need to give "coherence to a party, a group, a society." (Gramsci, 1996: 408) Political strategies may also be the result of intra- and inter-class compromise. Again, the state's role as mediator is emphasised, as is the state's need to grant concessions to the subordinate class.

Since one 'hegemonic principle' never manages to secure the power to rule in any given social formation, hegemonic domination is never complete (Pearce and Tombs, 1996b). Hegemony can only be understood as a permanent element in societies in the sense that "no society exists without a certain degree of hegemony." (Morera, 1990: 162) Thus, the struggle to secure hegemony is never fully completed, but can be understood as a continuing process struggle. This view of hegemony allows us to argue that

"while it may be true that in an effectively hegemonised order, there can be only one hegemonic ideology, there is no reason why at the same time there may not emerge a number of counterhegemonic principles and counterhegemonic movements." (Pearce and Tombs, 1996b: 431).

Mahon's description of the state as an "unequal structure of representation" is useful here (1979: 156-157) Citing Poulantzas, she asserts that since the state represents the 'unstable equilibrium of compromises', and the fact that the state "...is destined to reproduce class divisions....", it "...cannot really be a monolithic, fissureless bloc but is itself, by virtue of its very structure, divided." (Poulantzas, 1976b: 75, cited in Mahon, 1979: 157) In its attempt to establish a political direction which consolidates the interests of the ruling class generally, the state must therefore establish a political strategy to overcome the contradictions and conflicts within and between all of its various institutions and branches. Yet this does not imply that we can reduce our analysis to the realms of interest group politics, for the internal unity of the state is based upon its organisation of the political relations of class domination. Whilst the state thus appears contradictory and chaotic, in essence it retains a certain internal unity which emerges as the political representation of hegemonic class power.

Regulatory agencies play a special role in this process. Since the compromise sought by regulatory authorities "demands a modification of the 'rights of capital'" (ibid.: 166), regulatory agencies also insulate the rest of the state from this particular compromise which is likely to generate exceptional conflict. Furthermore:

"...like other parts of the state apparatus, regulatory agencies contribute to the production of authority by simultaneously 'representing' and 'regulating'. This dual role is circumscribed by the nature of the particular compromise necessary to a particular pattern of domination." (ibid.: 166).

This analysis has implications for the thesis of regulatory capture (for the classic position on regulatory capture, see Bernstein, 1955; for an overview of this position see Snider, 1993). The relationship between the state, and in particular, regulatory authorities and those they regulate cannot be simply understood as one of captor and captive. But, since they operate as hegemonic apparatuses, they are always vulnerable to demands for compromise, either from fractions of the ruling class or fractions of the working class.

Thus, we can view the state as neither a monolithic, stagnant organism, incapable of progressive reform, nor as a type of open system which simply mediates between various sets of interests, but as a site of class struggle. Furthermore, since hegemony is never 'complete', this creates opportunities for counter-hegemonic movements (which may also represent pro-regulatory forces; Snider, 1991) to secure political and material gains.

Securing Consent and Relative Autonomy

Thus, it is important to recognise that the development of ideas, and political actions that may emerge are always the outcome of struggle. In this respect, this process generally involves an element of concession or compromise from the dominant to the subordinate class.

This is a point of key significance to the question of consent. During instances where the state appears to act in the interests of the working class, or fractions of the working class this can be interpreted, in a Gramscian sense, as a strategy which involves the granting of concessions to the subordinate class in order to protect the long term interests of capital:

"...in working for class hegemony, the State acts within an unstable equilibrium of compromises between the dominant classes and the dominated. The state therefore continually adopts material measures which are of positive significance for the popular masses...even Fascism was obliged to undertake a series of positive measures, such as the absorption of unemployment, protection and sometimes improvement of the real purchasing power of certain sections of the popular masses, and the introduction of so-called social legislation." (Poulantzas, 1978: 31)

Furthermore, the development of ideas, policies and political acts of the state and civil society also have a certain autonomy. This is not to say that they develop separately, or in isolation from structure (as we have seen, it is the structure which shapes and changes ideology), but it is to say that since institutions "have their own histories and their own truths," (Pearce and Tombs, 1998: 37); the development of ideas within these institutions is, to the some extent, self-perpetuating. Yet these ideas do not develop in a vacuum, but are shaped by the dialectical process from which whole systems of bourgeois ideology emerge.

The problems raised by Gramsci had at their core a challenge to the notion that the state and the political sphere can be conceptualised simply as the pure expression of the economic base in each instance. He suggested that state institutions do, to some extent enjoy some measure of autonomy to pursue particular courses of action/strategies and so on. Without some measure of autonomy, the regulatory function of the state would be difficult to operationalise, since the state must play some role as a political force which balances the conflicting and opposing demands placed upon it (Mahon, 1979).

As we have seen, the historical bloc is not a rigid formation, but has to respond to the demands placed on it, largely by the exigencies of social relations of production; demands which are the outcome of class struggle. It is for those reasons that we can talk of the state having a certain "relative autonomy". But to reiterate, this relative autonomy is far from static, and may take on different forms depending on the balance of class forces at a particular period.

There has been a tendency amongst Marxists to use the term "relative autonomy" as if it has a universally understood meaning (Jessop, 1990a). For some, the term is used simply to establish a theoretic separation between a crude reductionist approach and an approach which recognises the importance of political agents as separate social sphere; yet this use of the term does not allow for a specific understanding of the degree to which the political sphere is autonomous. Jessop has criticised this tendency in more crude terms "either a system or a political agent is autonomous or it is not - autonomy cannot be relative" (ibid: 102). This problem is recognised, and the notion of "relative autonomy" is explored in this thesis in the context of the empirical evidence presented here.

As Miliband has pointed out, key questions around this concept remain:

"...how relative is relative? In what circumstances is it more so or less? What form does the autonomy assume? And so on. These are the key questions of a Marxist political sociology, and indeed of political sociology tout court." (Miliband, 1973: 85)

The Role of Elite Groups

Arguments around the relative autonomy of elite groups were particularly focused in the debate between Poulantzas and Miliband in the late 60s/early 70s (Miliband, 1973; 1974, Poulantzas, 1972; 1978). A major issue of disagreement centred on Miliband's critique of the bourgeois ideology of managerialism (which is based upon the idea that the separation of ownership and control functions in modern business organisations has prompted a new locus of power in capitalist organisational forms) (Miliband, 1974). In this debate, Poulantzas argues that Miliband simply reverses the logic of bourgeois ideological claims in relation to the function and role of the state (Poulantzas, 1972). This does not represent a rejection of bourgeois epistemology or the rejection of particular assumptions made by bourgeois ideology. For example, Miliband still accepts the managerialist rationale that managers hold class power as part of the ruling elite; and since economic power is now held by managers, managerial elites are now part of the ruling class. Clearly, this represents a break with traditional Marxist approaches which understand class membership as being defined within the relationship between the subject and the owner of the means of production.

For Jessop:

"Miliband does not advance the Marxist analysis of the state. Indeed, he actually reproduces the liberal tendency to discuss politics in isolation from its complex articulation with economic forces. To the extent that he does relate them it is only through interpersonal connections; he neglects their mutual presupposition and interdependence on the institutional level." (Jessop, 1990a: 30)

Here we find much in common with sociological debates on the dualism of agency and structure (Lukes, 1977; Giddens, 1979; Clegg, 1989). Yet, Miliband's analysis does not lay any claim to agency as the primary site of power. The value of Miliband's approach lies in a demystifying analysis which reveals the distortions and contradictions of liberal pluralism (Poulantzas, 1972). By doing so, his approach not only reveals pluralistic analyses to be inherently flawed, but at the same time, demonstrates an important element of how the position of the dominant class is maintained at the level where networks of powerful actors operate. Whilst we must be careful of reducing analysis to the study of individuals, the role of powerful elites represents an important element of the relationship between state and capital, and one often ignored by Marxist analyses which (quite properly) place their emphasis on the institutional and structural levels. In terms of our understanding of the relationship between capital and the state, Miliband's position may not be useful beyond a certain level of analysis. Yet Miliband's approach is, however, useful here as an empirical guide. Whilst the concept of the state utilised here is closer to the position adopted by Poulantzas, this thesis will make reference to the personal links between key members of elites (political and business elites) in the tradition of Miliband.

Hegemony for Miliband is "the result of a permanent and pervasive effort" (Miliband, 1973: 163, original emphasis) conducted in various arenas by the multitude of agencies on a macro level, but also in the arena of 'micro-politics',

"in which members of the dominant classes are able, by virtue of their position, for instance as employers, to dissuade members of the subordinate classes, if not from holding, at least from voicing unorthodox views." (ibid: 163)

Thus, for Miliband, this dynamic is crucial to the process of shaping the dominant ideology and reinforcing hegemonic power.

It is recognised that the theoretical basis for Miliband's assertions on the changing nature of class power can be criticised for an instrumentalist notion of class power (in the sense that he emphasises the importance of the class character of individual members of elites, rather than the political logic of class structures). Yet an empirical understanding of the micro structures which exist to perpetuate the power and influence of elite groups can illuminate our understanding of the mechanics of hegemony, can be utilised in a way that is consistent with the Gramscian notion of historical bloc.

Conclusion

This chapter has argued that a Gramscian analysis, utilising concepts of hegemony and historical bloc are important in avoiding functionalist notions of the state. It has further outlined a materialist view of hegemony where ideology can not be separated from material forces. That is to say, ideology can not be considered as having its own force independent from the structure.

In so much as it is a reflection of the development of the economic structure, the capitalist mode of production, the state is not conceived as unmovable or granted with any permanency. The state and its institutions do enjoy some measure of autonomy to pursue a particular course of action.

Furthermore, the struggle for hegemony (and, of course the struggle over state policies and strategies) is an ongoing struggle between classes, a process which also may involve inter-class struggle. The formation of a historical bloc may thus rely upon the emergence of a dominant class fraction over other fractions.

This brief chapter, in conducting a relatively abstract theoretical discussion, may have appeared to take somewhat of a diversion, and to some extent interrupted the flow of the thesis. It is hoped that the importance of this brief diversion will become clear as the thesis progresses. The discussion engaged in this chapter will be used in more detail in chapter 5 (particularly in attempts to identify the historical role of the oil capital in the UK), and in the concluding chapter to provide a theoretical framework for empirical findings, and for some of the work on the relationship between capital and the state which follows in chapters 4 and 5.

The following chapter examines some key assertions and assumptions made by oil capital in terms of the conditions under which they operate, and in terms of their 'positive' contribution to society. Whilst the empirical and theoretical points that follow in chapter 4 may not have a direct bearing on understandings of the role and function of the state, the chapter advances our understanding of the struggle for ideological hegemony in the industry. In particular, the

following chapter examines empirically how the possibilities for state regulatory action may be limited by the ideological interventions of capital.

Chapter 4: Ideological Constraints on the State and the Doomsday Warnings of Capital

This chapter will outline a number of significant sets of empirical and ideological claims made by oil capital in the UK. Further, this chapter will show how such claims are used by the oil companies to construct a particular view of the world. This view of the world is used as a central element in the struggle to achieve hegemony, to provide impetus to the political interventions of productive oil capital. Such sets of claims relate to: the degree to which the operating companies are threatened by increasingly punitive market conditions and dwindling reserves in the North Sea; the inseparability of the general well-being of the nation from the interests of the oil industry; and the process of globalisation and the supposedly fundamental changes to the structure of the global economic system.

The chapter will then go on to show how such claims can be exposed as erroneous, deceptive or grossly exaggerated when set against any measurable reality. As such, the public pronouncements of productive oil capital (usually made by their collective voice UKOOA) can only be read with this point in mind. Furthermore, this chapter argues that we can understand this process of mystification as one which enables capital to set acceptable parameters for state intervention and regulation. This is the point at which these empirical and ideological constructions assume a powerful material force.

The Material Force of Ideological Hegemony

It was asserted in the previous chapter, with reference to Gramsci, that ideology does not operate independently, in the sense that ideology can act to change the economic structure.

Rather, the structure acts, through hegemonic apparatuses, to produce and shape ideology. Our concern here is the particular impacts that bourgeois ideology can have in shaping the function of the state.

It is instructive at this point to return to Gramsci:

"It is worth recalling the frequent affirmation made by Marx on the 'solidity of popular beliefs' as a necessary element of a specific situation. What he says more or less is 'when this way of conceiving things has the force of popular beliefs', etc. Another proposition of Marx is that a popular conviction often has the same energy as a material force or something of the kind, which is extremely significant."
(Gramsci, 1996: 377)

Here Gramsci is using Marx's arguments to reinforce his own formulations of hegemony and historical bloc. It is particularly significant that Marx chose to argue that this "solidity of popular beliefs", that is, an ideology or set of ideological claims, once accepted as common sense (Gramsci, 1996: 419-425), can have the same effect as a material force. It is argued here, in concordance with Marx's assertion, that particular ideological claims, or popular convictions made in reference to the UK oil industry, have considerable impact upon the activities of the state. Furthermore, the parameters of debate, of what is and isn't possible within a particular historical situation, are set by this process and can define the possibilities for state action in any given set of circumstances.

The ultimate effect of this process has been to create a new set of appearances or 'realities' for the regulation of North Sea oil capital. This is not to argue that ideologies in themselves simply represent material realities - far from it - since most of these claims can be shown to be,

at least partially, if not completely, false, unable to stand up when actually confronted with certain material 'facts'. Yet the force of these ideologies, reinforced by the moral and intellectual leadership of the dominant hegemonic fraction, is to set the boundaries of acceptable action, and alternative strategies. Thus, these new 'realities' can be used to render alternative strategies (which may promote economic and social regulation) as untenable and indefensible, and marginalise (or even portray as dangerous, subversive) those voices that promote such strategies.

The construction of ideologies must therefore be understood as a key site of class struggle, and of the struggle to achieve hegemony. The struggle between various ideological positions, and between hegemonic fractions is particularly important in understanding the creation of these new (un)realities which are claimed to represent material conditions or economic realities.

We can examine this process in detail by referring to the particular ideologies which underpin government policy and regulatory strategies in the North Sea oil industry. Within this ideological process, arguments around three particular inter-related sets of claims are of central importance to setting the limits of state action or regulatory intervention: the first promotes the view that interventionist state strategies are limited by particularly punitive market conditions in the industry, and by the limited prospects for long-term profitability in the North Sea. The second set of claims seeks to assert that the national interest is inseparable from the interests of the oil industry. The third set of claims relate to the process of globalisation and the supposedly fundamental changes to the structure of the global economic system.

Future Prospects for the North Sea

North Sea Oil Reserves

The oil industry has consistently underestimated the size of oil reserves in the North Sea as part of a broader strategy to mask the actual value of North Sea reserves. We can go right back to the early years of the industry to see this phenomenon. In 1975, Shell generously estimated North Sea reserves at 35 billion barrels, estimates that the UK government were more than happy to accept (Harvie, 1994). One independent analyst, Peter Odell, at the time provoked consternation from the majors claiming there might be 2 or 3 times this amount. Ten years later, the oil companies admitted that Odell's estimates had been more accurate (ibid, 1994).

Fraser has noted recently that:

"Government forecasts of 15 billion barrels of oil left untapped in known fields, with up to 50 billion barrels thought to be elsewhere in the UK continental shelf (there is similar optimism with gas) indicate that there will be activity for decades to come...." (Fraser, 1995).

That there are still considerable reserves left to be exploited remains a matter of controversy, the oil companies being ultra-sensitive to guard information which might indicate the true life of the North Sea. The extreme sensitivity with which this issue is treated was revealed again in October 1992, when President of the Board of Trade, Michael Heseltine was publicly

reprimanded by senior executives of the oil companies for daring to suggest that the North Sea may have 50 years productive life left (*Independent*, 23 October 1992).

It is perhaps unsurprising that industry forecasts grossly underestimate the real prospects for development, for if the oil companies are operating in a relatively stable environment, then this creates space for governments to ensure that the state receives the commensurate benefits (either in terms of tax revenue, or control over reserves). A secure future for the sector also suggests that the operating companies may be in a position to withstand stricter social regulation. As Harvie has noted: "Oil companies like the idea of increases in reserves. But not huge increases; that might mean governments being a lot more choosy about policy." (Harvie, 1994: 101)

More recently, the industry's public claims on the limited shelf life of the North Sea have been slightly more sophisticated, making reference to the complex relationship between marginal fields, declining field sizes and increasing costs of technological requirements. So, when the treasury recently announced that a decision on the future of the North Sea fiscal regime was imminent, UKOOA hit back with the following:

"Maintaining the success rate in discovering commercial fields is ever more challenging in a maturing province. The hostile environment of the North Sea, coupled with diminishing field sizes, raises costs to some of the highest levels anywhere in the world...The threat of increased taxation levels jeopardising future development has been hanging over the UK oil industry since July 1997, when the treasury announced a review of offshore oil and gas taxation." (UKOOA News Release, 2 June, 1998)

Such claims have also been used not only to launch an attack on the treasury's tax review, but also to justify a renewed vigour for cross-industry cost-cutting under the banner of CRINE:

"New discoveries and developments have become progressively smaller. The typical 50 million barrels development of the 1990s is one fiftieth of the size of mature fields, such as Forties and Brent. As the mature fields age, significant resources continue to be applied to enhance safety and environmental aspects of production facilities and to prolong their active lives. The consequent pressures on most costs are being countered by resourceful use of technology and industry cost-cutting initiatives."

(UKOOA, 1998a: 4)

Yet a report on the potential for North Sea production commissioned by the Institute of Petroleum is revealing in this respect. In contrast to the claims made by UKOOA, they point out that, in terms of the production profile of fields developed after 1996, the prospects are extremely healthy. For, fields developed after 1996 are set to provide around 50% of North Sea production by the end of the century. They point out that: "The production potential of the North Sea has consistently been underestimated and it seems that, even now, the process is continuing" (*Petroleum Review*, September 1997: 406). Further, a series of new finds and higher than expected yield from new fields (see, for example, *Press and Journal*, 10 October 1997, *Financial Times*, 4 July 1998) have significantly boosted projections of recoverable reserves since the publication of the Institute of Petroleum report cited above (see also WoodMackenzie, 1998b).

LIVERPOOL JOHN MOORES UNIVERSITY
Alham Roberts L.R.C.
TEL. 051 231 3701/3334

Oil Prices

Oil company claims which centre upon the constraints imposed on the oil companies by market conditions almost without exception tend to the view that without favourable economic conditions, future field exploration and development will not take place - oil will remain in the ground; marginal fields will remain unexploited. These arguments draw upon a particular economic analysis which views markets as realms of activity which are relatively independent from the demands and interventions of capital and are thus uncontrollable. This view dictates that the oil companies are held hostage to oil price fluctuations and the rising costs of production. In the context of the North Sea, the particular difficulties associated with this environment make these market constraints yet more stringent.

Yet the claims of the operating companies that they are engaged in a constant battle to remain competitive is undermined through (even a cursory) examination of the history of the oil industry; a history of cartelisation, price rigging, and production controls, all of which have had significant consequences for operation of markets on a global scale (Odell, 1986, Yergin, 1991). Oil companies are able to, and do, manipulate markets systematically. Not insignificant here is that the oil majors not only have rights of ownership over oil reserves, but they also control each of the necessary stages of the production and processing of oil: extraction, transportation, refinement and distribution. It is this level of ownership that enables the oil majors to interfere with markets, through price fixing on the forecourts, or by exerting control over supply. This has been the strategy pursued by the oil companies since the early days of the industry, and was famously noted by Winston Churchill in his attack on Shell, in defence of BP, in the House of Commons in June 1911: "It is their policy - what is the good of blinking at

it - to acquire control of the sources and the means of supply, and then to regulate the production and the market price...." (quoted in Sampson, 1993: 81).

For prolonged periods in its history, the oil industry has operated as a cartel. Periodically, states are forced into taking action to break up the cartel. Yet, such actions have met with limited success. In the US, the Sherman Anti-trust laws have been deployed (unsuccessfully) in times of intense public opposition to industry price rigging (Coleman, 1985). In this country, there have been three Monopolies and Mergers Commission investigations since the early 1960s, in response to similar public concerns. But these have all failed to break the cartel power of the oil companies (*The Guardian*, 19 May 1998).

Despite the periodic fluctuation in the price of oil, the oil companies can survive long periods of low profits:

"The giant oil companies are able to survive because they are big and because they operate strategically. They can use the periods of low price to weed out smaller rivals. They have the depth and range of investments to survive themselves, and harvest the very high profits available in periods of short supply. Most important of all, they are able to command the full length of the supply chain and, at particular periods, collectively assert control over one or other of its links. It is this that gives the big firms their periodic ability to influence price and consequently transform the oil trade into a source of superprofit." (Woolfson and others, 1996: 7)

Moreover, commanding the full length of the supply chain, when combined with cartel powers to influence price, allows the oil companies to balance losses that may be accrued in periods of low crude price by increasing the price on the forecourt. One industry commentator noted in

February 1998, when North Sea oil fell to \$14 a barrel: They [the integrated oil companies] are looking to offset losses at the upstream with gains at the downstream end....Firms are using the recent collapse in the oil price to take a breather from the petrol price war that cost them so dearly in the past." (*The Guardian*, 24 February 1998) Companies in the North Sea which enjoy this integrated function comprise the great bulk of the most powerful players, including the likes of Shell, BP, Mobil, Texaco, Elf, Total, AGIP, Arco and Marathon.

Furthermore, notwithstanding the points that will be made in the following chapter in relation to the challenge that OPEC presented to the oil majors' hegemonic power in the 1970s, OPEC's ability to act to stabilise oil prices is important in the context of claims that the oil companies are held hostage to oil markets. Whilst OPEC's influence may have declined since the 1970s (Yergin, 1991), they still have the power to act alongside non-OPEC producers to exert control over the supply of oil to markets. Now this may mean that since oil companies do not have absolute control over the course of action taken by producer states, they may at one level be held hostage the market interventions, it remains the case that producer states also have a strong interest in maintaining stable oil prices in the long term (WoodMackenzie, 1998a).

Despite these observations, the argument deployed by oil capital is that these conditions (which are always supported by scientific/economic/technical calculations, often made by the oil companies themselves) are the conditions that naturally, through the mechanism of the market, regulate what is and what isn't possible. As we shall see in the coming chapters, these claims are extremely powerful in terms of their impact upon health and safety regulatory strategies.

Thus, claims around the potentially devastating impact of low oil prices serve to legitimise oil industry arguments against governments imposing the burden of unnecessary or 'industry-threatening' regulation, or (as we shall see in greater detail in the following chapter) to argue for tax concessions (see also Whyte and Tombs, 1996). Recent oil company pronouncements on the Treasury's intention to restructure the UK tax regime were not only characterised by their consistent reference to the difficulties of developing a depleted North Sea, but also by their warnings around the punitive impact of sustained low oil prices. Thus, it is claimed, low oil prices will render the new fields West of Shetland unprofitable if the tax regime creates 'instability' (The Shunning of Shetland, *The Guardian*, 28 May 1998). In similar vein Syd Fudge, chair of the Offshore Contractors Association has proclaimed: "We can do nothing about the oil price, but we can control other factors, such as taxation....And my understanding of the position is that there is no headroom for additional taxation. " (Stokes, 1998: 5) It thus came as no surprise that low oil prices were cited by the treasury as the primary reason for their abandonment of the review: "The government has been monitoring changes in oil prices and I have concluded that at the current low level of prices it would not be right at this stage to proceed with the reform of the regime" (Gordon Brown quoted in the *Scotsman*, 8 September, 1998: 21).

Yet amidst the incredible media attention to the doomsday warnings of oil capital there were a couple of more sobering voices to be heard from authoritative sources. The Royal Bank of Scotland's Chief Economist Jeremy Peat, pointing to the action taken by a number of OPEC and non-OPEC producers to bolster oil prices, stated publicly that: "While some price uncertainties remain - and as current producers' revenues will be sharply down on last year - few new projects will be under threat and production will continue at expected rates in 1998"

(Press and Journal, 3 June 1998). Industry economist Tony Mackay had a similar cautionary contribution to this debate, arguing that the impact of punitive taxation: "...will be a short term impact and not a long term one. If oil prices rise significantly in the near future, the positive effects of that should outweigh the negative effects of a modest increase in the tax burden" *(Press and Journal, 29 June 1998: 'The Dead Sea?' supplement: 2)*. Industry analysts WoodMackenzie have also concluded recently that: "Looking beyond 1998, there are a number of factors that support the view that oil prices can be sustained at higher than today's levels" (1998a: 4)

Industry statements opposing the treasury's fiscal review have tended to contain a particular claim related to the vulnerability of the industry to low oil prices. This claim is that a punitive tax increase might jeopardise the nation as a whole in terms of dwindling manufacturing orders, job losses, or a gross reduction in returns to the exchequer. Thus, Mark Hope, technical director of Enterprise Oil argued during the industry orchestrated public attack on the treasury's tax review:

"There are currently around 140 UK continental shelf projects on the drawing board for development within the next five years. These represent tens of billions of pounds of business for UK plc. The current combination of a low oil price and the threat of a tax increase puts many of them at risk." *(UKOOA News Release, 2 June, 1998)*

Defending the National Interest

As Miliband (1973) pointed out, often such claims are couched in terms which assert that business activity is essential to the national interest. This perspective, of course, advocates the subordination of other interests (including class interests) for the sake of a greater cause which unites rich and poor, employer and worker, ruler and ruled. Within this discourse, the success of a particular enterprise, business or industry is inseparable from the success of the nation (and, by inference, the prosperity of its citizens) generally. This becomes a powerful ideology precisely because it links the interests of capital and a particular notion of the 'national interest' with the real and perceived material interests of ordinary people.

For example, a common element of this defence of the national interest seeks to relate the success of business to the creation of jobs. The argument is that the state must create favourable conditions for businesses to allow the job market to remain buoyant. Equally, the claim is that attacks on capital will lead to the loss of jobs, a claim which unites the interests of both employer and worker. (Of course, in the context of the energy industry, which is of key significance to the success of other sectors of capital, the oil industry's claims here have a particular resonance).

Again, a valuable reference point for us here is the treasury review of the offshore fiscal regime. Thus in the Spring and Summer of 1998, during the period that the detail of the treasury's review was expected to be released, UKOOA was predicting a doomsday scenario of mass job losses if the tax burden was increased: as many 2,000 jobs could be lost through the

suspension of the Clare field (*The Guardian*, 28 May, 1998); and at least 40,000 jobs throughout the UK would be at risk (*The Guardian*, 21 April, 1998). The Offshore Contractors Council had predicted that 50,000 jobs were at risk (*Scotland on Sunday*, 7 June 1998). Again, we have to be rather cautious about the doomsday warnings of capital, for, even the oil industry's favourite economist, Alexander Kemp¹⁴, admitted in this instance that claims of massive job losses are "sensationalist" (Stokes, 1998: 5).

Of course when we examine the public pronouncements of capital, we are dealing with a very particular account of what constitutes the national interest. Of course, it is entirely possible to understand the national interest as not necessarily having a direct relation to the fortunes or interests of capital. Thus, for example, during the very same debate on taxing the North Sea, the Scottish broadsheet *Scotland on Sunday* was strongly in favour of tax increases "to help pay for increased spending on schools and hospitals" (*Scotland on Sunday*, 31 May 1998).

Reinforcing Notions of the National Interest: UKOOA's Propaganda

Such media interventions of capital as those surrounding corporate taxation debates are, of course, a key element of hegemonic struggle, and we can see the national interest discourse in a variety of industrial contexts operationalised via business funded promotional groups, propaganda campaigns, and through the power of advertising on a daily basis (Miliband,

¹⁴ Alexander G. Kemp is Professor of Economics at the University of Aberdeen where he is Director of Aberdeen University Petroleum and Economic Consultants, an organisation which provides consultancy services on petroleum economics to the international oil industry. He has long standing links with the oil industry, having previously worked for Shell, and has built a considerable reputation as an expert in oil economics, with special reference to licensing and taxation. It was a paper jointly authored by Kemp and MacDonald (1993) that provided the academic rationale for the launch of CRINE (see chapters 5 and 6). Alexander Kemp is currently European editor of *Energy Journal* (biographical details from *World Oil*, v. 217, No. 12, December 1996).

1973). A recent example which neatly exemplifies this process was clearly on display with the public relations campaign launched by UKOOA in April 1998. The campaign, with the slogan, "North Sea Oil, we all get a lot out of it." (UKOOA, 1998a), used a series of full-page newspaper ads in the Scottish national press, a 24 hr information hotline, and a website to boost the public image of the North Sea oil industry.

Central to this discourse is the claim that oil is important to improving quality of life. Under the main slogan, "Keep your skin beautifully soft with north sea oil", one newspaper ad continued:

"You'd be amazed at the number of ways oil enriches us. Not only is it found in cosmetics and toiletries, its by-products help make the ink for books, the paints for artists and the film for filmmakers. In fact, *virtually everything that improves body or soul today relies in some way on oil*. Even chocolate." (*Scotland on Sunday*, 5 April 1998; my emphasis)

Significantly, the campaign also highlights particular benefits the nation gains from the industry: the contribution of oil production to the balance of payments, investment in the UK economy, job creation, the development of British technology that can be exported, and the fact that:

"There are over thirty companies involved in, exploring for and producing oil that comes from UK oil fields, and each of them pays tax to the Government on the revenue it earns. Since 1970, £150b has flowed into the inland revenue in this way, contributing to healthcare, education and all the other services funded by the government." (UKOOA, 1998a, information sheet: 'North Sea and the UK Economy')

The campaign thus reinforces assumptions that, not only is oil essential to improving quality of life, but that it is essential to the health and well-being of the nation generally. The advertising blurb continues: "No other resource is so versatile. Or so irreplaceable. Which is why we go to such lengths to maintain its supply. Its a mammoth job but one we have to do. After all, we all get so much out of it." (*Scotland on Sunday*, 5 April 1998) It is therefore not only concerned with raising the profile of the industry as one which makes such a valuable contribution to the nation, but, since the contribution is one which the nation could not do without, claims that the extraction of oil "is a mammoth job but one we have to do" implies that the operating companies are acting out of duty, responsibility to society, or some sort of greater purpose than simply being motivated to maximise profits.

This is a powerful claim since it can serve to pre-empt either criticism of the oil companies (for example, in terms of their safety record), and it can provide justification for the claim that any government action (including the introduction of higher taxes on profits) may ultimately be against the national interest.

As an acceptable, responsible and socially beneficial face of capital is represented and developed, it becomes more difficult to criticise capital for the negative impacts of its enterprise upon society. This discourse thus implicitly acts to legitimise productive regimes, cost-cutting programmes, petrol price rises, and so on. Whilst this may be a somewhat obvious point, it is nevertheless one worth making; this is where we can see a direct relationship between such press campaigns and the economic interests of capital. In a Gramscian sense, this is very much a hegemonic process, with capital seeking to build popular

consent around its role in the North Sea. This ideology is also one that has pervaded the HSE, and is important in shaping relationships between HSE and the operating companies. This is a point that will be elaborated upon in the following chapters.

The following chapter will show how the emergence of productive oil capital as a dominant faction brought with it serious and damaging implications for the interests of the whole of the UK manufacturing sector. The attack on manufacturing equated to a wholesale attack on the British working class in a manoeuvre that was central to the onslaught of Friedmanite shock therapy in the late 1970s/early 1980s. The following two chapters will also demonstrate how a series of attacks upon those working on offshore platforms have been integral to the strategies of capital and the state. Yet the national interest discourse is powerful in neutralising opposition to these strategies generally, and in particular to the productive regime adopted by the operators.

It is therefore of significance that the national interest discourse can also be used to exploit nationalistic tendencies amongst the general populace. There is an important connection between claims which defend capital on the basis that it serves the national interest and claims that to attack capital would equate to attacking the national interest. This ideology is one which will clearly and with little contradiction serve the interests of the dominant class:

"From the point of view of the dominant classes, nothing could be so obviously advantageous as the assertion which forms one of the basic themes of nationalism, namely that all citizens, whoever they may be, owe a supreme allegiance to the national interest...." (Miliband, 1973: 186).

Thus, anyone who can be shown to be acting against the interests of enterprise, business or industry can be portrayed as subverting the interests of the nation:

"One of the penalties which the subordinate classes pay for their subordination - indeed what almost defines them as subordinate classes - is that their demands can be made to appear in this light, as injurious to 'the nation' and the 'national interest'....A large scale strike, even more a general strike, has never been denounced as detrimental to employers, but as injurious to 'the nation' and to the 'national interest.'" (ibid.: 186)

In this way, the national interest can be used against workers who struggle to make gains from capital. We should note at this point that this is also the context for the analysis of the regulatory authority HSE in the following chapters.

Scottish Nationalism and 'The National Interest'

Of course, in the context of North Sea oil, the political terrain of Scotland has been indelibly marked by a Scottish nationalist perspective on what constitutes the 'national' interest. Debates on the ownership of 'Scottish oil' largely shaped the ascendancy of the Scottish National Party (SNP) in the 1970s (for a summary of this perspective see Kennedy (ed), 1976) and the 1980s (see, for example SNP research paper authored by Simpson, 1986). Yet the SNP were never to advocate public control of oil. Party policy has instead tended to advocate more Norwegian-style reforms (Tait, 1975) expressed as oil funded social security increases, development of the infrastructure and grants and allowances for Scottish businesses (Smith, 1975). In the 1990s arguments around the redistribution of oil revenues remain broadly similar, in the sense that ownership or participation do not feature on the party's policy agenda.

The oil industry is not as central to the SNP's policy debates as it was in the 1970s and 1980s. The SNP's manifesto for the 1997 general election pointed out: "Scotland is a wealthy nation. When our share of North Sea output is taken into account, an independent Scotland would become the eighth richest nation in the developed world." (SNP, 1997, section 1) Yet, save a proposal for adjusting gas landing charges, there would be no change to the economic regulation of the industry in the SNP's independent Scotland:

"All existing obligations to oil and gas operators will be honoured, and the SNP envisages no substantive change in the taxation regime so that there can be a clear, stable and continuing climate for the oil industry." (ibid.: section 5)

Elsewhere in the manifesto can be found the promise to reduce the general rate of Corporation Tax from 33% to 30% (at the time of writing this thesis, a process already completed by Labour in government).

Thus, in this literature we can see an implicit link being set out between the stability of the oil sector and the Scottish national interest. A recent statement from Alex Neil, the party's energy spokesperson makes this claim more explicit:

"Gordon Brown's dithering and delay over the review of the oil and gas fiscal regime - which was first announced nearly a year ago - is now starting to cost real jobs and real economic opportunities in what should be an exciting new era for Scotland's oil and gas industry." (*Scotsman*, 27 May 1998)

It is quite possible to understand this position in the context of the party's struggle for acceptance, firstly as a viable governing power, and secondly, as one which can be trusted to

manage the country's economic affairs. In the current language of British parliamentary politics, this in effect means a party which is keen to gain the approval of business. SNP pronouncements on other industrial sectors tend to be equally 'pro-business' (see, for example, SNP, 1997).

The party claims that they are now the natural defenders of Scottish business interests. Thus, in the aftermath of the Chancellor's back down over the tax review, the SNP claimed: "...Gordon Brown and the London Treasury have been forced to see sense and back down as a direct result of the rise in support for the SNP." (*Financial Times*, 8 September, 1998: 2)

This position, in its acceptance of the orthodoxies and exigencies of business as universally beneficial for the nation is a fatally weak one. As such, the SNP's definition of the Scottish national interest is actually not very far away from the type of arguments used by the oil companies to establish their industry's inseparability from the UK national interest.

The recent emergence of the idea of globalisation has undoubtedly given arguments around the relationship between capital and the national interest greater significance. For, if we are witnessing a process in which companies are ever more dependent on their ability to operate and sell abroad in the face of 'global competition' (as those who promote the idea of globalisation claim we are), then the 'national interest' inescapably becomes a question of UK(or Scottish)-based industries surviving and thriving within an increasingly globalised economy. The following section presents a critique of this rather contrived set of claims.

Globalisation and the Supremacy of the Market

The claims of capital outlined in the preceding two sections are given a certain force by particular theoretical ideas promoted by capital. As we have already seen, in the discussion of hegemony and historical bloc, the struggle for hegemony requires the development and operationalisation of particular ideologies.

In this context, not least of these is the neo-liberal ideology which asserts the supremacy of the market and which seeks to gain legitimacy for the very ethos and existence of capitalist business organisations within a competitive market. Within this ideology, profit-seeking is portrayed as being part of the very essence of human nature, on both a collective and individual level. Competition is the natural principle around which to organise economic life, and the struggle to accumulate wealth is the primary law of life. The rationale behind capitalist economic organisation is portrayed as a normal, natural and healthy way of life for which there is no credible alternative. Again, the very rationale of this ideology makes it difficult to propose alternatives to an unfettered market (which, as the evidence of the preceding sections show, is, in reality, rarely unfettered), since opposition to this view would be as pointless, and as socially dangerous, as opposing the very laws of nature (for example, see, Hayek, 1979).

In recent years, perhaps the most important discourse which has been routinely reproduced to support claims regarding the supremacy of the free market has been the idea that the market is rapidly and irreversibly internationalising through the process of globalisation.

We are chiefly concerned here with arguments around the process of economic globalisation. Within the globalisation thesis, it is argued that a truly global economy has emerged, dominated by uncontrollable market forces (Reich, 1992). National economies are becoming increasingly borderless and capital has become much more mobile; industrial investment is therefore targeted wherever production and labour costs are lowest. Due to this trend, it is claimed that developing countries are benefiting from unprecedented increases in foreign direct investment. Related to this, corporations are becoming truly international, operating across state boundaries, with no allegiance to any one nation state (Ohmae, 1996). This process has led some to argue that we now live in a post-capitalist world order (Harris, 1995). Further, the emergence of this new economic order is consistently characterised by commentators such as Reich and Ohmae as a 'natural' process, one that has occurred as an inevitable response to the force of the market.

It has also been claimed that the idea of globalisation and global competition has, over the past twenty years "acquired the status of a universal credo, an ideology" (Petrella, 1996) Also crucial in understanding the nature of moral and intellectual leadership in hegemonic struggle is the fact that over the past decade, the idea of globalisation has come to dominate agendas in business and in the study of business in universities (Thompson and McHugh, 1995).

It apparently follows that we are faced with an inevitable and irreversible decline in the importance of the nation state. National governments are seen as having a declining role in national economic management, and in the capacity to regulate capital. In this new world order, national strategies become increasingly irrelevant. Thus:

"...traditional nation states, those artefacts of the 18th and 19th centuries, are now either coming apart at the seams....or are showing themselves to be relatively meaningless as units in which to think about economic activity" (Ohmae, 1995: xiii).

Significantly, the idea of globalisation is also used to justify financial liberalisation, deregulation, and a 'flexible' labour market in order to compete in the 'global village'. The increasingly competitive global market, it is argued, also requires a flexible labour market and low labour costs to attract inward investment. For workers, this of course translates as attacks on wages, working hours, contractual conditions (Harman, 1996), attacks which, as we shall see in the following chapter, are all too familiar to offshore workers.

Of course, when we talk of fundamental changes to the world economic order, it is clear that the international oil industry has a pivotal role in this process:

"Oil has become the major fuel and probably the most critical and indispensable raw material of the contemporary industrial civilisation. It is now the largest single component of international trade, with \$250 billion in exports or about 10 per cent of global international trade. It supplies 40% of the world's primary consumption of commercial energy and is the mainstay of industry, the lifeblood of transport, and the sinews of war. Oil has become the major determinant of today's global military-political-economic balance....Production, exploration and particularly refining and distribution are dominated, even in the oil-exporting companies, by a handful of large, fully integrated multinational corporations flying the flags of countries that only too recently colonised the oil producing countries." (Kubursi and Mansur, 1994: 313)

The significance of the UK oil industry to the global economy will be examined in the following chapter, but first we turn to a brief critical analysis of the premises upon which the globalisation thesis is based.

The Greatest Myth of Our Time: Globalisation as Appearance

There is a great deal of evidence to show that the idea of globalisation as a new (post-capitalist) economic order is untenable; a complete distortion of any measurable economic reality. It should rather be understood as a clear case of wishful thinking on the part of its foremost protagonists, which include pro-business commentators and 'gurus' such as Michael Porter, Robert Reich and Tom Peters.

A recent article in *The Economist*, a publication which actively promotes financial liberalisation and deregulation, disputed a basic premise of globalisation: the irrevocable decline of the role of the state in the face of the unfettered market. For, according to *The Economist*:

“What is surprising is the nearly unanimous support for the idea that government has in fact been in retreat....in the rich industrialised countries the age of big government, contrary to reports, is far from over.” (*The Economist*, September 20 1997)

Hirst and Thompson (1996) use a detailed analysis of economic data to support a series of arguments, all of which demonstrate the weakness of the idea of globalisation. Those arguments can be summarised as follows:

1. The international economy is less open, liberal, or integrated than it has been, for example, at the turn of the last century.
2. Most so called trans-national corporations are still nationally based.
3. Capital investment and trade, far from shifting significantly to wherever market advantage dictates, is still concentrated in the 3 major economic blocks: Europe, North America and South East Asia
4. Those economic blocks still have the capacity to exert powerful regulatory pressures over markets

Furthermore, if we look at trends in the structure of capital, there is an accelerating tendency to mergers. This movement toward a greater concentration of wealth in the hands of the few means that the 600 largest corporations control a fifth of the worlds industrial and agricultural production. Seventy four of those account for half of all sales. (Dicken, 1992 cited in Pearce and Tombs, 1998). Large scale mergers and the formation of oligopolies have the effect of making capitalism less rather than more competitive. Such a tendency has been strikingly visible in the international oil industry recently. Mergers have already taken place between Exxon and Mobil (to create the world's largest company in revenue terms), and Total and PetraFina. In the wake of the Exxon/Mobil merger, pressure on Royal/Dutch Shell to find a merger partner has increased (see, *Scotland on Sunday*, 29 November 1998). Speculation is rife that other majors such as Texaco and Chevron are also preparing for merger/take-over deals (see *Financial Times*, 2 December 1998). There is no little irony in the fact that these mergers are commonly justified by protagonists as a necessary response to the intensification of international competition. Thus, Lee Raymond, Chief Executive of Exxon conceded that whilst there may be a great deal of regulatory concern over the merger, the deal had emerged

as a result of the "general evolution of the competitive environment" (*Financial Times*, 2 December 1998).

A final problem with the idea of globalisation which is of significance to the argument presented here is that it fails to adequately recognise the difference between finance capital and capital that is invested in new productive capacity. Productive investments require a long term commitment, and can't simply up and go when the going gets tough:

"The long term nature of industrial investment requires 'dedicated' rather than 'fluid' capital. As such, productive capital is locked into distinct social and economic spaces. Indeed, it is a condition for the success of such investments that firms seek to build a stock of good will with the local community which acts as their host economy. This they tend to do by sealing off many of their exit options; the sunk costs incurred by initial investment making it significantly less rational for industrial capital to play the mobility card (as distinct, say, from threatening to play the mobility card) at any time in the future...In no sense, then should we understand productive capital as essentially rootless, restless, footloose and fancy free, forever on the move in search of lower unit costs, leaving an ever widening track of devastation and unemployment in its wake." (Hay and Watson, 1998: 818; references omitted, original emphasis).

Notwithstanding all of the points outlined above, two decades of market deregulation and financial liberalisation have undoubtedly created impacts which have been considerable and far-reaching; yet this process is far from irreversible. Whilst states do and must create space for 'free' markets, particular forms of regulation are necessary to achieve this (Pearce and Tombs, 1998; Underhill, 1994). Stricter regulatory strategies can emerge again, just as they have done in the past (Boyer and Drache, 1996).

Indeed, further deregulation is likely to be met with considerable resistance:

"The rules of the Holy Roman Empire also once appeared irreversible. And internationalisation was widely declared irreversible by the end of the 1920s. But now, as then, its reversal is actually inevitable because it is socially, politically, economically and environmentally unsustainable." (Bienefeld, 1996: 422)

Globalisation and the UKCS

In the context of the UKCS, there is a powerful threat which is intimately linked with the idea of globalisation. This is that unless operators in the North Sea are given preferential treatment, then the province will become economically unviable and they will leave the UKCS for one of the many other attractive oil provinces: Mexico, Vietnam, the Maldives, China, Indonesia or Malaysia (Curtis, 1996, Fraser, 1995, Rothermund, 1994, Thomas, 1996, Westwood, 1995). The claim is that if the government does not tread carefully and actively protect the interests of the oil companies, the great benefits which accrue to the nation will disappear over the horizon as the last drilling unit leaves the North Sea.

UKOOA consistently invokes the need for the UK oil industry to remain competitive in the era of globalisation. Such pronouncements are usually linked to the vulnerability of the UKCS as a viable site for investment:

"Conditions in the North Sea are very harsh and the oil fields there are small compared to those in other parts of the world with the result that oil production is relatively expensive. UK oil companies therefore

have to be inventive and have to invest heavily in safe and efficient techniques in order to remain competitive in the world market." (UKOOA, 1998a)

In turn, such arguments are wheeled out at regular intervals to influence policy debates. Again, an apt reference point is the recent debate over North Sea taxation, during which Syd Fudge, chair of the Offshore Contractors Council claimed that "What the oil companies have now, but didn't have in 1990, is bags of choice...the Far East, South America, US, Canada, Africa, Middle East, Indonesia, Pakistan, Australia" (*Scotland on Sunday*, 7 June 1998). John Wils of UKOOA also argued, "...companies have been attracted here by a stable political and fiscal framework. Once you create instability, they start to move away." (*The Guardian*, 28 May, 1998)

The carefully timed use of such propaganda is nothing new. As Carson pointed out:

"The history of the North Sea in the 70s is littered with industry warnings and reports, often felicitously timed to coincide with new government measures, and usually amounting in effect to threats of a decline in drilling activity or of a fall off in investment..." and "he [Director General of UKOOA] explained that it was not so much a threat as a fact of life to point out that increased taxation on this scale might make other oil-producing areas of the world more attractive than the North Sea." (Carson, 1982: 129)

There may indeed be an element of truth in recent claims around globalisation. Thus, the 'liberalising' assault upon markets, which has been given its impetus by 'global' financial institutions such as the IMF and the World Bank may be part of a very real attempt to reset the relationship between states and markets. It is also the case that this liberalising process has created greater opportunities for capital investment in locations such as the former Soviet

states, Mexico and Venezuela where oil production was previously subject to greater state control. The liberalising of markets has probably also had the effect of making new oil provinces more attractive to inward investment.

Yet the Institute of Petroleum report cited earlier in this chapter provides detailed evidence which overtly contradicts the current doomsday warnings of the industry's chief spokespeople:

"A combination of reasonably firm oil and gas prices, rapidly improving technology and a benign political and taxation environment gives companies a strong incentive to maximise their investment in, and their production from, the area. The North Sea offers an unusually large range of trapping mechanisms and a significant number of geographical horizons. This resource wealth combined with skilled local workforces, sophisticated engineering capabilities and an adjacent market for all the likely output make the North Sea one of the most attractive development areas on earth. Add in political stability, established law and regulation, and you have an almost perfect offshore province - apart from the weather." (*Petroleum Review*, September 1997: 406)

A further report produced by international oil analysts, Petroconsultants, in April 1998 examined the fiscal regimes of 120 potential sites for investment and found the UK to be "the most investor friendly oil nation in the world" (*Lloyds List*, 20 April 1998: 4).

The evidence provided of these reports are not only of significance to our understanding of the special qualities of the UKCS, and its consequent value to oil capital, but it also quite clearly contradicts the public pronouncements of the oil companies.

With the conclusions of these reports in mind, let us now turn to outline the series of reasons why claims regarding globalisation and the mobility of capital are particularly difficult to sustain in the context of the UK offshore oil industry¹⁵

1. The time-scale of North Sea investments. One of the factors which distinguishes oil from many other areas of economic activity is that, on one level at least, oil represents a finite resource. The capital intensive nature of the business makes it very difficult for an oil company to simply leave before the end of the productive life of the field, if it is operating within an oil-producing region and has already made an investment in terms of exploration. This is particularly so in the North Sea. In the North Sea sector it is the very fact that the costs of production remain relatively high which means that to begin/engage in upstream activity is a massive investment, with individual installations representing a commitment of 20-25 years.

2. It remains more economic to exploit oil around existing fields, for both general reasons (for example, in existing areas of activity there already exists "a comprehensive infrastructure of pipelines, platforms and sub-sea installations", Risley, 1995: 4) and for particular reasons (for example, the ability to refloat some types of platforms to other parts of the UKCS; Risley, 1995: 6).

3. The UKCS stands in immediate proximity to "huge ready-made energy markets in Continental Europe" (Cresswell, 1995: 32). This is particularly important in an industry where transportation can be logistically difficult and/or highly expensive.

4. As we have seen earlier in this chapter, there are still considerable reserves to be exploited.

¹⁵ This 'list' has been expanded from Whyte and Tombs, 1996.

5. The UK represents a politically stable environment in which to operate - a consideration that has driven the search for sources of oil other than those located in the Middle East and South America (Carson, 1982: 90, Yergin, 1991: 664-670).
6. What has been called the "business-like attitude of the British Government" is highly attractive to oil companies operating in the UKCS (Risley, 1995: 4). Whilst this comment was made in relation to the previous government, as the argument below demonstrates, there is little evidence for a new 'less friendly' political environment under Labour.
7. The favourable nature of the UK's tax regime for the offshore industry. Economists Ian Rutledge and Philip Wright assert that "the UK currently has the weakest petroleum taxation regime in the World." (1996: 4) Yergin has noted that the structure of the fiscal regime in the UK actually meant that some operators remained relatively protected from the price crash of 85/86: "...in one field, called Ninian, a drop in the oil price from \$20 to \$10 would cost the oil companies only 85 cents. The big loser would be the British treasury, which was taking most of the rents. Actual operating costs in Ninian - the cash costs to extract oil - were only \$6 a barrel, so there would be no reason to shut in production at any price above that. Furthermore, it was so costly and complicated to close down operations temporarily that there would be reluctance to do so even if the price dropped below \$6. As George Keller, chairman of Chevron, said at the time, "There is not much of a price floor.'" (Yergin, 1991: 749). There was no exodus of capital from the North Sea during the late eighties. In fact, the very opposite occurred: capital investment doubled in the five years following the slump, rising from £2.5 b in 1986 to over £5 b in 1991.
8. The highly developed infrastructure in the UK has greatly benefited the operating companies who have avoided many of the costs associated with operations in developing countries (ibid.). Of course, relocation to most of the world's new oil provinces would require massive investment in networks of communication, transportation.

Combined, these factors represent a significant indication that the chances of an exodus of capital from the North Sea are extremely slim, and will remain so for a number of years to come.

While the current price of oil may be almost as low as it has been since the early 70s (*The Guardian*, 21 April, 1998), this has been moderated to some extent by pushing the price of producing a barrel of oil down consistently (Rutledge and Wright, 1996). A recent report by industry consultants WoodMackenzie showed that UKCS operating costs had been forced down by 23% since 1990. Over a two year period, the average price of producing a barrel of oil fell from £3.09 per barrel of oil equivalent in 1994 to £2.64 in 1996, largely achieved by CRINE-led cost cutting. (1996c) North Sea profit levels, whilst they are widely expected to fall in 1998, have remained remarkably high for a number of years. Since 1995, the annual gross trading profits of the North Sea operators have exceeded £10 billion and provisional figures for the first half of 1998 put gross trading profit at over £5.5 billion (Department of Trade and Industry, *Energy Trends*, November 1998). To put this in perspective, profit levels have not reached those levels since the boom years of the late 1970s/early 1980s. Capital investment in the UKCS for the first half of 1998 is also higher than it has been in any 6 month period in the past 5 years (*ibid.*).

Yet, despite the preceding evidence, the idea of globalisation, and particularly, the possibility of relocation is a permanent fixture in the armoury of ideological weapons used by the oil majors and UKOOA to hold to the head of the UK government. Successive Conservative governments were not only open to the claims made by the globalisation thesis, but were positively enthusiastic about promoting and perpetuating the idea that the nation state was

indeed in decline and increasingly subordinated to the global marketplace. Former Industry and Energy Minister, Tim Eggar, was a key political figure to support industry warnings of a doomsday scenario for the UK's oil sector which invoked the possibility of relocation:

"Several other countries are opening up their offshore sectors for oil and gas exploration and development. The oil industry is firmly international in its outlook and companies are free to take their money elsewhere if the UKCS loses its appeal" (Eggar, 1993: 2); and "...when the North Sea began, the government held all the aces. But now, with so many opportunities world-wide, oil companies were spoilt for choice and were probably in a better position to drive a hard bargain, including possibly on the tax front." (*Press and Journal*, 9 September 1993: 1)

It is tragic that the Labour Party in government have not deviated from this enthusiasm. The outcome of Gordon Brown's review of the offshore tax regime was a complete abandonment of tax reform with informal assurances that the review was "scrapped for good" (*Financial Times*, 8 September 1998). This 'back down' (*Scotsman*, 8 September 98) can, partially at least, be understood as an acceptance on the part of the government of the oil companies view of the world and the economic 'realities' they face. Thus, this decision was justified with reference to global market conditions (*Financial Times*, 8 September 1998).

In the desperation to prove themselves 'business-friendly' and just as willing to promote the myth of globalisation, they have failed to provide any alternative to the 'new world order' (Hay and Watson, 1998). For, to accept the myth as reality is to accept that governments can do nothing in the face of these supposedly irreversible trends. This has particular implications for how the idea of globalisation is successfully used by oil companies in the UK.

Conclusion

This chapter has identified a series of claims which are central to providing a rationale for policy interventions on the part of the North Sea operating companies. It has exposed many of those claims as falsely constructed and/or grossly exaggerated when set against any measurable reality. Of course, as was argued at the start of this chapter, 'ideology' or the empirical claims that are associated with particular ideas have no independence. They do not simply emerge from nowhere to assume a credibility and force of their own. They have a real and material origin, development and operation, and have real and material impacts upon the world.

In this context, three sets of claims have been considered. The first set of claims, constructed around market and production conditions faced by the operating companies, are relatively empirical and (selectively) utilise research findings of industry sponsored academics and economists upon which to base their conclusions. The second and third sets of claims, those which constitute a particular interpretation of the national interest, and those which view the world economic system as a newly globalised domain, can be said to form the basis of a more comprehensive and complex set of ideas.

In particular, claims around globalisation and market conditions, present these phenomena as having a certain 'natural' independence. Understood as a process of mystification, those sets of claims have the status of 'appearance' rather than 'essence'. Yet they are presented as uncontrollable, inalienable forces which are not socially constructed, but have a natural origin.

It is this mystification process, imposed and asserted hegemonically that allows related claims, such as those around what constitutes the national interest, to assume a powerful material force. As this chapter has shown, each set of claims is intimately related to the other. Thus, for example, claims around the viability of the sector rely upon the claims set out in the first section, are closely related to the claim that if these conditions become unviable, then the operators will simply up and go to other oil producing provinces. This process has relevance for current debates on punitive regulation, since, if fiscal, safety or environmental regimes are too punitive, the viability of the province may be threatened. Of course, since the health of the oil industry is inseparable from the health of the national economy, it makes little sense for the government of the day to force the operating companies out of the North Sea

This is precisely how these claims can be said to have a certain material force. Thus, for example, the Treasury's recent proposals to restructure taxation were progressively weakened by industry interventions as the debate has developed. UKOOA and the oil companys' campaign to ward off punitive taxation prompted the Scottish broadsheet newspaper *Scotland on Sunday* to note: "The government has watered down its original proposals to take up to £5bn in extra taxes from North Sea profits after a fierce rearguard campaign by oil and gas companies." (*Scotland on Sunday*, 7 June 1998) Of course, three months later, the government was to back down altogether.

Thus, the material force of the process of mystification is that a particular view of the world can be constructed and used to shape and define the possibilities for state action, regardless of what evidence, empirical or theoretical, there may be to contradict this view of the world.

The following two chapters will build upon the arguments developed in this chapter and use empirical evidence from particular significant moments in the development of the economic and social regulation of North Sea oil industry and place our discussion within the theoretical framework outlined so far in this thesis.

Chapter 5: Oil Capital, the North Sea and the British State

This chapter starts by outlining the historical importance of oil to the capitalist mode of production. It then examines the importance of oil as the UK's primary energy resource, and the relationship between oil capital and the British state. In doing so, the chapter builds upon the Gramscian theoretical framework outlined in the previous 2 chapters and argues that since the advent of Britain as a producer oil state, 'productive oil capital' has maintained its position as a dominant fraction of capital.

It is also argued that the encouragement of the fast extraction of oil coincided with the political priorities of government and the demands of the finance sector in the UK: firstly, as a strategy to alleviate the balance of payments crisis in the seventies, and secondly, to facilitate the neo-liberal monetarist project in the eighties. It is within this context that we can understand the development of a separate health and safety regulatory system, a consistent reluctance on the part of the state to introduce production/depletion controls, and the establishment of a lax offshore fiscal regime.

Yet, the argument here is not that this process was inevitable. Far from it. At key periods, particularly during the early seventies, pro-regulatory forces enjoyed a position of relative strength; a position that was never to be fully consolidated.

Part two of this chapter presents a brief analysis of the events leading to the Piper Alpha disaster, events which arose largely from the combined effects of a regime of unrestrained production, relatively weak labour in the sector, and the operators response to the price crash

of 1985/86. An analysis of the Piper Alpha disaster and the Cullen Report is then followed by an examination of the operating companies' attempts to offset the costs associated with Cullen.

Part 1: The Development of the North Sea Oil Industry and the Power and Influence of Capital

The Importance of Oil to Capitalism

During the period of rapid industrialisation in the US, Europe and Japan following the second world war, oil became established as the industrial world's primary energy source; in 1953, the profits of the oil companies accounted for 14% of the profit income of all industrialised countries. This period ensured the place of the oil industry as possibly the single most important industry to capitalist development. Whilst oil has been vital to British imperial interests, oil has also been central to the development of US capitalism. The oil industry was born in the USA: five of the seven sisters (the largest of the oil majors) were American; and the US remains, as it always has been, the world's largest consumer of oil.

The energy industry has had a pivotal role in the development of capitalism, since energy has a particular impact upon the maximisation of surplus value:

"There is a finite length to the working day (which sets clear limits to any increases in absolute surplus value) but the increase in the speed of production (which is at the root of increases in surplus value) has seemed to have almost no boundaries in recent history....while machinery does not necessarily need inanimate energy, most modern machinery is totally and increasingly dependent on such energy.

Historically, increases in both absolute and relative surplus value have required increased energy inputs." (Christie, 1980: 15)

Capitalism requires energy as a raw material, as a major input to the productive system. Thus, capital generally relies upon oil as its most important energy resource: "Oil has become the single most important resource necessary for the continued productivity and growth of capitalist societies. It is also the base on which the world's greatest multinational corporations have been built. Access to uninterrupted supplies of crude oil has become of paramount importance for the continued economic power of advanced western nations." (Wybrow, 1982: 251) For this reason, oil capital plays a special role in maintaining capitalist social relations.

Class domination of the oil industry is paramount to capitalism. For, since capitalism cannot accumulate surplus value without engaging in class struggle, it follows that capital must strive to maintain control at key sites of the struggle for domination. There can be little doubt that oil wells are amongst the most important of these sites of struggle (Nore and Turner, 1980; Christie, 1980).

A series of events in the post war years began to indicate that class domination of the oil industry might not be a particularly smooth process for oil capital. In 1951, Saudi Arabia forced a 50/50 profit sharing agreement with Aramco (Odell, 1986). The nationalisation of oil production in countries such as Venezuela, Iraq, Algeria, Libya and Iran represented a "confrontation over the distribution of a given amount of surplus profit between the producer states and the oil companies" (Nore, 1980: 71). The Soviet Union's influence was growing. In 1961, it became the second largest oil producer in the world. By 1976, it overtook the US to

become the world's largest producer (Odell, 1986). During this period, the Soviet Union had also begun to supply the rest of the world with oil technology (Woolfson and others, 1996).

US domination of the world's oil supply was being challenged. In the seventies, the consensus achieved by the oil producing OPEC countries (established primarily to reverse the sharp drop in prices in the 60s) represented a "revolution in the world of oil power" (Odell, 1986: 217). The securing of profits in the long term could now only be achieved by the oil companies in co-operation with OPEC. To do so, whilst maintaining some form of control over pricing, necessitated a consolidation of the cartel power the oil companies had enjoyed in the past. This was accepted by Nixon, and the American state agreed not to block cartelisation (ibid.). Although the US government was forced to respond to public pressure and enforce the Sherman anti-trust laws in 1973, the oil companies were too well organised to risk any weakening of their position (Coleman, 1985).

Although the resultant high oil prices associated with OPEC undoubtedly suited the oil companies in the short term. But the producers' cartel also represented a threat to their power in the long term. It gave the producing states leverage over taxation, oil rent and the percentage of profits they sought from oil (Odell, 1986). The Arab-Israeli conflict in 1973 led to a massive increase in the OPEC determined price of oil, and confirmed the growing fears of Western governments that producer states would begin to enjoy greater influence over large oil consumer states. These events form an important historical context for the discovery of North Sea oil.

The Importance of Oil to the British state

The British state has relied upon the supply of oil economically and militarily for the greater part of this century. Most accounts of the history of the UK oil industry attribute Winston Churchill's decision as First Lord of the Admiralty to convert the fuel used by the British Navy, the "very embodiment of Britain's imperial power" (Yergin, 1991: 12), from coal to oil on the eve of the First World War as a key moment in the transition of the UK economy to reliance upon the supply of oil (see, for example, *ibid*; Sampson, 1993). Thus, it has been claimed: "Oil had been a key ingredient of Britain's wealth long before its discovery in the North Sea. It represented the biggest single element of income derived from empire and ex-empire territories from the 1920s to the 1960s." (Woolfson and others, 1996: 38). This wealth has been largely controlled by two of Britain's largest corporations, BP and Shell; an influence that, as we shall see, has continued to the present day in terms of the control of the UK sector of the North Sea.

The growth in importance of oil extraction to Britain's economy meant that oil "was critical for the stability of sterling. Consequently, close links between these firms, the government and the City of London have been developed over the greater part of this century" (*ibid.*: 38). The development of these links can be measured, at one level, by the growing power held by the directors of the two leading British oil companies, Anglo-Persian (later to become BP) and Shell, in the 1930s. Thus, at board level, these companies were "closely interlocked with the leading merchant banks, and through this, with the court of the Bank of England." (*ibid.*: 8) In 1934, an agreement was made between the treasury and three British controlled oil companies, Anglo-Persian, Shell and Burmah that obliged the parties to consult on matters of mutual

interest, an indication of the growing importance of oil to the British economy, and of the fact that the British oil companies were a match for the US oil companies in terms of their size and global reach (ibid.).

Of course, the power and influence enjoyed by oil capital in Britain was to spread as oil became the country's main energy source. The fifties and sixties represented a crucial period in the evolution of oil as Britain's primary energy source. In 1950, Britain imported eighteen million tons of oil, at a time when coal represented 90% of our energy consumption. By 1960, oil imports had leapt to fifty million tons, and by the late 1960s, coal accounted for 60% and oil and gas 40% of primary energy (Carson, 1982: 88). By 1971, oil was the most important energy source to Britain (Odell, 1986).

With this backdrop of challenges to the power held by British and US oil capital over oil markets and oil production, the discovery of North Sea oil was of immense strategic importance to the US and Britain. A priority was to secure a 'safe' and stable supply of oil and the North Sea was to play a key role in this respect. Thus:

"The discovery of North Sea oil in 1969 was not, therefore, accidental. It was a product of the strategic planning required by the geopolitical character of the oil industry. And the conditions for its extraction were equally determined by such factors." (Woolfson and others, 1996: 15)

A Brief Anatomy of the North Sea Oil and Gas Industry

The North Sea consists of two major basins, the shallower southern basin and the deeper northern basin. The southern basin is, in the main, a site of gas production whilst the northern basin has yielded all of the major oil finds. Hydrocarbon exploration in the UKCS started in the southern sector in 1964. The first gas field was discovered by BP at West Sole in 1965. It is estimated that gas fields in the southern North Sea now hold reserves equal to the amount already produced (Institute of Petroleum, 1995). The first wildcat wells were drilled in the northern North Sea in 1967. A major shift in exploration activity was prompted by the discovery in 1969 of the Ekofisk field in the Norwegian sector and the Montrose field in the UKCS. The first oil to come onstream was in 1975 from Hamilton Oil's Argyll field and later in 1975, BP's giant Forties field commenced production. More recently, major finds in the Atlantic Ocean, west of the Shetland Islands have opened up fields such as Foinaven and Schiehallion. Small finds have also led to developments in Liverpool Bay and Morecambe Bay in the North West of England. Of the 300 major fields in the in the UK, 50 oil fields and 30 gas fields were in production in 1997. There are currently over 170 installations and 4,000 miles of pipeline offshore. The North Sea achieved record levels of production in 1997, with 123 million tonnes of oil and 76 million tonnes of oil equivalent (UKOOA, 1998d).

Oil is brought ashore from the North Sea either by tanker from a loading terminal on the field or via pipeline. Since intensive capital investment is required to construct pipelines, tankers are used where the size or location of the field does not justify the cost of a pipeline. Onshore terminals for pipeline are located on the Shetland Islands, at Flotta on Orkney and at St Fergus

near Peterhead in the North East of Scotland. St Fergus is the main terminal for gas from pipelines in the Northern Sector. For the Southern Sector, major gas terminals are at Easington, Theddlethorp and Bacton on the east coast of England.

In 1976, at its peak, capital investment in the North Sea accounted for 27% of total UK industrial investment. It currently stands at around 16% (Department of Trade and Industry, 1998). The impact of the industry upon the UK balance of payments has been significant. In 1980, when the UK reached self sufficiency in oil, exports from the sector contributed to over one fifth of the UK's trade surplus. Since then, the sector has consistently made a positive contribution to the UK's balance of payments (ibid.).

According to the Inland Revenue figures, employment on offshore installations in 1996 stood at 26,850, and the current figure is estimated to be roughly the same. This compares to 12,500 in 1978 and a peak level of 36,500 in 1990 (ibid.). It is estimated that 64,000 people in Scotland are employed by companies which have between 80% and 99% of activity relating to oil and gas production (ibid.). Most of these jobs are in companies which supply the offshore oil industry with goods, plant equipment and with services required by the offshore operators. The bulk of the supply industry comprised companies are involved in metal goods and engineering and energy and water supplies. Aberdeenshire councils estimate that oil related employment accounts for 46,000 in the North East of Scotland alone (ibid.). UKOOA claims that 382,000 jobs depend upon the North Sea oil and gas industry. 219,000 of those jobs are in development, exploration and production activity onshore and 132,000 jobs are supported these activities (ibid.).

North Sea Oil Capital and the British State

The economic power enjoyed by the oil companies has been described famously by Tony Benn:

"Some oil companies are comparable in strength and wealth to national governments. In 1977 Shell earned \$55 billion from 4.2 million barrels per day, while Exxon earned \$58 billion producing 4.9 million bpd. By contrast, the revenues of Saudi Arabia were only \$38 billion producing 9.2 million barrels per day, and the revenues of Iran were \$23 billion producing 5.7 million bpd. As Secretary of State, I learned that relations between governments and oil companies were rather like treaty negotiations." (Benn, 1990: 3)

More recently, the economic scale of oil capital has been put in perspective rather dramatically by Governor of the Bank of England Eddie George in a speech to the Institute of Petroleum:

"...the annual value of oil output works out at something like \$550 billion. But to put it in perspective, \$500 billion is more than the annual gross domestic product of any country in the world outside of the G7. On that basis, I think you might just find that you are entitled to a permanent seat on the UN Security Council!" (*Petroleum Review*, March 1997: 106)

In the late sixties, the beginnings of a regulatory structure for the UKCS began to unfold. This period was also one of significance for the development of the relationship between oil capital and the British government. Historian Christopher Harvie makes a powerful argument to demonstrate how the Ministry of Power was successfully colonised or 'captured' by the oil majors in the 60s; a state of affairs indicated by the generous issue of exploration licences, which gave the oil companies unnecessary concessions, particularly when compared to the

planned and limited issue of licences in the Norwegian sector. For Harvie, civil servants in the petroleum department of the Ministry of Power, and in particular, the permanent head of the department, John Becket, played a key role at this stage. The government's supine approach to North Sea development can partly be understood by the role played by the Ministry of Power in the 60s:

"a small department with rapidly changing but overall uninspiring political leadership - four forgettable ministers (Fred Lee, Richard Marsh, Ray Gunter, Roy Mason) and a civil service rather too close to the majors." (ibid., 1994: 55)

It is also relevant that in the early days of development, when the UKCS began to emerge as an oil province, the UK government had no experience in dealing with the oil companies as a producer state. The oil companies, on the other hand had at least two generations of experience negotiating with other producer governments. Furthermore, the British majors were dealing with a state with which, as we have seen, they had built up a tight symbiotic relationship with over the years.

This relationship was well illustrated by the Rhodesia oil sanctions scandal which exposed gross corruption on the part of the British civil service, and the British oil companies (Bailey, 1979). During the late 60s and early 70s, senior civil servants in the Ministry of Power and the Foreign and Commonwealth Office contrived, along with the oil companies, to cover up intricate systems of 'sanctions busting', which allowed the illegal supply of oil to the white minority-ruled state of Rhodesia from British oil companies BP and Shell, without the knowledge of the British parliament. As the scandal unfolded, the government and the oil

companies even worked jointly to construct answers to parliamentary questions which amounted to little more than a series of misleading statements and lies (Sampson, 1979).

Some of those involved in the scandal were later to be rewarded with senior positions in the oil companies. The most prominent example being Alan Gregory, who rose to become Assistant Secretary of the Petroleum Division, and subsequently was rewarded with the Chair of BP Trading. Lord Greenhill, who played an instrumental role in 'oilgate' from the foreign office was given a life peerage, and a government appointed seat on the board of BP. John Becket who was heavily implicated with having played a key role in Oilgate was to become the Chair of William Press, the offshore construction company. Yet as Harvie's history of the UK oil industry claims: "this was not the last time that the incestuous relationship between modestly paid civil servants and the vast and wealthy industry they were supposed to control was to attract controversy." (1994: 86)

The rewards for politicians in the relevant departments have been just as well distributed. The roll call of individuals who have taken up senior positions in oil companies over the years is a substantial one. Dickson Mabon was, by the early eighties, an important figure in the independent oil industry, and indeed had married the daughter of an oil magnate (Harvie, 1994). He had been a main player in the SDP breakaway of 1983. Harvie notes that several of the key players in the breakaway (including Mabon, Edmund Dell, Colin Phipps, and Christopher Smallwood) also had strong personal connections with the oil industry. These connections were so strong that Harvie was prompted to ask the question: "Was there therefore an oil plot to split Labour?" (Harvie, 1994: 304).

Conservative politicians in the Thatcher and Major governments have also proven adept at securing lucrative positions in the boardrooms of the key players in the North Sea. Alick Buchanan-Smith, Minister of State for Energy between 1983 and 1987 latterly became consultant to Amoco, and a director of Texas Easter North Sea and Davy Offshore. Two of his successors, Peter Morrison and Colin Moynihan each became directors of Ranger Oil (*Blowout*, June 1996). Energy Secretary, Peter Walker became a director of British Gas after he had presided over the privatisation of the corporation. The list goes on. Laterly, one minister with close associations with the oil industry, Tim Eggar, has played a pivotal role in the development of UK North Sea oil policy. His particular contribution to this evolving 'revolving door' saga is discussed in the concluding chapter.

Financing the North Sea

Bearing in mind the discussion of Miliband's work on the role of elites in maintaining class power in chapter 3, the preceding section is important to understanding how the arena of 'micro-politics' works in the struggle for hegemony. It was argued in chapter 3 that these links at an individual/elite level arise out of the structural development of power relations between oil capital, finance capital and the British state in the North Sea. With this in mind, it is worth briefly considering these power relations at the outset of the development of the North Sea, when finance was initially being secured for this development. It is here that we can see the origins of a power relationship that was largely constructed around the interests of the oil corporations. Thus, the operators and the government: "...spawned a particular kind of relationship within which the symbiotic balance between controllers and controlled became over-weighted in the latter's favour." (Carson, 1982: 116)

Not insignificantly, the development of the North Sea, in the manner required by the British state, was a project which was of such a scale that it could not be financed by the state alone. It was also beyond the means of the City of London. Yet, political priorities dictated speedy development. In the early 1970s, the City of London were in desperate need of foreign currency, and the balance of payments deficit was steadily moving towards crisis point. Successive governments during the early days of the UKCS treated North Sea oil as a kind of cash cow that was to save the country from impending economic crisis. The City of London had the resources to fund development at a steady pace, but not at the speed required by these political priorities (Carson, 1982). The British ruling class therefore promoted a certain political urgency to get the oil out of the ground as quickly as possible. Thus, the UK government had to rely not only upon the funds of the oil companies, but also upon international finance secured by those companies. By 1994, £60 billion had been invested in drilling, platforms, pipelines and refineries, and £70 billion in taxes and royalties had gone to the British treasury (Harvie, 1994). Currently, investment in the oil and gas industry in the UK stands at around £4 billion per year, or a fifth of all UK industrial investment (UKOOA, 1998a).

Since much of this finance was to come from the US, this could only be achieved with the emergence of a 'strategic alliance' between British and American capital. UKOOA was the embodiment of this alliance (Woolfson and others, 1996). UKOOA, formed as an informal trade association for oil companies in the North Sea in 1965, and formally established as the collective organisation for the oil companies in 1973, UKOOA was to be the recognised representative body for the UKCS companies in their negotiations with the UK government.

By 1977, it represented 37 operating companies. Harvie notes that at this time, UKOOA had been largely "successful in imposing its will on the Department of Energy" (1994: 180) By 1978, UKOOA had been fully welcomed into the policy fold with admission to the government's Energy Commission.

In terms of North Sea operations, the impact of the strategic alliance is well illustrated by the establishment of Shell Expro by Exxon and Shell as an exploration and production company for the North Sea. Since its formation, Shell Expro has controlled about 35% of all investment and production output in the UKCS (Carson, 1982, Woolfson and others, 1996).

Overall, 60% of development capital in the North Sea between 1972 and 1978 was borrowed from the US (Carson, 1982). Of course, this alliance meant that, in many cases, the money invested from the US was tied to the use of US supplies. Thus, at the outset of the development, only 25% of the offshore engineering market was controlled by British companies, most of the contracts going to American companies (Corti and Fraser, 1983). This fact, exposed latterly by Public Accounts Committee report in 1973 (Committee of Public Accounts, 1973) was to cause no little embarrassment to the British government.

Productive Oil Capital as a Dominant Fraction of Capital

It is significant that government policy not only had to take account of the demands of oil capital (the largest slice of which was American), but had also to be careful not to compromise the interests of British finance capital. As we shall see, with reference to the need to satisfy the banks over the issue of 'participation', this is a significant point for our understanding of finance

capital as a fraction of capital with a key role in the North Sea. The argument here is that for the past three decades, productive oil capital¹⁶ (represented by the operating oil companies, with the banks and financial institutions as powerful backers) has held a position as a dominant fraction of capital in the UK economic system.

Of course, to describe productive oil capital as a dominant fraction per se does not allow us to conceptualise the relative influence of the City of London upon the North Sea. For, despite the fact that the City of London has historically provided less in terms of loans than did US financial capital, this does not necessarily mean that the City loosened its influence over government oil policy. Let us expand upon this point for a moment.

On the basis of understanding divisions of capital along functional-institutional lines (Bode, 1979 cited in Overbeek, 1990), we can set out a division in the dominant class between finance and productive capital. Both of these divisions have been the dominant fractions of capital in the UK since the decline of the importance of landed interests. Within this division, the City of London has historically represented the dominant fraction of British capital. Without over-generalising on this point, and whilst it must be recognised that this influence has not been exclusive, or necessarily consistent, the dominance of the City is related to its role in British imperialism, and in maintaining the position of Sterling in the world financial system:

¹⁶ This description of productive oil capital as a dominant fraction should be clarified. The decisions made in the corporate headquarters of Elf, Conoco, BP and Shell are of course taken largely in response to their financial backers: those who provided North Sea loans, and of course, shareholders that provide the capital base of the organisation. It is those groups that hold a key position in this fraction. There is no sense in which this description 'productive oil capital' infers a separation between those who manage capital, and those who finance productive operations. Thus, a description of this fraction as productive oil capital includes the financial institutions and individual capital investors as part of the same whole. Similarly, this term includes companies and their financiers involved in downstream, as well as upstream activities.

"The City of London developed its historic role within the empire to become the premier international financial centre. It kept this role when the cold war offered it the chance of replacing British free trade and the gold standard, under which it flourished in the nineteenth century, with Gatt and the Gold standard. When North sea oil came on stream, allowing sterling to resume hard-currency status, the City was perfectly poised to exploit international financial deregulation to help create and become the centre of the new global market." (Hutton, 1995: 23)

The dominant political role of this fraction has been historically institutionalised largely through the Bank of England's influence over economic policy. Thus:

"Its dominance has been so complete that its position has often been taken as the quintessence of responsible financial policy. There have been changes in the past - Keynesianism in the 1930s and 1940s and the planning movement in the 1960s - but these have only secured a degree of modification in the formulation and orientation of economic policy." (Longstreth, 1979: 161-162)

More recently, the dominant role of the financial sector was made explicit when Chancellor of the Exchequer Gordon Brown handed the power to control interest rate policy to the Bank of England within days of Labour winning the 1997 general election.

Of course, we should also expect to see conflicts of interests within the financial sector, for, despite the centrality of oil to the UK economy, the City of London's fortunes do not necessarily rise and fall on the price of a barrel of Brent Crude. This was well illustrated in terms of the impact upon capital of the OPEC prompted price rises of the 1970s:

"Oil, after all, is an industrialised economy's lifeblood: very little can function without it. When the price increased fourfold between 1973 and 1974, and then doubled again in 1979, it meant that virtually the entire capital stock of the industrialised world became less profitable. Its factories, machines and vehicles were dependent upon cheap oil, but oil was now dear. Industries everywhere had to restructure as their real profits fell; necessarily real wages had to fall to restore their real profits." (Hutton, 1995: 59)

Whilst this meant that, in the early 70s, some parts of British industry and the City of London were heavily penalised by the oil price rises, it also meant that the priority to extract the oil took on a new dimension. To become a net producer of oil was the only sure way to avoid becoming economic hostage to the price of oil which was at the time largely controlled by the OPEC nations.

In this context, it is therefore instructive to note that during this period, the evolving UK oil industry did receive some very concrete privileges. During the Heath government's restrictions on industrial electricity supply, the Offshore Supplies Office (OSO) were told to provide them with lists of oil-industry supply and construction companies that were to be exempt from these restrictions (Woolfson and others, 1996).

Yet, in terms of investment in the North Sea, the direct interest of the City of London was nowhere near as significant as those of US finance capital. For, as the larger projects relied to a great extent upon US capital in the early years of development (by the end of 1977, around 25% of identifiable investments in the North Sea were borrowed using external capital¹⁷

¹⁷ That is capital borrowed from the financial sector since the sums required were beyond the reach of the internally generated funds of the oil companies themselves.

(Carson, 1982), a task that, as we have seen, was beyond the City of London. This does not necessarily suggest a generalised weakening of the role of the City of London over economic policy, but it does indicate that the political interests of productive oil capital are different from those of the City, and that productive oil capital, although it remains closely bound by financial and institutional links to sections of the City, can be understood as a distinctive fraction of capital with distinctive political demands. The City of London's influence was to be maintained not only through its institutional power over government policy, but also through the long-standing institutional links between the British oil majors and the British banking sector. This is where Miliband's thesis comes into play.

On a general level, the plurality of elites is bound together by common class interests. These interests are reinforced by kinship ties, attendance of the same universities, membership of the same clubs, and by interlocking directorships and so on (Miliband, 1974). Similarly, the powerful corporate players in the UK oil industry, BP and Shell, have consistently enjoyed immense influence over the political process, since they historically

"...represented the country's biggest industrial concerns, which at the same time were at the centre of investment banking and had direct access to the strategic policy formation at the level of the Bank of England and the Treasury." (Woolfson and others, 1996: 19)

Government policy reflected the position of productive oil capital as a dominant fraction of capital during the 1970s and 1980s, as successive governments sought to create favourable conditions for the operating companies. Yet, it should be noted at this point, that in the North Sea oil industry, as is the case in other sectors of industry, policy decisions do not necessarily

have an equal impact upon each individual company. Different companies, with different sizes and types of operation are likely to have a variety of separate concerns and interests. Thus, not only fractions of capital may be in competition, but, even in the relatively oligopolistic oil industry, compete for political influence. After all, capitalists compete as hostile brothers in the marketplace and in the political system (Longstreth, 1979). In terms of the extractive stage of the oil industry, each company has different types of production regimes which are related to the size and maturity of the fields they control, the amount of drilling they undertake, all of which may have significant implications for the regulation of a productive regime.

In this context, it is remarkable that UKOOA has managed to preserve a certain solidarity between the operators. Yet, recent attempts to restructure the industry under the banner of CRINE, combined with the restructuring of the tax regime in the early nineties have shown that government policy changed to clearly discriminate in favour of the British majors operating in the North Sea (Foster and others, 1993). This was a strategy which prompted a rare dispute within UKOOA, but not one which could threaten the integrity of the organisation as the North Sea oil companies' collective voice.

It is quite possible to argue that the need to satisfy US capital has steadily declined as the industry has reached maturity, the number of large developments has declined, and the projected returns on these oil fields have come to fruition over the years. Of course, the privileged access to government enjoyed by the British majors has always been important to the policy process, but this access is likely to have been strengthened as the need to satisfy US capital has declined.

Oil and the Neo-Liberal Project

The speedy development of the North Sea was the priority for UK industrial policy, and, as such, represented a powerful expression of the collective interests of the oil companies. Whilst the arguments outlined above provide compelling evidence for the position of productive oil capital as a dominant fraction in the 1970s and 1980s, there is a further significant reason for why this fraction of capital managed to consolidate its position.

This is directly related to government economic policy in the early 1980s. The speed up of production, whilst in line with the demands of the oil multinationals and the City of London, also neatly coincided with the neo-liberal project of the New Right. Firstly, self sufficiency in oil, which was achieved by 1980 had the integral effect of strengthening the pound, weakening exports, and weakening British manufacturing generally. A related effect was, of course, the dramatic growth in unemployment (for a politico-economic analysis of the causal relationship between UK North Sea oil policy and unemployment, see Alt, 1987). It is due to this onslaught against manufacturing that, despite the CBI's strong political loyalties to the Tory Party, we can find instances of criticism by the CBI of monetarist economic policies, and financial liberalisation in the City (Overbeek, 1990). As money capital was consolidated as the leading fraction, the manufacturing sector and the CBI became relatively marginalised by this project. Secondly, the accumulation of foreign currency was the key to the City of London's strategy to play a central role in the global economy (Hutton, 1995). Thirdly, Britain's status as a producer nation also guaranteed a certain renewal of the country's diplomatic stature, and gave Thatcher an international status she would never have had without oil (Harvie, 1994). It is quite possible to argue that the resurrection of Britain's role in world politics was used by the

ruling class to fuel nationalist and neo-imperialist discourses, and was of key importance in strengthening the Tory Party's grip on electoral politics for the best part of two decades.

Of course, this is not to argue that the sector enjoyed a completely unrestrained access to developing and extracting North Sea oil. Whilst the interests of the City of London and productive oil capital as competing fractions of capital may have coincided at certain key moments in history, this is not to say that intra-class conflict between the two fractions was completely resolved. For, as has been argued above, the City of London's interests do not always coincide with the interests of oil capital. A strong economic incentive to develop the sector and consequent high levels of investment can, of course, bring with it inflationary effects that may contradict the demands of the City (in particular the banking sector) and of a monetarist economic strategy.

Yet, favourable treatment of the North Sea oil companies was of huge significance in the British ruling class's struggle for a neo-liberal hegemony. All of the features of the neo-liberal project outlined above aimed at the restructuring of the British economy which had at its heart a reassertion of the dominance of finance capital (as opposed to productive capital), and a series of attacks on the working class (most notable amongst them, the assault on the miners 1984/85, and the introduction of extensive anti-trade union laws). Thus, the consolidation of finance capital as the dominant fraction of capital in the UK during this period was consistent with the promotion of productive oil capital. Indeed, the joint predominance of oil productive capital and finance capital was central to the neo-liberal project. Thus, in this period, we can understand both fractions as enjoying a dominant position in the struggle for hegemony.

It would be a gross distortion to view this process as something that was only made possible by the New Right in the Conservative Party. It is to the shame of previous governments that the so-called achievements of the Thatcher and Major governments could not have been achieved with the same ease without the policies of previous Wilson, Heath and Callaghan governments that took a typically short-termist and naive view of the role of North Sea oil in the UK economy. Labour governments in particular have to shoulder some responsibility for the resurgence of a laissez-faire economic policy.

Whilst this section has shown how productive oil capital became established as a dominant fraction of capital in the UK, to understand the origins of these historical developments in terms of their impact upon strategies of regulation, it is necessary to consider in more detail how the economic and political priorities of the British state were structured as the North Sea province was being opened up for development.

Regulating the UK Oil Industry

The Political Economy of Speed

The authority to regulate the exploration of the British sector of the North Sea is enshrined in the Continental Shelf Act (1964). The Act gave the Ministry for Power the authority to grant licences for exploration and production in certain areas of the UKCS. Thus, the UKCS was divided up into sections of territory of approximately 100 square miles, known as blocks. These blocks were then to be allocated en masse to the North Sea operators in a series of licensing rounds.

The folly of the British government's strategy of speedy extraction is well illustrated by events during this period. In the rush to commence production, the British government were extremely anxious to tie up the ongoing legal dispute over sub-sea territory with the Norwegians. In order to avoid a lengthy battle in the international courts, and consequent delays in extraction, the British government gave up its claim on parts of the Norwegian trough, which subsequently yielded substantial oil finds (Wybrow, 1982).

By the early seventies, before any oil had actually come ashore, the oil companies were enjoying a remarkable array of advantages in the North Sea: a tax regime which allowed them to offset costs incurred from operations outside the UK, the cheap and relatively uncontrolled issue of exploration and production licences¹⁸, and a lack of any policy over depletion. All of these points were noted by the Report of the Public Accounts Committee in 1973, which, during their inquiry found:

"After the close questioning of senior advisors to both Labour and Conservative Ministers of Energy, it was obvious that these Ministers had not been fully informed of the implications of the finds in the North Sea, nor of the policies devised by the oil companies." (ibid.: 262)

The Report concluded that the extent of the reserves under the North Sea had not been fully understood by successive governments, and therefore the economic risks associated with extraction had been grossly exaggerated. This is perhaps unsurprising, given the way in which

¹⁸ The UK had adopted a discretionary system of allocation of licences. Under this system, they invited companies to apply for a specified number of 'blocks'. These blocks were then allocated at the discretion of the government. This practice (as opposed to an auctioning process) allowed for positive discrimination in favour of British companies.

the oil companies have systematically promoted myths around the potential profitability of the North Sea (see previous chapter). Furthermore, as Carson (1982) argued, the lack of any long-term strategy on the part of governments during this period has to be understood as a symptom of the "political economy of speed".

In the first place, exploration licences had been sold cheaply. The 1971-72 round, the first that assumed considerable oil (as opposed to gas) reserves under the UKCS, yielded the government only £2.7m for allocating 267 blocks. An earlier experiment with auctioning had made £37m for 15 blocks (Carson, 1982: 100). In the early 70s, some tracts were even being offered free to oil companies that were used to paying millions for the privilege of drilling in other parts of the world (Harvie, 1994). Nicholas William's, head of Burmah was later to note that his company had been rewarded with a generous allocation of exploration blocks in the first round in recognition of the company's massive investment in the Ellesmere Port refinery (ibid.).

A huge tax loophole was in place, also apparently to encourage speedy development. All companies operating in the North Sea could offset tax losses accrued in other parts of the world against their UKCS tax bill. Incidentally, the total tax burden on the oil companies was very low indeed. Operating companies were only required to pay 12.5% royalty tax plus corporation tax on profits. In the early 1970s, Arab countries were taking 75% and 76.5% of the proceeds of oil in taxes. The UK was taking only 50% (Corti and Frazer, 1983).

Armand Hammer owner of Occidental was to remark:

"Great Britain, sliding into post-imperial and post-industrial decline, seemed the least likely candidate on earth for membership among the great oil-producing nations....The British government treated the potential bonanza as carelessly and complacently as any untutored sheikh and, in those early days, practically threw it into the hands of the seven sisters." (Hammer with Lydon, cited in Harvie, 1994: 264)

The political economy of speed dominated economic policy for the period until Britain reached self-sufficiency in the early eighties. The drive for self-sufficiency was described by Dick Mabon, Energy Secretary between 1976 and 1979 in dramatic terms: "...the basic objective remained the same; like a wartime objective. We had to get 2 million barrels a day by 1980." (Channel 4, 1994) A policy of speedy extraction was to continue, but under different conditions and pressures, and for different reasons that will be examined in detail later.

A Minimal Framework for Health and Safety Regulation

The political priority to speed up production was aided with a minimum of regulatory interference in terms of health and safety. The HASAW Act (1974) had brought the existing health and safety inspectorates into one single organisational structure, the HSE. The rationale for this had been that the regulatory system was fragmented and uncoordinated and left around 5 million workers uncovered by government health and safety inspections (Robens, 1972). Ironically, these were problems that were to continue to beset the offshore industries after the

HASAW Act had been passed. The Act had been extended offshore in 1977 by an Order of Council. Yet the act was only partially implemented offshore, there were some crucial omissions from the Order. Some separate sets of regulations (which were integral to the effective implementation of the act onshore) were not extended offshore. Those omissions included: the provision for trade union appointed safety representatives; and the control of hazardous substances.

Responsibility for the regulation of offshore safety was not to be transferred to the new umbrella body for onshore regulation, the HSE. Instead, the Department of Energy retained the front-line execution of inspection duties under an agency agreement with the Health and Safety Commission. Of course, the conflict of interests within the Department of Energy, which was responsible for both encouraging the speedy extraction of oil, and (under the sub-department Petroleum Engineering Division (PED)) and for ensuring adequate safety protection remained. This was a problem that Robens Report had not paid any special attention to, although he did envisage that regulation the offshore industries would become the responsibility of the HSE (ibid.). In any event, the offshore industries were to be considered as a 'special case', under which the administrative and legal (based around the Mineral Workings (Offshore Installations) Act 1971) realms of safety regulation were conducted separately from the onshore industries.

As Carson noted, this separate development of the offshore safety regulatory framework was only made possible by the strength of the operators and their coincidence of interests with those of the British State:

"...the negotiations surrounding offshore safety laws took place inside a relationship that involved the authorities on one side and, on the other, one of the world's most powerful industries. Nor did the latter comprise just an amorphous array of companies to which officials had to relate on the nebulous basis of projections of what the industry might collectively define as its interest. As far as North Sea operations were concerned, the companies formed themselves into a coherent and effective organisation [UKOOA]....Thus negotiations on safety as well as other matters took place within a context where the paramount industry voice was always likely to be that of the large international companies." (Carson, 1982: 180-181)

Yet, whilst the employers side might have been highly effective and highly organised, the workers side was not. In the early 70s, the co-ordination of North Sea oil policy in the trade union movement tended to be conducted at a relatively low level. The establishment of the North Sea Oil Action Committee (NSAOC) by the inter-union Confederation of Shipbuilding and Engineering Unions in 1972 as a committee of local shopstewards who had "decided that a pressure group was necessary to ensure that the full benefit of North Sea oil came to Britain." (Aberdeen People's Press, 1976) was aimed at overcoming this. The agenda of the NSAOC was one which was primarily aimed at requesting "the government to press the oil companies to make greater use of British industry and the available manpower in the exploitation of North Sea oil." (STUC, 1973) While neither the original resolution which established the committee, nor its five point manifesto campaign statement make any mention of unionising offshore workers or of improving safety conditions offshore, the NSAOC was later to meet with government ministers and lobby for more stringent regulation of safety. Indeed, one author has claimed that NSAOC was responsible for achieving the extension of the HASAW Act offshore (Wybrow, 1982). In terms of its impact upon the regulation of the North Sea, the impact of this achievement may have been a dubious and somewhat limited success.

Nonetheless, the relative strength of NSAOC at this time may be indicative of the influence of pro-regulatory forces during this period, and of the potential for change that was not fully realised by the trade union movement.

Attempts by the trade union movement to organise the offshore sector were woeful unsuccessful, despite a concerted effort on the part of Tony Benn as Secretary of State for Energy (OILC, 1991, Whyte, 1992, Woolfson and others, 1996). Again, those efforts were largely left to local officials of the unions through the Inter Union Offshore Oil Committee (IUOOC, established by several trade unions at the STUC conference of 1973, at the instigation of NSOAC and originally named the Inter Union Committee). As has been well documented (*ibid.*), the IUOOC was unable to overcome the inter union battles that were to hamper an co-ordinated approach to offshore unionisation. Subsequently, the IUOOC took over the work of the NSOAC.

Thus, the TUC and STUC strategy to intervene in oil policy was led by a relatively low key committee, made up of local organisers. This is indicative of an incredible deprioritisation of not only the economic and safety regulation of the industry within the TUC policy forum, but also of the lack of urgency in unionising the sector on behalf of the trade union movement.

The failure of the trade union movement to achieve unionisation is indicative of a general lack of co-ordinated strategy. The type of economic regulation attempted by the first Labour governments of the early 1970s was clearly not in response to particularly well organised attempts at intervention on behalf of the trade union movement, but is more likely to be related to the general strength of the trade union movement and the working class alongside the

emergence of mounting evidence (not least of all from the Public Accounts Committee) which exposed government North Sea oil policy as, at best, supine, and at worst, corrupt.

These conditions also formed the background to the Burgoyne Committee inquiry into offshore safety in the late 1970s (Burgoyne Committee, 1980). As Woolfson and others note: "the Burgoyne inquiry was a response to growing public concern over offshore fatalities...." (1996: 261) The resultant report was little more than a stitch up between the oil companies and the Department of Energy (Harvie, 1994). In giving evidence to the committee, UKOOA and the oil companies launched a solid attack upon the idea of HSE interference in the industry (Woolfson and others, 1996). Thus, there was no room for considering the clear conflict of interests that existed within the Department of Energy: the dual role of sponsoring department and of 'applying the brakes' to ensure safe production. The result was a report which actually extended the regulatory remit of the PED to ensuring the safety and integrity of pipelines. The HSE was to transfer the grand total of 4 inspectors to the PED. A Note of Dissent issued by a minority group on the Burgoyne Committee called for the HSE to be given responsibility for offshore safety. Their view was to be vindicated 8 years later by the Cullen Report.

The Potential for Regulation

As the previous section suggests, to characterise the relationship between oil capital and the state at this point as one in which the British government simply capitulated over every matter of concern to the oil companies in a desperate attempt to speed up production would be a simplistic and crude distortion. During the seventies, there were considerable pressures to regulate the industry economically. The British working class was comparatively strong.

Trade union membership was at an all time high, and the 1973 miners' strike had been the major factor in the collapse of the Heath government. During the Heath government, concerns about the lack of state control of the industry had been expressed at a high level in the trade unions. The NUM themselves had called for full nationalisation of the oil industry prior to the first 1974 general election (Corti and Frazer, 1983). Pro-regulatory pressures also existed within government from the Heath cabinet itself. The refusal of the British oil companies to protect supplies to the government during the fuel crisis had clearly demonstrated that the British state would not necessarily enjoy privileged access to British oil.

Of course, the publication of the Public Accounts Committee Report in 1973 was a damning indictment of the preferable treatment given to oil capital. This undoubtedly created the room for debates around fiscal regulation and the possibility for the introduction of production controls and participation¹⁹. The Public Accounts Committee Report noted that "additional receipts might have been substantial" (para xxxii) had the government been more careful about how exploration and production licences were issued. Indeed, the Committee were particularly concerned that so many licences had been granted under terms which were so generous to the operating companies, finding that licences were granted on the same terms as gas licences issued in previous rounds:

"The most striking fact to emerge from our review of the four rounds of licensing is that the terms for each, apart from the limited tender experiment, have remained virtually unchanged since they were fixed in 1964, before any discoveries had been made, and when the potentialities of the shelf were unknown."

(para xxxii)

¹⁹ Agreements over state participation in oil fields were to give the state the option to buy a specified proportion of the oil produced in the North Sea. In theory, this gave the state some control over depletion of the oil reserves.

They were also valid for 46 years, with no government provision to vary the terms of the license. Particular concerns were also being expressed about the continued US and foreign domination of supplies to the industry. In 1973, only 30% of the supplies industry was British. Perhaps most shocking of all was the revelation that the tax loophole was allowing the oil companies to offset around £1,500m in overseas losses against UK taxation. The backdrop to this was also the sharp rise in oil prices during this period. The price of 'Arabian Light', to which all other OPEC oil grades were pegged rose from \$1.80 to \$11.65 in December 1973 (Yergin, 1993: 625). Thus, the oil companies were able to accrue huge 'windfall' profits from the North Sea and, at the same time, pay very little of the windfall into treasury coffers.

The report had a considerable impact upon British politics at the time, and provided part of the impetus for a re-regulation of the sector. It also had an impact upon government statements in the run up to the elections of 1974. The first general election of 1974 was an important focus for debates on the future of the oil industry. Despite the publication of the Public Accounts Committee report, the Heath government had made no concrete promises on the regulation of the industry and had during debates on the fiscal regime, but had been forced into a "woolly commitment about taxing the oil companies" (*The Times*, 19 February 1974, cited in Phillips, 1998). Harold Wilson recalled that during the debate on the Queen's Speech in March 1974, he reaffirmed election statements and confirmed that the government would consider the state control of oil, once landed, through compulsory purchase from the operating companies. Initial reaction to these proposals had seemed to indicate a lack of concern, even from the right wing and traditionally pro-business press. Eric Varley, the new Minister for Energy had quoted a report from Daily Mail during the same debate:

"North Sea oilmen are not worried by Labour's plans to take a bigger share of their profits. 'We stay' was yesterday's firm message from the international companies drilling in the area. And they revealed that the massive investment of private enterprise money will, in fact be increased...." (Hansard, vol. 870, col. 82, cited in Wilson, 1979: 40)

In an uncharacteristic lapse, a BP director was quoted in parliament by Harold Wilson as admitting:

"We are in partnerships with Governments of all political complexions all over the world. We are unlikely to be frightened off by anything the Labour Government has in mind. In any case our investment now is too big. It would be too late to stop even if we wanted to." (ibid: 40)

All of this indicates that the new Labour government enjoyed considerable leverage in their relationship with the oil companies. Before the second general election in 1974, Wilson as Prime Minister gave a pre-election speech in Oxford in which he stated:

"God gave the land to the people, he gave the seas to the people and the treasures beneath the seas. There is no record that when he made the firmament and the seas he ordained that the profits from the wealth beneath the seas should accrue in full to private investors or rich multi-national oil companies." (Wilson, 1979: 135)

With these observations in mind, it seems that the Labour government, supported and influenced by a strong trade union movement were in a relatively powerful position vis-a-vis their relations with the oil companies. It is understandable in this context that perhaps the most

comprehensive attempt to impose regulatory controls upon the industry came after the election of the Labour government in 1974. Furthermore, as Harvie was to note in relation to the negotiations between British government and oil majors over the introduction of new taxation and participation legislation, the public opinion of the oil companies was important in this relationship: "The government side in the negotiations was helped by the fact that the oil companies were much more unpopular in the UK than in the USA." (1994: 196)

Thus, when the Labour Party took power in 1974, they were keen to introduce more stringent taxation and licensing regimes in order to ensure that they would benefit to a greater degree:

"The Labour Party, responding to a highly politicised trade union movement and wishing to impose some form of Social Contract incomes policy, spoke in terms of the 'public control' of oil and gas - an ambition translated into the British National Oil Corporation (BNOC) by Tony Benn and Secretary of State for Energy from 1975." (Woolfson and others, 1996: 26)

Two important pieces of legislation were passed in 1975. The Oil Taxation Act (1975) was the basis for the introduction of the new Petroleum Revenue Tax (PRT), and Petroleum and Submarine Pipelines Act (1975) which established the British National Oil Company (BNOC) and gave the Secretary of State powers to control levels of production.

Petroleum Revenue Tax

PRT was introduced with the twin aim of ring fencing the North Sea to prevent the loopholes exposed by the Public Accounts Committee, and the ensuring that the government secured a

greater return on the 'windfall' profits accrued from the UKCS. Edmund Dell, as Paymaster General between 1974 and 1976, was responsible for the formulation of PRT. As chair of the Public Accounts Committee in 1972/73, he had also been a key figure in exposing the inadequacies of the regime. He recalls difficulties in trying to use realistic and independent predictions on oil reserves and prices:

"Although the Department of Energy had estimates based, it claimed, on confidential sources, it was clear that it had no confidence in them. I was reluctant to impose a tax on North Sea oil in my then state of entire ignorance of the profits the oil companies were likely to make. But who was there to ask? There were independent experts and I was eager to listen to what they had to say. But there was no better source, if I could rely on it, than the oil companies themselves. I decided to ask them to give me their estimates. I could not compel them to give me their figures, but I hoped they would see it as in their interests to do so. I would also indicate my willingness to listen to any proposals they had as to the structure of the tax. It was asking a great deal of companies which were in the business to make profits, not to increase tax liabilities, but it seemed worth trying." (Dell, 1993: 226)

Dell's illusions in the possibilities of co-operation by the operators were not to last:

"After lunch with the BP board of directors on 15th January 1975, at which they all insisted the rate of tax could not be higher than 25%, Drake handed me a document which he let me read but not take away. It was an account of delays, and cost escalation, in the North Sea, and of decisions by various companies to leave the North Sea. The pressure that BP was continually putting on me limited the reliance I could put on its advice." (ibid.: 234)

On the broad principles of the introduction of PRT, and some form of participation, and indeed the associated introduction of powers over depletion for the Secretary of State, the government seemed to be fairly assertive with the oil companies. But on the form that PRT should take, the government were clearly anxious to appease big oil. As Edmund Dell's anecdote indicates, the main debate centred around the possibility that the new tax might discourage the development of marginal fields.

The oil companies launched a public offensive, and realised the importance of using the media to present their case: "...the UK Offshore Operators' Association, in the person of Bob Dyk of Hamilton Petroleum, fed amendments to the press as much as to the government." (Harvie, 1994: 191) UKOOA's anti-tax press campaign had significant effect in convincing John Smith, under-secretary of State for Industry, that any tax changes could not be retrospective.

Of course, the operators each lobbied for a system that would suit their own particular production needs. After numerous consultation meetings and negotiations with the oil companies, Dell, with agreement from the Cabinet, opted for Exxon's proposal to make a slice of produced oil exempt from the tax. This slice was to be ten million tons. On this level, Dell noted in retrospect:

"My only regret is that at ten million tons, I placed the ceiling of the allowance too high. It should have been about six million tons. At ten million tons, it gave too much advantage to the more profitable fields." (Dell, 1993: 236)

On the rate of PRT, Dell also indicates that the government were not willing to enforce a strict regime at the time:

"My own view was that now we had provided for marginal fields, 55% would be justified but that, given the measure of uncertainty about costs and about the oil price, and in the political and economic circumstances, we should opt for 45%." (ibid., 1993: 238)

Although there were uncertainties, Dell had already largely accepted the oil companies predictions of these variables, whilst admitting that he understood these predictions would distort the picture in their favour. In retrospect, Dell regrets having gone down the road of relying upon the oil companies for information:

"...perhaps we should have sought earlier and more independent advice than we could hope to get from the oil companies. However, such independent advice is very difficult to find. The independent 'experts' are, almost invariably, people who have worked for oil companies and when they leave, they rapidly become out of date even if they continue to have contact through merchant banks." (ibid. 1993: 249)

Subsequently, Dell commented, somewhat mysteriously, that a meeting with BP and Shell, "confirmed me in my view that 55% would be justified on present knowledge, but that 45% would be the right level at which to start." (ibid., 1993: 238) The cabinet set the rate of PRT in February 1975, according to Dell, in a way which would balance two variables: firstly, what the oil companies were prepared to take, and secondly, to what degree the new tax would hinder development of the province. The level was set at 45% and Edmund Dell left the cabinet for a job in the city in November 1978.

Participation and Depletion

Under the 1975 Acts, the Secretary of State had been granted powers to enforce production/depletion controls, but Varley was quick to assure the oil companies and their financial backers that they would not be enforced. The so-called 'Varley assurances' (Lawson, 1992) were to be reinforced by subsequent statements.

The establishment of BNOC was the centrepiece of the Labour Party's policy of 'participation' in the production and distribution of oil. Participation was to be based upon arrangements whereby BNOC would purchase oil from the operating companies at market rates. Yet, if anything, there appears to have been even greater resistance to 'participation' than to the introduction of PRT. In one sense, this is unsurprising, since both the protection of ownership and the right to produce without interference represent more of an integral threat to capital than the impact that a tax on profits might have. But the form of participation opted for by the British government under pressure from finance capital was never going to present a serious threat in this respect. Participation in the case of UK North Sea oil was not concerned with exerting control over production operations, but only guaranteed the British state a proportion of produced oil. After the 'key right' to control production had been secured by the oil companies, a secondary (although nonetheless important) right, the right to appropriated oil, was then sought through protracted negotiations with the British government (Cameron and Midgley, 1982).

In November 1974, in a meeting with Exxon, Wilson made his intentions clear to the oil companies: "You must not regard me as a Sheikh. I am not like any of the Middle Eastern

Sheikhs who take your property away from you. Participation is absolutely voluntary." (Dell, 1993: 225) Thus, participation was to be based upon the principle of 'financially no better or no worse off.' (Corti and Fraser, 1983) This arrangement was unique amongst producer states. The Banker noted in May 1977: "The dreaded 'participation' turns out to be merely an option to buy oil for the British National Oil Corporation, and an assurance that most of the refining is done in Britain." (cited in Cameron and Midgley, 1982: 274)

Despite the relatively anodyne form of participation that was behind the formation of BNOC, Tony Benn had noted: "At first we faced a pretty hostile atmosphere from the oil industry itself, which was not really ready to make distinguished oilmen available to work on BNOC." (Benn, 1990: 4) Benn describes a series of negotiations over the provisions of the Petroleum and Submarine Pipelines Act, which could only be enforced after securing co-operation with the oil companies. Thus: "We tried to enter into what were, in effect, treaty arrangements with them." (Benn, 1990: 4). Edmund Dell noted how BP argued that if the government went too far down the participation road, that the US government might retaliate by taking control of the Alaskan oil fields where BP had more than 50% of its reserves. This was a powerful argument, and one which Dell himself accepted without qualification (Dell, 1993).

It is significant that again we see political options being neutralised, not only by the bare economic power held by the oil majors and their financiers, but by the operationalisation of particular ideologies which set the limits upon government action. The claims made by those representatives of the oil companies which predict a doomsday scenario should the government act in a way which is not in the interests of oil capital have, in the British context, been rarely questioned by the representatives of the state. As we have seen in chapter 4, estimates of the

size of oil reserves in the North Sea are of no little significance to the formulation of taxation and depletion policy. Yet even after a series of major discoveries in 1972, the government had been keen to collaborate with the industry and downplay the importance of oil by issuing estimates of oil reserves that fell well short of the predictions of most experts. It is possible that the government did not have particularly reliable data of its own, for even as late as 1980, the Department of Energy was still woefully short of technical experts who were needed to advise on oilfield developments and operations just to function as normal (Carson: 1982).

Despite the machinations and long drawn out negotiations between the oil companies and the British government during this period, there was no serious threat by the state to control production. In May 1977, the government was forced to sell 17% of its shares in BP as part of the IMF's terms of agreement. By the end of the 1970s, the state's direct involvement in the North Sea had begun to fade.

Conservative Reforms of the 1975 Acts

Privatisation of British Gas and the production section of BNOC (Britoil) was announced by the Conservatives in October 1981. BNOC's position as a significant producer had never been consolidated. By 1980, it still only controlled 8% of North Sea production (Carson, 1982: 123).

As has been noted, the economic debate around the use of a depletions policy centres on the economic point that as production continued unhindered, and Britain became self sufficient in oil, the strength of the pound would militate against exports, and therefore set in train a decline

in manufacturing. The application of production controls could therefore have been used as tool to protect British manufacturing. Of course, a planned depletion policy can also be an important tool for governments in other ways: for example to ensure that the benefits of the industry accrue to the nation over a longer period of time; and to ensure a great degree of environmental protection. But, this was not to be the priority of any government, and by the time Britain became a net exporter of oil in 1980, a new government was in place, preoccupied with Friedmanite shock therapy and hostile to pro-depletions policy arguments.

The House of Commons Select Committee on Energy hearings in 1981 and 1982 listened to evidence from officials from the Department of Energy and the Treasury, and from oil company representatives and oil economists. Their conclusion was in line with both the oil companies, and the Cabinet:

"We do not believe that a convincing case has yet been made out for formal intervention by the Government to restrain production...We regard it as futile and probably self defeating for the government to substitute its own judgement for that of the oil companies in an attempt to overrule the technical and economic incentives with the aim of bringing about a desired production profile in the UK." (House of Commons Select Committee on Energy cited in Lawson, 1992: 187)

A lone voice of dissent at the hearings had been Lord Balogh who had submitted detailed proposals for a new state oil company to control output. His view was now regarded as a marginal one. In June 1982, Nigel Lawson, as Secretary of State for Energy announced that the government would not impose any cut back in production until 1985 (it is instructive that Lawson refers to this as extending the 'Varley assurances' in his own account of the events,

Lawson, 1992: 184-185) by which time the statutory powers to take such action would have fallen into abeyance in any case.

Lawson was later to note, somewhat triumphantly, as Chancellor of the Exchequer, in 1986:

"...the whole outstanding success of the North Sea has been based on the fact that it is the freest oil province in the world, in which decisions on levels of output are a matter for the companies and not for the government." (Keesing's Contemporary Archives, 1986, cited in Harvie, 1994: 301)

The Emasculation of the Tax Regime

The previous chapter outlined the importance of the way in which particular ideologies are used by the oil companies to set limits on the possibilities for alternative courses of action. It is worth reproducing Carson's comments on this point in greater detail:

"the history of the North Sea in the 70s is littered with industry warnings and reports, often felicitously timed to coincide with new government measures, and usually amounting in effect to threats of a decline in drilling activity or of a fall off in investment...[in 1978] a Labour request for an investigation into declining drilling work was pre-empted by claims that the slow-down was attributable to its own policy on tax and other matters. Early in 1979, planned changes in PRT were said to be curtailing future development plans and hitting exploration, with the additional twist that only large or low cost fields might be developed in future. Such an outcome added the United Kingdom Offshore Operators Association with characteristic bluntness, would lead to an overall loss in government revenues. In the following year, a new government which had hoped to hasten the search for oil was being told by the Association's director-general that delays in announcing new licences, the imposition of constant

changes in PRT and the delayed intention of imposing a supplementary tax were all contributing to a down turn in activity. When the last of these taxes was confirmed in the 1981 Budget, he explained that it was not so much a threat as a fact of life to point out that increased taxation on this scale might make other oil-producing areas of the world more attractive than the North Sea." (Carson, 1982: 129, footnotes omitted)

The harsh realities of North Sea production, as defined by the operating companies, were also to be accepted unquestioningly by Secretary of State for Energy at the time, Nigel Lawson:

"It was common ground between the Department and the industry's principle trade association, the UK Offshore Operators' Association, that the tax regime was discouraging investment in new fields, which tended to be smaller than earlier discoveries. The problem lay in persuading the Treasury to forgo enough tax revenues to make a real difference." (Lawson, 1992: 189)

Over the period that the Conservative Party were in power, they presided over an emasculation of the offshore tax regime (Hutton, 1996). In the 1982 budget, PRT had actually been increased from 70% to 75% a move which partially compensated the treasury for the abolition of Supplementary Petroleum Duty (levied at 20% on gross production revenues after an annual exemption allowance of 1m tonnes of oil per field per year). (Motamen, 1983) At the same time the 'tax burden' was significantly reduced as government allowed exploration and appraisal expenses to be set against PRT across fields. Further, the allowance on PRT was doubled, thus commencing a process that would eventually lead to the phasing out of PRT (Rutledge and Wright, 1996). In 1983 all Royalty on new fields was also abolished (Motamen, 1983).

The next phase of the 'emasculatation' was included in the 1993 budget which reduced PRT from 75% to 50%. In addition, PRT was abolished for all fields approved after 15 March 1993 (Department of Trade and Industry, 1995). On top of the revisions to PRT and Royalty, Corporation Tax has been reduced from 52% at the time the North Sea began full development to its present level of 30%, lower than in the USA and other European oil producing countries. The abolition of PRT also meant that operating companies would no longer be able to offset exploration and appraisal expenditure against PRT. The effect of this was to distribute tax benefits unevenly amongst the operating companies. As Foster and others (1993) have noted, the abolition of PRT was introduced to discriminate in favour of the British majors, BP and Shell. This was made possible since they were "companies with a large number of producing wells who already possess a portfolio of proven fields waiting to be brought into production" (ibid.: 76). Other operators were not in this position, and BP and Shell were alone in welcoming the 1993 reforms. The justification for providing the British majors with even greater disposable income appears to have been to enable these companies to achieve greater competitive strength in the new oil provinces (Woolfson and others, 1996). As we shall see later in this chapter, it is of significance that the CRINE cost-cutting programme emerged to sustain cash flow from the North Sea. Also of significance here are questions raised earlier in this chapter around the waning influence of US capital as the North Sea matured. This is not to argue crudely that the British major and US finance capital have completely separate interests, for BP and Shell (who enjoy a 50/50 partnership with Exxon in the North Sea) also rely partly upon US finance. But a relative decline in the influence of US capital over UK government policy may have prompted a realignment of 'productive oil capital' in recent years. The implications of this realignment for the future of the UKCS are developed in the concluding chapter.

The British majors stood to gain disproportionately. It was estimated that Shell could double its annual revenue from the Brent field to £1b within 3 years. At the same time, other operators, such as Amerada Hess, had been granted exploration licences, but had not completed development (Foster and others, 1994). Hess threatened to pull investment out of the UKCS (ibid.). Whilst UKOOA was internally split over this line (the first public split since its inception), as the collective voice of the oil companies, UKOOA launched a campaign in opposition to the 1993 reforms, arguing that the prospects for future exploration would be dramatically affected. Yet, these claims should be considered in light of our discussion in chapter 4. The claim that the future of the UKCS might suffer is one that, as we have seen, has over the years, been repeated ad nauseum with every twist and turn of government policy.

The cumulative effects of the reforms of the tax regime have been dramatic. Revenues from taxes and royalties have tumbled from a high point of over £12 billion in £1984/5 to last years figure of £2.35 billion (Department of Trade and Industry, 1996). Taxation for every pound of North Sea profit is a quarter of what it was 10 years ago (Hutton, 1996).

The timing chosen by government for the introduction of the tax reforms of the early eighties has been defended as essential to stimulating activity in the North Sea (see Lawson, 1992). Yet, this claim is not borne out by the evidence. The first set of major reforms in 1982 and 1983 occurred at a time when the North Sea boom was gathering momentum. Oil prices remained incredibly buoyant, fluctuating between \$29 and \$33 (Yergin, 1991) and both production and sales revenues were rapidly on the rise (Department of Trade and Industry, 1996). It is difficult to sustain the claim that there was a risk of capital relocation at this time.

As Harvie has noted, the year 1983 was "in terms of new fields, an annus mirabilis" (Harvie: 288). The abolition of Royalty for new fields, therefore, came at just the right time to exempt the numerous platforms to hit 'first oil' that year. BP's giant Magnus platform, currently the third largest oil producer in the North Sea (Department of Trade and Industry, 1996), was amongst them. The emasculation of PRT was thus embarked upon well before the oil price crash of 85/86. It is not surprising, then, that in relation to the phasing out of PRT, Lawson has remarked: "The North Sea oil industry could hardly conceal its delight at the tax changes, making Treasury officials even more suspicious" (Lawson, 1992: 190)

Whilst the final stage in the abolition of PRT has certainly had a more complicated effect than simply boosting North Sea cash flow across the board, it certainly has contributed to the status of the UKCS tax regime as the most lax in the world (Routledge and Wright, 1996). At this point is worth returning to some of the findings of the Petroconsultants Report cited in chapter 4. This review of fiscal regimes in the oil producing states found that the average tax take in large producing countries was 73% and in all producing countries, 65%. The UK tax take is 31.1%, dwarfed by its counterpart in the North Sea, Norway (81.7%), and comparing unfavourably to the US (53.5%) and even Argentina (50.4%) and Angola (59.7%) (all figures cited from an analysis by MacKay, 1998). Given the current economic health of the industry (despite short-term worries in relation to oil price), the treasury's backdown over introducing a more punitive tax regime (outlined in chapter 4) is clearly a missed opportunity to bring the UK closer in line with other oil producing states.

Part one of this chapter has argued that 'productive oil capital' as a fraction of capital has enjoyed a more or less dominant position since the emergence of Britain as a producer state. The relationship between the oil majors and the British state has been described by several authors as 'symbiotic' (see, for example, Sampson, 1979; Carson, 1982). Productive oil capital has thus successfully prevented the introduction of 'punitive' economic and social regulation. In terms of the impact of the 'political economy of speed', this part has presented a refined version of Carson's (1982) thesis. As we have seen in part 1, one of the material impacts of speedy extraction and the related lax regulatory regime was the existence of fatality rates in the sector eleven times higher than in the construction industry and nine times higher than in mining.

Yet, it is possible that the potential for regulatory intervention, particular in terms of health and safety during this period, has been underestimated. Pro-regulatory forces enjoyed a certain relative strength in the early seventies. The 'oil acts' introduced by the Labour Government in 1975 are indicative of this position of relative strength. Attempts to impose a more punitive tax structure upon the North Sea operators were short lived. The subsequent Conservative reforms, were partially based upon the 'mystifying' claims of oil capital, and the perceived need to provide the British majors with disposable income to compete in the global market. They also coincided with the neo-liberal project's application of monetarist 'shock therapy' on the UK economy and a generalised attack on the British working class.

As this part has argued, the failure of the trade union movement to consolidate their position of relative strength in the seventies had implications for the economic and social regulation of the industry at a policy level. Perhaps more importantly, the failure of the trade union movement

to unionise the offshore sector left capital relatively unchallenged in the workplace until the industrial action campaigns of 1989 and 1990. This failure has been well documented elsewhere (OILC, 1992; Woolfson and others, 1996).

With particular reference to the Piper Alpha platform, the following part will show how the relatively unhindered drive for maximum production, supported by the political priorities of the British state had a direct bearing upon the creation of an inherently dangerous offshore production regime. The lack of an adequate health and safety regulatory regime was a key factor in creating the conditions which made a disaster of the scale of Piper Alpha possible.

Part 2: Piper Alpha and the Crisis in Offshore Safety

Part 2 of this chapter starts by examining the safety related impacts of the oil price crash in the late eighties in the industry generally, and, in particular, on the Piper Alpha platform. It then provides a brief analysis of the events surrounding the Piper Alpha disaster and Lord Cullen's public inquiry into the disaster.

It is argued that the operating companies in the North Sea have attempted to offset the costs associated with the implementation of Cullen's recommendations by engaging in an organised and comprehensive cost-cutting campaign under the banner of CRINE. A detailed analysis of CRINE will be used to understand the relationship between productive oil capital and the British State during this period. This analysis will complement the findings of empirical data presented in the chapter 6 of this thesis.

The Price Crash of 1985

In June 1985, after the collapse of the OPEC cartel quota system the price per barrel plummeted from \$30 in November 1985 to \$10 in April 1986. This event had a dramatic effect on the industry. Oil companies slashed their budgets by between 30 and 40 per cent across the board. The impact on the workforce was devastating. Wage levels fell dramatically and 1986 saw up to 22,000 jobs lost in the industry, drilling fell by 40% and production in the onshore fabrication yards fell to 36% of capacity. (Harvie, 1994) Within a year of the crash, the level of drilling and new exploration work had fallen by 60% (Woolfson and others, 1996). The operators response to the oil price crash had far reaching implications for workplace safety in the industry.

Notably, maintenance was an area that was particularly targeted for cuts. As Alison Quick has outlined in the more general context of British industry during periods of recession,

"Cost cutting exercises may hit health and safety work directly, but more generally economic pressures cause employers to adopt other policies likely to reduce safety. Maintenance budgets, for example, are often cut, and there is a tendency to cut back investment in new machinery or training..." (Quick, 1991: 52)

In the North Sea during this period: "The recession and the subsequent tightening of the oil company belts meant that only 'necessary maintenance' was carried out. 'Cosmetic maintenance' was a thing of the past." (Gasteen and Sewell, 1995: 223) To the operators, the distinction between what constitutes 'cosmetic' and 'necessary' maintenance is not always a

clear cut one. What is clear is that resources allocated to ensuring the regular maintenance of plant equipment was subject to the same savage cuts as other budget headings. Changes in maintenance patterns have particular ramifications for the offshore sector:

".....many of the machines operating on offshore installations are not specifically designed for the North Sea, rather they are intended for 'normal' factory working. Yet they are taken into a highly corrosive atmosphere, are squeezed to work as fast as possible and are run for 24 hours a day. The effect of this is to increase the possibility of breakdowns. However, the numerical flexibility that the contract system generates, ensures that manning levels are reduced to their absolute minimum offshore and hence unexpected maintenance demands can cause labour shortage problems." (Lavelette, 1991: 43)

The intense pressures to maintain production may also be partially associated with the operating companies' imperative to avoid shutdown or 'downtime'. Since production shutdown may commonly be the only safe way to maintain plant components integral to the system, under certain conditions, companies may adopt a 'breakdown' or 'necessary' maintenance strategy, or delay shutdown which avoids the large costs associated with downtime. It is precisely such conditions that flourished in the industry during this period.

In this context, it is unsurprising that the industry continued to suffer from horrific accident rates over his period. In the years between 1985 and the end of the decade, the number of workers killed or seriously injured was consistently higher than it had been at any time before in the industry. (Woolfson and Beck, 1995) The impact of this is starkly illustrated by a survey by the School of Management Studies at Manchester University in 1988 which found that "nearly 30% of offshore workers have suffered injuries at work." (*The Guardian*, 21 January 1989)

The severe cuts suffered by the workforce post 85/86 in terms of job cuts, increased working hours and the intensification of productive demands was also a key contributory factor in the disintegration of safety standards. The impact of a relatively weak position of the workforce vis-a-vis managements upon safety standards in the industry was considered in chapter 1, with particular reference to the work of Woolfson and others (1996) and Carson (1982). The response of the oil companies post 85/86 represented a wholesale attack on the workforce. This onslaught allowed management control strategies to flourish generally across the North Sea, and on individual platforms. It is worth briefly noting that the offshore workforce, perhaps more than any other large industrial sector in the UK, has, over the years been actively excluded from the management of their own safety. Workers have been (and as we shall see in chapter 8, to some extent still are) routinely disposed of for voicing concerns in the workplace whether they relate to safety or not. The use of the NRB²⁰ system has been an important management tool in this process.

Piper Alpha

Before discussing some of the contextual background to the Piper Alpha disaster, it is perhaps worth noting one point. A consistent view amongst those who worked in the industry in the mid eighties is that, although Piper Alpha was certainly not regarded as a safe platform, there were a number of platforms that the workforce feared would have a multiple fatality accident

²⁰ 'Not Required Back'. It is said that at one time a worker that was Not Required Back would have his/her work card stamped 'NRB' to prevent future employment in the industry. The NRB has been notoriously used to rid the industry of those who dare to challenge management decisions or, commonly, those who refuse to compromise safe working practices. A casualised workforce (70%-80% of which is contracted on a short-term basis) allows management to hire and fire at will, and to actively exclude 'troublemakers' or those who raise issues in relation to safety and working conditions.

before Piper Alpha. Indeed, an inspection by the Department Of Energy in June 1987 found the platform to be "well run" (Cullen, 1990: 244). Whilst the following section notes the woeful inability of such inspections to reveal even the most elementary of safety problems, that the Piper Alpha was thought of in this way is indicative of general perception that the platform was not any more or less vulnerable than other plants in the sector. We should therefore view the disaster, not as an aberration or a simply a 'one-off' accident. That a tragedy of this scale did not happen on another platform is perhaps only down to fortune.

Maximising Production on Piper Alpha

The Piper Alpha platform was Occidental's most valuable asset in the early eighties, and they were keen to exploit its potential to the full. Tim Halford, Armand Hammer's secretary had recalled:

"I can remember going out with Hammer to the Piper platform and standing on deck. There was a lot of oil going through Piper at the time. I think it was the highest producing platform in the world and he was saying. I can just feel those dollars going through beneath me. And that's what it was all about."

(Channel 4: 1994)

Yet, after the price crash, Piper Alpha was faced with the same serious cuts in operational resources, and subject to the same production pressures from senior management as other platforms. The maintenance programme for Piper Alpha was cut in successive years after the oil price crash of 1985. Andy Mochan, who worked on the platform, recalls that the company line was to "wait and see how the oil price goes before we decide what we're going to do."

(Channel 4, 1994) The increasing pressure to maximise production with reduced budgets and a reduced workforce had also meant that shift hours were dramatically increased.

A former Occidental safety officer, Jack Donaldson recalled tension between the loss prevention department and the production department in the period leading up to the disaster. He pointed out that the production department imperative to "keep platforms producing oil 365 days a year" had placed unbearable pressure on safety. (*The Guardian*, 11 July 1988)

Numerous plant modifications had been carried out since the platform had been built. Components were stacked high on the topside of the platform. The result was a cluttered mess that was described by one engineer as "fifteen pounds of potatoes in a five pound bag." (Pate-Cornell 1993: 225) Jack Donaldson stated that the "Occidental plant was loaded to the point of being questionable about its all up weight." (*Observer*, 10 July 1988) That the platform had so much extra weight was a result of plant expansion to cope with an increase in productive capacity. The design proposal that was submitted to the Department of Energy in 1974 was based on a peak production of 250,000 barrels per day. By 1979, it had reached 320,000 barrels per day. (At the time of the disaster, production had declined to 130,000 barrels per day.) (Pate-Cornell, 1993) One former government inspector stated that this was causing severe structural problems and that "fractures and weaknesses were discovered in the supporting structure in the early 1980s." (Harvie 1994: 331) Substantial steel work had to be undertaken to strengthen the leg supports and the structure below the drilling deck (see also, *The Guardian*, 9 July, 1988). The company rejected the possibility of providing fireproofing for the structure of the platform, because it was so heavily laden with equipment already that the structure would not be able to support the additional weight. (Cullen, 1990: 227) The

vulnerable state of the platform was thus directly attributable to the company's desire to maximise productivity by stretching the boundaries of the platform's design specifications.

Relatively Weak Labour

The relatively weak position of labour during this period was also reflected in worker/management relations on the Piper Alpha. This is indicated by reports of gas leaks by workers on the Piper Alpha that were not acted upon by management. One widely reported incident took place a month before the disaster (and days before the Department of Energy inspection had praised management on the platform, Cullen, 1990). On the day of the disaster, two workers had complained about a smell of gas, and one had been given permission by the platform safety officer to down tools (*The Guardian*, 11 July, 1988).

That these warnings were ignored is directly attributable to worker/management relations on offshore platforms. Offshore workers, the majority casualised, short-term contractors (83% of workers on board Piper Alpha on the night of the disaster were sub-contracted; Cullen, 1990), have to raise such matters as individuals with no trade union support and within particularly authoritarian management regimes. If their warnings go unheeded, as they often do under intensive productive conditions, then they have little power to intervene in the productive process. If they do, then they do so without protection. The NRB was a problem on the Piper Alpha, just as it was on every other platform.

If we understand the relative power of capital and labour, both generally, and in the workplace as a central component of the regulation of safety (Tombs, 1996), then the absence of a strong

and organised workforce in the offshore industry, which actively prevents the participation of the workforce in safety regulation was undoubtedly a key factor in the circumstances surrounding the Piper Alpha disaster.

The Disaster

Around 9.45pm on 6th July 1988, one of the gas condensate injection pumps failed. A decision was made to restart the second pump which had a pressure safety valve removed and not replaced earlier. A build up of high pressure gas resulted caused a massive explosion. A series of explosions followed which tore through the platform. Everyone on the platform gathered at the emergency muster point, the accommodation module, which, due to its location above the gas compression module, also happened to be one of the areas on the platform most exposed to fire and explosion. The accommodation module was made of wood and fibreglass, and was highly flammable.

One of the initial explosions had destroyed the control room, knocking out all means of external communication (this itself was a serious design flaw, since the control room was located next to the production modules). What followed was a scene of complete confusion: emergency lighting failed, there were not enough torches, all the lifeboats were situated around the smoke filled helicopter decks and there were no rungs on the platform legs to climb down. There was no back-up emergency procedure: no alternative muster point or escape routes. When two inflatable life rafts were launched, they failed to inflate successfully. The fire/water deluge system did not activate, and in any case, Lord Cullen was to conclude that "it is likely that if the deluge had been activated on 6 July 1988 a substantial number of the deluge heads

would have been blocked by scale with the result that they would not have been discharged." (Cullen 1990: 205)

One survivor recalled:

"Everyone was standing about waiting for information, waiting for a command. I had asked one of Occidental's safety personnel, 'what's happening?, when are you going to evacuate the platform, how are you going to get a way out?' The reply was a shrug of the shoulders, 'I don't know.'" (Channel 4, 1994)

The majority of those who survived were those who broke with the company emergency procedure and made their own way down towards the sea (Wright, 1993). There was a delay in the decision of the connected platforms, the Tartan and the Claymore to shutdown production, an action which would have stemmed the flow of oil to the Piper Alpha. In fact, production on the Tartan was increased to mainline pressure before shutting down. The Claymore didn't shut down for more than an hour because the OIM was waiting for instructions from corporate headquarters on the beach.

Armand Hammer had been keen on boasting about how safe his company operations were. Occidental produced a promotional video which made grandiose claims about how prepared the company were for a crisis situation. The video featured the state of the art Tharos floating fire engine co-designed by Red Adair, and opened by Prince Philip. In fact the Tharos was ill-equipped to deal with a major fire. In 1982, a steel gangway between Piper Alpha and the Tharos had collapsed, killing 3 workers. The company were prosecuted and fined (*Observer*

10 July 1988). On the night of the disaster, the Tharos was, by chance, close to the Piper Alpha. But the vessel did not respond immediately, waiting for instructions from the OIM on Piper Alpha. When the Tharos did move in to fight the fires, its overloaded systems failed and it took more than an hour to lower the gangway. The vessel then was forced to retreat from the fire, severely restricting its ability to rescue survivors.

The standby vessel, a converted fishing boat, the Silver Pit was woefully unequipped, as a survivor recalled: "They couldn't even look after a dozen [survivors] and they didn't even have an aspirin on it. It broke down and started drifting towards the platform. It was a total disaster, a nightmare." (Channel 4, 1994)

167 people died, 61 survived and twenty bodies were never recovered.

The Technical Crisis

The events which immediately preceded the disaster can be understood as arising from pressures associated with costs and production. The technical crisis is thought to have been caused in the course of conducting maintenance on one of 2 condensate injection pumps in the gas module. Pump A was isolated to allow maintenance work on a pressure safety valve to be carried out. The valve was removed and fitted with a flange, leaving the system dependent upon pump B. The valve was not replaced since a request for a crane had been refused. By this time there had been a shift changeover, and it is likely that the work was suspended because of the overtime costs associated with carrying out such work during the night shift. (Lavelette and Wright, 1991) The initial explosion occurred after pump B failed, and there

was an attempt to restart pump A. The pressure on the flange (which it is thought was not secured properly) in pump A caused a massive build up of pressure resulting in gas being fed at high pressure into a hot area. Why a restart of pump A was attempted is not clear. In Cullen's (1990) version of events, it is thought that a failure in the permit to work system, the principle administrative mechanism for co-ordinating maintenance work, allowed management and operators to proceed under the assumption that pump A was operable. Yet, this does not explain why management or plant operators would not question why, if the maintenance work had been completed, the pump had not already been started. Another possibility which could explain this decision is that management gave the instructions to restart the pump with the knowledge that the pressure safety valve had been removed. At the Cullen inquiry, when senior offshore managers were questioned about whether the latter course of action would be normal practice in the industry, "....some stated that they may have tried the operation if the alternative was a complete shutdown." (Lavelette and Wright, 1991: 63).

Some elements of the crisis and the emergency response on the 6th July had arisen before on Piper Alpha. In September 1997, a worker on the Piper Alpha, Frank Sutherland was killed attempting to replace a pump bearing. A subsequent Department of Energy investigation had identified problems with the shift hand over as a causal factor (Cullen, 1990). Occidental were subsequently successfully prosecuted for a breach of the HASAW Act. The death of Frank Sutherland and the subsequent prosecution made clear a series of fundamental failures in management practices, yet management chose to ignore these clear warnings. Neither did the incredible failures and inadequacies of the emergency system occur without warning. Four years earlier, a gas explosion injured 4 and led to an evacuation of the platform. In an internal company report after the 1984 gas explosion, Captain PG Clayson, onshore Safety

Superintendent at Occidental, reported that evacuation procedures were inadequate, and that in different circumstances, with harsher weather conditions and the support vessels not so close to the platform, injuries and risk of loss of life "would have been reasonably high." (ibid.: 235) A report produced jointly by the Department of Energy and Occidental report was deliberately withheld from the public domain in the aftermath of the disaster, and at one point its existence was denied by the Department (Tombs, 1989). It was finally published after demands from offshore trade unions. (*The Guardian*, 3 July, 1989) In any case the Department of Energy evidently had not conducted a particularly rigorous inquiry and relied almost entirely on Occidental's own internal findings. (*The Guardian*, 20 January 1989)

An inspection in June 1988, less than 2 weeks before the disaster, took place in response to a prosecution of Occidental for the death of Frank Sutherland. The inspection concluded that shift handovers had been tidied up. But lifeboat and fire drill procedures were not checked and the fire/water deluge system (all crucial to the immediate emergency response on the 6 July) was not examined. (Cullen, 1996: 245-246) The latter omissions were perhaps partially a function of the fact the inspector, RD Jenkins, had only ten hours to conduct the inspection. He concluded: "Lessons appear to have been learned from the Sutherland fatal incident. A routine inspection in one year's time is appropriate." (ibid.: 246)

The Response

The Piper Alpha disaster and the Cullen Report acted as a moment of exposure for the industry (Woolfson and Beck, 1995). The public inquiry into the causes of the disaster opened in Aberdeen in January 1989. Lord Cullen was appointed to oversee the inquiry, and his report was a damning indictment of Occidental, the operators of Piper Alpha, which he concluded was guilty of a string of errors and lapses, amounting to a superficial attitude to likely risks and gross negligence (Cullen, 1990). Yet Cullen was equally scathing as regards the inadequacy of the regulatory regime. He pointed out that the Department of Energy were in no position to regulate safety effectively given their simultaneous role in encouraging extraction. Cullen proposed the reconstruction of the offshore regulatory regime so that it would more closely approximate the system of onshore safety regulation. He recommended that responsibility for regulating safety in the industry should transfer from the Department of Energy to a "discreet division of the Health and Safety Executive" (ibid: 392).

The costs of hardware associated with some of Cullen's recommendations (notably the provision of fire and blast proof TSRs, riser and sub-sea safety valves, and the costs of quantitative risk assessment and other aspects of the preparation of safety cases) have been estimated variously at £2.3 - £2.6 billion (according to the HSE, 1995a) and £5 billion according to the operating companies (Brandie, 1994/95, UKOOA, 1997a). Clearly, whichever estimate one believes, these represented a considerable cost burden for the operating oil companies. These costs also came at a relatively unexpected at a time when the operators were recouping their (relative) losses from the post 85/86 price crash. The costs of

Cullen were not going to be met easily by the operating companies. The argument here and elsewhere (Whyte and others, 1995; Whyte, 1996) is that, ultimately, the oil industry in the UK sector has successfully resisted the imposition of additional capital and operating expenditures.

For a brief period following Piper Alpha, the balance of power between social forces may have shifted in favour of pro-regulatory forces. This process was greatly strengthened by the widely supported and ingenious campaigns of 1989 and 1990 organised by the then unofficial shop stewards committee OILC (OILC, 1991, Woolfson and others, 1996). These campaigns, based around a series of sit ins and strikes on offshore platforms, were almost unique in recent British trade union history in that their locus was worker demands for collective safety rights. Similarly, parts of the British state, particularly the Department of Energy, were exposed to a crisis of legitimation (Smith and Sipika, 1992) as Lord Cullen produced a report which was damning of the role of the Department in the events leading up to the disaster. Indeed, such was the political fallout of this moment of exposure in combination with a series of other major incidents that affected workers and the public in the latter half of the 1980s both in the UK (Smith and Tombs, 1995) and internationally (Smith, 1990) that for a brief period pro-regulatory forces regained a position of strength.

The Advent of CRINE and the 'New Era'

A tragic legacy of the disaster, however, is that it was followed by organised regrouping on the part of oil companies. The necessity of such a response was furthered by immediate estimates of the costs of the Piper Alpha disaster to the oil industry, which indicated that there were likely to be considerable direct and indirect costs related to any improved regulatory regime. It

is here that we find the origins of the CRINE (Cost Reduction Initiative for the New Era) project.

In the aftermath of the oil price crash of 1985/86, individual oil companies had sought to respond in a fragmented and piecemeal fashion to external economic pressures. Following the publication of the Cullen Report however, there emerged a more organised and collective initiative on the part of offshore operators, which sought to alter the conditions for the exploitation and development of North Sea oil. The CRINE project, organised and initiated by the UKOOA, was lauded as the only basis upon which a "bright future" for operators, contractors, suppliers, and the future of the nation could be secured (Tuft, 1994a: 1).

CRINE has been described as:

"an industry-wide initiative with the main objective of making it possible to achieve a 30% or more reduction in capital costs for any future oil and gas facilities development. This cost reduction will....continue to maximise the remaining recoverable reserves, improve the construction industry's competitiveness in the international arena and thereby help sustain employment at a higher level than would otherwise be possible" (Tuft, 1994b).

Whilst there was an original reference to capital expenditures, CRINE was swiftly developed to target operating expenditures. Thus, more recent statements have targeted a "...30% reduction in capital costs...." and a "...50% cut in operating costs within 2-3 years." (Risley, 1995: 5).

A key function of CRINE has been the legitimisation of what are clearly huge cuts in expenditure. Thus, in public statements by UKOOA and the oil companies, and in the CRINE literature, we see the development of a series of claims to provide ideological justifications for CRINE. The use of these claims to construct a view of the world according to the operating companies is a prime example of the arguments developed in chapter 4. Once again, we can understand this as a process of mystification which allows the opportunity for capital to establish new economic 'realities', and to set acceptable parameters for state intervention and regulation. The following sections discuss this process in the context of claims around the relationship between: CRINE, globalisation, survival and the national interest; CRINE and deregulation; and CRINE and safety.

Globalisation , Survival and the National Interest

Drawing upon the language of survival, CRINE sources go as far as to assert that because "capital and operating costs have continued to escalate...Unless urgent action is taken to reverse this trend, the future of oil and gas development in the UK North Sea will be in serious jeopardy." (CRINE, founding statement, p2). Claims around the future potential for the UKCS are also introduced to the equation. CRINE sources thus assert that the North Sea is a mature province, where the windfall profits of the 1970s and early 1980s are not going to be repeated. Moreover, in relative terms, the exploitation of remaining North Sea reserves looks even less economic alongside the existence of numerous other opportunities for investment on the part of the oil industry. Thus CRINE is promoted as essential to the survival of the UKCS:

"CRINE is a dynamic and positive UKCS response to the pressures of competition in the world of oil .. At stake is the future prosperity of all who are, and will be, dependent on the continued success of the UKCS offshore industry, together with its industrial support base" (Tuft, 1994a: 10-11).

The argument is that without CRINE, future field exploration and development will not take place - oil will remain in the ground, and while the UK sector was once of enormous strategic significance for the industry, this has now altered. It thus follows that if companies are to continue to operate in the North Sea, they require ever more favourable conditions in which to do so.

This literature consistently refers to the fact that the high-cost UK offshore industry has to operate in the international market place. In drawing upon the idea of globalisation, such statements have also been accompanied by more explicit threats of a flight of capital away from the UKCS to other oil producing countries, if conditions do not remain favourable for the oil companies. Crudely, it is suggested that oil companies are constantly looking to other markets: "European governments in turn have to recognise that offshore oil is an international industry where over 60 countries are competing for oil development capital" (Westwood, 1995: 9). Vic Tuft, director of the CRINE secretariat emphasises:

"I promise you, if Mobil can get a barrel of oil cheaper in Vietnam, then they will go. We have to stop this happening, and make sure they get a bigger return on their buck. We have to keep our house in order, and to do this we must have competitiveness. If its not going to be produced in the North Sea, then its sure as hell going to be produced elsewhere." (interview with author 1 August, 1996)

Statements that have promoted CRINE as an essential strategy for survival are also commonly found in government statements (see *Lloyds List*, 25 November 1994: 'Cut Costs to Survive Says UK Minister'; Department of Trade and Industry press notices 2 March 1993 and 24 November 1994).

The explicit threat is that without the success of CRINE's attacks upon costs, jobs will be lost en masse, exports will dwindle and the UK supply industry will disappear. In the name of the national interest, it is therefore imperative that the operating oil companies are given the most favourable conditions in which to operate.

But the 'survivalist' view is not one of consensus within the industry. For example, prominent oil industry economist Tony Mackay is doubtful about the message that CRINE is fundamental to survival, pointing out that: "[CRINE] could be one of those management fads - like TQM - which seemed essential at the time, but in two or three years are completely forgotten." (Mackay, 1995: 1) Mackay argues that high investment risk is a necessary feature of the industry which goes hand in hand with the prospect of high returns on capital :

"Oil company profits are greatly influenced by oil prices and they can afford to take a long term view if fields are going to produce for 25-30 years. If initial capital expenditure has been reduced, through alliances, and oil prices rise in the future - as most industry economists expect - then the oil companies will do very well." (Ibid.: 1)

At the time of CRINE's emergence and development, the oil companies were indeed doing very well. According to the series of reports compiled by industry analysts WoodMackenzie

(1996a), the oil companies' own research organisation, cash flow generated from the North Sea was rising from less than £1 billion in 1992 to more than £4 billion in 1996 and was expected to exceed over £7 billion a year before the turn of the century. This was largely an effect of the phasing out of PRT. Furthermore, it is now cheaper to produce a barrel of oil than it ever has been, even in the boom period of the early eighties (WoodMackenzie, 1996d) and North Sea production rates are higher than ever before (WoodMackenzie, 1996b and 1998c).

Even with the advent of lower than expected oil prices (see chapter 4), all of this suggests a second period of 'windfall profits' in the UK oil industry. Indeed, rising oil prices in the earlier part of this decade produced record profits in 1996 for companies such as Conoco, BP and Shell (Frazer, 1997). CRINE has certainly reduced the size of capital deployment necessary for individual development projects (Kemp, 1994, Mackay, 1995), and by reducing the risk on investment has thus increased the prospects for large 'windfall' profits in the future at a significantly reduced capital cost. The comments made in chapter 4 in relation to the long term investment cycle endemic to the oil industry further give good reason to believe that far from facing a crisis period, the oil sector will emerge from this decade in very good shape indeed.

Yet this is not a view of the world that the oil companies would want to be widely held. In setting up a rather different view of the world, the key elements of CRINE have produced new economic and political realities. Of particular interest here is that CRINE, supported through institutional and ideological links between UKOOA and the DTI, draws implicitly but crucially upon the ideologically produced realities of globalisation and the national interest. In this sense, productive oil capital has, through CRINE, redefined the conditions under which it will,

or will not, produce oil in the UKCS. It is this which also provides a rationale for minimal government intervention, both in terms of economic and social regulation.

CRINE, Deregulation and Taxation

A more detailed examination of the origins of the CRINE project reveals a close affinity between government and industry on questions of cost-cutting and deregulation. The original CRINE statement expressed enthusiastic support for the Government's own "Burdens on Business" (deregulation) initiative (CRINE, section 2.5.6, p. 13). CRINE was thus encouraged by the government in general, and by Tim Eggar, Minister for Industry and Energy, in particular, the latter calling for "additional proposals on deregulation" which "would be very welcome from industry" (Eggar, 1994). The views of David Simon (then Chair of BP and now Minister of State in the DTI) on this relationship are instructive here:

"CRINE doesn't just involve industry. It is a partnership involving government as well. And if you find a practical example of the benefits of deregulation, you could do worse than look at what the DTI has achieved in this project." (Simon, 1994)

Indeed, it is impossible to understand the origins, nor power, of CRINE, without understanding its intimate relationship with, first, the Government's commitment to deregulation (see Tombs, 1996 and Woolfson, 1995a), and, second, the results of the DTI's Working Group on UKCS Competitiveness.

Tim Eggar announced his intention to set up the 'Working Group on UKCS Competitiveness' in October 1992 under the auspices of the Department of Trade and Industry's 'Offshore Industry Liaison Committee'²¹ and comprised representatives from: the oil industry, the offshore supplies industry, the STUC and the DTI. Its terms of reference were:

"to identify and examine proposals for improving the competitiveness of the UK Continental Shelf; to consider possible initiatives which could be taken in order to achieve a reduction in capital expenditure and/or operating costs; to make recommendations by February 1993 to the President of the Board of Trade and the Minister for Energy on action which could be taken by the industry and/or Government."

(Department of Trade and Industry, 1993: 1)

The report, which was published in March 1993, reads almost as a blueprint for deregulation of the industry. On health and safety matters, the committee urged that "HSE expedite the establishment of a new safety regime based on goal setting rather than prescription" (Ibid.: 3)

The committee sought to establish a key role for UKOOA in this process, stating that "UKOOA should urgently provide HSE with its priorities for repeal or adjustment of existing prescribed legislation" (ibid: 3). The committee went on to conclude that "considerable scope exists for securing a reduction in [documentation] costs" (ibid.: 4) and that such actions: "should be implemented by CRINE. "(ibid.: 3) The report also included specific recommendations for relaxing development and licensing policy and spoke of "the need to adopt a non prescriptive approach to environmental management systems." (ibid.: 4)

President of the Board of Trade, Michael Heseltine welcomed the report without reservation:

"For my part, I fully endorse the recommendations. Several of these concern the DTI and I am

²¹ Not to be confused with the OILC, the offshore trade union.

happy to state that we accept them and will be implementing them." (DTI press notice, 2 March 1993: 2) The publication of the working group report was significant in establishing CRINE's influence over industry strategy. Until then, CRINE was merely an adhoc industry working group of project managers on the fringes of UKOOA meeting in a London public house in the summer of 1992 (MacDonald, 1993). Heseltine's enthusiastic response to the report was a taste of things to come:

"the overall conclusion of the Group, and the main theme running through many of the recommendations, is the need for a wide-ranging cultural change within the industry to meet new market conditions..." (DTI press notice, 2 March 1993: 2)

Eggar told the inaugural CRINE conference in December 1993,

"since the report of my working group in February, UKOOA has adopted the CRINE initiative....I welcome it and congratulate those involved. It becomes a handbook that should remain open on desks throughout the industry." (Eggar, 1993: 3)

Perhaps more significantly, his speech signalled a new partnership between the Department of Trade and Industry (DTI) and the oil companies: "Partnership means making your concerns our concerns. It means the DTI searching relentlessly to find ways to help the environment in which you operate" (ibid: 5), and that "I .. want to confirm that the DTI will be a full partner in pursuing the changes needed" (Ibid.: 1). Effectively, this signalled the Department of Trade and Industry's intention that CRINE would assume the role as an advisory body to government. Since then the DTI has been an equal partner with the industry in the CRINE project. CRINE annual conferences are now jointly organised by UKOOA and the DTI. In

1995, the Department donated £100,000 for the work of the CRINE Office to match the operating companies funding (European Offshore Petroleum Newsletter, 30 November 1995). Public statements from Eggar indicate that he has firmly adopted CRINE as his own project.

Eggar's careful nurturing of a cosy relationship between his department and the oil industry extended well beyond CRINE. We have already seen the importance of his public statements in reinforcing claims around globalisation terms of the and the potential flight of capital from the North Sea, not only in relation to supporting the CRINE agenda, but also in relation to the UKCS tax regime (see chapter 4). Referring to the streamlining of 'Annex B' applications for field developments, he has promised that the DTI would to be "nearer to its customers" and would act "more like a service company" for the oil companies (European Offshore Petroleum Newsletter, 8 December, 1993) and: "Governments may no longer be in the driving seat when it comes to selecting oil companies to carry out oil and gas developments." (*Press and Journal*, 9 September, 1993: 1)

As Foster and others have argued, it is also impossible to understand the emergence of CRINE in isolation from the abolition of PRT relief: "The modification of PRT did not just change the geographical location of new investment. It also changed its character - both in terms of cost horizons and type. Previously, exploration costs were directly debited against tax and of little consequence to the operator....If BP or Shell were to secure a return on their existing and new investment in the central fields (and the long-term cash flow needed for global expansion), then contracting costs had to come down." (Foster and others, 1994: 20-21)

CRINE and Safety

Of course, the cost reductions associated with CRINE have mostly been absorbed by contractors. Yet a core theme of CRINE has been to foster new co-operative partnering relationships between and within the operating and contracting sectors, and to promote new and imaginative approaches to North Sea developments (for overviews of this theme, see: *ibid*; Whyte and Tombs, 1996). It is this theme that the protagonists of CRINE use to argue that the UKCS has entered a 'new era' of co-operation. Despite the rhetoric, the most significant effects of CRINE and the cost-cutting project has been a wholesale onslaught upon the contracting sector. Gasteen and Sewell reproduce the views of an oil company operational manager on this point: "If you are told by headquarters to save 20% of your operational costs you knock hell out of the contractors" (1994: 253) The 1990s has been a period during which the contracting sector has been squeezed almost continually. Given the comments made earlier in this chapter on the impact of the 85/86 price crash, there is little need to repeat the safety implications of another cost-cutting onslaught.

Yet, the original CRINE statement, 'Cost Reduction Initiative for the New Era', notes that: "The correct implementation of CRINE recommendations is fully synergetic with the overall safety process followed by the industry in the post-Cullen era .." (CRINE, 1993). The view that CRINE does not represent a threat to safety has been endorsed explicitly by government ministers (for example, see *Lloyds List*, 30 November 1994) and the HSE (Todd, 1996). In fact, all of the aforementioned sources support the view that instead of leading to a deterioration in safety standards, CRINE is more likely to have the effect of improving safety

performance. Indeed, Jack Criswell, in his role as President of UKOOA has even gone as far as stating that CRINE is "the industry's contribution to safety" (cited in *ibid.*: 2)

The following chapter will show that contrary to HSE and industry claims, CRINE and the cost-cutting programme has brought with a series of fundamental and tangible threats to safety. Not least of these has been the demands placed upon a steadily declining workforce. These trends have increased the pressure for 'multi-skilling' (or, more accurately, 'deskilling') amongst the offshore workforce, and have exacerbated already intense production pressures.

Concluding Remarks

Part 2 of this chapter has outlined the historical context for the Piper Alpha disaster by locating the disaster within a particular set of political and economic conditions and, in terms of the workplace, within particular social relations of production. The background provided in part 1 of this chapter, in terms of the consolidation of productive oil capital as a dominant fraction has allowed for a conceptual framework for such historical developments.

Yet this is not to argue that productive oil capital has had an unchallenged ascendancy. There have been moments in the history of the UKCS that have offered opportunities for a challenge to capital. The heroic struggles of offshore workforce in the summers of 1989 and 1990 are illustrative of this. The OILC shop stewards committee which co-ordinated this action (now as a trade union in its own right) remains as a force in the sector. It may not have managed to secure bargaining recognition, but its membership remains active and has experience of

collective action (Woolfson and others, 1996). Notwithstanding this point, the advent of CRINE must be accepted as a serious setback for pro-regulatory forces.

In many respects, the claim that CRINE is essential to survival will have resonance with the discussion of the 'doomsday warnings of capital' in the previous chapter. Of course, CRINE also has to be understood in terms of its relationship to the neo-liberal project of deregulation, for this created both the impetus and the political legitimacy for such an assault upon the offshore workforce. Whilst the balance of forces that comprise productive oil capital may have undergone a certain realignment during the post-Piper Alpha period, its position as a dominant fraction of capital in the UK was significant in prompting such enthusiastic support from the British state.

The claim that CRINE is compatible with improved safety may be risible, but in the context of the post Piper Alpha oil industry, it is difficult to see how CRINE could emerge without reference to safety. The harshest irony is that it seems the workforce are themselves paying for the costs associated with the implementation of Cullen, and for big oil's requirements for disposable capital, in terms of job losses, deteriorating working conditions the greater day-to-day risks that CRINE may bring. The following chapter will develop this point in greater detail with detailed analysis of data from the fieldwork interviews with offshore workers, front-line inspectors and managers.

Chapter 6: Safety in the 'New Era': evidence from the fieldwork

This chapter follows from the discussion of CRINE and the 'new era' in the previous chapter. It uses data from the fieldwork to measure the impact that CRINE and CRINE-related cost-cutting has had upon the working conditions on offshore platforms in the post-Piper Alpha 'new era'. The chapter comprises two sections. The first examines the direct impact of cost-cutting, and the second section presents data on one particular aspect of the industry's renewed emphasis upon safety; the use of incident rates as a key performance indicator.

The following chapter will explore some aspects of offshore work that have changed since the advent of CRINE and will discuss the implications of such changes for the management of safety. This chapter presents data analysis from interviews with offshore workers, manager and HSE front-line inspectors respectively. It will argue that combined, these perspectives indicate quite clearly that a number of tangible threats to safety can be identified as a direct outcome of cost-cutting.

Also included in this chapter is a focus upon a related area of concern identified by respondents; the manipulation by managements of quantitative indicators of safety performance in the industry. In particular, this focus is upon problems associated with the use of over three day injury rates.

Assessing the Impacts of CRINE: Workers' Data

In light of the previous discussion on the rationale that was constructed around CRINE, it is instructive that almost all worker respondents rejected the notion of a complementarity between CRINE and improving safety performance. The almost unanimous position was that 'cost-cutting' now engendered a series of threats to safety. The elements of the cost cutting project having the most serious impact upon safety were identified as: a steady reduction in the workforce and the related operators led demand for a 'multiskilled' workforce, changes in shift patterns, cuts in maintenance budgets, a general reduction in safety related training, a lack of personal safety equipment and a re-emergence of the practice of employing 'cheap labour'. What follows is a more detailed outline of each of these elements.

It was reported that the process of "downmanning", which has been noted in the previous chapter, had impacted directly upon workers experience. A clear example of this was one platform on which a group of three respondents worked which had recently been taken over by a different operator. The new operator had cut the workforce by a third over a four month period in order to sustain a profitable operation.

This effect of CRINE and cost-cutting in the industry is one that has been widely reported. For example, Tim Eggar, as Energy Minister, dismissed criticism from trade unions that the workforce is being further marginalised by the 'new era' as defined by CRINE, as "nothing more than emotional headline grabbing," asserting that CRINE is firmly in the interests of the workforce because it "is about ensuring there are jobs" (*Lloyds List*, 11 November 1994). In

fact, reductions in the offshore workforce have been significant since the emergence of CRINE. It was noted in early 1994 that:

"Oil companies have set about slimming down their operations with some zeal, prompted by low crude prices and the ever-growing need to adapt to a mature North Sea province. This has meant another round of heavy job losses across an industry already reeling from previous cutbacks ... Restructuring has been the name of the game" (*Lloyds List*, 14 March 1994).

Thus, in 1991 there were about 35,000 workers employed offshore OILC, 1996), a figure which had fallen to 27,000 in 1995 (DTI Brown Book), and was "below 25,000 and dropping" (OILC, 1996) at the start of 1996. What this means at company level is indicated by "a Shell Expro statistic which showed that the company will, by late 1996, have reduced offshore manning by nearly 50%" (*Lloyds List*, 29 March 1993).

In relation to the safety implications of this trend, the HSE's evaluation of the safety case regulations points out that "the changes perceived as having a negative effect on safety are in the area of reductions of manning and associated increases in workload" (HSE, 1995a: 32).

Most workers reported instances where a reduction in POB (persons on board) had a direct impact upon safety. In some cases, respondents believed that risk was increased because of a lack of cover for safety critical procedures:

"They've cut the crew hours by making the HLO (helicopter landing officer) work the minute he gets off the chopper. The rest of the crew wait on the chopper while he goes down two flights of stairs below deck, gets his survival suit off and his overalls off, comes back up to man the guns and lets the other guy get on the chopper. Meanwhile, everyone waits. It's a fucking comedy routine."

There were a few reports which indicated another dimension to downmanning, namely that it induced greater compliance amongst many offshore workers, and in particular a relative silence on their part regarding safety issues; that is, it had a disciplining effect. For example, workers reported being reluctant to 'rock the boat', particularly towards the end of a contract, because they are aware of the impending selection and disposal of workers. One example of this problem concerned workers on one platform who said nothing when told to carry out maintenance work without a permit²² being raised: "I saw guys who were totally intimidated by authority and were brow beaten into it. A lot of the lads were keen to impress and needed the future work."

Fear of dismissal was invariably cited as the reason to "keep your mouth shut for two weeks" instead of reporting hazards to safety or taking a pro-active approach to safety on the platform. When the jobs are fewer and the competition for jobs greater, workers (especially the workers who are seen as "moaners" or a "trouble makers") become increasingly more disposable: "Now people are scared to do anything or else they'll end up with the undesirable tag"

Respondents were also concerned at the pressure being created by the increasing requirement for workers to become skilled in more than one type of job. This trend towards 'multiskilling' was identified as a general trend on the majority of offshore installations. Examples of multi-skilling included a maintenance crew on one platform being given the job of erecting scaffolding, and on another platform, crane mechanics with no experience of operating cranes

²² The Permit to Work system is the administrative system that controls and co-ordinates all on-site work. It is thought that a break down in the Permit to Work system was a crucial factor in the organisational crisis on Piper Alpha (Cullen, 1990; see also chapter 5).

now working as crane drivers. Clearly, as the workforce is reduced across the industry, there are going to be 'skills gaps' left by the process of downmanning. These gaps are now being plugged by multiskilling. A major concern of the workforce is that multiskilling adversely affects the quality of the job: "It's just becoming a joke. You've got that many jobs, that you can't concentrate on the one."

The erection of scaffolding is a major area of offshore work currently being subjected to multiskilling. The principle complaint is that workers are not being trained properly:

"Scaffolders are being sent on rigging courses and riggers are going on scaffolding courses. But you'll never learn it in 3 days or 10 days. They want a lot more out of a lot less men. They're trying to create 'rigolders.' You can't multiskill someone in 3 days. I've been a scaffolder all of my working life, you can't learn that in three days."

It is no coincidence that in recent years the HSE OSD has highlighted safety standards for scaffolding as a priority in the offshore industry (*Offshore Oil International*, November 1995). Indeed, the HSE booklet *Offshore Access Safety Guidance* in October 1995 was published in response to some 180 scaffolding related accidents in the 7 years following Piper Alpha which killed one worker and seriously injured 12 (*Evening Express*, 11 October 1995).

A further CRINE-related concern was the cuts in planned maintenance programmes that were reported on a number of platforms: "It's being cut down to the bare bones...Its the oldest [platforms] that they are running into the ground, and that's the ones that need more." One effect of such cutbacks is that a backlog of work can accrue where there are reduced maintenance crews. One respondent recalled how one maintenance team would falsify permits

to work and time sheets in order to cover for jobs that they did not have the resources to finish in the time allocated. He discovered a valve lying on the deck beside a pipeline waiting to be fitted. According to the paperwork the valve had been installed.

In general, respondents were clear about the increase in risk at the workplace. One commented: "It's like working on a time bomb. The operators are aware that it's a time bomb, but it just comes down to cost cutting. They're playing a gamble. The gamble is money to them, but to us it's people's lives".

A further area of concern is the industry-wide move towards the use of three weeks onshore and three weeks offshore working shifts where previously workers were on two week shifts, which has now been adopted by at least three major operating companies. One worker commented: "Three weeks working and you're going to get hurt, and people are getting hurt. It's quite surprising how many people get injured on the final shift." Another worker pointed out: "UKOOA say the change to three weeks on, three weeks off is because of safety and the reduction of helicopter flights. That's absolute lies. The only logic they use is profit."

Some respondents identified another problem related to changes in working hours: that more overtime shifts are now being worked. One described the shift patterns of one workmate who was often asked to work shifts of up to seventeen hours. It was reported by many that shifts of a similar length are increasing as a result of the reductions in the workforce sweeping across the North Sea:

"Take a football game. The longer it goes on, the more mistakes are made at the end of the game. You see that many games are won and lost in extra time because of silly wee mistakes. Its the same for us. The longer your trip goes on, the more chance you've got of making that many mistakes."

A further area of concern over cost-reduction in recent years has been cuts in the duration of the industry standard RGIT offshore safety and survival course and the associated refresher course. The basic course was cut from four days to two days and the refresher course was also shortened (see *Scotland on Sunday*, 2 October 1994; *Lloyds List*, 7 February 1995). In addition, respondents identified an increasing requirement of workers to pay for the safety and survival course themselves where previously the employer had done so. In addition, offshore workers are increasingly being required to attend courses such as permit to work and fire fighting training in their own time at a basic rate of pay or less.

Similarly, workers reported an increasing reluctance of operators and contractors to issue personal safety clothing (such as boiler suits, hard hats, safety boots and safety goggles). Some employment agencies were reported to be demanding that employees supply their own personal safety gear. One interviewee who had experience of working on a Norwegian platform recounted that all necessary safety clothing was readily available on demand. At the end of the trip, the British workers would keep their old worn out safety gear and take it home in their kit bag. It was also common for British workers to steal tools out of the storerooms because they knew that if their next trip was on a platform in the UK sector, there may be a shortage of tools. One worker that had just returned from a trip to Norway reported: "You were totally degraded. The Norwegians were saying what the fuck are these scumbags doing. We were just made to feel like animals." Another reported that some workers have started to

take their own medical supplies offshore, such as elastoplasts, because they are generally unavailable.

Workers also reported a cost-related attack on standby vessel cover across the sector. The principle objection to these changes is that where there is a reduction in standby vessel cover, then the time taken to reach the scene of an incident or to retrieve a body from the water is increased.

The need for constant close attendance by standby vessels is well summed up in the following example provided from an interview with two stand-by vessel workers:

"A year ago, we were on a boat (guarding a small production platform). A guy fell off the rig. He was really lucky that the captain saw him and we got him out of the water in under three minutes. The captain radioed the OIM to tell him that there was a man overboard. The OIM shouted back, 'We tell you when there's a man overboard, you don't tell us' - he had a real attitude. This went on for a while before the OIM could confirm one of his men had fallen off the platform. They had been working underneath the topside, and the one that fell didn't have a harness on. They didn't have a radio between them, so they couldn't contact the OIM."

Workers reported that there had been a re-emergence of the use of 'cheap labour' from Eastern and Southern European countries and South-East Asia at significantly lower wages than British workers, which was described by one worker with more than 20 years offshore experience as "a return to the bad old days" .

In the examples reported by respondents, these workers are typically employed as semi-skilled labourers, and as stewards to carry out domestic cleaning jobs. It was reported that in many cases, imported workers are earning less than half the normal rate for the job. Those workers are generally employed for longer hours, will spend up to two months on the platform, and often are asked to take more risks than the rest of the workforce. (see also *The Safety and Health Practitioner*, October 1995: 6).

Workers also identified a general heightening of managerial demands to maximise production. Many viewed this as a symptom of CRINE and cost-cutting. Pressure on costs appears to have brought with it a widespread intensification of productive demands.

This appears to be a particular problem amongst drilling companies. One drilling platform worker recalled how he was asked to climb the 90ft derrick to repair a pipe during high winds. He pointed out that on this occasion, weather conditions had been severe enough to suspend crane operations: "If you refuse, and this happened to one of the lads - he was told he would be demoted. He ended up climbing the derrick."

Another worker on a drilling rig reported:

"The problem is the contractual relationship with the operator. Every trip, supervisors will say, too many nipped fingers, or too many strained backs. And we have to get them down at all costs because they are under pressure from Marathon [the operator]. But, you're also under pressure to do the job, so how is that supposed to happen? At 6 feet and above, you are supposed to wear a harness, but that gets ignored because you have to get the job done a wee bit quicker. If something gets stuck, then you might be losing a lot of time and time is money to them. The time it takes to get a harness, if you act quickly,

then you can solve the problem. Marathon lean on top management, they lean on rig management, and they lean on us."

The case of Lost Time Accidents

As we have seen so far in this chapter, offshore workers report that since the advent of CRINE and the cost-cutting campaigns that have been launched under the CRINE banner, that the pressure to meet production targets is intensifying. Of course, this type of production regime may bring with it a number of other threats to safety, such as pressure to reduce maintenance budgets and the intensification of pressure on installation managements to minimise downtime. Yet the data presented here shows how prioritising safety performance measures in a cost-conscious environment can actually create a situation where workers are less likely to be open about safety matters and as such may actually translate as a concrete threat to their safety.

The survey data presented here also provides insights into the manipulation of injury figures in terms of understanding the ways in which employers manage to avoid reporting. The following section summarises this evidence, mainly from workers, on the problems with using quantitative data based upon over three day injury rates (or Lost Time Accidents/Incidents²³ (LTA/Is)). Significantly, the following paragraphs explain such problems as (partially at least) a symptom of the current climate which places increasing pressure upon expenditure and production targets.

²³ Different terms are used by different operating companies. The regulatory authority HSE normally refers to over three day injuries not as LTA/Is, but as 'minor injuries'. For purposes of clarity, the term LTA is used consistently in this section.

Workers in the sample pointed out that safety is now a key performance indicator for operating and contracting companies. According to managers in operating and contracting companies and HSE front-line inspectors, safety has become an important element of contract negotiations between operators and their contractors. For this purpose, the primary measure of safety performance in the offshore oil and gas industry is the over-three day injury rate, the LTA.

Whilst cost obviously remains the primary performance measure, the use of LTAs in measuring safety performance appears to have a pervasive effect in terms of its widespread inclusion as a key success indicator in contracts between operators and their contractors. Workers assert that the contractual emphasis upon LTAs has had a significant impact upon the management of safety on offshore platforms.

One group of workers pointed out that safety can be as important a performance measure any other indicator when making a bid for a contract:

"...with us contracts aren't won on performance, they are won on safety, and if you take a good look at it, it's lip service for the companies. There is a difference with us, the safety reports are nothing like the same with ***** [operating company]. We have to report to the operators but they report to nobody."

The workforce view is that LTA rates are primarily used to demonstrate that the company is committed to safety, rather than as a means to actually improve safety performance. In this sense, the use of LTA figures as the standard safety performance measure can assume a certain independence from the realities of achieving a safe working environment: "The idea is not to

improve safety but to avoid LTAs (Lost Time Incidents) and look good. There is a subtle difference.....You're not there to stop accidents but to keep their record clean." Thus, in many situations, workers report that management are not so much preoccupied with improving safety, but with keeping accident figures down: "The monthly safety meetings are used as a forum for them to encourage you to keep LTAs down." Workers report that this preoccupation acts as a powerful disincentive to report or record LTAs, and that managers and their employees are under extreme pressure to keep such incidents hidden: "The oil companies will always present figures that make them look good. Its the same with accident figures. They're [oil company management] worse than the politicians."

One driller described how accidents are hidden in the drilling sector:

"There are a lot of cover ups, but they tend to be cut fingers and small injuries rather than broken arms. If you have an LTA, you are pressurised not to report it. The rule is on a ***** [drilling company] rig, you don't report it if you can avoid it."

Another worker recalled his employer, an operating company, declaring that they had worked 3/4 million man hours without a lost time accident. Yet, during this period, he had suffered an injury to his hand that had kept him off work for a week, but had never been reported.

In this context, it is therefore unsurprising that there have been questions raised concerning the accuracy of quantitative measures of the industry's safety performance (see concluding chapter). The following testimonies from workers illustrate the lengths that employers may go to 'hide' injuries to their employees:

One worker recalled an incident at work when he sliced the top of his finger off and was transferred to working in the onshore headquarters doing administrative tasks, such as filing, so that the accident wouldn't have to be reported as a LTA.

A drilling platform worker spoke of how a colleague fell from a crane pedestal, and was knocked unconscious. He was 'medivac'd'²⁴ onshore to hospital for treatment to his jaw. The following day he was flown offshore again at the insistence of management, and was told to go back to work. Two days later, his shift finished and he was flown back onshore again. He did not return to the platform again, and his fellow workers were not sure if he had resigned or been sacked.

Another worker spoke of how he gashed his hand one Friday. He was due to leave the platform at the end of his shift on the Monday. There was no helicopter flight scheduled until then. He was asked to work his shift. He agreed to continue working in some discomfort, and the incident was never logged. When he eventually got to the hospital in Aberdeen, he required 4 stitches.

There was evidence from the interviews that medical staff on some offshore platforms were under pressure to comply with management in covering up lost time accidents: "Medics are under pressure all the time not to insist on medivacs. They are as scared for their jobs as the rest of us are." One offshore medical officer told me that he had left his previous employer, a drilling contractor after he was refused a request to medivac a patient. The injured worker had

²⁴ Evacuated by helicopter to receive medical attention.

lost all feeling in his arm, but the company insisted that he stay on the platform for a week to avoid the accident showing up on the records as an LTA.

Most reported that the principle disincentive to report incidents is the fear of being demoted, sacked or NRBd. In addition to the fear of victimisation, employers incentive schemes were also said to discourage the reporting of injuries. In some contracting companies, safety awards are given at the end of the year for the crews who reach the targets set by management. The award may be worth as much as an extra weeks wages:

"It's always crazy towards the end of the year. Nobody wants to lose their extra weeks wages. Minor injuries are covered up. I've seen a guy with 3 broken fingers keeping quiet about it to make sure we get the bonus."

One example of a bonus system in a drilling company equated to a few hundred pounds extra for everyone on the rig if all contractual requirements were met. A production platform worker described a system on his platform where incidents attributed to each safety committee constituency would be added up at the end of each month, and the constituency with the lowest incident frequency would be allowed to nominate a charity for a company donation.

Some workers stressed that the focus upon LTA figures also had a powerful effect in promoting a 'culture of blame' where individual workers were held personally responsible for causing lost time accidents. For example, one company had a formally constituted review panel which conducted an inquiry into each lost time accident. The panel included two representatives from the operator and one representative from the employer (contracting

company). The person who 'caused' the accident was also asked to attend. For some workers this was a process that focused blame upon the individual worker, and required an explanation from the worker, rather than representing a genuine attempt at finding the cause of the incident.

As has been indicated, many of the more extreme cases of LTA cover-ups are reported by those working in the drilling sector, which is perceived by many to be one of the most demanding in terms of meeting production targets.

A general and rather depressing view from the workforce is that these issues will continue to prejudice safety because the imperative to meet strict production targets remains. According to those interviewed, there has certainly been a prioritisation of safety by managements onshore (in terms of policy statements, company-produced literature and safety initiatives such as Shell's 'target-zero' campaign) but this has not affected the productive priorities offshore. There appears to be a certain lack of willingness on the part of management to acknowledge the conflict between safety and productive demands: "The talk of safety is there, but it can never be real because the profits - money, money, money - always get in the way."

We now turn to examine the perceptions of managers on this question, and on the general impact of CRINE.

Managers' Data

In this section, managers perceptions of the impact of CRINE and cost-cutting upon safety are examined by drawing out some evidence on particular areas of cost reduction.

The changing economic environment in the industry is clearly a major preoccupation of managers in operational and in specialist safety roles. All of those in the sample of managers expressed the view that the resources made available by the operators for safety related functions had increased dramatically in the period immediately after Piper Alpha, largely in response to Cullen, but that now, the tightening of the belts in the industry was having a significant impact upon safety budgets. The majority of those interviewed specified that CRINE had placed more pressure on all departments to justify expenditure to senior managers, and that safety was by no means exempt from this scrutiny. Indeed, safety expenditure is now experiencing a generalised reduction as priorities shift further towards maximising profit levels. One said that previously, the problem had been 'cowboys' and poor managers on the platforms, but that now she had to concentrate on those above her in the hierarchy: "It's now the guys above you that you have to convince about safety." In one case, it was reported that one operator had halved the number of their safety advisors on the platforms and reduced the safety department's budget by 70% in the past two years.

A large majority of managers supported the predominant corporate and government view that CRINE was needed to bail the industry out of an impending economic crisis. Thus, in the opinion of most managers, CRINE is not an optional, but a compulsory strategy for both

operators and contractors in the industry. In contrast, just two operating company managers were unequivocally sceptical about the necessity of CRINE. One pointed out: "My experience tells me it's training and some of the other issues that suffer....I'm not sure this alliance business is all it's cracked up to be. It's just short terms gains, but there's also the long term pains." The other was adamant that this economic necessity was exaggerated by the operating companies in order to allow the industry to continue to extract large 'windfall' profits. He questioned the real need for CRINE and referred to one field in particular as one which was always claimed to be marginal, but despite this has never failed to produce enough oil to sustain a large profit margin.

In general, managers were divided over the question of whether CRINE actually represented a threat to safety. A small majority strongly expressed the view that the operators would not allow CRINE to impact upon safety conditions. There was a remarkably resolute strength of feeling amongst those who expressed this view. This group were clearly confident that the industry could manage these economic pressures safely. This strength of feeling is perhaps indicative of the considerable impact that the doctrine of CRINE has had on all levels of management in the operating and contracting companies. And, whilst a number managers reported that CRINE had created new challenges for them as managers, the pressure to cut costs is now seen by managers not as a temporary situation, but as a normal condition of operation.

However, just over a third of the sample of managers were not so confident, and expressed concern at the impact that some of the cost savings were having in some areas. Those

concerns were similar to those raised by workers and inspectors, and in some areas provide detailed evidence in support of the claims made by workers.

A general intensification in productive pressures was identified by some managers. For some, this had particular safety-related effects. One production manager described how shocked he had been to discover how much corner-cutting was happening on the platform. In particular, safety critical systems were 'over-ridden' on a regular basis without this being reported to the onshore management. For the managers in operating companies interviewed that had responsibility for production, the primary performance measure for them was up-time: the amount of time the platform was producing to full capacity. One manager pointed out:

"The guys ask a lot about what they think is a contradiction. We keep telling them that safety is the absolute priority and at the same time, we are pushing them to get up-time up and down-time down....If you take a piece of equipment out for maintenance you may need to isolate it first....There may be a temptation to isolate on one valve to avoid a complete shutdown."

Managers in the contracting companies pointed out that the pressures of CRINE were forcing contract prices to a level that was almost unbearable. One manager described this process: "Things are getting really tight and you can't go to the client and argue with them. You can't refuse to cut back where they want you to cut back, or you lose the contract." This manager reported that in his company they are told each year to reduce costs from the previous year. This has been the imperative for 3 years. This has had the impact of gaining a particular reputation for the company that and they are awarded contracts on the basis of this reputation. Consequently, the operator expects improved production and safety performance year on year.

"Its impossible to do it all at the same time, as cutting costs cuts into your ability to do things efficiently. But you have to do it; we are not given the choice."

Some managers interviewed also commented upon the degree to which the workforce was being cut. One safety manager in a contracting company described one platform staffing strategy as "a recipe for disaster ... When it was cut to a core crew of 80, they were letting go of a lot of things, maintenance schedules. If this goes on, then at the end of the day, something will go." He stated that this very same platform was due to have the workforce cut by a further 30%, and expressed concern that there appeared to be no limit on how far they could go with these reductions. Another spoke of a current "battle" to maintain platform staffing levels on the basis that further downmanning will increase levels of risk.

One health and safety manager reported how his company was in the process of reducing the crew on one platform from 98 to 39 over an 18 month period. He believed that this could be achieved with minimal disruption to production and safety, by making adjustments to the safety case, and by getting rid of the "dead wood."

Some of the managers were clear that "downmanning" acts as a control mechanism which ensures that workers will get on with the job as effectively as possible: "The guys out there know that if they don't get it done, they're out of a job." Or in other words, if the workforce fail to impress, the contracting company may risk losing a future contract with the operator.

A small number of managers argued that reductions in staffing levels were likely to have a beneficial impact upon levels of risk. In the words of one: "Downmanning pushes risk down

and down because there are less people on board exposed." His comments give support to a workforce perception that risk arguments are often manipulated to suit the management position.

Indeed, the new numerical science of Quantitative Risk Assessment (QRA)²⁵ which was vigorously promoted by Cullen is often actually used to provide the rationale for making cuts in expenditure. A reduction in the number of personnel on the platform has the effect, in terms of QRA of reducing the aggregate risk to injury and loss of life, simply because there are less workers to be injured or killed. Thus QRA can be used to demonstrate that risk is actually reduced when the number of persons onboard an offshore installation is reduced. This rationale, however, underestimates the impact that a reduced workforce can have on levels of risk.

Similarly the switch to three week shifts by some operators has been justified by the claim that a reduction in helicopter flights for the workforce reduces in turn the risk to which each worker is exposed. Interviews with three managers in operating companies revealed that the company had made QRA calculations based upon reductions in flying time which omitted to incorporate calculations of the increase in exposure to risk created by longer shifts. Thus, numerical risk calculations can be manipulated and used selectively in order to justify cost cutting decisions. It is apparent in the offshore industries that the 'science' of risk assessment can be used to create a false impression of a safe working environment when, in fact, the

²⁵ The numerical science of QRA is the principle method used to calculate levels of risk in the hazardous industries. Much of the detail which is incorporated into the installation safety case is based upon such numerical calculations of risk.

opposite may be true. A front-line inspector made this point in rather dramatic terms: "If you juggle the figures with QRA, you can make a Japanese kamikaze pilot look safe."

Changes in maintenance strategy were reported by a majority of managers. Interviews revealed a consistent tension between maintenance and production departments in the operating companies. Since the pressure on costs has also had the effect of intensifying production targets, regular maintenance of equipment was often postponed to avoid interruptions to production. One maintenance manager described this tension:

"There is always a conflict of interest between maintenance and production. Production management is charged with getting as much as they can. Maintenance is charged with keeping things up to scratch. So, every x amount of hours, the gas compressors have to be serviced. One is now long overdue its planned maintenance but production don't want to shut the system down."

Shut-downs for maintenance are extremely costly operations in terms of the proportion of production that can be curtailed. Thus, for example, in 1994, annual summer shut-downs in the North Sea reduced production by 12% for the month of August (*European Offshore Petroleum Newsletter*, 28 September, 1994).

In many cases, operators are now using 'condition monitoring' strategies which are designed to respond to the condition of the equipment as opposed to 'planned' strategies which are based upon historical performance data and manufacturers recommendations for the plant. More problematic is a rather different trend, the creeping predominance of 'breakdown' maintenance strategies. This is a strategy which dictates that certain plant components will only be fixed

after they have broken down: "Breakdown maintenance is going to be a more widespread strategy simply because of cost-cutting. Of course this is a safety issue."

Thus:

"What emerges is a breakdown maintenance strategy. A lot of this stuff was designed to be regularly stripped down, oiled and what have you....Annual shutdowns were 16 days, now they tend to be 10 days, or a week across the board. It's all about saving bodies."

Reductions in maintenance budgets were noted by managers in contracting and operating companies alike.

One operating company was reported to be tied to an incremental annual budget of 93% of the previous year's maintenance budget, a situation had been the case for three years since 1993. In addition, it was reported that this has forced maintenance teams to be more inventive with the use of relief valves which can isolate elements of the plant and enable 'non-evasive' shut downs. This allows part of the system to be shut down for maintenance without shutting down the whole system and thus without stopping the flow of hydrocarbons in the production plant: "Some of our plants run for 6 years without shutting down. Breakdown maintenance is a legitimate strategy if we are monitoring things correctly, but it can be more risky."

Some managers were in agreement with workers that such strategies were identified as being directly related to an intensification of productive demands. A former drilling superintendent

described to me the way in which pressures on cost and productive pressures in drilling combine to impact upon safety:

"The pressure in drilling is immense. You see it all the time. Regulations on working hours may as well not exist. I've seen them working a shift of 36 hours with no more than a couple of 5 minute breaks. The simple rule is to keep things ticking over....We get contracted on a day rate, and in the contract there will be a specified period of down-time. It may be 24 hours, 48 hours, whatever is negotiated. Anything over this and you get penalised financially. So, if you know that one of the mud pumps is beginning to toil, you just keep going. You have to understand that is the way it's done, it's expected."

As we have seen, another issue that has generated considerable controversy in terms of the effects of CRINE on offshore safety is the provision of standby or support vessels. Increasingly, support vessels are now being required to guard two platforms where previously the requirement was that one vessel should be allocated to each platform (*Scotsman*, 29 September 1994), which some have argued has detrimental effects upon safe egress from a platform (*Press and Journal*, 3rd May 1996, and 13th May 1996).

This change has been facilitated by the extension of goal-setting under the Prevention of Fire and Explosion, and Emergency Response Regulations (PFEER) 1995. Managers in operating companies which had reduced their standby vessel support argued that this reduction in numbers had released resources for an upgrading of the vessels and for the procurement of state of the art FRC (fast rescue craft). None of those managers accepted that rescue times would be reduced by the change in standby vessel strategy; it was widely claimed that these new craft were more reliable, better equipped, and therefore safer.

One manager claimed that they now planned to take rescue time into account after the workforce had demanded that the new standby vessel facility should be assessed in more detail. The operator concerned had taken the decision to share one standby vessel with a platform operated by a different company. The workforce had strongly objected to this proposal because the platform was five miles away, and they did not believe that one boat could give sufficient cover. The operator then agreed to test the new arrangement by using an emergency exercise. A mock helicopter ditch was to be staged and 12 dummies were dropped in the sea. The interviewee stated that if all of the dummies were rescued within one hour, they would proceed with the new arrangement.

In general, the proposal by some operators to replace two week shifts with three week shifts was not welcomed by managers. One recalled a debate over moving to three week shifts in his company. It was claimed to have saved the company £5m. "Luckily someone was brave enough to stand up and explain the dangers of these changes and he was senior enough for them to take notice of him." In both of the operating companies that had recently introduced three week shifts at the time of interview, concerns were expressed by managers. One was a manager in charge of safety policy who was clearly uncomfortable about the new shifts: "21/21 [21 days offshore/21 days onshore] is a major demotivator of the workforce...I have serious doubts about whether it makes any difference to reducing risk." The other was, and remained, unconvinced about his own company's justification for the change in shift patterns (that the reduction in helicopter flights would reduce the risk of helicopter accidents): "Yes, it was on financial grounds and it saves us a lot of money ... about £2m a year ... But I'm not convinced about the risk inputs to the equation." One safety manager stated:

"As a safety guy, I'm really concerned about what two or three of the companies are doing. It's purely to save in transport and the associated admin. costs. You can manipulate the argument with numbers and get less risk. What you have to do is see how the guy is performing and measure it."

This respondent cited research conducted by one operating company in the eighties which monitored performance of different groups of workers over a three week period, showing that this gradually worsened after a two week shift. He was concerned that these results were now being ignored, and noted that the HSE had apparently made no intervention on this issue.

As we shall see in the following chapter, the use of quantitative risk techniques has assumed a function that allows operators to justify particular decisions, and also has a close relationship with cost and financial performance. One safety manager pointed out that in the current climate, safety departments were having to rely increasingly upon cost benefit analysis to justify safety expenditure on the basis that it is cost effective: "If you can talk money to management, that's the only way they'll listen to you."

The Poverty of LTAs as a Safety Performance Measure

Within the context of intensifying productive regimes, it is instructive that managers from both operating and contract companies did not view LTA rates as a particularly useful measure of safety performance. Indeed some reported that the use of LTAs as the primary measure of safety was counterproductive due to problems associated with underreporting. One recalled that Occidental had a particularly low LTA rate in the period prior to the Piper Alpha disaster. Yet, there was a general perception that this was an industry standard, and it was one that they

had to live with. One manager commented on the "target zero" safety campaign launched by Shell which aimed at achieving zero LTAs over a particular period: "It is a complete figment of the imagination. It's impossible. But if they say they are doing it, you have to ask questions about their reporting system."

It was reported that operating companies tend to set targets to reduce the number of LTAs from the previous years figure, and contracting companies were bound by contractual targets. According to one operating company health and safety manager, a pre-occupation with LTAs was keeping the industry "in the dark ages." A small number of managers in contract companies stated that the operator would often consider LTA rates as important in the award of a contract as cost. One reason for this to be the case is that the costs associated with accidents in the offshore industries are particularly high (HSE, 1993), and the cost of a LTA is primarily measured in the loss of production time. In one drilling company, a health and safety manager stated that safety, as measured by LTAs was such an important indicator of financial performance that it would have an impact on management salaries, even at boardroom level.

This chapter has so far provided both contrasting and complementary views of the issues raised in interviews with two groups of respondents. Although there is much support for the CRINE initiative amongst managers, and also a majority view that CRINE would not affect safety standards, the evidence provided on particular areas of expenditure cuts is remarkably similar to evidence provided by the sample of workers. Indeed, it is perhaps significant that as many as a third of the sample of managers were willing to voice concerns about the impact of CRINE upon safety.

Perhaps not surprisingly, the majority were confident that the post-Piper offshore safety regime had, in general, improved safety standards on offshore platforms. But a minority did express serious reservations about maintaining safety standards in the long-term.

Inspectors Data

This section examines some of the issues discussed above from the perspective of HSE offshore inspectors. It first looks at inspectors views of the impact of CRINE and cost-cutting before turning to examine the new demands on the inspectorate created by goal-setting. Finally, this section briefly considers how inspectors view their relationship with the operating companies.

Inspectors were well aware of the potential problems for the management of safety created by CRINE and cost-cutting in general. However, opinion was divided over whether safety conditions were actually being threatened. Around half were satisfied that, at present, CRINE was not a significant threat to safety, whilst the other half expressed concern at the situation: "Safety performance is often tainted by all sorts of factors: wages, downmanning, the price of oil or gas are all ones that matter, or if the man is working three weeks off instead of two weeks off." However, one unanimous perception was that cost cutting was essential for the survival of the industry, and that CRINE is at best an "efficiency driver", and at worst a necessary evil.

Whilst they did not identify the use of LTA's as a performance measure as having a particular relationship to an intensification of productive regimes, OSD inspectors were concerned that

LTAAs remain the most widely used measure of safety performance across the industry. One inspector stated: "LTA rates are not a good measure of safety performance in the industry and I don't accept any circumstances where they can be." Another pointed out:

"The icon offshore is the LTA. They all want have an LTA rate at zero for 350 days. They will go to extraordinary lengths to get their LTA rate down. But from our point of view, the LTA is not a good measure at all. Companies I know will move heaven and earth to stop people being medivac'd and they will go to great lengths to stop recording an LTA. The duty holder is reporting in such a way as to keep their own nose clean."

Several managers also stated explicitly that LTAs were not a particularly accurate safety performance measure.

Although some inspectors did identify some negative and regressive aspects of the 'new era' in North Sea production, there was a general acceptance of the necessity and inevitability of CRINE amongst inspectors. In addition, the Inspectorate are clear that discussions with operating companies relating to CRINE and cost cutting are not within their remit and thus must be separated from the monitoring of safety. And although a large majority of workers and over a third of the sample of onshore managers are clear that these issues are inseparable, as far as the work of the offshore inspectorate is concerned, the management of safety is isolated from other aspects of offshore management. The words of one inspector sum up the HSE's attitude to these 'separate' activities of management: "CRINE says, 'we can reduce costs without prejudicing safety'. Well if they can, fine....We are not management consultants, so it's out of our control. To be blunt, it's nothing to do with us."

This view of the commercial environment on operators was one that was linked to the importance of the industry to the economy generally. This was a view that clearly resonates with the operators' own claims around the 'national interest' discussed earlier in this thesis.

Thus according to one inspector:

"You need to bear in mind that you can't go around shutting installations down, these people have injected a lot of money into the economy and potentially will inject a lot more, and we have to bear that in mind - put it into the equation - when we're dealing with them"

This perspective is discussed further in the following chapter. But, for the time being, we should note that this is a view that is influential in shaping current inspection strategies.

The methodical separation of management functions is a formal one which places limits upon the scope of the Inspectorate's remit as regulator. However, a minority of inspectors did argue that the isolation of safety from other functions of management is not helpful in reaching a comprehensive understanding the process of safety management. One respondent recalled a recent session that he had led at a commercial safety representatives training course on the role of the HSE. The feedback from the group of safety representatives included questions about the way in which HSE inspections were carried out, but most of the points raised focused on aspects of cost cutting. In particular, concerns were raised about the down-sizing of the workforce, multiskilling and the introduction of 3 week shifts. This inspector stated that these issues are also raised regularly by workers during inspections.

Thus, at one level, there is an awareness amongst some inspectors that the formal approach of the HSE is bounded by the HSE's definition of 'safety management'. In other words, the HSE's regulatory strategy is restricted by their reluctance to tackle some of the issues that offshore workers, and indeed, managers view as being of prime importance to the maintenance of safe working conditions, namely, the programme of expenditure cuts whether under the banner of CRINE, or couched in the language of commercial viability and survival.

In summary, CRINE is perceived by offshore inspectors as a potential threat to standards of safety, but at the same time, is seen as a process which is not only inevitable, but outside the remit of, and therefore not a concern of, the inspectorate. Thus, the process of monitoring offshore safety comprehensively may be limited by the HSE's restricted view of safety management. This view may be further limited by the way in which the inspectorate seeks to build a good relationship with managers. Within discussions around both of these issues, it appears that the HSE is largely content to uphold the right of managers to manage.

Discussion

Chapter 4 presented a discussion of the process of mystification by which the operating companies attempt to present a particular view of the commercial world in which they operate. The construction of a particular view of offshore safety is subject to similar processes. Furthermore, the evidence from this chapter provides a stark indication of the lengths which the operating companies and their contractors will go to mask the true scale of offshore injuries. The import of 'sleight of hand' techniques such as these is that they can construct a distorted view of safety on offshore installations. Despite consistent statements from UKOOA

which present the offshore oil industry as one with an ever improving safety record, there is overwhelming quantitative evidence that there has actually been little or no improvement (see Woolfson and others, 1996 and Woolfson and others, 1998 for an analysis which exposes the fragility of UKOOA's claims). In fact, this evidence shows that the industry remains one of the most dangerous in Britain. Indeed, industry generated quantitative indicators have been manipulated to such an extent that it is no exaggeration to say "they are not worth the paper they are written on" (Woolfson and others, 1998: 15). The evidence from this chapter represents yet another indication of the unreliability of HSE compiled injury rates.

As the data indicates, relatively unrestrained and intensive productive regimes when combined with the punitive cost implications associated with contractors' incident rates serves to exacerbate problems with under-reporting and 'victim blaming' of workers that suffer injuries on offshore platforms. Under-reporting at this level also carries serious legal implications. Under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) employers have a legal duty to report over three day injuries to the HSE within 10 working days (HSE, 1995b). The apparent ease with which employers are able to escape the reporting of injuries that they are legally obliged to report in such a crude fashion is indicative of a set of power relations in the North Sea which is balanced heavily in favour of managements.

Workers' impressions of the current state of offshore safety also stand in stark contrast to the image that the industry tends to promote to the outside world. Cost-cutting, as it has become formalised and strategically deployed within the CRINE framework, is having a profound effect on the provision of safety hardware, on employment practices and the training and 'reshaping' of the workforce, and on the productive regime. In addition, there appears to be

little signs of this campaign being curtailed. This situation has left workers to question how this apparent degradation of safety standards can be moderated.

Managers were overwhelmingly in support of the CRINE initiative as an essential strategy for survival. Whilst there was a majority view that CRINE would not affect safety standards, a significant minority of managers expressed similar concerns to those expressed by the workforce. Given that one of the elements of the almost religious promotion of CRINE's agenda is that CRINE will not compromise safety (see chapter 5), it is perhaps unsurprising that most managers saw no conflict within claims surrounding cost-cutting and safety. In this context, it is significant that minority of managers expressed serious reservations about maintaining safety standards in the long-term. Furthermore, the reported evidence provided by managers on particular safety related areas of expenditure cuts had remarkable similarities to the issues identified by workers.

On many of the cost related concerns raised by workers (and indeed managers), the HSE offer little protection to the offshore workforce, since they refuse to engage with managements on what are deemed to be management decisions and outside the remit of the HSE. Whilst this might be portrayed by the HSE as a 'neutral' position, in the sense that they do not wish to take sides in what is essentially a struggle between workers and management over the surplus value of labour, the position taken by the HSE is far from neutral. By accepting the oil companies view of the world as fact, the inspectorate is avoiding issues that are major concerns of the workforce. The implications for the regulation of safety are clear. As CRINE represents a wholesale attack on the workforce, the position of labour vis-a-vis management is weakened. As we have seen in previous chapters, such a rebalance of workplace power relations can only

have a detrimental impact upon safety standards in more general terms. The concluding chapter will develop this point in relation to the philosophy which guides HSE enforcement policy. In the meantime, it is important to note that the HSE's 'neutral' stance on the impact of CRINE is in fact a highly partisan one.

The following chapter will show how the position adopted by the HSE in relation to CRINE is indicative of the relationship between capital, labour and the state within the current regulatory framework. Chapter 7 will present interview data which elaborates on the relationship between offshore workers, managements and the HSE OSD, and which allows us to understand the regulatory approach adopted by the HSE within the context of the regulatory framework established by the Cullen Report.

Chapter 7: Assessing the New Regulatory Regime

This chapter starts by tracing the significant developments in the health and safety regulatory regime post-Piper Alpha. It then uses data generated by the fieldwork interviews to gauge the views of offshore workers, onshore managers, and inspectors on the impact of the new regime. The data also examines the relationship between duty holder and regulator, and between regulator and the offshore workforce.

The conclusion to this chapter seeks to locate previous data on the impact of CRINE and cost-cutting within the context of the new regime. It thus presents an analysis of the relationship between concepts of goal-setting and ALARP, and the commercial 'realities' of offshore oil and gas production.

An Inadequate Regulatory Regime

As we have already seen in earlier chapters, the years prior to Piper Alpha were partially characterised by an inadequate regulatory regime and lack of resources available to the Department of Energy PED inspectorate. Similarly, the Cullen Report pointed out that the Department of Energy were in no position to regulate safety effectively at the time of the disaster. An inspection that had been carried out in June 1988 and had approved Occidental's system of safety management was "superficial to the point of being little of use as a test of safety on the platform." (Cullen, 1990: 3) For Cullen, the explanation for such failures was located in the lack of resources available to the Department of Energy: "...in a number of areas, the work of the [PED] Safety Directorate has been hampered by persistent

undermanning" and "The comparatively small size of the Safety Directorate appears also to have been a factor restricting the scope of the in-house expertise which it could employ."
(Cullen, 1990: 380)

More generally, Cullen noted that the approach of the Department of Energy

"seemed to me to tend towards over-conservatism, insularity and a lack of ability to look at the regime and themselves in a critical way. From this, certain practical results have followed; the introduction of improvements in safety has been hampered....It does not appear to be perceived by the D of En [Department of Energy] that a radical change of approach is already due." (Cullen, 1990: 382)

This lack of ability to look at the safety regime in a critical way was explained by trade union witnesses to the Cullen Inquiry as being a symptom of the lack of independence retained by the PED: "...it was suggested that there was a conflict of interests between the objectives of the Safety Directorate on the one hand, and the objectives of other parts of the DEn on the other."
(Cullen, 1990: 381) As we have seen, the primary objective of the Department of Energy has historically been to encourage extraction at as fast a rate that would allow for maximum short-term economic benefit (structured by what Carson called the "political economy of speed"). A regime of safety regulation is charged, at one level, with 'applying the brakes' to the productive regime; and therein lies a conflict of interests.

The New Regime

Possibly the most important recommendation of the Cullen Report was therefore that responsibility for policing safety in the industry should transfer from the Department of Energy to a "discreet division of the Health and Safety Executive."(Ibid.: 392)

In addition, Cullen proposed that the application and assessment of safety standards was to be driven by the principle of self regulation, a concept that had been established by the Robens Committee Report in 1972. The subsequent Health and Safety at Work Act 1974 was, as we have seen, only nominally introduced to the UKCS. Cullen's new regulatory system was to be based around 'goal-setting', which would "take the form of requiring that stated objectives are to be met ... rather than prescribing that detailed measures are to be taken" (ibid.: 390-391). Self-regulation was to be achieved largely through the use of safety cases.

Onshore industrial major hazards are subject to the CIMAH regulations. Regulation 7 of these regulations requires that the operator of an installation should provide the HSE with a written report on the safety of the installation. This report is known as the safety case. The safety case is assessed by the HSE, and any matters of concern are followed up by a letter or visit to the installation. Cullen modelled his system of safety cases on the existing onshore regime and recommended that, as in the onshore industries, the submission of the safety case should be monitored by the HSE. The safety case approach is intended to ensure Cullen's recommendation that the regime should have as its central feature demonstration of a safe operation by the operator.

The safety case is the document that sets out, in detail, the goal-setting objectives of the operator. In contrast to the 'prescription' model where standards of safety are set by detailed specifications for plant equipment and procedures, 'goal-setting' allows a greater decision making role for employers and duty holders (normally the owner of the site) in the setting of safety standards. It is this approach that seeks to place the greater responsibility with operators to minimise risk.

Cullen's decision to advocate the goal-setting approach was based largely on the evidence that he heard from prominent individuals in the HSE and the operating companies. The key chapter in the Cullen report, "Future Offshore Safety Regime" (Chapter 21), sets out functional changes in the regime envisaged by Cullen. In this Chapter he substantially drew upon the contributions of the HSE, the Department of Energy and the Norwegian Petroleum Directorate as well as those provided by Conoco, Amoco, Chevron, ICI and Shell. Although he did consider trade union evidence towards the end of this chapter, the contributions selected by Cullen here are limited to the trade union view on the involvement of the workforce in safety matters. The trade union group had submitted detailed contributions on self-regulation and goal-setting, but these submissions were not included in the Cullen Report. The reason for this exclusion can perhaps be attributed to the fact that group's perspective was out of line with Cullen's enthusiastic and unquestioning support for goal-setting in Chapter 21. The trade union critique of goal-setting had been unequivocal: "Not only must the objectives be set, but specific, albeit minimum, standards must be imposed by legislation, so that there is no doubt as to the minimum standard for compliance." (Submission to the Piper Alpha Inquiry, Day 177,

47c, quoted from Foster and Woolfson, 1992: 17). On the other hand, the words of Mr R McKee, Chair and Managing Director of Conoco set the tone for Chapter 21:

"By and large, safety has to be organised by those who are directly affected by the implications of failure. These people are in the best position to determine the detailed measures necessary on their own particular installation to achieve the safety objective.....prescriptive regulation or over detailed guidance may at times result in the overall safety objective actually being compromised. Innovation, on-going improvement and objectivity will be stifled....." (Cullen, 1990: 355)

Cullen welcomed the operators' view eagerly, enthusing: "With the general thrust of these comments I find myself entirely in agreement." (Ibid.: 356) Thus, the approach to the regulation of offshore safety adopted by Cullen was actually extremely close to the approach desired and publicly promoted by those companies who were to be the subjects of the new regulatory regime.

Goal-setting and Safety Standards

A more detailed discussion of the impact of the concept of goal-setting upon definitions of safety standards, can perhaps shed light upon why the operating companies were so keen for Cullen to adopt this approach.

The definition of what represents ALARP is a flexible one - open to interpretation, contestation, discretion. This flexibility provides the opportunity for the duty holder to have a greater input into decisions on safety provision expressed as ALARP. The shift towards goal-setting changes the process by which acceptable standards of safety are formulated, and

changes the role of both the regulatory authority and the duty holder. Instead of simply complying with a set of pre-determined minimum standards, the duty holder is obliged to develop effective and practicable standards suited to the plant; the regulator shifts from enforcing legal minima to assisting duty holders in their new role.

Thus, within the new regime, the relationship between duty holder and regulator is all important, for it can shape the manner of compliance. There is a more detailed discussion of this dynamic in the conclusion, but, for the moment, in the following section, this relationship will be explored using the views of offshore workers, managers and offshore inspectors.

Workers Data

In general, workers were sceptical of the HSE's ability to regulate safety effectively on offshore installations. Although the new regulatory body is widely believed to be an improvement on the pre-Cullen inspectorate, workers perceive that the HSE is more inclined to respond to the wishes of the operators than to tackle the safety concerns of the offshore workforce: "The HSE tend to be a lot of talk and not very much action. It isn't the government and the HSE on the one side and the companies on the other, the relationship is not like this, they are closer."

Thus a general perception is that the new regulatory regime started with the widespread hope that the HSE would be a source of support to workers following the establishment of the new safety regime. However, the experience of workers since then is that the HSE has not lived up to this expectation:

"What the HSE fail on is that they pussy foot around the real problems. Nobody in the HSE can really stand up to the operators. The issue comes down to the earning power - how much do the HSE make for the taxman. Nothing - so they are always going to be pussy footing around. Even if they did get tough - these guys [senior managements in operating companies] don't give a fuck. They'll be ignored. The only thing that's going to hurt them is getting their wallet."

The following is an account, by two respondents, of an incident which occurred during the Summer of 1995, and is indicative of the way in which workers believe the agenda to be manipulated between the HSE and the company:

1st worker:

"A couple of months ago, a diesel electricity generator blew up, it was a massive explosion. I was on the barge, and I looked out and the systems were going mental. Everyone was running like flies. The blast blew the steel casing, about 6 inches of steel casing away and took out the side of the walls. The OIM shut the platform down immediately and got everyone off and onto the barge. Every single drop of foam was dumped from the tanks and it took 20 minutes to get the fire out. The next day we found that one of the pipes had fractured and some of the diesel had got into where it shouldn't be. The OIM phoned the HSE and asked if anyone had been hurt? No, well we're not interested. They didn't even come out to investigate."

2nd worker:

"It could have been another Piper. There's a few of the guys that were near the generator that say they are lucky to be alive. Five seconds earlier and they would have been blown sky high. We checked the

papers for the rest of the week and it was reported in the P&J [*Press and Journal*] as a 'minor incident.' ***** [operating company] investigated it, but by the time it gets through *****'s PR department, it all gets glossed over."

The view of the HSE OSD as supine and unwilling to take enforcement action was not, however, a unanimous view amongst the workers sample. Supervisors tend to see things differently. One maintenance supervisor reported:

"I would certainly say they've backed off since the start. The approach has changed from the Gestapo approach. They are here to look after us, but the approach was wrong, and thankfully it's changing. Once in a while, in the early days, we had improvement notices²⁶. Now they are more likely to sort things out informally. Now they will discuss things if they are going to do anything, they'll tell you about that."

Yet, the general lack of faith workers have in the HSE OSD as allies of the workforce was indicated by the consistency of the derisory responses of interviewees to inquiries about the HSE hotline. Workers are reluctant to use the hotline simply because they do not trust the confidentiality of the hotline, or have any faith in the effectiveness of taking this route:

²⁶ The Improvement notice is one form of immediate enforcement action available to HSE inspectors, the other being the Prohibition notice. Improvement and Prohibition notices are defined as follows: "Improvement notices require take remedial action on specific breaches of the law within a specified time limit; Prohibition notices are issued in cases where the inspector believes that a work activity involves or will involve a risk of serious personal injury. Prohibition notices can take two forms: immediate prohibition notices which stop a work activity immediately until a risk is dealt with; and deferred prohibition notices which stop a work activity within a specified time limit, for example, because the risk does not require immediate action to control it, or where it would be unwise to interrupt a process in mid-cycle." (HSC, 1998: 70)

"Why on earth should any matter be confidential? The very fact that they have got a confidential hotline is effectively an admission that people are scared. So how can the operators maintain that safety isn't a problem in the industry?"

Only one worker reported using the hotline. He was told that the complaint, which related to working illegal and dangerous shift patterns, could only be taken further if an official complaint was lodged. The respondent was not prepared to reveal his identity and the HSE took no further action.

The HSE notice which provides details about the hotline, and the relevant numbers to call reiterates the HSE's insistence that workers raise safety issues with their supervisors in the first instance:

"Individuals who have concerns relating to any aspect of offshore safety should immediately raise the matter with their supervisor or the responsible person for the area concerned. It may also be appropriate that the matter is referred to the individual's safety representative. Any individual who remains dissatisfied as to the actions taken following the above should report the matter directly to the Offshore Installation Manager."

(OSD, safety notice 5/91 dated 3 May 1991) Only after this procedure has been followed are workers and their safety representatives then asked to refer the matter to the HSE if they are still not satisfied.

One worker reported that a colleague had phoned the HSE about manning levels on the platform. Management responded by asking each worker individually if she/he had been the

one who had called the HSE: "They were going mental and had a good idea of who it was - but they tried to get the lads to grass him off."

A major concern of workers was that inspections could not be effective because installation management were given around two weeks notice for each visit. As a rule, there will be at least two or three days to 'clean up' before each inspection, allowing any makeshift or substandard equipment to be hidden from sight. One said, "I probably know when they [HSE inspectors] are coming out before they do." Moreover, workers expressed unease at their access to inspectors during inspections. In all cases where safety concerns were raised in this way, workers were informed that the purpose of the visit was not to investigate or follow up individual complaints, and that such complaints should be made to the operator or sent to the OSD in writing (see also Spaven and others, 1993: 59). Needless to say, encounters such as this exacerbate the difficulties workers have in placing faith in the HSE OSD as effective regulators.

Safety Representatives' Relationship with HSE

Safety representatives were sceptical about the impact of the HSE upon offshore safety performance. In particular, a frequent view was that on election as a safety representative, they had seen the HSE as a potentially powerful ally, but subsequently actually had very little contact with the inspectorate. Respondents that had attempted to raise problems with the HSE, either by contacting the Aberdeen headquarters, or by personal contact during inspections, had invariably been disappointed at the lack of action taken to resolve the issues raised with the HSE.

One safety representative described a typical visit to his installation:

"It's obvious that they [HSE inspectors] will listen to management more than they will listen to us. When the boys from the HSE come out, they'll meet with you and discuss things. If you raise a problem with them, they'll tell you to go through the channels, to go and see your supervisor, and if he doesn't do anything, to go and see the OIM. But any safety rep worth his salt will have gone through the channels before approaching the HSE, so for something to get to this stage, it's like your last option. Nobody wants to be seen to be going behind the supervisor's back."

Another safety representative recounted an incident when he had tried to approach HSE inspectors confidentially:

"After one inspection, I got on the same flight as the inspectors were on. When we got to the heliport, I thought, I'll have a word with them now. They had their [survival] suits off and were out the door double quick. I caught up with them and asked for a word, but they just made excuses and left. You definitely get the feeling that they are just not interested in what we have to say."

Another said, "I wouldn't deal with the HSE because they don't seem to be interested in the safety rep system."

This view is consistent with the majority of safety representatives interviewed. Those respondents strongly perceive the HSE to be "in the pockets of the operators" or believe that the relationship between the HSE and the operators is "too cosy." One safety representative pointed out: "They [board level managers and senior HSE personnel] all know each other and all go to the same dinner parties together, so it's not surprising that it's I'll scratch your back if you scratch mine."

The fact that OSD inspectors are spending more time with "the suits from the beach" inevitably means that workers perceive the relationship between the operators and the regulator as "too close to be healthy" or "far too cosy." At best, the HSE were characterised by respondents as a well meaning but powerless party. One worker said: "They have the viewpoint that they don't want to be seen as taking sides. If you want something sorted out, go to the company, or go to your union. But the unions aren't recognised, so what do you do?"

Some believe that the HSE are heavily influenced by a political agenda which is about protecting the interests of the oil companies: "If you are working on behalf of the British government, you don't stop British industry, do you?" According to a number of workers, the HSE's "hands are tied" and are either unwilling or unable to enforce their will upon the company. Unless the situation requires urgent action to be taken, HSE officials will normally negotiate with the company on the action that should be taken to resolve a breach of safety standards.

A general lack of workers' confidence in the HSE is undoubtedly heightened by the current climate of cost-cutting. A concern that the ability of the safety regime to ensure safe working conditions is now being seriously tested, clearly exists amongst the workforce:

"We are cut down to the bare bones. If it goes any further, something will break, there's no doubt about it. We need some real regulations: maximum hours, and the HSE to set manning levels. If nothing is done, things are going to get way out of hand. Because it's out of hand already."

There is little doubt that workers feel disenfranchised in their relationship with HSE. This is, according to the data, partly a result of the practical experience of workers and their safety representatives in terms of raising issues directly with the inspectorate. It is also the result of workers perception of the relationship between managements and the HSE as one which actively excludes workers from the regulatory process.

Managers Data

There existed a particularly strong, general perception from managers that, at operational level, their relationship with the OSD, had greatly improved. There was an overwhelming impression that, in the period immediately following the establishment of the OSD, inspectors had adopted a fairly confrontational and non-compromising attitude, but that in the past three or four years, this 'attitude' had changed, and the inspectorate were now perceived as being extremely co-operative. Some explained that it had taken a short period to build up an amicable relationship between regulator and regulated: "I remember being offshore, and when the HSE came on board, you'd shit yourself. But now it's better, we know they are only there to do a job and

they are not heavy handed." Others believed that the situation had changed as soon as the operators had come to understand what their responsibilities were under the new regime. "It's getting harder for the HSE to pick on people because they're having a bad day. We know what we have to do and they know where they stand with us." Indeed, on the particular issue of CRINE and cost reduction, managers said that the HSE understood the difficulties of operating in the current economic climate, but that the inspectorate were sympathetic to these difficulties: "If Britain wants the oil, then we have to get on with extracting the oil and meet the new challenges head on. We have to tighten our belts, and I think the HSE realise this as much as anybody."

Despite this generally positive view of the relationship, there was a majority perception that the offshore industry is over regulated and over 'proceduralised'. A strong view is that the industry should be allowed even more scope for decision making over safety matters than the new goal-setting regime allows:

"I think the main problem is we're being hit with a wealth of legislation. Everything is documentation and creating paperwork for auditing and not seeing if things are actually working. We need a common sense approach. Everything's got to be proceduralised because the regulatory authority is paranoid that they'll get blamed for not running things tightly ... There's a real problem with all the crap that's coming through bloody Europe and it is crap."

Some also argued for a diminished role for the HSE: "To a certain extent, the HSE is irrelevant, because we have to protect our assets. Yes, it's their job to enforce and that's absolutely fine. But you have to remember that it's us that has to bear the costs."

Relatedly, the HSE OSD is also seen by many as having too much coverage in the North Sea:
"When you look at one inspector for 500 factories onshore, you have to ask if the balance is right."

A minority argued that the HSE were essential to maintaining safety standards in the sector:

"If the HSE weren't in the North Sea, or the CAA or Lloyds [certifying authority] , then the whole place would look like a fucking war zone. The companies would have a field day and run riot. Look at PFEER, it was only out 5 minutes and half the standby boats in the North Sea went missing."

Most managers referred to the HSE hotline as an important development, although they also pointed out that they would prefer to deal with such matters internally. This view was summed up by one:

"Two months ago on one platform, we carried out a task which is pretty rare. The risers were taken out for flexible risers. This left a huge hole on the drill floor. The guy guiding the risers and connecting the umbilicals was on a harness. The job had been discussed offshore and nobody raised any objections. Then HSE received a phone call complaining that there was no standby vessel below. The complaint resulted in the OIM being called out of a meeting, but the HSE agreed that this did not constitute overside work. We made it clear in no uncertain terms to the workforce that we were displeased with the complaint."

Safety Cases and the Goal-Setting Regime

Nearly two thirds were satisfied with their relationship with the HSE, and said there were no problems with the HSE's approach. There was also a consistent view that the HSE have been keen to stress that the regulator and the operating companies shared common interests: "They are like-minded people. Only positive things come out of the relationship." A number of managers also believed that the HSE did not always present a united front on some issues, and that certain issues would become problematic which had not previously been a problem for a different inspector.

On the regime, and indeed philosophy, of goal-setting, managers were generally positive. A common view was that goal-setting enabled the operators to escape the rigidity of prescriptive regulations. The logic of this view is that this has allowed the operators an incentive to improve standards of safety expressed as ALARP: "Goal setting means you have the freedom to go above the minimum." However, some managers were keen to temper their comments with a note of caution. Thus, although there was almost unanimous agreement amongst managers that the goal-setting regime was more likely to improve safety conditions on offshore platforms, there was a widely held belief that the goal-setting regime could weaken under certain conditions.

In this context, several warned of the dangers of cost-cutting, and pointed out that while this type of regime could give operators the scope for maximising standards of safety, the effect could equally lead to a deterioration in standards. Thus, an absence of prescribed lower limits could have the effect of relaxing the regime at a time when companies are desperately looking

at where they can make cost savings: "the goal-setting regime in a cost cutting environment is a conflict. It's a way of driving standards down for a lot of people: we can get rid of a lifeboat here, a safety officer there." Others stated that problems could arise if 'less responsible operators' allow cost reduction to get out of control:

"They're [HSE] making a noose for themselves, because some will only do the minimum and be happy to plod along. Under the old regime, there were companies who would go above the limits, the good operators. Now it's the cheapest option that prevails. Look what they are doing with standby vessels."

Some managers argued that the cost of safety improvements requested or demanded by the HSE was important in determining the negotiation process. This was important in the context of goalsetting and ALARP: "Cullen has been a wonderful opportunity to incorporate cost as a legitimate component of the equation which it never was before." One operator production manager stated that his company would not normally contest the HSE if they were demanding changes that required expenditures in the tens of thousands, but would fight the case if the cost implications were significantly higher.

Power Balance Between Regulator and Regulated

A widespread opinion, expressed in a variety of ways, was that the remedies used by the HSE are relatively ineffective. The power balance was also clearly perceived to be weighted in favour of the operating companies. I was told of several occasions where HSE requests were ignored because the company did not believe that the HSE would act in a punitive manner: "If

we refused to do something, it would be a long drawn out process. It is only enforceable by the law courts."

Fines imposed for breaches of health and safety law were perceived to be negligible and thus ineffective, and some cases were reported of senior managers ignoring threats of Improvement Notices until a mutual agreement was reached. One OIM (Offshore Installation Manager) recalled an incident when he was threatened with a prohibition notice (see footnote 25) because of the condition of a generator. He called head office to ask for advice, and the instructions were to ignore the inspectors and tell them that the company were not willing to comply until the issues were discussed on the beach. After two hours of frantic negotiations between the OIM and the two offshore inspectors, the respondent reported that a senior manager,

"got on the phone and said, "Tell them to fuck off. Tell them that we'll talk about it here at our convenience", and I said, "I don't think you understand Bob. The guy is sitting here and he means business." He said, "fuck him" and that's the attitude. The HSE can do very little in the face of this. If this is what the ones at the top are saying, then these guys won't risk anything. In the end they just gave up and said, 'well, o.k., you'll be hearing from us.' We should have been closed down really."

This particular manager argued that the relationship between regulator and duty holder was one in which the duty holder had considerably more influence than the regulator. His example shows clearly how this influence can be used to manipulate the outcome of platform inspections.

Some argued that although there was little to compel the operators to respond to the will of the HSE, they would respect its decisions because they believed that it was ultimately in their interests to avoid confrontation with the regulator: "The oil industry don't have to obey the HSE, but we do and it has a history of doing so."

Another manager identified an issue that was also raised by both workers and HSE inspectors: that enforcement is indirectly limited by the political influence held by the operating companies:

"We've got a town full of Jesse Jameses and one Wyatt Earp....Piper Alpha cost 12% of tax revenues in 1988. It takes some bottle for someone to do that, shut down the Forties field or something. Until some operator is fined millions of pounds, the industry is going to be cavalier about safety."

One manager pointed to the importance of networks of senior members of the operators and the inspectorate as a significant indicator of the close relationship enjoyed by both parties:

"Alan Sefton [Director of Operations, HSE OSD] for one is on first name terms with all of the managing directors in the big companies. They are all friendly and socialise together: cocktails, dinner engagements and the rest. These people are friendly with politicians, civil servants and cabinet ministers. Things get said off the record, informally and the HSE will go easy on the big boys."

This close-knit network was, according to some managers, one which extended to the exchange of personnel between the HSE and the operating companies. One manager knew several engineers from his company that had been recruited by the HSE after the establishment of the OSD, and subsequent recruitment of new offshore inspectors. Indeed, this process of recruitment also appears to move in the opposite direction. No fewer than three individuals in

the sample of managers were former front-line inspectors in the OSD, subsequently recruited by operating companies. One had actually been part of an inspection team that had issued a prohibition notice on an operator two years prior to being recruited to the same operator.

Inspectors Data

There is a strong view amongst inspectors that the new goal-setting regime has been welcomed and enthusiastically adopted by the operating companies: "During the Piper Alpha inquiry, UKOOA and the oil majors fought for goal setting. Fact. The industry are supportive [of goal-setting] because they see it as streamlining and facilitating business."

Yet opinion was divided over the relative efficacy of goal-setting and prescriptive regimes. Some believed that goal-setting had strengthened the regulatory regime, whilst others believed that there are now too many gaps in the regime that the operators are able to exploit. Perhaps more importantly for inspectors themselves, the new regulatory approaches engender a different type of decision making problem. The following comments are illustrative of what is now faced by the inspectorate:

"One of the biggest problems has been that the regulatory regime has changed so significantly. A guy used to have a clear prescribed limit to look at. Now it's very complex and the change means guys inevitably perceive that the representatives of the regulators are the agents of and party to those changes. Of course, this generates suspicion. Before there was 'shall' and 'will'. But now the guy just asks what they should have and the answer depends on what they are assessed they need."

Safety Standards and Goal-setting

One inspector pointed out that goal-setting had created a major enforcement problem for the inspectorate:

"Of course, they are all trying to get rid of standby vessels, because this is part of the justification in the safety case. Personally, I find it extremely difficult with the new goal-setting regulations. There's no stating the case; it's somewhat subjective. The main difficulty will be maintaining a level playing field. The question becomes, is this acceptable to you as a regulator, and none of us can make this decision easily. But a case almost identical might generate a different decision, and then what do we say to the first duty holder...."

One point that was made by all of this group of respondents, in relation to goal-setting, was that the new criterion of ALARP had increased the significance of bargaining processes between operators and inspectors. A bargaining approach was used in discussions over elements of the safety case, as well as after inspections and company audits carried out by the HSE. This description is consistent with the testimony of managers, the majority of whom talked of 'discussions', 'debates' and 'negotiations' with the HSE over particular parts of the safety case, or, commonly, over particular numerical calculations of risk. In the words of one inspector: "There is a lot of horse trading on the final [inspection] report. Sometimes they can convince us that perhaps what we heard offshore wasn't quite right. But we will never compromise on key issues."

There was also a general perception that a further move towards self-regulation was inevitable: "You can't investigate absolutely everything. We will get to a situation where operators do all of this kind of thing themselves." One predicted that this problem may be resolved by a radical change in the meaning of goal-setting in the future: "Self regulation would be done by UKOOA ultimately. They would have a role to overlook and see that common goals and common standards were set in place."

HSE Confidential Hotline

Inspectors views of the safety 'hotline' were not in sympathy with workers. The HSE hotline exists to provide a confidential channel for raising any safety concerns or reporting incidents and accidents if workers feel that they cannot do so with their supervisor or with the OIM (Offshore Installation Manager). Amongst the inspectors interviewed, there was a general lack of understanding on the reasons that workers were reluctant to use the hotline. For example, the majority of inspectors were adamant that they would always require the complainant's name in order to carry out an investigation, and did not accept that this was largely impractical given the related risks involved for 'whistleblowers':

"Its not our job to sort out individual problems. They have to be done through normal routes. If a guy phones up anonymously, its a waste of bloody time if we don't know his name - we can't communicate with him. You have to exercise judgement on what information you use and you act on....We do discourage people from remaining anonymous because we can't close that loop"

Power Balance Between Regulator and Regulated

The general approach taken by the OSD to ensure compliance was broadly characterised by inspectors as a pragmatic, 'compliance'-based approach. For one inspector, this was clearly indicated by a philosophy which regarded enforcement action as an option which was to be avoided as far as possible: "Some people in the organisation are quite proud of the fact that they have never taken a prosecution, or never issued a prohibition notice."

There was a widespread concurrence with a point made by workers (above), namely that the HSE appear to be more receptive to the views of managers than the views of safety representatives, or workers generally. Inspectors explained that it is necessary to seek to build a close relationship with managers since they have the most influence over the safety management process. As one pointed out:

"You have to deal with management because the only place that you are going to get action is in the corporate line of command. So the perception that you deal with management is a fact of life, because it's the only way to deal with the thing."

Another widely communicated belief amongst inspectors was an awareness of the economic importance of the industry to the Treasury, and of the political influence wielded by the operators at a corporate level. This is not to imply that this influence has a direct impact upon the approach of individual inspectors to their duties, but several inspectors did explicitly state that this was an element of the relationship between government and industry that inspectors were conscious of. One inspector argued: "You have to be careful, because some of these

decisions we can make, if we made them, could land up on the desk of Bill Clinton. These guys have contacts at that level." Another stated: "Public sector borrowing is crucial to all of us and we are aware of these decisions".

In particular, inspectors were aware that they had to work pragmatically, within the limits of the possible. Thus, sometimes enforcement action would not be taken, because it would have risked damaging confrontation with the operator. One former inspector recalled such a situation on the Piper Bravo platform during the hook-up phase:

"The HSE had to compromise on some areas of dispute because we just came up against a brick wall. It's very difficult to serve a notice during hook up because everything changes all the time. It's an impossible task, and that's accepted by people in the organisation."

There is a strong awareness of the limitations of a goalsetting based model of regulation within this context. Goal setting has not been received unquestioningly by offshore inspectors, because inspectors are only too aware that it is likely to extend the company's influence in the interplay between duty holder and regulator. Again, the ascendancy of management influence over the process of safety management is seen as an inevitable process under the goal-setting regime.

Discussion

It has been claimed that the goal-setting approach encourages companies to maximise safety standards. This claim formed the basis for both the Robens Report which formed the basis for

the 1974 HASAW Act and Cullen's approach (see Cullen, 1990: Chapter 21) Thus: "more affluent employers will be expected, on a subjective application of reasonable practicability, to achieve a higher standard than the minimum" (Rideout, 1979: 341, cited in Dawson and others, 1988: 15). There can be few industrial sectors in the UK with more affluent employers than North Sea oil. However, the flexibility of interpretation afforded by goal-setting poses potential problems for enforcement in the offshore industries. Hall cites an inspector from the HSE's OSD on this point:

"enforcement is likely to be more difficult in a goal-setting regime. In a black and white situation, it's fairly straightforward - but now if you're in a goal setting regime and they're doing some things, not the way it should be done, there's a lot of judgement involved as to whether it's acceptable" (Hall, 1995: 34).

This comment echoes the views of inspectors interviewed in the fieldwork sample.

Yet, managers were overwhelmingly supportive of the extension of goal-setting regulations, having few of the reservations raised by inspectors. Elsewhere, research commissioned by the HSE concluded that managers were anxious that goal-setting should be extended:

"A widespread feeling was noted that the safety case preparation, submission and acceptance process was unduly bureaucratic and that both the Regulations and their administration were too inflexible....The most widely expressed concern about potential disbenefits of the new regime was fear of a return to prescription." (HSE, 1995a: 7)

The view that the offshore safety regime is overly prescriptive is clearly not one shared by inspectors, and if anything, evidence provided here by managers points to a weakening of the HSE's role as regulator which appears to be underestimated by the inspectorate.

Problems of definition under goal-setting are perhaps exacerbated by the approach adopted by the HSE within this particular model of goal setting. The data from interviews with inspectors leaves little doubt that the inspectorate is unwilling to involve itself in discussions outside their rather limited definition of what constitutes the management of safety. The inspectorate's view of 'safety management' is a highly restrictive one, and ignores the economic or political environment of the decision making process in the industry. This is an important point, since threats to safety engendered by cost-cutting represent the concerns most widely held by the workforce.

Since the boundaries of risk within definitions of ALARP are not only set by accepted safety standards, but are also driven by the commercial viability of the operation as part of a cost-benefit equation (Dawson and others, 1988: 15), reaching a definition of ALARP based on cost related realities clearly requires an understanding of this environment. Since the inspectorate does not seek to understand this environment, it must accept the industry's assertions on prevailing commercial conditions. Thus, the definition of what is 'reasonably practicable' relies upon a set of economic realities that are determined by the operating oil companies alone. As we have already seen in previous chapters, these economic, or commercial realities are often based upon the misleading and false claims of the operating companies, and are supported by powerful ideological constructions. In this context, the risk limits set by ALARP can be adjusted by manipulating these commercial 'realities'.

In turn, ALARP may be also adjusted in order to accommodate the requirements of a changing economic environment. For example: "the very standard of reasonable practicability, if defined simply in terms of the employers' cost benefit equation, is inevitably affected by recession" (Dawson and others, 1988: 253-254). The reduction of standby vessel cover discussed in chapter 6 can be interpreted as a direct result of the replacement of a prescriptive regulation (which stipulated that each platform should have its own standby vessel) by a provision for the goal-setting standard of ALARP under the PFEER regulations (*Scotsman*, 29th September, 1994; *The Herald*, 29th September, 1994). In such a way, the ALARP standard may be adapted to respond to the commercial requirements of the duty holder.

One worker provided an example of how safety standards had been lowered as the pressure on costs had intensified. This worker outlined how his company had recently downgraded a safety standard rating of the HVAC (Heating, Ventilation and Air Conditioning) system on the platform. This involved the down-rating of certain areas from being 'fire-rated' to being rated as a 'bulkhead'. In effect, this has implications for the type of work that is permitted in each area, for the type of permit required for work in each area, and for the type of hardwear protection provided for the workforce (for example, the fitting of blast-proof walls). Under goal setting, of course, the onus is on the company to show that it is managing risk as low as reasonably practicable and, in this case, this exercise has created the space for a downgrading in safety standards. As the respondent pointed out:

"We've done the goal-setting objectives and taken out the drawings for fire and gas ratings, and we say one thing, and the result is totally different. They just try to avoid doing the work....HVAC systems don't earn them money, so they are deprioritised."

The undermining of safety standards of course assumes greater significance when set against the background of a regulatory authority that is regarded as supine and unwilling to take enforcement action in any case, and which appears to enjoy a close, 'cosy' relationship with the operating companies. The character of this relationship is also indicated by the interchange of personnel between operators and the OSD. Workers perceive that this type of relationship between regulator and regulated compromises the inspectorate and serves to weaken the regulatory strategy. Furthermore, both workers and managers view the power balance between operators and the HSE as being weighed heavily in favour of the operators.

Under goal-setting, the practical impact of the relationship between regulator and regulated may become more significant than under a prescriptive regime. Inspectors note that the regulatory strategies rely increasingly upon a process of bargaining. In the words of one front-line inspector: "there is now much more up for grabs. And it is up to them to prove that they can do things their way." Of course, where we have a bargaining process which rests upon a power relationship within which one party is relatively more powerful than the other, we might expect the bargaining process to generate particular outcomes in favour of the powerful party.

The degree to which UKOOA and the operators have been able to hold influence over definitions of ALARP and the shape of the post Cullen safety regime has also been evident at a senior management level in the consultation process for the new sets of regulations. The

following paragraphs outline two examples of how the consultation process has clearly appeared to favour the position adopted by UKOOA above the views and inputs of other groups; a state of affairs which has clearly been aided by the adoption of a 'goal-setting' approach.

The first example is that of the case of the 'disappearing' standby vessels. In many cases, support vessels are now being required to guard two platforms where previously the requirement was that one vessel should be allocated to each platform (*Scotsman*, 29 September 1994). This is a direct result of the extension of goal-setting under the Prevention of Fire and Explosion, and Emergency Response Regulations (PFEER) 1995.

Cullen was extremely critical of the standby vessel support for Piper Alpha. The converted fishing boat 'The Silver Pit' was revealed as being "deficient in many respects." (Cullen, 1990: 348) Yet, during the Inquiry UKOOA advanced, to great effect, the case for abolition of the minimum standard of one standby vessel for each installation. The outcome was that Cullen established certain upgraded standards and equipment for standby vessels, many of which have been implemented, but also decided that standby vessel cover was to be assessed as part of a 'package' of facilities for evacuation, escape and rescue. Cullen's conclusion here closely reflected the views of the Chair of UKOOA's Marine Committee (see Cullen, 346-348). Thus, the submerging of the defined minimum provision as part of this package has had the effect of diluting the regulations to the extent that standby vessels are now subject to the flexible definition of ALARP.

According to the HSE the introduction of the PFEER regulations was followed immediately by three or four applications to reduce the number of vessels covering a field (Todd, 1996). The current total of such applications is unknown, but cuts in rescue cover quickly became high priority for the operators' strategy of cost reduction (see, for example, *Press and Journal*, 3 May 1996). Offshore workers, however, widely believe that having a standby vessel in close attendance is of crucial importance to safeguarding their workplace, and are not convinced by the 'scientific' basis for such assertions (Whyte and others, 1996). The operating companies state that the workforce have little to worry about since many of the new standby vessels are of superior design and are therefore more able to cope with 'incidents'. (Brian Taylor, Technical Director, UKOOA, interview with author, 21 May 1996). But there have also been strongly expressed complaints by the workforce (Whyte and others 1996), and offshore trade unions (see, for example OILC, 1994) that there has been no meaningful consultation process over the changes in regulations and the 'disappearance' of standby vessels.

The second example focuses on the debate surrounding Cullen's provision for TSRs. Cullen could not have been clearer on this point. The instalment of TSRs was one area which he specifically stated should be treated as a separate issue to the general goal-setting thrust of the new regime. Although, generally speaking, Cullen's approach to the minimising of risk levels closely followed the goal setting approach advocated by the operators, he was adamant that the setting of acceptance standards for TSRs was to be the "one exception to this general principle", asserting that

"In order to provide a fixed point in the regime, both the minimum endurance [of TSRs] and the frequency with which there is a failure of such endurance should be specified by the regulatory body, at least in the first instance." (1990: 287)

Despite its undeniable clarity of intention, Cullen's message was, however, to be disregarded by the regulatory authority. In the first instance, during the drafting of the Offshore Installations (Safety Case) regulations, UKOOA opposed the universal fitting of TSRs as a mandatory requirement on all offshore installations. Between December 1991 and March 1992 the HSE altered the drafting of the regulations and suggested that exemptions for TSRs on unmanned installations would be considered. UKOOA were not satisfied with the HSE concessions and continued their opposition (Foster and Woolfson, 1992). The HSE then responded by conceding that the regulations pertaining to TSRs need to be flexible. Until this point in the consultation exercise, the minimum period which a TSR has to be able to withstand a major fire was to remain at one hour, but, by late November 1992, the HSE had announced that "the [TSR] Regulations now recognise that exceptionally a shorter minimum period may be appropriate for certain small installations with few personnel." (HSE paper, cited in Cavanagh, 1994: 6)

Subsequently, the definition of what constituted a TSR was relaxed to such an extent that, in certain cases, lifeboats were deemed acceptable for use as a TSR (Woolfson, 1995).

Both of the examples outlined above are instructive. The first example because it demonstrates how the operating companies were able to play a central role in the construction of the new offshore safety regime while other groups, namely workers and their trade unions remained

marginalised and excluded from meaningful consultation. The second example shows that even where Cullen chose to 'ringfence' one strictly defined standard of safety provision in relation to standby vessel cover, UKOOA was successful in abandoning this standard as if parts of the Cullen Report had never been written. The very same corporate pressure has subsequently led to a redefinition of standards of safety as expressed by the ALARP definition.

In both of the preceding examples, there has been significant opposition from the workforce and their collective organisations to any dilution of the regulations as proposed by the HSE. In both cases, the trade union and workforce view has been overlooked in favour of the view of the employers and their organisations.

As we saw in the previous chapter, the response of the regulatory regime to CRINE has been to agree that there is no conflict between the goals of cost-cutting on this scale and ensuring safe production.

Yet the principle that the relationship between safety standards and management decisions made on the basis of cost is one that the 'goal-setting' approach claims to resolve. This principle was actually well established by the Cullen report:

“UKOOA submitted that it was for the operator to decide the appropriate manning levels for an installation and the appropriate qualifications of personnel.....while agreeing that this has to be for the decision of the operator, it should be set out for review by the regulator as part of the operator's SMS (safety management system).” (Cullen, 1990: 371)

In this context, the role of the workforce in the struggle for safe working conditions becomes more and more crucial. For, if the regulatory authority is playing an increasingly supine and passive role, then they are of little support to the workforce in this struggle. The following chapter examines, in greater detail, workforce involvement in the protection of safety standards offshore.

Chapter 8: Workforce Involvement in Safety Organisation

This chapter focuses upon the degree to which the offshore workforce is involved in the day-to-day management of safety. It uses data from the fieldwork interviews to examine the relationship between managements and workers in relation to a particular organisational aspect of workforce involvement in health and safety management; the safety representatives and committees system. The current system was introduced by the Secretary of State for Energy under Statutory Instrument (SI) 971 in the wake of the Piper Alpha disaster. It also provides a detailed insight into the ways in which the industry involved the offshore workforce in the preparation of safety cases.

This chapter also provides a general analysis of worker/manager relationships in the industry and includes a more particular appraisal of the degree to which the post-Piper Alpha safety regime has dealt with a fear of victimisation that has historically prevented the full involvement of the offshore workforce.

A New System of Safety Representatives

SI 971 was implemented by then Secretary of State for Energy Cecil Parkinson in October 1988, as part of the government's initial response to the Piper Alpha disaster. In 1980, the report of the Burgoyne Committee inquiry into offshore safety had recommended full extension of the Health and Safety at Work Act (1974) offshore so that every offshore installation be required to have a safety committee. It was proposed that this system was to be implemented by the Department of Energy after consultation with interested parties, namely,

the trade unions and UKOOA. Between the publication of the Burgoyne Report and Piper Alpha, almost eight years, three meetings took place to discuss this matter without a decisive outcome (OILC, 1991). Three days after the Piper Alpha disaster, the Department of Energy announced that a new system of safety representatives and committees would be introduced within a year. Yet UKOOA had been adamant that the relevant onshore regulations (SI 1977/500) should not all be extended to offshore installations. UKOOA had consistently argued that the power of appointment vested in the trade unions was not appropriate for offshore installations. They were successful in their demands, and these regulations, extended offshore by an Order of Council, were only partially implemented. The separate set of regulations which covered the provision for trade union appointed safety representatives was not included in the Order of Council.

Cullen made two important recommendations which aimed to improve the system of safety representatives that had been in force for a year prior to publication of his report. Firstly, that safety representatives should be protected from victimisation by management (Cullen, 1990: recommendation 30), and secondly that the operator of the offshore installation should make provision for training for safety representatives, and that this training should be paid for by the operator (*ibid.*: recommendation 31). Although he was not to specify a formal trade union role in safety committees, Cullen did state that: "I am prepared to accept that the appointment of safety representatives by trade unions could be of some benefit in making the work of safety representatives and safety committees effective." (*ibid.*: 376-377)

Safety Cases

Thus, the Cullen report was clear in its view that workforce involvement in safety organisation was crucial. This is reinforced by his assertion that "It is essential that the whole workforce is committed to and involved in safety operations" (ibid.: 276-277; see also 281-289).

Cullen was clear that the principle of workforce involvement should be a key factor in the compilation of safety cases. The Offshore Installations (Safety Case) Regulations 1992 directed that safety representatives should be consulted on the preparation of each installation's safety case.

The central role for workers urged by Cullen in the compilation of safety cases, and the significance placed upon a consultation exercise embarked upon by the HSE and UKOOA, makes this exercise of marked importance for the success of the regulatory regime. This section of the chapter examines the degree to which the expertise of the offshore workforce has been utilised in the compilation of safety cases generally, and also uses safety representatives' experiences of the safety case consultation process in order to bring the issue of workforce involvement into sharper focus.

An Aberdeen University study on the involvement of the workforce in the preparation of safety cases, included as part of a wider 'Interim Evaluation' of the implementation of the safety case regime (HSE, 1995a) is important background to the data presented here. The report concludes that "General workforce awareness of the existence and nature of installation Safety

Cases appears to be high, with more than 90% of respondents correctly identifying a correct definition of the term." There is no elaboration on what the content of those correct identifications of correct definitions were, yet the findings actually reveal some confusion amongst the offshore workforce on the purpose of safety case, and on the respective roles of the companies and the HSE in the preparation process. Less than half were aware of the changes that had been introduced by the safety case. If we consider that the safety management system element of the safety case (claimed by senior managers in the survey to be the most vital element of the new regime) was intended to shape the day to day management of safety, this represents a considerable failure on the part of the operating companies.

This lack of understanding was also shown by safety representatives in the sample, indicated by the finding that 19% of safety representatives were unaware of the statutory duty for operators to consult them on the preparation of safety cases. Furthermore, safety representatives were less aware than the general workforce, that the regulations stipulate a duty to consult on safety cases, a finding which left the researchers perplexed (ibid: 31). Thus, there was significant evidence that the workforce was not fully involved in the preparation of safety cases.

Despite the apparent failings of management to fully involve the workforce in safety, the report indicates that a major success has been in the attention placed upon the role of individual workers accepting responsibility for safety. Although the following passage was quoted in chapter 1, it is worth reproducing it here:

"The biggest identifiable change in workers' perceptions of changes in the way they carry out their work over the last two years was in the awareness of safety and the care taken by workers. This suggests a

movement towards greater attention to behavioural, cultural and managerial aspects of safety, and may also indicate that one of the key aspects of the goal setting approach - the acceptance of personal responsibility for safety - is having some impact on the workforce as a whole." (HSE, 1995a: 32)

This indicates a markedly 'forensic' approach on the part of the researchers, an approach that is also reflected in the section which presents the views of managers here. This forensic approach is further discussed in the conclusion.

A major problem identified by managers was:

"how to translate a complex document into information which is intelligible and relevant to workers at all levels and which will enhance our understanding of the link between activities at particular worksites and the aims of the safety case as a whole." (ibid: 11)

Yet, as the Aberdeen University report indicates, these problems might have been alleviated by the incorporation of information on the safety case in formal training for workers. The benefits of trade union support to safety representatives involved in safety case preparation in other hazardous industries is not mentioned here (Woolfson and Beck, 1995).

In light of the findings outlined above, it comes as no surprise to find that "relatively few Safety Representatives exercise their Safety Case related rights regularly, beyond reading the Safety Case." (HSE, 1995a: 33)

Woolfson and Beck have conducted an analysis of the HSE's Interim Evaluation , and found serious methodological and conceptual flaws in the report, not least of which was that:

"There appears to be a contradiction in managerial goals where, on one hand, there is a perception of the benefits of workforce involvement while on the other hand, traditional concepts of managerial prerogatives are stressed. Offshore managers are eager to reap the benefits of workforce involvement with regard to small but costly day-to-day incidents, but are typically unwilling to allow for trade union backup to safety representatives." (Woolfson and Beck, 1995: 9)

Woolfson and Beck also pointed out that the findings of the Aberdeen University study are summarised very briefly in the Interim Evaluation document. Findings are restricted to 2 and a half pages, and the study presumably included more extensive findings at a level of detail that was not reported. Due to this restriction of space, there is very little elaboration on the particular ways in which safety representatives, and indeed the wider workforce were included in the preparation of safety cases. The presentation of data here seeks to 'fill' this gap by using data from my own survey.

As one of the first assessments of the post-Piper Alpha safety regime, the Aberdeen University study of SI971 was also a significant piece of 'official' research for the offshore oil and gas industry. This study, reported in a relatively lengthy document of a hundred and thirty eight pages is certainly more comprehensive than the Interim Report's Workforce Survey discussed above. At the time of its publication, the study was claimed by the industry as conclusive evidence that the system of safety representatives was broadly successful in improving workforce involvement in the management of safety. Indeed, five years on, the study is still used to support similar claims (see, for example, HSE, 1998b).

Yet, as we have already seen in Chapter 1, the Aberdeen University study did include some significant evidence of a 'climate of fear' offshore. They found that 47.7% of safety representatives "had feared some sort of victimisation", and, in addition, a clear majority of 55.8% believed that safety representatives are subject to victimisation by management. A further 16.6% admitted to avoiding raising an issue because of fear that they might be victimised (Spaven and others, 1993: 111). Despite the centrality of the peculiar industrial relations regime to the history of the offshore system of safety representatives, the earlier Aberdeen University evaluation of SI 971, discussed in earlier chapters of this thesis, has been criticised for the absence of any serious consideration of the trade union issue as a central concern (Vulliamy, 1993).

The data that follows in this section also suggests that the Aberdeen University report was flawed because it underplayed and omitted full consideration of some key aspects of the offshore environment, namely the importance of the 'climate of fear' and the strict opposition to collective organisation. When these key issues are addressed, they are peripheral, not regarded as integral to the efficacy of the system. Thus, the widespread fear of intimidation that is identified by the study is not seen as a significant obstacle to the ability of safety representative to operate effectively. This is indicated by the substance of the conclusion, which does not call for the introduction of new legislative measures to deal with this problem, but merely advocates that problem areas would be best addressed through revised and strengthened guidance (Spaven and others, 1993, pp 133-138). The conclusion to this was the publication of the newly revised guidance in May 1998 (HSE, 1998a). These omissions, and the lack of any subsequent evaluation combine to indicate that a more careful scrutiny of SI 971 is required. The following analysis attempts to start this process of scrutiny. Such a process of

scrutiny is even more important at this particular point in time, in light of the newly revised guidance.

Revised Guidance on SI 971

The new guidance actually included very few substantive changes. Yet the HSE did highlight a number of substantive improvements on the previous guidance (Department of Energy, 1989).

The new guidance, it is claimed:

"explains more clearly the role of safety representatives; contains strengthened material on the role of trade unions in the safety representative system; sets out expanded guidance on the format of safety committee procedures and meetings; recognises trade union training for safety representatives; and includes provision for more effective representation for contractors' staff during hook-ups" (HSE 1998b: 2).

On the first point, although there is no substantive change in the role of safety representatives, the new guidance does set out the detail on the function and powers of safety representatives more clearly. The second point, that there is strengthened material on the role of trade unions, is mystifying. In fact, the trade unions are only mentioned in one paragraph in relation to their role as training providers, and even then, it is only by way of a name check that the TUC is mentioned for having "a long history of providing training in the offshore sector." (HSE, 1998a: 29). Thirdly, there is more detail included on the format of committee meetings and procedures (notably in terms of the minuted record of the meetings). But again, there are no substantive changes which strengthen the role of workers' representatives. Thus, for example,

committees continue to have powers limited by managements definition of the possibility for remedial action: "Safety committee members should bear in mind that it may not always be possible for immediate action to be taken on their recommendations." (ibid: 23)

Finally, the provision for representation during "hook-up" is, once again, disappointing. This provision is limited to one suggestion: that employers "should consider setting up constituencies and arranging for the election of single employer safety representatives prior to mobilisation offshore." (ibid.: 12)

Yet there is no suggestion here that the process of revising guidance actually had the potential to make sweeping changes to the operation of SI 971, for, after all, there was no intention to actually revise the regulations. However, the claims made by the HSE reproduced above do indicate their view that the changes introduced by the guidance are significant enough to improve the effectiveness of the system. Indeed, these are all changes that were prompted by the Aberdeen University study which concluded that the system could be improved simply by tightening up the guidance to the regulations. Although there is an explicit reference to the blacklisting of trade unionists and to the NRB, the revised guidance is weakened by an approach which does not place these issues at the core of their agenda. In any case, any serious attempt to resolve these issues requires fundamental changes to the system.

Thus, close examination of the revised guidance shows that the new provisions will not be enough to precipitate any improvements in the effectiveness of the system. In light of the evidence from the data presented in the following sections, these provisions appear yet more impotent in guaranteeing the effectiveness of SI 971.

The Climate of Fear and Problems Associated with a Contract Workforce

The North Sea production regime, in the early years of development was dominated by the US drilling companies. The stereotype of the cowboy, or redneck drilling superintendent who stops at nothing in the quest for oil is one that endures in the memory of those who worked in the industry at the time:

"The original drillers were Americans who brought with them that frontier American mentality of 'hell-for-leather' go getting attitudes where the only thing that matters is 'making hole.' Their level of sophistication could be gauged by their interpretation of what constitutes good maintenance, best summed up by the phrase, 'If it aint fucked, don't fix it.'" (OILC, 1991: 19)

One respondent who had worked in the industry for 25 years recalled the typical attitude of the American drilling rig managers to safety:

"We used to call them cowboys. Not just because the job was rushed or shoddy. They would come out onto the drill floor in Stetsons and cowboy boots. They refused to wear hard hats and safety boots, and that was the example to the rest of us."

Another worker from the early days of the industry reported that workers were regularly penalised for doing anything other than carry out management instructions to the letter: "You were paid to do the job and go home. Not to complain or talk back or anything like that. If you did, you were run off. Bumped. No questions asked." One worker described to me how he had to use a bit of rope for work 30 ft above the deck, because there wasn't a safety harness

available. He didn't even question this, because he would have been "laughed off the platform." An authoritarian and non-participatory culture developed, and with it a relationship between workers and managers that can at best be described as characterised by fear and mistrust.

The strategic alliance between US and British capital outlined in previous chapters can thus partially explain the resultant production regime that permeated and shaped the industrial relation regimes in the North Sea (Woolfson and others, 1996). From the outset of North Sea extraction, there emerged:

"The implantation of an external production regime, the exclusion of trade unions, the lack of an effective health and safety regime, the disaggregated structure of management and the weakness of the indigenous supply base..." (ibid: 17)

Furthermore:

"It was believed at the time that most of the charter rig companies employed management techniques and imposed working conditions the likes of which had not been seen in Britain since the industrial revolution. The companies refused to employ trade unionists, and opposed any kind of organisation by either trades unions or ad hoc committees from within the workforce. The [North Sea] Action Committee [a committee of local trade unionists] did, however, come to believe that the companies themselves were organised in some informal manner. The Action Committee collected a number of Contracts of Employment which showed 'a remarkable similarity in the conditions they imposed.' There was a common approach throughout the companies to the employment and use of labour." (Wybrow, 1982: 258; original emphasis, references omitted)

From the outset, employers demonstrated a high degree of solidarity in their attempts to exert tight control over the workforce. It these conditions that spawned a strictly authoritarian management regime and a 'climate of fear' (OILC, 1991) which had the effect of silencing and marginalising the views and contributions of the workforce on safety matters. Those who spoke openly, or challenged management on issues relating to working conditions or safety were labelled as troublemakers. The NRB operated on an industry-wide basis systematically to weed out the troublemakers, and to prevent trade unions from establishing a base on offshore platforms.

A core/periphery model of the flexible firm developed more than a decade before this approach was to be popularly advocated by labour economists and the new 'science' of human resource management in the mid-late 1980s (Legge, 1995). From the early days of the industry, workers that openly complained about working practices, safety conditions and so on were subject to the NRB, so called because on some rigs they would have their work-cards stamped 'NRB' or 'Not Required Back' in red ink (Lavalette and Wright, 1991). As we have seen, even the relatively uncritical and anodyne studies published by the HSE include evidence of the existence of a 'climate of fear' on offshore platforms. A recent survey by Shell provides further evidence from the industry's own research. This survey, conducted by MORI showed that 58% of the Shell Expro employees who responded, agreed that speaking up can damage job prospects (MORI, 1997).

As Gasteen and Sewell have pointed out: "Cost saving was the chief gain to be had from the use of (sub)contractors in both the offshore service and oil-related manufacturing sectors...." (1995: 248). However, the attraction of a mobile and disposable workforce is convenient for an industry which is of crucial strategic importance to international capital, a point well recognised by managers in this survey. Maintaining maximum control on the production process requires a workforce that has few rights of employment, and more importantly, has little collective power.

Evidence which highlights an implicit threat to safe working practices where contracted or casual labour is used for normal operational tasks can be found in other sectors (see, for example, Labour Research, December 1995). Furthermore, the HSE have concluded that the use of sub-contract labour is a major source of industrial accidents and breaches of safety standards (HSE, 1985).

Aside from the problems noted above, the fear of victimisation is clearly related to the structure of a workforce which is based heavily on short-term, casualised labour. The capability of managers to hire and fire at will leaves workers relatively powerless to act against a particularly authoritarian approach to management which leaves them with no real say in the management of safety. The fear of being told that you will be Not Required Back is often powerful enough to silence workers warnings of unsafe working practices, and to exclude workers expertise from the offshore safety regime.

The very structure of the offshore workforce also has implications for the practical application of existing forms of legal protection. The 70% to 80% of the offshore workforce that is sub-

contracted is highly mobile. Individual workers may work on installations for a very short period of time. This mobility and short-term contractual status which often leaves workers on call waiting for the next job, makes it very difficult to construct a case against employers who hire and fire at short notice as part of the normal routine. For workers who are not in a trade union, and may not be represented or assisted in compiling a case for a tribunal, such protection is inadequate. It is of no little significance that the protection offered is only applicable after the event. Workers do not have continuous protection in the workplace. Effectively, this means that the legislative protection afforded to workers and their safety representatives counts for very little in the offshore environment.

Cullen and the NRB

As has been noted, Lord Cullen's report of the inquiry into the Piper Alpha disaster included a tacit acknowledgement of a climate of fear surrounding matters of offshore safety. This inclusion was of central importance to his findings, which constituted not only a damning indictment of Occidental's systematic disregard for the safety of the workforce, but also reflected upon an appallingly lax approach to safety in the industry as a whole.

In arguing that worker victimisation was not to be tolerated, Cullen reproduced the evidence of Roger Lyons of MSF, who pointed out that "training and advice can be given openly without any 'fear factor' which unfortunately permeates the UK sector of the North Sea among the workforce" (Cullen, 1990: 376). It was due to this fear factor, and the NRB system that Lyons argued, "Workers do not want to put their continued employment in jeopardy through raising a safety issue that might be seen as embarrassing to management." (ibid.: 376) It was

noted in this section of the Cullen report that the workforce on Shell installations had been reluctant to stand as safety representatives because of the fear factor, and the related threat of the NRB (ibid.).

However, Cullen did not see fit to extend the onshore system of trade union appointed safety representatives offshore. Instead, he proposed that workers could be protected from victimisation by the Employment Protection Act of 1978. This legislation was extended offshore by the Offshore Safety (Protection Against Victimisation) Act 1992, and applied to workers with at least 2 years continuous service. The Employment Rights Act 1996 subsequently gave all employees the right to an industrial tribunal if they were dismissed after raising safety concerns, or refused to work in unsafe conditions.

Yet, there is significant evidence that this legislation does not go far enough to protect offshore workers. The data presented here exposes the climate of fear as a continuing problem, one which indicates the failure of existing legislation to protect offshore workers in the post Piper Alpha period. Given the centrality of the NRB and the fear of victimisation to the Cullen Report, and to subsequent evaluations of the post-Cullen safety regime, it is appropriate that this issue is the starting point for the presentation of the interview data on workforce involvement. As in previous chapters, the data is set out in 3 sections, presenting the views of offshore workers, managers, and HSE inspectors respectively.

Workers Views

Climate of Fear and Use of the NRB

The majority of respondents viewed the freedom to approach line management with safety concerns on any matter as being the most important element in offshore safety management.

As one electrician put it:

"The biggest step forward in safety offshore is an open and honest approach to be able to raise safety issues without being scared. All the safety training in the world can't replace openness about reporting safety matters and a workforce that is comfortable about being open."

Although five contract workers pointed out that their company had introduced new procedures which gave them more protection against being dismissed on the spot, the majority of respondents also characterised the management style deployed by installation operators as authoritarian and intimidating, employing a hierarchical structure: "The OIM is god offshore. Whatever he says goes, its the word....when it comes down to it, he has power over everything, and everyone is very aware of this."

Within this rigid hierarchical structure, decisions on safety are made without any input from workers at shopfloor level:

"The boys don't bother with safety anymore, because if you try to suggest something, you just get the cold stare all the time..... If you kick up too much about safety, you get transferred, or at the very least they muck you about or worse NRB you."

There was a strong feeling amongst workers that attitudes had appeared to improve in the aftermath of Piper Alpha, but had began to revert to the old pre-Piper style. A minority of respondents were positive about the safety culture offshore. This group, were, however for the most part in supervisory positions.

One supervisor argued that it was only the offshore worker that could change the safety culture:

"It is about how workers buckle to pressure. You have to stand back a bit from it. If your boss tells you to do a job, you have to be confident in your knowledge and sufficiently confident to challenge him."

Although there was a disparity of opinion on the degree of change in management style and safety culture in the industry since the publication of Cullen and the implementation of the new regime, a large majority of respondents held the view that offshore workers are still unable approach line management with safety concerns for fear of reprisal. Some reported that they had simply been told not to mention a particular problem or incident when they left the platform: "We were told in a safety committee meeting where the rig superintendent was in control that we have to keep all of our safety concerns inside the company because it is sensitive."

The culture was described by workers time and time again as one in which worker participation was decidedly unwelcome: "The boys don't bother with safety anymore, because if you try to suggest something, you just get the cold stare." Some said that they would not raise any problems with immediate supervisors because they were aware that anybody in their position could be got rid of at any time: "You get told to stop rocking the boat by management all the time. People just disappear." Others reported having been NRBd or sacked for drawing attention to a safety related problem. Respondents spoke about how management made it clear exactly how far they were prepared to go in order to ensure that workers behaved as they wanted: "xxxxx [the operating company] always have the rule of fear of not coming back. They can change your life for you." Some contrasted the climate in the oil industry with other industries they had worked in:

"When a guy is asked to do something, you fucking do it, ask no questions. Its completely different from other places I've been - it's fear of losing your job. The ordinary guy keeps quiet if he knows what's good for him."

Another related how a workmate had been NRBd because he approached the general foreman to complain about the lack of good quality boiler suits.

There were a few reports which indicated that workers are reluctant to 'rock the boat' towards the end of a contract, because they are aware of the impending selection and disposal of workers. One example of this situation at work was that workers on one platform said nothing about conducting minor maintenance work without a permit being raised: "I saw guys who were totally intimidated by authority and were brow beaten into it. A lot of the lads were keen

to impress and needed the future work." This type of fear is compounded by the general policy of reducing the size of the workforce. When the jobs are fewer and the competition for jobs greater, workers (especially the workers who are seen as "moaners" or a "trouble makers") become increasingly more disposable: "Now people are scared to do anything or else they'll end up with the undesirable tag".

Respondents, both those employed by contractors and those employed by the operators, were aware of this situation and, in general, believed that the employers were exploiting the intensification of cost-cutting and downsizing to their advantage. Reports that rumours of redundancies and pay cuts were being used to "keep workers on their toes" were widespread. It was this issue in particular that prompted some to indicate that workers are becoming more excluded from the offshore safety management process that they ever have been before, because of the shortage of work:

"People say that love is the greatest emotion, but fear is greater. You'll get a guy who'll fight lions to get into the pub. But when his mortgage is in threat and his family's livelihood, especially in a country where there's nothing else for people to turn to, there's no jobs, he'll keep his mouth shut. What do you expect?"

Some workers identified a subtle change in the way that the NRB is now being used. The threat was reported to be less explicit than it has been in the past, particularly since Piper Alpha and the publication of the Cullen Report. Platform management and supervisors do not tend to threaten people with the term "NRB", but it is recognised by the workforce that they still use this method of disciplining undesirable workers: "Nobody says anything. You don't need to say anything. Everyone knows what the limits are. We can't get bumped automatically but

they can make life difficult for you." A small number of workers reported being demoted or moved to another platform after they had persistently raised safety issues. As we saw in the previous chapter, offshore workers report that the HSE has offered them little protection against the spectre of management victimisation.

The case of Bill Nelson²⁷ provides a detailed illustration of this point. The following account has been constructed from an interview with the worker and by referring to his papers relating to the case.

On ***** [production platform], during the construction phase of a large platform in the North Sea. Late in 1992, the project fell behind in the time scale and pressure was applied to him by senior management to sign clearance certification for drilling electrical systems. He refused to sign paper work because in his professional opinion, the systems weren't ready.

When Bill left the platform and took a short holiday, they applied the same pressure to a lower grade electrician. This worker was in a less senior position than Bill and did not have the same security of contract. He was therefore more vulnerable, and, under extreme pressure, he signed the relevant paperwork. On his return to the platform, Bill found out that authorisation had been given to clear a critical system which controlled the emergency shut down of drilling operations in the event of a problem. Bill was convinced that the system wasn't in a fit condition and that the safety of operations could be jeopardised. He went to the OIM to complain, and the OIM told him to mind his own business.

²⁷ All names have, of course, been changed to protect anonymity.

After this point, he began to find that his opinion was being consistently ignored on the platform and a number of jobs for which he would normally have been given responsibility were passed to other people. On one occasion, an accident resulted in huge 1500 amp cables being ripped apart. Management refused to allow him to inspect the cables despite the fact he was the most senior electrician on the platform.

In the summer of 1993, he compiled a list of a dozen faults with the drilling systems and sent this to management. Both his employer and the oil company ignored his memo. During November 1993, he was called at home and told he was to be transferred to another platform, in a position that was an effective demotion. He refused because there were a number of problems on the platform that he didn't want to walk away from. He met with the President and other senior managers of the contracting company in January 1994, and noticed that they had dramatically changed their attitude to safety. They were clearly under a lot of pressure from the operating company, and they were not even prepared to discuss the safety issues with him. Shortly after this meeting, he reported the matter to the HSE. They conducted an inquiry and prepared a report which the company claimed vindicated them, and Bill claimed ignored many of the crucial facts of the case. "I got the feeling that they [HSE] sat on my case and that they wanted to let it go without too much of a fuss."

Bill went to the press with his story in April 1993 and told the local paper "there have been more incidents on the ***** in the last year than on any other rig I have been associated with", and that "it was only due to good luck and certainly not good management that there had been no serious injuries or fatalities." Shortly after making the statement, he was sacked for breach of contract.

He lost an internal company appeal, and took the case to industrial tribunal. The company settled out of court for £20,000, one day before the hearing, and 2 weeks before his MP was due to raise the matter in parliament. His trade union representative for the tribunal told the press "Had the industrial tribunal gone ahead it would have highlighted mismanagement of safety of astounding proportions."

***** is a platform that was beset by incidents during the period of construction, and was subject to numerous HSE inquiries, investigations and prosecutions. Bill's case was not an exceptional one; the problems he encountered were the norm on this platform. Less than a month after he had been sacked, a gas leak led to full evacuation of the platform.

The Anti Trade Union Stance

Respondents reported that, in general, the operators and contractors in the industry are still opposed to the notion of trade union representation of the workforce. One described how: "You can walk in for a job and the first question is, are you a member of a trade union? Then they ask you to sign a form that says you're not in a union."

Although some of those interviewed said that they were trade union members and that this did not cause any problems, those respondents also said that they would not announce the fact in front of management.

There is also a visible anti-union culture amongst certain sections of the workforce. There is a view, held by less than a quarter of the sample, but none the less extremely visible, that there is

no need for a trade union influence offshore. Given the constant opposition to the notion of trade union organisation amongst offshore employers, this is perhaps not surprising.

Some companies were apparently less vindictive about their opposition to trade unions than others. The following quotes indicate a variety of positions adopted by different operating and contracting companies:

"The oil companies say, we don't have any objection, we just don't recognise them."

"Foremen are primed to look out for union activity."

"None of the guys would say much about trade unions. It just isn't done."

"It's not anything you ever consider raising."

"Short of lying on the application form to the question, are you in a union? Then it will usually be taken into consideration. I was talking to a roughneck who was asked to go out on a job for a week. He couldn't make it, but said he would get his mate to go instead. They asked for his name and then said they couldn't take him although he had miles more experience as an roughneck. He had a record as an activist, and he had been knocked back for jobs before."

"Shell always refuse you a union representative at the review panel²⁸. But also, you won't think about getting the trade union in because you don't want to be labelled as militant."

²⁸ The review panel was described by this respondent as a forum for the investigation of accidents (normally Lost Time Accidents) which comprises the individual affected by the accident, and representatives from the operating company and the employer.

Almost half of those interviewed talked about the existence of a 'blacklist' of known trade unionists that was still used to prevent certain individuals gaining employment offshore.

The Climate of Fear and Safety Representatives

This fear of victimisation has a particular bearing on the work of many safety representatives. The following two cases are indicative of these problems.

In the first case, one safety representative who reported being dismissed for raising a safety issue with his supervisor argued that outside the formal confines of the safety committee system, he was actively prevented from fulfilling his role as safety representative. The respondent had raised a safety concern with the OIM, who also happened to be in charge of the job concerned. The respondent had noticed that air winches were being used to lift heavy equipment. These winches are designed only for carrying one person at a time ('man riding'), and as an elected safety representative, he asked the OIM to ensure that the winches be used only for the purpose for which they were designed. The OIM responded by telling him to shut up and to "stick it or quit." Shortly after this incident, the respondent requested a transfer to another platform. Two days later, he returned to the beach at the end of his trip and was told on reaching Aberdeen that he was not required back.

In the second case, a safety representative of nearly four years standing worked as a scaffolder employed by one of the large contract companies. After an incident in a gas compressor, a scaffold was erected to inspect the plant equipment. The safety representative was concerned

about whether the beams upon which the scaffold was resting were strong enough. He raised this with the foreman on the job, who initially expressed no concern, and didn't take any action. The safety representative then approached another colleague, a quality analyst, for advice, and to ask if he might also pursue the issue. He agreed, and added that the issue had already been brought to his attention by another member of the crew. The following day, the safety representative was called to the foreman's office and was threatened with removal from the platform for "not going through the proper procedure for reporting the incident." A few days later, after a run in with the foreman for refusing to work five consecutive nights overtime, the threat of removal was carried out. The safety representative was told he would not be required back. He was simply disposed of for doing nothing more than carrying out his duties to his constituents as a safety representative.

These cases are by no means isolated. Several respondents in this study reported that they had been NRB'd for raising a safety related issue as a safety representative, and others knew of safety representatives who had been disposed of in similar incidents. One worker summed up the view of the majority: "The safety rep system can't work in the North Sea because of the age old problems with the system of hire and fire."

This chapter now turns to examine some workforce views of the efficacy of the SI 971 system of safety representatives and committees.

General Impressions of SI 971

Although most agreed that the introduction of safety representative and committee regulations represented a distinct improvement on previous informal and non-standardised systems, the majority of respondents also believed that the current system of safety committees is unable to adequately deal with workforce input to safety.

Those who were uncritical of the safety representative system were, without exception, working at supervisor level or above. The tendency amongst supervisors was to point out that the system is working successfully, and that any problems could be attributed to workers not using the system properly:

"With most safety fears, it's their own fault. It's stupidity on their part. They've all got a constituency safety rep and I bet some of them don't even know who their safety rep is. The OIM's door is always open."

The general workforce view was, however, that serious problems exist which prevent the system working effectively. This was indicated by workers' descriptions of safety representative 'types'. Two broad profiles of safety representatives were constructed by respondents. Firstly, there were those who were known as "compliant" or "tame" safety representatives and who would largely follow the management agenda, raising the odd minor matter of concern that would not threaten the rate of production. It was reported that often the members of this group were attracted to the position of safety representative because of the

extra payment they were given, or because they saw it as a good career move to secure the stability of their job. As one worker pointed out: "Being a safety rep is like getting a foot on the ladder. if you don't put a foot wrong, you keep climbing." It was reported that some safety reps get disillusioned very early on in their term, after they discovered that their role is limited, or that management are not taking them seriously, and just play out the role of compliant safety representative for the 2 year term. Secondly, respondents pointed out that there were some "strong" safety representatives who were willing to raise workers' concerns freely and openly. The main difficulty encountered by this group was that they risked being sacked because of this open stance on reporting concerns to management.

There was a general perception amongst most workers that the safety representative system, as an effective forum for raising safety matters, had deteriorated to such an extent, that it now operated as a "paper exercise". One worker reflected the dominant view, that safety committee meetings tended to deal only with more trivial and run-of-the-mill safety matters: "It's a total waste of time. It's the same people putting out the same stuff every week, safety goggles and that kind of thing. Hat wearing and safety goggles is all anybody brings up."

On most platforms, it is established practice that safety representatives should raise all safety matters with line management in the first instance. In practice, this meant that often the safety representative was expected not to attempt to resolve matters beyond negotiating with immediate supervisors. For some, the safety representative was in exactly the same position as every other worker: "At the end of the day, all the safety rep can do is the same as you and pass it up the line."

Some argued that safety committees were now being used to 'contain' debate around safety issues within this forum. A common pattern was that when matters were raised with senior management outside the confines of safety committees, or the HSE, the safety representatives concerned would be reprimanded by management and told to keep discussion of safety matters restricted to the platform safety committee.

One particular trend that was identified by a large majority of respondents was the increase in those in supervisory and line management positions standing as safety representatives. This was thought to be a particularly regressive step, since it excluded workers from involving themselves in the system, both as safety representatives, and, as constituents, in the sense that workers often did not feel that they could raise problems openly with supervisors.

One safety representative noted that during an inspection, HSE inspectors had identified the election of 2 supervisors on his platform as a potential problem, and discussed this with the OIM on the platform. Despite this (informal) intervention, the supervisors remained in position as safety representatives.

It is also instructive to note that a predominant view was that "strong" safety representatives were clearly in the minority, and more recently, have tended to decline in numbers, as many have become disillusioned with their ability to make an unhindered contribution as safety representatives.

The Structure of Meetings

The preceding section suggests that management approaches to safety are continuing to exclude workers from processes which are central to Cullen's own envisaged approach to workforce involvement. Now we turn to examine the detail of how this process of exclusion occurs in the formal setting of safety committees.

The perception amongst those who had experience as a safety representative was that due to most safety committee meetings being chaired by the OIM, the agenda was set by management. It was reported that there were certain issues that could not be raised by representatives in safety committee meetings for fear of reprisal. Those issues would tend to be the more significant problems which may have an impact on the process of production. One safety representative said: "Safety Meetings are not safety meetings, they're safety lectures.". Another reported that the OIM on his platform would bar certain topics from being raised, such as helicopter safety: "There's things your [safety] rep. can't say at a safety meeting...They'll ask you if you've got points to raise, but you only raise some things. You can't raise political hotspots". Often questions from safety representatives were ignored during the meetings, and on one platform, the OIM would wait until the end of the meeting before allowing safety representatives to raise points. This part of the meeting would not be minuted.

In some cases, it was reported that the safety representative was under pressure not to report a problem in safety committee meetings because the supervisor had been alerted, but not acted.

Thus, the safety representative was under pressure to cover for him/her: "The supervisors are in the same boat as you are. They don't want to upset the applecart either."

On some platforms, the company appointed safety officer played a key role in this strictly defined hierarchy. Often, complaints from safety representatives would be referred to the safety officer who would, normally in consultation with the OIM, decide what appropriate action was to be taken. Those who reported this scenario pointed out that this could be used to 'filter' out particular safety issues if they were deemed unimportant by either the OIM or the safety officer. One worker pointed out:

"I can refuse [to carry out a work task] and I have to go the supervisor backed up by the safety rep. The supervisor can tell you to fuck off and the only way then is the safety officer, and he can overrule the safety rep. Only the OIM has the final word, and at the end of the day, he will say you have to get the job done."

The Election Process

There are a series of problems that have arisen in relation to elections. Some argued that there were flaws in some election procedures of safety representatives which allowed particular safety representatives to remain in post indefinitely. It was pointed out that in such cases, safety representative tended to be those that management wanted to remain in post:

"Once someone stands for election, they can be there indefinitely. The two year election period doesn't matter; he just becomes known as the safety rep, end of story, especially if he has been there for a while."

Four respondents who were known to management as trade unionists reported that they had been deliberately prevented from standing for election to the position of safety representative because it was thought that they would cause management too many problems. One was told that he was about to be moved to another platform, and that there was little point in him standing. Two were told to change crew, effectively removing them from the position as candidates, and found that the new constituency already had a safety representative in position. Another was told by the OIM that he was waiting for nomination forms to be sent out from headquarters. As he waited for his nomination form to arrive, an election was organised and an alternative candidate elected.

One former safety representative recounted one method that was used to conduct elections. This method consisted of the OIM gathering the constituency together in one place, and requesting that the two candidates leave the room before asking for a show of hands. This respondent stated that one of the candidates was the favoured by the OIM, that those present were aware of this, and that this influenced the outcome of the vote. Whether the outcome was influenced or not is, however, not the point. The point is that when elections are conducted in such an informal way, the potential for manipulation of the system is created.

Many stated that they had never voted in an election for a safety representative. Some did not even know that their representative had been elected. Those problems may be related to difficulties in sustaining an effective system of safety representatives within an industry which relies upon a workforce that is largely sub-contracted. In many cases, workers may be on each installation for a matter of weeks at a time. Yet, one perception was that elections often do

not take place because they are labour intensive, and this may have associated impact upon work routines. Organising elections and counting ballots is extremely time consuming, and as productive demands upon offshore managers increase, this may also precipitate a dangerously lax approach to the organisation of elections. A lack of elections may be tolerated by the workforce, if the general disaffection felt by workers with the safety committee system has had the effect of rendering the election process unimportant. For many respondents, the organisation of the election process simply wasn't a matter of concern because they had little faith in the system anyway.

Trade Unions and Safety Representatives

The difficulty of operating effectively without any organisational back-up was stressed by a number of respondents. An overwhelming view was that the continued absence of trade unions offshore and general hostility shown by operators to trade unions means that even if safety representatives are organised collectively in a trade union, it is difficult to operate openly as a trade unionist. Although opinion was split, a large majority of workers agreed that trade union support for safety representatives would increase their ability to carry out the role. Most of those who disagreed with this view were in lower management positions. Trade union support was seen as important both because it gave the safety representatives strength in numbers, and also because of the advice, training and information services that a trade union can offer. One worker who had not been a safety representative recalled that "the only good safety reps I remember are the ones that are in the union."

Although some of those interviewed said that they were trade union members and that this did not cause any problems, those respondents also said that they would not feel safe announcing the fact in front of management. Almost half of those interviewed talked about the existence of a 'blacklist' of known trade unionists and 'troublemakers' that was still used to prevent certain individuals gaining employment offshore. A large majority of respondents were able to point to specific cases of people who had been barred from the industry because of previous trade union activity.

The rigid anti trade union position adopted by many employers also has a direct bearing upon the ability of some safety representatives to operate effectively. Those safety representatives that were in trade unions stated that they could not use any support from their union because this would not have been tolerated by management.

One safety representative recounted how, despite numerous requests, he was continually refused a meeting with the company's onshore safety department. Even when the Loss Prevention Manager came offshore, he did not have time to meet with the safety representatives. The first contact the safety rep had with onshore management was when the same Loss Prevention Manager attended a safety committee meeting, and used this forum to reprimand the respondent during the meeting for contacting his trade union with a safety query. The union had followed up the query and contacted the company's safety department. The respondent was told that if he contacted his union about a company matter again, he would be sacked.

Training

Related to the trade union issue is the scope for safety representative to attend safety representatives training of their choice. Safety representatives were, at best, unenthusiastic about the standard of training they were given as safety representatives. Most complained about the lack of a practical approach to the role or a lack of understanding about the nature of offshore management.

One drilling worker who had previously served as a safety representative recounted his experience of a week long training course. He pointed out that the perspective of the course was not one which dealt with the realities of offshore management/worker relationships: "The guy [course organiser] didn't understand the situation we have on drilling rigs. It was rubbish. They didn't teach you how to deal with management, which is the most important thing for a safety rep."

A current safety representative pointed out that he had requested to be sent on a safety representatives training course organised by the TUC, but that management had not felt that the TUC course was "appropriate for the company's training needs". He was then sent to the company's preferred course. It is worth considering his experience in more detail: The respondent, a safety representative of 2 years standing, had attended one safety representatives training course since his election. The course lasted a week and was run by Aberdeen Drilling School. In attendance with the respondent for the week were three safety representatives from

a drilling company. The course was run single handedly by an ex-BP OIM called Bill Dawson²⁹ and, according to the respondent, "everything came from that angle".

The course consisted of 'taught' sessions scattered with a few role playing exercises. The taught sessions involved Bill Dawson reading extracts from the OIAC Safety Representatives manual word for word. Each of those in attendance were given a copy of the manual at the end of the course. "I couldn't believe the standard of the stuff we were getting, I mean, why didn't they just give us the manual on the first day and tell us to go home and read it?"

The exercises were also poor quality:

"They would give you a sheet with an accident example. But most of them were either about process matters or were only relevant to other industries. One of them was about entering concrete silos, and the other three didn't have a clue what he was talking about. Since there was only four of us and everything was supposed to be group discussions, it was completely pointless. The drillers had limited knowledge of the process issues and all they could do was just scribble down everything the guy said. Then the guy would say, 'right, next one' and there would be no feedback, he was just going through the motions. It was pretty obvious that he wasn't interested in doing the training properly."

On the last day of the course, one exercise was a mock safety meeting:

"We were asked to come up with points for discussion. I asked about problems with lagging because it was something I was dealing with at the time. He [the tutor, Bill Dawson] said immediately, 'It's really up to the OIM.' I said, 'the OIM hasn't done anything and it's come up at every safety meeting for the

²⁹ Name changed to preserve anonymity.

past three months.' he said, 'well remind the OIM, he has to deal with it.' And this was his answer for everything, 'it's up to the OIM.' I asked a question about involving the trade union and I thought he was going to burst a blood vessel. He started shouting about how the unions had tried to hijack the industry and for me that just summed up the whole week."

"I had thought that you might get training on how to approach the OIM, negotiation skills or something that you could use in situations. Especially for the drillers. They were saying that there had been no point in coming to the course, because their supervisor wouldn't listen to them. Maybe if the situations had been more in touch with reality, then they could have learned something"

It is instructive to note that the training centre referred to in this case is one of the most popular centres used by the oil companies for safety representatives training. This account is consistent with the experience of current and former safety representatives included in the study. This experience was not unique, and safety representatives in the sample that had attended training were all sceptical of the quality of the course they had attended, invariably because they felt it presented a "management friendly" or naive impression of the realities of operating in this role on offshore installations. None of those interviewed had attended the TUC course.

The Safety Case Consultation Exercise

As the introduction to this chapter noted, workforce involvement in the preparation of safety cases was to be an important starting point for the post-Piper Alpha safety regime. There were two reported ways in which workers were allowed an input into safety case documents. These were: by the operator calling a safety case meeting and inviting selected workers or selected

safety representatives to participate as representatives of the workforce, or by the operator selecting individuals to contribute because of their expertise in a particular area.

Less than a fifth of respondents who had been working offshore at the time of the safety case exercise had been given the opportunity to get involved in the preparation of safety cases. Some of those interviewed reported that their safety representatives and other work mates had been given the opportunity to contribute to or comment on the safety case, although others had never heard of safety cases.

Two respondents had been asked to participate and spend a number of days onshore because of their technical expertise. Both of those respondents were offshore supervisors. One supervisor said that the company he worked for had hand-picked a few 'specialists': "They selected a few people that they knew would give them what they wanted."

The majority of respondents reported that they had not even been invited to make a contribution to the safety case, even in this manner, although most could recall receiving some type of brief presentation informing them of the content of the safety case. Three had participated in short sessions of half a day or a few hours as safety representatives, and three workers were invited to a mass meeting with onshore managers where 'suggestions' were called for.

Some reported being actively excluded from the process by management. One respondent gave me the text of a letter he sent to the OIM of his platform. The letter graphically demonstrates the frustration felt by many of those working offshore that expected to be

involved in the post-Piper Alpha safety regime, but quickly found the selection process often excluded those most keen to be involved. It is worth reproducing this letter here:

"Sir,

I have always taken a keen interest in all aspects of our industry. When the opportunity arose to participate in the Workers' Involvement Safety Case Reviews, I was first to put my name forward. I felt during the trip June 10th - 24th that Shell were keen to have workers involved in the Safety Case Review.

On my next trip offshore, I approach Mark Chalmers [supervisor] to re-affirm my intention to attend on the 3rd - 4th August. Bill Bailey³⁰, my safety representative, disclosed to me on the 21st July, that I had not been selected to attend. The Wood Group [contracting company] workers who would be attending were of supervisory status. Bill Bailey was also concerned that he had not been chosen to go, whilst Kenny Ewan, safety representative, was to attend - even though he had not expressed a positive wish to do so. When Bill had given his own dates of availability, he was under the impression he would be most likely to attend.

Up to the 21st July, I had been encouraged by the commitment to the safety case review. To ensure a positive response, I had campaigned amongst my colleagues for them to attend.

I have come to the conclusion that it was never the intention of sections of platform management to comply fully with Lord Cullen's call for more involvement by the workforce. The encouragement of workers' participation has become nothing more than a charade. Discrimination against those who wish to contribute in favour of obsequious sycophants is detrimental to the safety case.

³⁰ Name changed to preserve anonymity.

The events I have outlined only entrench the fears that my colleagues and I have, that despite all the progress the industry has been forced to undertake because of Piper Alpha five years ago, some management actively work to dilute any attempt by the workforce to have a constructive input in Health and Safety matters.

We all work offshore. We should all have the opportunity to something that one day could help save our lives."

This testimony highlights two important issues. Firstly, those who have active contributions to make appear to be more likely to be excluded from the process. This is perhaps unsurprising, given the evidence presented in the preceding section that workers who raise safety issues on a day to day basis risk being marginalised or even dismissed. Secondly, it also provides a concrete example of the dichotomy of "compliant" and "strong" safety representatives. The worker's testimony indicates that "compliant" safety representatives (or, in his words, "obsequious sycophants") were more likely to be invited to contribute to the safety case consultation exercise.

Where some form of contribution from workers to the preparation of safety cases was invited, suggestions were usually rejected by management as inappropriate or obstructive. Generally, respondents regarded these meetings as being little more than a "paper exercise", in that the meetings did not allow them a forum for raising matters in relation to the safety case. One respondent recalled that at one of these meetings, a company executive held for an hour long meeting in the cinema with any workers on the platform that wanted to attend and discuss the safety case. The first half hour was taken up with the company executive explaining the

process of preparing a safety case. The second half hour was allocated to questions and points from the floor. None of those present had been given a copy of the safety case or had received any official communication about the safety case until that day. Perhaps unsurprisingly, no questions were asked and no points were made.

In some cases, management were accused of selecting 'compliant' safety representatives for safety case meetings: "On the **** [production platform], they consulted two safety reps, but the reps didn't take up any issues or add anything to the safety case, because they were compliant safety reps."

In other cases, management were perceived to have conducted a "fake" consultation exercise simply to "look good" and had not seriously considered comments or questions from workers. One respondent recalled how during one meeting, the majority of workers had been concerned about the location of life boats, and wanted them resited. They were told that this was not possible because the safety case had been finalised and was at the stage of being approved.

A particular problem was experienced by safety representatives when they were invited to a safety case meeting. It was reported that the usual format for such a meeting was to gather together all of the safety representatives on a platform and supply each with a copy of the safety case. They would then be given a period of time (usually between an hour and half a day) to read selected sections of the safety case, and asked for comments at the end of this period of time. It was made clear that this would be their only chance to have an input to the safety case.

Several workers pointed out, however, that they would have been unable to properly to contribute to the safety case had they been invited to, recognising that a quality submission for a safety case can only be made by workers if they are well organised. A number of respondents said that only the trade unions could facilitate proper worker involvement the preparation of safety cases: "Only an organisation can provide a professional input."

Respondents were keen to stress that "the real experts", shop-floor workers, were the best people to consult: "The companies don't accept that the guy doing the job is probably the best qualified safety officer they could have. He will be very attentive to the safety case because it's his life". This point is commonplace amongst academics and the HSC/E (Foster and Woolfson, 1992, HSC, 1994, Tombs, 1991b).

There is a clear view amongst offshore workers, then, that their experience and expertise is not being utilised by the operating companies as it could be. As one worker pointed out: "The attitude out there is, you're a low life. You don't have the experience to know the risks, so they don't tell you anything. You are not here to think."

This type of consultation exercise has understandably generated scepticism of the authenticity of operators' commitment to workforce involvement in safety. Workers' experiences of this process reflect the earlier issues discussed in relation to the effectiveness of the safety committee system.

The HSE's own evaluation of the safety case regulations found that a third of safety representatives said they were not adequately informed about the safety case and that a slightly

higher number felt their constituents were not adequately informed (HSE, 1995a). Whilst the evidence presented here indicates that the HSE report may have understated the degree to which offshore workers have been excluded from the consultation process, it certainly identified problems of a similar character.

In light of Cullen's eagerness for workforce involvement to be a central feature of the safety case process, it is dismal that so few respondents reported serious involvement in the formulation of safety cases. While Cullen specifically stated that the safety case itself should include details of "operations which are aimed at involving the workforce in safety" (Cullen: 392), with no little irony, the vast majority of the workforce have been denied an opportunity to contribute to a consultation process that was supposed to shape the form of their own involvement in the management of safety. Consequently, the industry has missed a unique opportunity to utilise the expertise of the workforce.

Summary of Workers Views

Workers report that the fear of victimisation is still active in preventing them from discussing safety openly, and raising safety concerns with line management. The NRB is alive and well in the industry, although some point out that it tends to be used more subtly than it has been in the past. In many cases, CRINE and generalised cost-cutting has served to exacerbate the fear of victimisation, since many workers perceive their position as more vulnerable.

On many platforms, workers are discouraged and excluded from involvement in the management of safety. This problem is particularly highlighted by the exclusion of the vast

majority of the workforce from the preparation of safety cases. At the outset of the new safety regime, the industry clearly missed a unique opportunity to utilise the expertise of the workforce.

The process of trade union exclusion is still a problem for those workers who wish to exercise their trade union rights, and for safety representatives who require organisational and technical support from trade unions.

All of this has particular implications for the ability of safety representatives to carry out their duties properly. Many workers perceive that the role of safety representatives as representatives of the offshore workforce has been undermined by management to the extent that safety representatives are in no position to represent their concerns adequately. Particular concerns were detailed in relation to: training, the structure of meetings, and problems with election procedure.

The next section presents an analysis of managers' views on current mechanisms for involving offshore workers in the management of safety.

Managers Views

Fear of Victimisation

A minority of managers reported that the NRB system was still widely used in the industry, albeit in a less blatant form. One stated: "I'm reluctant to say the NRB has been purged. It

used to be more visible and accepted, but you can still get rid of somebody if you want."

Another manager agreed: "The NRB is still widespread, and everyone knows it, even if they don't admit it."

For one manager, the victimisation problem was down to a reluctance on the part of platform management to adapt and adopt a more proactive approach to workforce involvement: "OIM's don't see people raising safety issues as a valid concern and more often than not they are seen as trouble makers." Another commented:

"If you've got one dickhead, and there are a lot of OIMs who are dickheads, there's no other way of describing them. In this position there are very few role models. If a dickhead is the role model, then the practices filter through the whole lot: the supervisors, the lot. Then when the mini-Hitler leaves the platform, the practices stay. The bullying type approach still goes on."

A small number of managers were uncompromising in their view of a section of the workforce they viewed as combative and quick to question management. They argued that they would not hesitate to dismiss workers that did not show enough respect for their employer, or did not 'fit in' to the organisation. One production manager made it clear that he would not tolerate insubordination, even within the confines of a safety committee meeting:

"The first time I went to a safety committee, I couldn't believe the way they [safety reps] were going on. it was really out of order. I had one of them in [his onshore office] and said, 'If you ever speak to me like that again, you're fucking sacked, no hesitation.' Then I looked at what they were saying, and every single point they made was right. It was the OIM who was in the wrong, not them. I couldn't believe it. But there's no way anyone speaks to me like that, regardless of the circumstances."

A Culture of Blame

Whilst opinion was split on the extent of the 'NRB' problem, a majority, however, did agree that there was a 'culture of blame' that the industry had struggled to rid itself of: "Offshore, people are still scared to rock the boat. The blame culture is still there and the fear is still there from the operators, because they use the figures [accident rates] to point the finger at individuals." This contracting company manager identified another important aspect of victimisation; the victimisation of workers deemed to be responsible for particular accidents. Often workers would be disciplined for 'causing' an accident, or would be subject to an inquiry that would be focused upon their actions.

This culture of blame can be related to management focus upon the role and actions of individual workers. Safety managers were almost unanimous in the view that the most important task for them was to convince individual workers to accept greater responsibility for safety. Thus, improving safety in contracting and operating companies was primarily worker-focused:

"We have to get the message across to the guy on the ground. He might only be out there to earn his crust and go home, but we have to make sure that he sees his role in SMS [safety management system], that he knows who is the important link in the chain. It's about education, and for some of them that might not want to learn, it's an uphill struggle."

One manager pointed out that whilst this approach may be important for the effectiveness of company safety strategies, an unfortunate effect of strategies which focus primarily on workers

is that when an incident occurs, blame is invariably attributed to the actions of the individual; an individual that was careless, reckless, 'accident-prone', or just plain lazy. For one manager the fact that managements in some companies were all too ready to point the finger of blame was a direct result of strategies which focus principally on the role of individual workers.

Structure of the Workforce

A minority of operator managers stated that the establishment of a more permanent workforce, employed by the operator on their platforms may be a more effective way to ensure that the workforce were integrated into the management of safety. Yet, none of those interviewed saw this as a realistic prospect in their companies. The contractor system was seen as a convenient arrangement for the operators. It was also important in facilitating control over a workforce that could be hired and fired at will. One manager summed up the views of many:

"With the contractor, you can do what the hell you want. You can get rid of them, keep them or whatever, but we're not tied to commitments like we are with our own people....In the North Sea, if you want rid of somebody, you just get rid of them. The oil companies have lots of money to throw at settlements or tribunals. Its all about ease. Its much easier this way."

Cost was seen as a major factor in the continuance of the contractor system of employment. By avoiding employing workers directly, over a longer period of time, the operator managed to avoid improving conditions of service associated with security of tenure, and thus avoided the related cost implications of this. One reported, for example, that a particular advantage in employing contractors lay in the savings to pension costs.

The fear of victimisation was seen by some managers in the operating companies as a problem endemic to the contactor system.

"You can't have a good safety culture if there is still a tremendous fear culture offshore, especially amongst the contractors. It's easy for contract supervisors to see a guy's face doesn't fit and deal with him as he wants. Whether that means bullying him or sacking him, it amounts to the same thing."

Safety Representatives

Despite the widespread recognition of such problems, managers were generally positive about SI 971. The consensus was that the system was working effectively, with a greater coverage and involvement from workers than in comparable onshore industries.

A minority proposed that SI 971 was not a significant mechanism for the day-to-day involvement of the workforce, but that it was the informal mechanisms which are usually used to sort out safety problems that were more effective in involving the workforce. Some pointed out that most safety problems were sorted out between workers and their colleagues, and workers and line management as a central work activity, either on the job, or in 'toolbox' talks where the safety implications of particular tasks would be discussed prior to embarking on the task.

A substantial proportion of managers view the safety rep system as a practical replacement for trade union bargaining structures: "The safety rep system is very democratic and has the potential to be a replacement for the trade unions." This point was not only made in terms of

how managers described the particular dynamics the relationship between safety representatives, their constituents and platform management, but also as a rationale for continuing to exclude trade unions. This is a point of no little significance, and one which while not made explicitly by senior managers in the operating companies, is implicit in claims surrounding the importance and success of the safety representative system. Thus, not only do managers see the need for trade unions being displaced by SI 971, but argue that SI 971 can provide a more co-operative and less adversarial approach to the process. Thus, safety bargaining and negotiations are replaced by co-operation and dialogue:

"We all have as much to gain in taking safety seriously. We are all fighting in the same corner, and we all want the same outcome. That's the difficulty with dealing with the unions. You are dealing with a guy who is using his leverage anyway he can and will do it politically. Safety shouldn't be a soap box issue."

A different perspective on the perception that the safety committee system could replace trade unions was introduced by one respondent who was suspicious that safety was used by some as a kind of Trojan horse for bargaining on other issues:

"There are some guys that are more trouble than they are worth. There are loudmouths, and safety is a very convenient vehicle to use to introduce an industrial relations agenda. Safety committees, don't get me wrong, I am in favour of the committee structures, but they are used as an excuse for raising industrial relations problems."

For one manager, one problem with SI 971 was that since it did allow for more open discussions on safety matters, this increased the vulnerability of the operating companies to

negative publicity if workers were to discuss these matters outside the forum of the safety committee:

"Safety reps meetings are discussing sensitive information about potential loss of life and where societal risk was coming from. The trick is how to handle that without someone running off to the *Press and Journal*."

Safety and production managers reported reading the minutes of the safety committees regularly. Many saw the content of the minutes as a good indication of the 'safety culture' on one particular platform. One said that he knew the platform he was responsible for had a positive approach to managing safety, since: "Some of the safety meetings are over before they have their bun and tea."

There were variations in the level of involvement expected from safety representatives between those interviewed. In the larger contracting and operating companies, safety representative activity also varied between platforms. Thus, for example, in one company, safety representatives were responsible for safety inductions for new workers, a responsibility that was given to the medic on another platform.

There was also variation in the reported involvement of safety representatives in incident investigations. One manager pointed out that this role was often encouraged by management: "Most platforms involve reps in investigation. In some cases, if you leave them out, the reps create merry hell. So its actually in our interests to involve safety representatives." Yet, in

other companies safety representatives were perceived not to be in a position to conduct an objective investigation of an incident.

Most managers with specific responsibility for safety reported regular contact with offshore safety representatives. It was common for those managers to meet with the OIM and the safety representatives during offshore visits and discuss 'live' safety issues.

A number of managers reported problems in getting safety reps to stand in certain constituencies and that they had to encourage certain individuals to stand. This appeared to have become more of a problem recently.

Safety Cases

The majority of managers thought that the safety case consultation exercise had been important in generating a higher level of workforce awareness of the new safety regime. Some identified problems in involving and communicating to the workforce some of the more technical details, such as the use of quantitative risk assessment. As one manager put it:

"It was always difficult to share everything with the workforce. On the softer issues, we did consult. But I always had a problem with the type of involvement we were getting. It always felt like we were talking to a passive audience. We were telling them and they weren't telling us."

Another commented:

"The biggest problem with safety reps is the difference in competence. Some of them are really intelligent and some of them can't even write. So, it became difficult to know exactly what they could contribute."

Participation was not sought on technical issues. Thus, for example, the detailed briefings on QRA risk calculations did not tend to include members of the workforce or safety representatives. Instead, managers reported that safety representatives were asked to contribute to the formulation of, and adjustments to 'safety management systems' in the safety case.

Summary of Managers Views

Managers were divided over the question of whether the industry had rid itself of the NRB and the fear of victimisation. Yet, a minority did support the view of workers that these issues were still significant in creating a 'climate of fear' offshore. Whilst some argued that this climate was probably down to the management style of a small number of platform managers (or, a few bad apples in the barrel) other respondents displayed particular traits; for example the willingness to threaten, and ultimately dismiss those they viewed as undesirable, or who adopted too combative an approach to safety. In contrast to the sample of workers, the operation of SI 971 was viewed as unproblematic and generally successful in generating workforce involvement in the management of safety. A dominant view was that the SI 971

system had, or had the potential to replace normal mechanisms of collective bargaining. Again, in contrast to the workers' sample, managers perceived the involvement of the workforce in the preparation of safety cases had been generally valuable to the process, and that workers were involved at a level that was of benefit to increasing safety awareness on platforms.

The following section summarises HSE OSD front-line inspectors views on workforce involvement.

Inspectors Views

Climate of Fear

Although all of those interviewed stated that there was currently less victimisation of workers for challenging management decisions than there had been in the past, there was a general recognition that victimisation still exists offshore.

There was scepticism, for example, of the new open approach to safety claimed by the operators. In relation to one operator that claimed any worker could approach the installation manager at any time, he commented: "The open door policy is often that you will only go through the OIM's door for a bollocking."

For some inspectors, the 'blame culture' was a major barrier to allowing open discussion of safety issues:

"The willingness to offer an opinion is the problem. They must be willing to learn from the guys. Under the Health and Safety at Work Act, this is the law. Unfortunately, the offshore industry interprets this as when the offshore guy cocks up, you crucify them."

There was also a recognition amongst this group of respondents that the fear of victimisation was directly related to the structure of the workforce: "The company can always say, 'if you don't like it, you can go somewhere else.'"

One inspector argued that workforce involvement in safety was likely to improve as the workforce aged:

"It's good to have an ageing, experienced workforce. Experienced people are good, because they know which corners people can cut and which you can't. Young guys will be under more pressure because the mortgage might be bigger. He might say, yes, well, I'll do that, because they might be more anxious to please."

Safety Committees

In general, inspectors were positive about the effectiveness of SI 971, particularly since safety representatives would meet them on behalf of the workforce during inspections. This gave inspectors immediate access to the workforce on each offshore installation. Thus, they were able to gain a more balanced assessment of the approach to safety on the platform.

In general, it was reported that front-line inspectors recognise the safety committee on each installation as the forum that safety problems could be raised by the workforce in the first

instance. Inspectors will tend to act on safety complaints if they have been raised through safety representatives and committees. This position was discussed in more detail in the previous chapter.

One inspector recognised that the fear of intimidation did cause significant problems for the function of safety representatives:

"The safety committee system is not working as it should. There is still victimisation offshore and it is inherent in the industry. The most important factor is the conditions of employment. There is no doubt that some people who rock the boat will be removed from their employment. If the safety rep is not a pressed man, then he may be in the job because he has been given an offer he can't refuse. Some are committed and will put their head above the parapet, but the work of the safety rep is an uphill task."

Another respondent described going to a commercial safety rep training course to present a session on the role of the HSE: "You get a hell of an ear bashing, and it soon emerges that most of them [safety representatives] think the safety committee system is a joke."

This respondent outlined the problems and questions raised by safety representatives in relation to the role of the HSE during this session (in the context of the data presented earlier in the chapter, these points have a powerful resonance):

- Why does the HSE always warn the duty holder about inspections?
- The HSE should concentrate on the responsibilities of contractors to a greater degree, since the duty holder often concentrates on the role of their own employees.

- During inspections, why do inspectors not talk to individual workers without management being present?
- If safety representatives were to do a quarter of the things they learned on the safety representatives course, they wouldn't last two minutes offshore (the point that safety representatives were making here relates to earlier comments on the shortcomings of many of the industry sponsored courses that teach the formal rights and duties of the safety representative, but have little appreciation that the reality of acting out these duties may be to risk confrontation with potentially ruthless employers).

Thus, perhaps unsurprisingly, offshore inspectors are aware of many of the current barriers faced by safety representatives and their constituents, barriers that are identified by workers themselves. Whilst this group of respondents did perceive the level of workforce involvement to be encouraging, the data shows that this was by no means an uncritical assessment.

Discussion

Fear of Victimization

Evidence from the interviews clearly demonstrates that fear of victimisation and the NRB are central issues for the HSE to consider. Whilst such problems were identified by the University of Aberdeen study, they were regarded as peripheral, minor problems that could be sorted out by amending the guidance to the regulations. The data presented here suggests that those issues are the major obstacles which are currently preventing the operation of SI 971.

The widespread fear of victimisation indicates that the protection afforded to safety representatives under existing legislation does not adequately protect them in the offshore oil and gas industry. The evidence presented here also shows clearly that the HSE offers no ongoing protection against victimisation of the workforce.

Yet one form of protection available in other industries, that of an organised trade union is resolutely denied to offshore safety representatives and their constituents. Given the wealth of evidence that links improved health and safety performance with an active trade union presence in the workplace (some of this work is reviewed in chapter 1; see also, Walters and James 1998), continued exclusion of the trade unions will militate against the possibility of safe working conditions, render any improvements vulnerable to retrenchment and place offshore workers increasingly at risk. This is a point that Lord Cullen himself made, pointing out the benefits "through the credibility and resistance to pressures which trade union backing would provide." (Cullen, 1990: 377)

Safety Representatives

The problems identified in this survey have severely undermined the faith that the workforce have in the safety committee system. Approximately half of those in this survey reported that they did not bother to raise safety concerns with their safety representative because "nothing will get done" or because "nobody listens to what they say". In constituencies where safety representatives are perceived as being "compliant", this is hardly surprising. Those respondents who had served as safety representatives were amongst the most critical regarding the efficacy of the system. Respondents who had experience either of serving as a safety

representative themselves or of using their safety representative to raise concerns, pointed to the existence of serious obstacles that prevent safety representatives acting effectively.

Furthermore, the UK safety representatives are perceived as being toothless in comparison to their Norwegian counterparts. Several workers argued that the power to "stop the job" or even shut the platform down in particular circumstances (a right that exists in the Norwegian sector of the North Sea, see Woolfson and others, 1998; Cavanagh, 1998) is an important resource in this respect, and would encourage full involvement of the workforce since they might begin to view the safety representative as someone with real powers, and worth taking seriously.

A particular matter of concern is that, whilst some offshore managers recognise the continuance of a fear of victimisation and the NRB, the general impression is that SI 971 is working effectively, and that safety committees deal efficiently with the concerns of the workforce. This is indicated by the view that reading the minutes of safety committee meetings is a principal means of assessing the safety climate on a platform.

Again, this observation can be made on the safety case consultation process. Managers views, in striking contrast to those of workers, indicate that the safety case exercise was one which, in general, utilised the knowledge and expertise of workers. This translates as a worrying level of complacency on the part of onshore health and safety and production managers.

The trend, identified by workers, towards the appointment and election of more supervisors as safety representatives is likely to deepen this complacency, and to weaken whatever faith workers still hold in the capability for SI 971 to adequately represent them.

HSE OSD personnel report similar concerns to those of the workforce, although often this was a minority position. On many issues, offshore inspectors appear to share the same views as managers, and a similar complacency to that shown by managers.

A New Forum for Industrial Relations?

It is important to recognise that SI 971 may have a greater significance in terms of industrial relations in the offshore sector than it does elsewhere. Indeed, one commentator has gone as far to state that in the absence of trade unions, the safety representatives system has replaced the traditional industrial relations structures:

"...in the United Kingdom a new labour process is being developed offshore where direct communications [on safety committees] between managers and workers eliminate the need for unions in the achievement and control of safe working environments. The success of volunteerism offshore with elected representatives as distinct from union appointees suggests that it could be just as successful onshore but has never been fully implemented on account of the trade unions statutory right to participation." (Gourlay, 1996: 214-215)

It should be noted that this quote is from a piece of work conducted by the Offshore Management Centre (which, I have argued, tends to assume a management position). There is little in the text to substantiate the author's argument, yet, it does, perhaps unsurprisingly, have

a certain resonance with the views of some respondents in the onshore managers sample. As we shall see, there is a strong management view which advocates the view that safety committees have effectively displaced the need for collective bargaining on safety matters.

This raises an important point: SI 971 (or for that matter, the onshore system of trade union appointed safety representatives) was never intended to provide a forum for collective bargaining on safety matters. There is no formal bargaining process. The system is meant to act as a forum for the identification and discussion of safety problems, and for the involvement of the whole workforce. The philosophy behind the system, the Robens philosophy, saw worker/management conflicts over health and safety issues as both undesirable and outdated. This point is clear if we recall the quote reproduced in Chapter 1: "there is no legitimate scope for 'bargaining' on safety and health issues...." (Robens Report para 66, cited in Nichols and Armstrong, 1973)

Yet, the fact that the operation of SI 971 is viewed in this way by some managers highlights two important issues: firstly, it reflects the practical experience of managers in that, a bargaining process is evident in SI 971 (a point that will be returned to in detail later). Secondly, that arguments which promote the replacement of collective bargaining structures with safety committees can and do have the effect of undermining the potential role for trade unions, and thus allow managements to pose the question: why introduce trade unions if they have been effectively replaced by SI 971?

There is no little irony in the fact that, over the years, the operating companies have gone out of their way to separate safety from the trade union question (see, for example, Cullen, 1990).

They also are quick to use the safety committee and safety representatives system as concrete evidence of their renewed commitment to safety. Thus, for example, a press briefing issued to coincide with the 10th anniversary of the Piper Alpha disaster points out that “there are approximately 1,200 elected Safety Representatives that cover some 250 installations and 25,000 staff” (UKOOA, 1998b). This is also highlighted in the supporting documentation for the 'Step Change in Safety' campaign (see following chapter and UKOOA, 1998c).

Trade Union Exclusion

As we have seen in Chapter 1, there is an overwhelming amount of evidence that links well organised unionised workplaces with good safety practice and performance. This point may well be glossed over by managements in the oil companies, but its significance has not been missed by workers.

The position of the trade unions has been consistently to link safety with rights to collective bargaining. Whilst the operating companies are keen to stress that the trade unions are pursuing this question out of a natural wish to promote their own interests, the workforce has shown explicitly that the demand for trade union recognition can not be separated from demands for safety rights. Two summers of North sea-wide strikes and sit ins in 1989 and 1990 organised by the unofficial OILC organising committee were virtually entirely focused on safety and trade union rights on safety bargaining (Whyte, 1992; Woolfson and others, 1996). These campaigns were not only remarkable in that they represented what had been previously thought of as a traditionally compliant and supine workforce engaging in an extremely well-organised and widespread confrontation with some of the most powerful corporations in the

world, but, given both campaigns' primary focus upon safety, it is perhaps a unique case in recent British industrial relations history.

Offshore, the trade unions have even more reason to argue for trade union intervention in the management of safety than in other contexts. The industry is still strikingly authoritarian in its management style; a situation which reveals a key element of the struggle over safety and trade union rights.

Managerial Solutions and Individualism: a forensic approach to worker safety

The data presented in this chapter reveals (in the terminology of Theo Nichols), a particularly forensic approach to workers safety, one which seeks to highlight the importance of overcoming the failings of individual workers, and their own particular flaws, faults or mistakes rather than failings caused by a particular approach to management or, of the failing of a particularly demanding productive regime. Thus, a certain brand of individualism has been used as the driving force behind offshore approaches to safety management.

This is indicated, for example, by the HSE's document 'Play Your Part' (OIAC, 1994), which serves to perpetuate the myth that the primary task in improving safety is to convince individual workers to act safely, or to encourage the involvement of workers in safety as individuals. The 42 page booklet gives only a cursory consideration to the importance of collective involvement. Thus, there is little material covering SI 971, and trade unions are not mentioned once. The booklet finishes by setting out an example of an accident, and explains how this accident may have been avoided. The accident involved an injury to a worker,

sustained whilst replacing an isolated valve on a high pressure line. The accident had occurred after a shift change because the method of isolation had not been fully explained in detail on the Permit to Work and Isolation Certificate. The booklet uses the example to highlight some key points for workers to be aware of: 1 Responsibility for planning and checking the job; 2 Pre-task safety briefings; 3 The way of isolating the valve; 4 Checking and proving the isolation; 5 Role of Permit to Work and other written procedures; 6 Shift handover arrangements; 7 Competence of everyone involved in the job; 8 Learning the lessons for the future from incidents and near-misses that do happen. Of course these measures are all important, but again, they focus attention on how individuals can improve safety performance. Siting the primary cause of accidents at work in the failings of individuals is, as we have seen in earlier chapters, an unfruitful and mistaken approach. Thus, there is no information given in the example (or indeed in the whole booklet) of the types of external managerial pressures that might have influenced events.

As the data from managers shows, an approach that tends to focus overwhelmingly on the role of individuals is intimately related to a 'culture of blame'; when incidents happen, those are blamed upon the failings of individual workers. This can actually have a particularly negative impact, for, as we have seen in chapter 6, workers actually cover-up incidents and injuries when they are likely to be blamed for causing incidents and for injuring themselves.

The logical conclusion to this conceptualisation of the way to achieve improved worker safety is that managers can 'manage out' safety problems by improving training, safety management systems, or by improving recruitment and selection procedures. As we shall see in more detail

in the concluding chapter, this assumption is not only one which is deeply flawed, but also has a particularly regressive effect on the potential for effective management of offshore safety.

Workforce involvement in the management of safety on offshore platforms is characterised by a particular brand of individualism which also denies workers trade union rights and conditions of employment enjoyed by millions of workers in other, onshore sectors (particularly those characterised by high levels of risk) and allows for the victimisation of workers on an individual level, whether this is in terms of victimising those who 'cause' accidents, or those who complain about unsafe working practices. There is little recognition that the offshore workforce may have valuable contributions to make collectively, or that indeed workers require collective strength to assert safety rights. This a point of centrality to the theory and practice of safety management, and its wider implications for the future of the sector are discussed in the concluding chapter.

Conclusion

This concluding chapter starts by referring back to the research issues identified after conducting a review of literature in chapter 1. It then moves on to summarise the significance of the methodological and theoretical approaches used in this thesis and some of the difficulties encountered in this respect. This chapter then presents a short summary of the data generated in fieldwork interviews. This is followed by a brief section which attempts to link the major empirical and theoretical findings of the thesis.

The chapter then presents a brief analysis of current economic and political conditions that are likely to influence the regulatory regime. It continues by placing this analysis in the context of the potential for a future ascendancy of 'pro-regulatory forces', and in particular the potential interventions that workers may be able to achieve in the struggle to improve safety conditions. Finally, some areas for future research in this area are identified.

A 'Structural' Approach to Workplace Safety

Chapter one reviewed literature on health and safety in the UK generally, and in the offshore sector in particular. It argued for a structural approach to understanding workplace safety. In doing so, five broad points arising from the literature were identified for particular consideration in this thesis. These five points have proved useful as a guide to some of the more significant issues raised in this investigation:

1. *A critique of the ideology of worker apathy and the tendency for incidents to be blamed on the victim.* Whilst the poverty of locating understandings within a 'forensic' analysis is clearly demonstrated by the work of sociologists (for example, Nichols, 1975 and Tombs, 1991), this thesis has found that this approach is still dominant in oil industry understandings of the causes of industrial 'accidents'. Forensic analyses of industrial 'accidents' have been examined in relation to the work of 'officially' funded researchers in the offshore industry, and also in terms of the practical impact of this ideology upon the workforce. For example, the discussion of empirical evidence of problems with reporting injuries in chapter 6, revealed that 'victim blaming' is still prominent in the industry. Fieldwork data in chapter 8 also identified victim blaming as a barrier to effective safety representation in terms of the impact of the 'culture of blame' which is identified as a key element of authoritarian managerial regimes. This issue is returned to later in this chapter, in the context of oil industry 'Step Change' safety campaign.

2. *An understanding of industrial injuries within the context of management demands to maintain or restore production.* The second part of chapter 5, which started by examining the economic conditions and the relatively weak position of labour in the industry prior to 1988, argued that the events which led to the Piper Alpha disaster can only be understood within this context. An intensification of productive demands in the aftermath of the 1985/86 price crash, when combined with workplace power relations balanced heavily in favour of managements, clearly militated against the protection of safety standards on offshore installations. The case study of the Piper Alpha disaster in chapter 5 allowed for a detailed analysis of this hypothesis. Further, the point that industrial injuries must be understood within the context of management demands to maintain or restore production has particular relevance for recent trends in the industry. Chapter 5 then examined the significance of the launch of the CRINE cost-cutting

initiative in the mid 1990s. Evidence from the fieldwork presented in chapter 6 provided empirical evidence to suggest that a renewed intensification of productive demands associated with CRINE has brought with it numerous threats to the safety of the workforce.

3. *Worker involvement in safety organisation.* The literature review showed how research into safety organisation in other industries is largely focused on the role of trade unions in the process, even in industries where trade union recognition is a primary site of struggle (for example, Foley, 1990). Trade union exclusion is one issue that clearly continues to marginalise workers from the effective management of safety in the offshore sector, and because of its unavoidable significance, is an issue that is unlikely to disappear. Whilst the industry claims that the bad old days of the NRB are now in the past, and that an inclusive safety culture now exists across the North Sea, the empirical evidence in chapter 8 suggests that many of the old barriers to genuine workforce involvement are still very much in existence. For example, workers and their safety representatives are still being disposed of or transferred to other platforms if they are perceived as 'troublemakers', or if they are outspoken on issues of safety. Further, chapter 8 has demonstrated that the structure of the workforce, one that is largely based upon the use of short term contracted, casualised labour, also has the effect of marginalising the workforce from the safety process.

4. *An analysis of the regulatory approach.* The brief review of literature on 'compliance' strategies of regulation provides a guide for understanding the regulatory approach adopted by the HSE in the offshore oil and gas industries. At a micro level, the empirical evidence from the fieldwork presented in chapter 7 has characterised the current regulatory system as one that has allowed managements to dictate to the HSE many of the requirements of their own

compliance. The understanding of the regulatory approach and the relationship between oil capital and the regulator in the sector has been enhanced at a macro level by the provision of a historical context for the development of the relationship between oil capital and the British state. This has allowed for an understanding of compliance strategies within a particular historical and political context, and within the context of the balance of social relations of production.

5. The poverty of a managerialist approach. A dominant view in the industry is that many of the problems identified above are largely issues for middle managers to consider. In this sense, it is claimed that these problems are capable of being 'managed out'. That is, that middle managers in contracting and operating companies can deal with day-to-day operational pressures by adapting and learning new management techniques. For example, this managerialist philosophy is offered as a solution to the potential safety issues engendered in cost-cutting. Thus, by adapting and learning skills in the 'management of change', the impact of substantial budget reductions can be effectively mitigated. This philosophy, supported and promoted by some prominent academic research (see, for example, Flin and Slaven (eds.), 1996) has a powerful force which reaches outside the world of middle managers in the oil companies. Thus, for example, evidence from offshore inspectors in chapter 7 indicates that at a frontline level, the HSE shares the view that safety problems can be 'managed out', regardless of other factors such as budget cuts and intensifying productive demands (which may actually reduce the scope for managerial action). Official HSE sources have also been found to support the assumptions of this managerialist approach (see, for example, Blackmore and Shannon, 1995 and Todd, 1996). This is clearly problematic, since the implication of this analysis is that other, structural factors, such as the relative strength of the workforce and the regulatory

structure or the exigencies of productive systems are peripheral, and that conditions of safety rely primarily upon effective management techniques.

These initial research questions generated from the literature review have, as stated above, provided a useful guide for avenues of empirical investigation. They have also been useful, as the above paragraphs indicate in providing a reference point for issues arising out of more abstract theoretical questions. The following paragraphs summarise the implications of following the particular theoretical and methodological orientations used in this thesis.

Theoretical, Empirical and Methodological Findings

Theoretical Perspective

The theoretical framework for this dissertation has drawn upon Marxist formulations on fetishism, ideology and on the role and function of the state, and upon Gramscian notions of hegemony and historical bloc.

From the outset, this thesis has relied upon a Marxist understanding of the social relations of production and the labour process as a process of class struggle. At the centre of this process is the struggle over the extraction of profit. The struggle for safety rights in the offshore oil industry has therefore been understood as arising out of the wider struggle for the expropriation by the capitalist class of surplus value.

Chapter 3 developed a Gramscian analysis, utilising concepts of hegemony and historical bloc. This analysis is important in avoiding functionalist notions of the state and understanding the mechanism by which class domination is achieved in capitalist societies. The struggle for hegemony (and, of course the struggle over state policies and strategies) has been understood as an ongoing struggle between classes, and as a process which also may involve intra-class struggle and the securing of concessions and compromises between classes. In terms of the historical analysis presented in chapter 5, it is also significant that the struggle for hegemonic domination involves the emergence of dominant class fraction(s). This thesis has argued that the position of productive oil capital as a relatively dominant class fraction has been crucial to the development of regulatory regimes in the North Sea oil industry.

Geras's analysis of the concept of fetishism and especially of the mystification element has also shaped the approach taken to the study of powerful actors in the UK oil industry. This analysis has come into play in terms of discussions around the role of ideology and common sense understandings and representations of the world. Common sense representations of oil markets, the national interest and globalisation were viewed in chapter 4 as having a particular ideological basis. The Marxist distinction between essence and appearance has allowed for an assessment of the degree to which these representations contain elements of both illusionary mystification and elements of mystification that are partially based upon material realities. This analysis has revealed much about the process of constructing ideological hegemony, in that it has allowed for an understanding of the significance of ideological representations, such as globalisation, the relationship between state and capital, and the relationship between the regulatory authority HSE and the corporations they regulate to be developed.

In terms of elaborating upon the process of hegemonic struggle, Marxist formulations on fetishism and mystification have been of particular value to this exercise. The weakness of this approach is, of course, that one must be extremely careful not to dismiss each and every propaganda claim of capital as simply 'appearance.' For, as we have seen there is a material relationship between some of the claims made by capital, and their actual impact upon working conditions on offshore installations. After all, the price crash of 1985/86 prompted a far reaching and clearly damaging response from oil capital in terms of the safety of the offshore workforce. Whilst the argument in this thesis is that CRINE was not a necessary economic condition for the survival of the North Sea in the mid 1990s, in the context of an industry that does seek to redeploy capital wherever it is most profitable to do so, CRINE assumes a powerful material force which, at one level, is related to the wider claims of capital upon the conditions of their profitability. Thus, whilst it is unlikely that there was ever going to be a significant flight of capital from the North Sea (as we have seen in chapters 4 and 5), much of the proceeds of CRINE were actually generated to fund intensive capital investments in other oil provinces (see chapter 4).

The Use of Methodology

An approach to the use of empirical research influenced by feminist standpoint theory has been particularly significant here. That is, adopting a standpoint position has provided a clear theoretical justification for allowing empirical questions to be structured around the views and experiences of offshore workers in order to attain a more complete and objective knowledge that which emerges from 'official' (government and industry) sources. This is consistent with a Marxist approach which recognises that knowledge is constructed from a class position. In the

tradition of Gouldner, this thesis has attempted to use the standpoint of the offshore worker and apply it to the study of the powerful: the oil multinationals and the British state.

At a practical level, assuming the standpoint of the offshore worker meant that workers data could provide a particular perspective or context for understanding the data provided by managers and offshore inspectors. At one level, this was useful in terms of making sense of the data. Yet there was also a recognised problem in terms of the tension between regarding the views and experiences of workers as a privileged set of truths, whilst at the same time recognising that this data represents another source of 'common sense'. For, there may therefore be a tension between distinguishing between what may be 'common sense' understandings of offshore workers and what constitute the realities of their working life.

Whilst this might be seen as a weakness, it should also be noted that what was striking in much of the data was that many of the perceptions of offshore workers in relation to workplace and managerial levels were confirmed by the data from managers interviews. For example, in terms of the impact of CRINE and cost-cutting, many of the claims made by workers are disputed by the oil companies and the contracting companies at a corporate level, yet they are confirmed by operational and safety managers. Where the data differs significantly on this issue was most obvious in terms of the overall impact of CRINE upon safety and the necessity of CRINE to the industry's survival. The latter question is clearly one that workers may not have the opportunity to consider beyond a common sense level, although they are deeply affected by it in terms of their own job security. This is where a more detailed analysis of the discourses and claims made by capital at a corporate level was important to an understanding of the material realities of offshore production (for example in terms of the costs of North Sea production, or

the long term viability of the sector). For this is a knowledge that is not made transparent, and is beyond the common sense understandings that may be held by offshore workers, middle managers and HSE inspectors.

Relatedly, an understanding of the particular problems associated with researching the powerful has been crucial to the methodological approach used in this thesis. This approach has required an awareness of the structural importance of the political economy of social research in order to demystify the research process. As chapter 2 demonstrated, the relationship between funders of research and those they fund can be the key determinant in the construction of research agendas, the framing of research questions and the output of official research projects. This piece of work has attempted to stand outside the 'official' body of research in order to construct a critique of the view of the world presented by research that provides the intellectual and 'scientific' basis for the propaganda of oil capital.

Of course, without an alternative source of empirical data, the construction of such a critique would have been all the more difficult. The following section summarises the findings of this empirical data.

A Summary of Empirical Evidence

The previous chapter included strong evidence from the interviews with workers that fear of victimisation still prevents an open discussion of safety on many offshore installations. Further, many safety committees offshore appear to have been 'captured' by management through a variety of techniques, for example, in terms of the manipulation of elections (directly and

indirectly) which has allowed those in supervisory positions, and those candidates favoured by management to remain in post for long periods. As we have seen, the exclusion of trade unions from this process has militated against effective safety representation. Whilst some managers and HSE inspectors did identify some problems in terms of workforce involvement in the organisation of safety, most perceived the safety committee system to be operating effectively. Managers do not share the overwhelming view of the workforce that on many offshore installations, workers are discouraged and excluded from involvement in the management of safety. Whilst some HSE inspectors recognise the 'blame culture' as a major barrier to allowing open discussion of safety issues, inspectors also display a lack of willingness to address such issues in relation to the system of safety representatives and committees.

The fieldwork data indicates that during the period following the introduction of CRINE, workers appear to have been the subject of a series of attacks upon their working conditions, many of which have serious implications for safety in their workplace. Data from the interviews further indicates that the exclusion of workers from the organisation of safety has been exacerbated by the intensification of productive regimes that is integral to the CRINE agenda. A particular example of the import of this trend, presented in chapter 5, is the evidence from workers on the reporting of over three day injuries. This evidence demonstrates how relatively unrestrained and intensive productive regimes, when combined with the punitive cost implications associated with contractors incident rates, has exacerbated problems of 'victim blaming' of workers that suffer injuries on offshore platforms. One effect of this has been a reluctance to report injuries on the part of workers, and the manipulation of injury rates by employers.

In that CRINE is viewed as an essential strategy for survival, middle managers in the oil companies have largely accepted the doctrine of CRINE. Whilst the data indicates that a significant minority of managers share the concerns of the workforce that CRINE has also brought with it a series of fundamental threats to safety conditions, this view is not one that is significant enough to have presented a managerial challenge to CRINE. The language of safety is prominent in the discourses of capital, whether in terms of the promotion of CRINE, or in terms of constructing claims around particular aspects of the offshore safety regime (see, for example, the discussion on claims around the success of the safety representatives system in the previous chapter). There is little doubt that these discourses have a powerful force. Further, if CRINE is claimed to be essential to survival, then there is a level at which the consideration of its real impact upon safety becomes a secondary question. This is not to say that the doctrine of CRINE is one which can completely overwhelm debates around safety, for, as the aftermath of the Piper Alpha disaster showed, oil capital is vulnerable to challenges on its appalling safety record.

The data further suggests that the HSE have not been able to protect adequately the offshore workforce from cost-cutting related attacks. This is largely a result of the inspectorate's refusal to engage with managements on issues of cost that may be 'indirectly' safety related; issues such as staffing levels, multi-skilling and shift patterns. Perhaps more insidious is the indication that in some areas of struggle over safety conditions, the goal-setting regime has actually had the effect of facilitating management cost-cutting strategies to the detriment of safety provision; the most obvious example here being the reduction of standby vessel cover outlined in chapter 6. Offshore inspectors, whilst clearly divided in terms of their perceptions of the goal-setting regime, were clear that the success of the regulatory regime now depended

to a much greater extent on persuading and bargaining with duty holders. Further, inspectors were clear that goal-setting will allow the operators to extend their influence over acceptable safety standards in terms of the definition of what is 'reasonably practicable'. Interview data suggests that the influence that managements now have over this process has made it necessary for HSE inspectors to seek to build closer relationships with managements.

In this context, it is perhaps unsurprising that workers' perceptions of the relationship between the HSE and operators' managements (based largely upon their experience of offshore inspections, and upon reporting safety problems directly to the HSE) is one which acts to exclude them from the regulatory process. Workers overwhelmingly perceive that the HSE enjoys too close a working relationship with operators, and that it is the nature of this relationship which prevents adequate consideration by the inspectorate of the concerns of the offshore workforce. This perception is most acutely summed up by workers concerns in relation to the inspection process. The testimonies of safety representatives reproduced in chapter 7 are particularly revealing in this respect.

It is instructive that managers also tended to characterise their relationship with the HSE as a close working relationship. In this respect, the interview data tended to support workers understandings of the relationship between managements and the HSE. Managers displayed a clear awareness that they are in a strong position when entering discussions or negotiations with the regulator. Whilst many viewed the relationship between duty holders and the regulator as a close, co-operative one, given some of the anecdotal evidence provided by managers, it would not be unreasonable to characterise the approach taken by some managers

as manipulative. The evidence in chapter 7 shows that some managers were clearly confident that they could dictate the terms of their relationship with the HSE.

The following section links some of the empirical and theoretical findings of this thesis, and in particular makes these links with reference to wider questions on the process of deregulation.

Linking Empirical and Theoretical Findings: Deregulation, Mystification and Safety

Since the publication of the Cullen Report, the strategy embarked upon by capital to encourage deregulation of health and safety regime in the North Sea has had been broadly successful. Woolfson and others have traced the relative success of UKOOA in their attempts to dilute the various sets of goal-setting regulations introduced since the publication of the Cullen Report (1996, 1998). They also note the more recent significance of UKOOA's attempts to change the rules of certification for the technical integrity of offshore installations. Where certification is currently required by designated international authorities, now there is increasing pressure for such functions to be devolved to the operator of the installation.

But the process of deregulation as a symptom of the goal setting approach has also occurred rather less explicitly. The inability of the HSE to exert some degree of control over (or, for that matter, even question the potential for) the erosion of safety standards under certain economic conditions is significant here. The expansion of managerial autonomy over safety policy and provision is, of course, partly a function of goal-setting and the application of the ALARP principle. In that some issues, notably the impact of cost-cutting, are viewed by the HSE as the exclusive domain of managements, they are deemed 'out of bounds' for regulatory

intervention. Self regulation and goal setting in the offshore oil industry has thus been indelibly marked by a strategy which leaves managements unchallenged over a vital element of the cost/safety nexus.

This is the context for a relationship between HSE and the oil companies (both at the corporate level, and at the operational level) that workers view as too close or 'cosy' to allow the HSE to remain as neutral overseers of safety standards. This claim is a powerful one, and is evidenced by numerous examples provided by offshore workers in chapter 7. Clearly, the nature of the relationship between regulator and regulated has implications for the ability of the HSE to pursue strict enforcement strategies which may have the effect of, for example, interrupting production. And this state/capital relationship is at one level, mutually beneficial, for, as we have seen, historically the British state has relied upon oil capital, firstly for its ability to generate the finance required to fund development of the North Sea at the speed required by the 'political economy of speed', and secondly because of their ownership of the technology required to develop the sector.

To understand the symbiotic relationship between the British state and productive oil capital at this level is therefore important. However, to stop here does not allow us to understand precisely how this fraction of capital retains its influence over government policy and over strategies of regulation. For, if the arguments in this thesis in relation to the theoretical potential for a much further reaching and stricter system of health and safety regulation and for a much more punitive North Sea tax regime hold true, then we must explain precisely how productive oil capital has avoided such measures. This is where Gramsci's formulation on the nature of the struggle for hegemonic domination has been important for this exercise. In

particular, Marxist formulations on fetishism and mystification allow us to understand the mechanics, or the micro-processes, involved in the struggle for ideological hegemony.

Behind the laissez-faire approach to regulation embarked upon by the HSE, and viewed by offshore workers as the result of a 'cosy' relationship between the regulator and the oil companies, the role of ideology is important in defining the terms of this relationship. As we have seen, globalisation as a set of ideas, has, in recent years, played a significant role in the rhetoric and propaganda of oil companies operating in the North Sea. This is significant, for it is the grand claims made by the globalisation thesis that give much of the impetus to demands for deregulation. Furthermore, it is the process of mystification that makes globalisation, as a conflation of the natural all the more difficult to oppose. In this sense, globalisation is represented as an inevitable development in the structure of markets, as opposed to a social manifestation of attempts by capital to realign the social relations of production. For, if globalisation and everything it is claimed to bring with it, including the international deregulation of markets, and the increased mobility of capital, is a natural process, then to oppose it would be as futile as King Canute's proverbial attempt to stop the tide. It is the conflation of globalisation that gives deregulation its ideological force. This can be observed at an empirical level in all of the hyperbole surrounding the CRINE initiative. CRINE, of course, also relies upon such conflations of the natural and the social to argue that it is an essential strategy for the survival of the North Sea. After all, CRINE was launched as the saviour of the UK oil and gas industry's global competitiveness. This, in turn, provided the necessary impetus for its own deregulation agenda. It is this process that, as we have also seen in chapter 4 in relation to attempts to restructure the North Sea fiscal regime, sets the limits for the potential for state intervention. It is the same process that allows the possibilities for regulatory

enforcement in the realm of health and safety to be defined. When offshore managers, HSE inspectors, or senior civil servants in HSE and the Department of Trade and Industry accept the doctrine of CRINE as defining the conditions of viable production, they are not only accepting the particular claims made by those who produce CRINE's propaganda, or the claims made by oil capital. They are accepting the doctrine of CRINE as part of a complex system of ideas which draws its force from wider claims surrounding the essence of international capitalist production.

The process of mystification, thus, can be understood as an important element in the struggle for hegemony. For it is this process which give the political imperatives of class fractions their ideological force.

As we have seen in chapter 7, close analysis of the Cullen Report also indicates that his acceptance of the industry view on the shaping of the regulatory framework, and the future role for workers can be understood, partly at least, as a powerful effect of the ability of capital to present a particular view of the world. During the Cullen Inquiry, this process was facilitated by the oil companies virtual monopoly on technical knowledge, and their ability to convince Cullen of a renewed acceptance of responsibility for the management of safety. This may be understood, partially at least, as a process of mystification. For, just as the ideological claims around the supremacy of market forces and the almost 'natural' occurrence of the phenomenon of globalisation are based upon a fetishism of the 'real', or the 'essence' of the conditions of production, a similar process can be observed in the construction of a particular view of offshore safety. Thus, claims around the success of the safety representatives system, or the improvement in accident rates may, in turn, be based upon a fetishistic account of

worker/management relations on offshore platforms. For this is an account which omits the element of class struggle from such a relationship. Yet, the claims of productive oil capital continue to be invested with a certain credibility. This occurs partly because of its economic power in relation to the state (or, more accurately, because of the position of productive oil capital within a historical bloc's struggle for hegemony), but also because this power allows it to act as a primary definer of social events (Hall and others, 1978).

Fetishist accounts of the labour process also tend to omit the importance of a relatively powerful workforce in the effective regulation of safety. Concepts of worker apathy and managerialist ideas that safety threats can be managed out of systems similarly ignore the central role that workers play in guaranteeing their own safety.

In terms of the UK oil industry, a failure to recognise workplace safety as a site of struggle has been crucial to the exclusion of the trade unions from safety organisation. Within this argument, it follows that since safety is seen as an issue which unites workers and managers around one purpose (the maximisation of safety standards), there is no reason to believe that trade unions have a particularly important role in the improvement of safety conditions. This argument is used by oil capital on a regular basis to reinforce the case against collective bargaining (Woolfson and others, 1996). The point that workers play a central role in maintaining effective regulation is one that was also glaringly omitted from the Cullen Report

Workers and Deregulation

The 'success' of systems of self regulation are dependant upon the interventions of workers as much as the interventions of managements or of the regulatory authority. The weakening of labour within this balance of forces will lead to the disintegration of self-regulation that equates to 'deregulation' (Tombs, 1995). There is a great deal of evidence which demonstrates this has actually been the experience of British industry in more recent years:

"Self-regulation - originally a well meaning (if naive) concept that meant the acceptance of a significant burden of responsibility by industry for a participate approach to the management of risk - becomes a euphemism for deregulation when interpreted within the myopic expediency of the economic strategies of the previous Government." (Walters and James, 1998: 18)

These economic strategies have changed the landscape for the regulation of health and safety. Thus: "Assumptions that were made in the 1970s about the relative power of the participants and the resilience of their position, have proved to be unfounded and irrelevant in the context of the 1990s." (ibid.: 21). Effective systems of self regulation rely integrally upon a strong and organised workforce, both at corporate and workplace levels.

Robens may be, to some extent, excused of 'getting it wrong' as a result of his failure to understand the true character of social relations of production. Cullen's approach was also characterised by this failure. Yet, during the inquiry, there was a wealth of evidence before him to suggest that the marginalisation of the workforce was a key element of the circumstances which led to the Piper Alpha disaster. Whilst Cullen may have recognised a

proactive role for the trade unions, in terms of providing organised support, expertise and training for safety representatives, he did not view the role of trade unions as having an integral role in the regulation of safety. This is an important point, since it is indicative of Cullen's reluctance to recognise the ongoing conflict which exists between workers and management over safety conditions in the workplace, offshore and onshore. Examples of this conflict in the offshore industries can be seen clearly in disputes over the provision of standby vessels, the selective imposition of three week shifts, or the reporting and recording of injuries.

Further, although Cullen may have recognised that trade unions had an important role to play, he did, to some extent, lend support to the view promoted by the operators that unionisation and safety can be considered as separate issues: "...I am not concerned with the merits of the recognition of trade unions offshore or with the means by which support for such recognition should be ascertained." (Cullen, 1990: 376) In that safety is not recognised as a site of struggle, the Cullen Report is based upon the assumption that both sides have a common and inseparable interest in improving safety standards. The analysis of chapter 21 of the Cullen Report, presented in chapter 7, is one example of Cullen's (misguided) willingness to accept the evidence of the operating companies in this spirit. This is where there are clear parallels between Cullen's approach and the Robens philosophy which rather misguidedly identified a natural identity of interests between the management and workforce (see chapter 1).

If there is one clear conclusion to be drawn from this thesis, it is that the Cullen Report and the subsequent regulatory regime has been a spectacular failure. The extent of this failure is evidenced by the extensive weaknesses in the system of safety committees and representatives, and, relatedly, the lack of any serious attempt by the HSE and the oil companies to foster

genuine workforce involvement. Intimidation is still widespread and those who are brave enough to speak out on safety matters still run the risk of being disposed of. Self-regulation is gradually disintegrating, and the HSE Offshore Safety Division has proved to be supine, ineffective and unwilling to intervene to protect the workforce.

On the transferral of the regulatory function from the Department of Energy PED to the HSE, Cullen concluded that:

"On the evidence I was not convinced that the Safety Directorate actually lacks independence or that its actions had been affected by considerations related to the exploitation of resources. On the other hand there is a perception, at least amongst some trade unionists, that it lacks independence. This is an unfortunate feature of the present scene. However, if my recommendations in this chapter are followed it will no longer be a live issue." (Cullen, 1990: 385)

If the inference of Cullen's views reproduced above is that the OSD was established primarily to rid the industry of this *perception*, there can be little doubt that this is still very much a live issue for the workforce. All of this does not bode well for the future of health and safety regulation in the sector or for the protection of the workforce in an increasingly dangerous working environment.

The Future for Offshore Safety Regulation

The following section presents a summary of some of the important current developments in the regulation and management of offshore safety, before concluding with a proposed agenda for research into offshore health and safety.

A Step Change in Safety?

UKOOA has claimed, with reference to 'official' offshore data for injuries reportable to the HSE, "A 40% reduction in injury frequency rate over the last 5 years, based on industry statutory reporting to the HSE." (UKOOA, 1997a: 1; see also , UKOOA Annual Report, 1997) However, there are a series of reasons to suggest that this data is extremely unreliable. Not least of these, as we have seen in chapter 6 is the exclusion, by a variety of means, of 'lost time accidents' from the reportable figures. Woolfson, Beck and their colleagues' vital work on offshore incident data notes the anomalies created by categorisation, where incidents occurring outside the five hundred metre zone around platforms, and those occurring during some exploration activities, are not actually included in offshore oil and gas industry categories, since they are not reportable to the HSE OSD (Beck and others, 1998). This work further shows that when the distorting effects of the inclusion of onshore employees and minor injuries from the official figures are taken out of the equation, the offshore oil industry remains the third most dangerous in the UK (Woolfson and others, 1996). Further, they conclude that, contrary to the claims of UKOOA and the oil companies, there has been no statistically significant improvement in offshore accident rates (Beck and others, 1998), never mind anything approaching the fantasy of 40% improvement in injury rates claimed by UKOOA.

This is perhaps a more accurate context for the launching of the cross industry initiative, 'Step Change in Safety' than that generated by the oil industry. The publicity which surrounded the launch included the usual industry accounts of a dramatic improvement in safety performance in the years preceding Piper Alpha. The campaign was launched to coincide with the

publication of an Offshore Contractors Association report which claimed that 80% of the contractors workforce were happy with the safety measures on offshore installations (*Petroleum Review*, April 1998). It is of no coincidence that the campaign (along with a more general industry public relations campaign - see chapter 4) was launched in the run up to the 10th anniversary of the disaster, since it has allowed the industry to pre-empt criticisms that the safety record has not significantly improved (for examples of this criticism from academics, politicians and trade unionists, see *The Herald*, 4 July and 7 July 1998; *Press and Journal*, 4 July 1998; *Scotland on Sunday*, 26 June and 5 July, 1998; *Scotsman*, 4 July, 6 July, 8 July and 9 July 1998), and to demonstrate a renewed vigour in improving safety standards.

The campaign claims to:

"take the safety performance of Britain's oil and gas business to an even higher level of achievement. Industry leaders committed themselves to build on existing safety strengths by acting in three key areas, namely to:

1. deliver a 50% improvement in the whole industry's safety performance in the next three years;
2. [workers will] establish their own safety performance contracts to demonstrate visibly their personal concern for safety as equal to business performance; and
3. work together to improve sharing of safety information and good practice across industry through active involvement of employees, service companies, operators, trade unions, regulators and representative bodies." (UKOOA, 1997b: 8)

It should be noted that the pressure to achieve a 50% improvement in the whole industry's safety performance may not have the desired effect. If a 50% improvement is measured in

reportable incidents, this may have the effect of discouraging reporting and intensifying the pressure not to report. In this sense, the campaign may actually militate against the improvement of safety standards. The campaign has stated its intention to supplement the use of recordable data with other indicators of safety performance such as the frequency of safety audits and safety training for workers. In that the latter 'soft' indicators may present greater opportunity for manipulation on the part of the operators, they may represent a "more ingenious way of achieving its [Step Change's] 50% improvement target." (Beck and others, 1998: 46)

A significant problem with Step Change is that it is based upon a forensic approach to understanding the causes of 'accidents'. The way in which this dramatic improvement is to be achieved is by convincing individual workers that they should take a more safety conscious attitude in their work. This forensic approach to offshore safety management is reflected in official Step Change literature and public statements. For example, The *Petroleum Review* has observed:

"The individual's commitment was 'to stay aware of changes as conditions will be changing rapidly on the project; to stay alert; to take great care when lifting, walking or climbing; to obey all signs and barriers; to only use tools that are suitable for the job and if you see anyone doing anything which you feel is putting them (or you) at risk, talk to them about it.'" (*Petroleum Review*, April 1998: 21)

One of the protagonists, Tony Brown, project manager on Brent Delta enthuses:

"One of the major steps we took was to improve the induction process. the OIM and the safety representatives met with every newcomer on the platform and explained what we were trying to achieve

with regard to safety. They were asked to write a personal safety charter under which they took formal responsibility for safety. This was signed by me and confirmed by the safety representative. *There were no refusals.*" (ibid.: 21; my emphasis).

Whilst raising awareness around safety might be a laudable aim, it is problematic in that it does not tackle the problems created by the productive regime and the labour process offshore. In this sense, it rather misses the point. The weaknesses of a forensic approach to workplace safety have been well established (Nichols and Armstrong, 1973; Nichols, 1975), and need no rehearsal again. It is also important to note that within the context of a rigidly authoritarian worker/manager relationship, asking individuals to agree to sign a personal safety charter may not be as voluntary a gesture as it might otherwise appear. Indeed, in an industry which has, in the past, been criticised for its 'blame culture', a culture which the data presented in this thesis indicates is still prevalent, it would not be surprising if workers perceived the use of personal safety charters as an indirect means of transferring responsibility for incidents from managements to workers.

With these comments in mind, it is unlikely that Step Change will have any tangible impact on safety conditions. Step Change, far from forcing operating companies to accept that the pressures to reduce costs under the banner of CRINE continue to impact in a series of ways upon safe working conditions, may well have the effect of 'papering over the cracks.' The evidence from the data presented in chapter 6 indicates that safety performance is more likely to deteriorate in this environment.

The Future for CRINE

Although CRINE may not have quite achieved the strict targets for the sector set out in the original CRINE statements (WoodMackenzie, 1996c), it has, as we have seen, had a considerable impact upon offshore working conditions .

Despite the evidence that (even in this period of low oil prices) the UK industry continues to extract high levels of profit, and that the long term prospects for profitability are extremely healthy (see chapters 4 and 5), the indication is that the intense cost-cutting and productive pressures created by CRINE will be not alleviated. In fact the recent fall in the price of oil appears to have given CRINE a certain renewed impetus. CRINE announced a new 6 point plan in November 1998 which aims at reducing the price of producing a barrel of North Sea oil by a third before 2002. Some senior managers in oil companies are calling for an extended target of a 50% reduction (*Scotland on Sunday*, 22 November 1998).

CRINE's rejuvenation, when combined with an extended period of low oil prices in the sector may have serious implications for the safety of the workforce, in the same way that the period following the 1985/86 price crash represented a significant deterioration of safety on North Sea installations.

A Direct Line to Government?

The enthusiasm with which the previous Industry and Energy Minister has pursued his role as the 'high priest of CRINE' (*Blowout*, June 1996), discussed in chapter 5, is indicative of the previous government's evangelical promotion of deregulation. That Eggar himself played such a key role is unsurprising given the close personal association he had enjoyed with the oil industry before his ministerial position. Previously he has worked as a banker specialising in financing the oil industry, and served as a non-executive director of Charterhouse Petroleum. As a backbencher, he was involved in a campaign to restructure offshore taxation in the early eighties (*Lloyds List*, 15 July 1992). Since resigning from office, Tim Eggar has served as a director of Monument Oil and Gas and as chairman of energy construction company MW Kellogg (part of the massive Texan oil services corporation Dresser Industries who own more than 300 companies in the international oil and gas industry).

Whilst there are numerous examples of such personal links between senior politicians and the industry over the past 20 years (see chapter 5) recent events have made it clear that the revolving door syndrome is not a phenomenon monopolised by the Conservative Party. Of course, David Simon, former chair of BP has been famously installed as unelected Minister of State for Trade and Industry. It is also of no little significance that the links between senior civil servants in the Department of Energy and the senior managements of oil and oil-related companies remain relatively stable no matter which government is in power. Further, the centrality of the policy role for oil capital that Labour has established is also indicated by the fact that no company has more members on government 'task forces' than BP (*Private Eye*, 30

September 1998). Bryan Sanderson, Managing Director of BP International sits on the President of the Board of Trade's advisory group for the White Paper on Competitiveness. Rodney Chase, BP's explorations managing director sits on the Advisory Group on Business and the Environment and David Watson, BP Group Treasurer is a member of the government Working Party on Increasing Business Investment. Yet, whilst this appears to be more of the same, these same policy forums do include senior trade unionists - a level of access to government policy which was denied trade unions under previous Conservative governments.

Furthermore, a realignment of productive oil capital in the 1990s may have had the effect of weakening the fraction's hitherto dominant position. In terms of the offshore oil and gas industry, recent debates around the fiscal regime in Autumn 1998 may be a reflection of the relative decline of this fraction. Although the Treasury's decision to abandon the tax review may be read as a significant victory for oil capital, for a very brief moment the industry was exposed as one which (even in this period of low oil prices) was quite capable of absorbing a more punitive fiscal regime. The significance of this exposure is that during debates on the offshore tax regime, government ministers could be found publicly confronting the oil companies (see, for example, *Scotsman*, 27 May 1998). At no point however, did government sources attempt a sustained confrontation of the propaganda claims around the future of the North Sea and the 'national interest'.

The recent announcement by Trade and Industry Secretary Peter Mandelson of the establishment of a new oil and gas industry taskforce on competitiveness (see *Scotsman*, 18 November, 1998) is worrying in terms of the potential for the perpetuation of the deregulatory agenda that was aided and abetted by the previous government. The new taskforce will

include key figures from the government and the industry, and appears to have been a move designed to appease the oil companies after stand-off over taxation. Thus, Mandelson gushed forth: "I will not sit back and watch the decline of the UK oil and gas industry under the impact of the low world oil price" (*Financial Times*, 18 November, 1998). In distancing himself from the governments recent fiscal proposals, John Battle was similarly moved to unite the interests of the British state with the maximisation of profits for the oil companies: "I think it is widely accepted that our regime is one of the best in the world. We don't start changing it adversely in incredibly difficult circumstances" (*Press and Journal*, 18 November, 1998: 11). UKOOA have openly welcomed this development, Director General James May claiming that the creation of the taskforce was "positive recognition of the industry's importance to the British economy" (ibid.: 11).

The Potential for an Ascendancy of Pro-regulatory Forces

Whilst the preceding sections may have indicated a rather depressing picture for the future for safety on offshore installations, current indications are that there may also be opportunities for an ascendancy of pro-regulatory forces. The realignment of productive oil capital which has occurred during the nineties, although it may have consolidated the position of the British operators, may have created the potential for gains to be made by pro-regulatory forces. The historical import of this should be understood in the Gramscian sense: hegemony/historical bloc is not a 'fixed' state. Neither is the complex relation between and within the fractions of capital. These fractions change their composition and their character in response to social forces, the social relations of production. Thus, if we understand hegemony as a process of struggle, as a process which occurs in response to the balance of productive relations, we

should also expect the constituent elements of hegemony and historical bloc to change. It was argued in chapter 3 that in the bid for hegemony, particular fractions of capital rely upon class compromises in order to secure consent. In periods of realignment, this requirement may intensify as competing fractions of capital strive to establish a dominant position. A realignment of dominant fractions of capital may result in a series of class compromises and concessions being sought by various fractions of capital. This process may well create the space for workers and pro-regulatory forces to make significant gains.

A potential area for pro-regulatory forces to make gains may be in terms of the future role for an organised workforce. This is indicated in the rhetoric, if not in the deeds, of the industry in the past couple of years. Thus, for example, we can find reference to the inclusion of trade unions in the policy process both in industry and in government sources. UKOOA has recently restated its position:

"There is general agreement within UKOOA that there is need for greater visibility and transparency. Improved links are required with the bodies representing the workforce, contractors, the TUC, government and regulatory bodies. Work is in hand to generate proposals for the implementation of such links during 1998." (UKOOA, Annual Report, 1997: 8)

At the HSE organised conference which marked the 10th anniversary of the Piper Alpha disaster, the principle focus for HSE public statements was trade union involvement:

"Mr [Frank] Davies [chair of the HSC] said that trade unions and the workforce had an important contribution to make to safety offshore as they do onshore. 'I would like to see better workforce involvement high on the agenda for the next ten years,' he said. 'I would also like to see greater

involvement of the trade unions offshore.' Mr Davies said that the conference presented a vital opportunity for the industry, the workforce, the unions and the regulator to map out an effective way of working together to develop a safer offshore industry" (HSE News Release, 22 July, 1998).

This rhetoric of partnerships echo the more general 'new' political rhetoric of government (Anderson and Mann, 1997). Although this rhetoric might not be reflected in practice - it is unlikely that the new 'partnership' approach will bring immediate tangible changes to worker/management relationships on offshore platforms - the opening up of a dialogue does create the potential for debates on the possibilities for organising the workforce or on regulatory intervention. Of course, such debates will be conducted on the terms of the oil companies, and there is a danger that the TUC or individual trade unions will be participating in a dialogue over which they have little control. Yet, opportunities may also be created for pro-regulatory forces to intervene. Of course, the central issue here will be that of collective bargaining rights.

Whilst the European Union has thus far been an unsuccessful source of rights for offshore workers (see OILC, 1997) the proposals included in Labour's Fairness at Work white paper might prove to be important on the issue of trade union recognition. This legislation, planned for this parliament, will give automatic collective bargaining rights for workplaces that have 50% membership of one trade union. Trade unions seeking to organise workplaces that do not have the requisite 50% will require 40% support in a ballot. This, of course, has huge ramifications for an unorganised industry, such as the offshore oil and gas industry. The prospect of unionisation on a scale never before envisaged offshore may well have prompted the rhetoric of a new partnership between the oil companies, employers and trade unions.

Yet, as the offshore union OILC point out, the legislation may bring with it a rather regressive effect. For, since the legislation will effectively allow employers to install unions of their choice, the Fairness at Work may actually be a "charter for sweetheart unionism." (*Blowout*, July/August 1998: 24) The offshore industry has bitter experience of sweetheart deals during the construction (or 'hook-up') phase of offshore developments. These deals have left the workforce protected only for the period of 'hook-up', have intensified inter-union rivalry and, in many cases, have led to a deterioration of conditions (see OILC, 1991 and Woolfson and others, 1996). Certainly, the apparent willingness of the previously hostile operators to accommodate dialogue with trade unions would make sense as part of a strategy to pre-empt Fairness at Work legislation by laying the foundations for sweetheart deals.

One effect of Fairness at Work may be ultimately to establish a system of recognition that, on one level actually disenfranchises workers, since employers may be likely to seek recognition agreements with unions that have a history of sweetheart deals. Yet, the rush to become established in workplaces will also create room for interventions from unions that may present a less management-friendly agenda to employers. At a workplace level, debates around affiliation may allow opportunities for access to the workforce hitherto denied to unions, particularly to the OILC; a union that has been met with intense resistance from offshore employers.

Similarly, although European legislation may not have had much of an impact upon the offshore oil and gas industry as yet (the industry's selective exclusion from the European Working Time directive is a case in point; Woolfson and others, 1998), there are areas of

European law that will present opportunities as a site of struggle (see OILC, 1997 for an appraisal of such opportunities).

In light of the preceding discussion, the potential for an ascendancy of pro-regulatory forces may appear to be framed only in terms of the potential for workers to engage in struggle with employers and with the operating oil companies. In one sense, this appears to be the greatest hope. Yet, in terms of a wider struggle for hegemony, if workers can achieve greater strength through the securing of collective bargaining rights and improved conditions, this may well have the effect of pressurising the regulatory authority HSE to move away from its current strategy of minimum interference.

Future Areas of Research

This chapter has so far concentrated on summarising this thesis and on examining some possible future developments. This concluding section will propose some areas of inquiry that, in light of the work presented here, may prove fruitful for a future research agenda.

One comment which should be noted at this stage is one that acknowledges a weakness in focus of this thesis. In terms of the empirical work conducted for this thesis, the focus has been largely upon the impact of Cullen upon the day-to-day working conditions on offshore platforms and, thus some important questions have been left unanswered. This is partly a function of the period during which the research was conducted. Any piece of research which seeks to assess offshore safety in the post-Piper Alpha era must, to some extent, assess the success of Cullen's recommendations. This empirical focus has left a number of important

areas unexamined in any great detail. The following five areas of inquiry could develop points that have only been touched upon in this thesis:

First, *the reporting and categorisation of safety data*. Important work by Woolfson and others (1998) has identified the principal methods used by operators and contractors to manipulate this data, and the anomalies created by HSE categorisation. Empirical work with a focus on the reporting process may reveal a greater or more comprehensive distortion than existing critical work has revealed. There are also questions around the reporting of 'near misses' and 'potentially dangerous incidents' to be developed, since these are often invisible and may indicate as much about safety as reportable data. Such a focus may also make a contribution to other work which exposes the inadequacies of HSE categorisation more generally (Tombs, 1999).

Second, *a critical appraisal of QRA*. The safety case regime has undoubtedly forced operators to demonstrate technically how they would minimise risk. This led to the use of QRA as the principle method in formulating risk calculations. The experience of the workforce is that QRA can be used by the operators to justify cost-cutting, regardless of the safety implications, or, in the words of one of a front-line inspector, can be used to make a kamikaze pilot look safe. The ability of QRA to provide an accurate assessment of risk is a question that lies at the heart of the integrity of the goal setting regime. Given their strategy of minimal interference, there are also questions surrounding the extent to which the HSE is able to monitor the use of QRA. An inquiry into the use and construction of such calculations could also bring an important critical perspective to quickly emerging academic disciplines such as

'risk and crisis management' and 'risk analysis'. For it is within these disciplines that techniques such as QRA tend to remain unchallenged.

Third, *a more detailed appraisal of the political economy of offshore research*. Chapter 2 of this thesis attempted to trace the ways in which the oil companies and the HSE seek to control the production of research. If we are to understand the particular ways in which corporate strategies are rationalised and legitimised by academic research, then there is a need to develop a research agenda which examines these processes. More generally, this work could provide a significant contribution to understanding the process of researching the powerful.

Four, *a structural understanding of the policy process*. A detailed study of the relationship between government departments (such as HSE and the DTI), operating companies, contractors, and the trade associations they are represented by, may be able to illuminate the policy process further. An important focus for analysis here will be government policy forums (such as OIAC and the new government working groups). A piece of work with this focus might be able to provide a more accurate context for the climate in which policy decisions are reached, and may prove fruitful for a more detailed Marxist examination of the relationship between capital and the state.

Five, *a critical analysis 'Forensic' or 'human factors' approaches to offshore safety*. As we have seen, with reference to the Step Change in Safety campaign, industry attempts to create a new 'safety culture' have an intimate relationship with 'forensic' approaches to safety management. It is also of importance that much of the consultancy-style research conducted by academics, such as the Offshore Management Centre, is forensic in character. Whilst such

approaches have been discredited since Nichols' seminal work (1975), almost 25 years ago, the current dominance of this paradigm requires renewed critical analysis.

The areas of research outlined above are those that have emerged as potentially fertile avenues of inquiry during the course of this work. Given the comments made on the dearth of 'unofficial' work which has studied perhaps the most influential industry to the British economy over the past 25 years, there is a clear demand for critical research. If 'unofficial' research programmes can be developed outside the official structure, there is an almost exponential potential for contributions which place the powerful and ruthless corporations operating in the North Sea under closer scrutiny. This is a task that is certainly long overdue.

References

- Aberdeen People's Press (1976) *Oil Over Troubled Waters*, Aberdeen: APP.
- Aitken, K (1996) Oil Chiefs Confront Contract Fears, *The Sunday Times*, 14 April.
- Alt, J (1987) Crude Politics: oil and the political economy of unemployment in Britain and Norway, 1970-85, *British Journal of Political Science*, Vol. 17, 149-199.
- Althusser, L (1971) *Lenin and Philosophy and Other Essays*, London: NLB.
- Altvater, E (1978) Some Problems of State Interventionism, in Holloway, J and Picciotto, S (eds.) *State and Capital: a Marxist debate*, London: Edward Arnold.
- Anderson, P and Mann, N (1997) *Safety First: the making of New Labour*, London: Granta.
- Arkiv Marxsas i Engelsas, vol II (7)*, Moscow, 1933.
- Atherly, G, Booth, R and Kelly, M (1975) Workers' Involvement in Occupational Health and Safety in Britain, *International Labour Review*, Vol 112, pp469-482.
- Bailey, M (1979) *Oilgate*, Sevenoaks, Kent: Hodder and Stoughton.
- Bain, P (1997) Human Resource Malpractice: the deregulation of health and safety at work in the USA and Britain, *Industrial Relations Journal*, Vol 28, pp176-191.
- Baldamus, W (1969) *The Concept of Truly Accidental Accidents*, Discussion Paper, Series E, No. 14: University of Birmingham.
- Baldamus, W (1971) *The Consumption Imperative: Structural Change in Advanced Industrial Capitalism*, Inaugural Lecture, University of Birmingham.
- Bardach, E and Kagan, R (1982) *Going by the Book: The problem of regulatory unreasonableness*, Philadelphia: Temple University Press.
- Barrett, B (1977) Safety Representatives, Industrial Relations and Hard Times, *Industrial Law Journal*, Vol 6, pp165-178.
- Barrie, C (1996) Eggar Asks Oilmen to Give Up Fallow Fields, *The Guardian*, 25 April.
- Beaumont, P (1979) *Safety Legislation: the trade union response*, Occasional Papers in Industrial Relations, No 4, Universities of Leeds and Nottingham.
- Beaumont, P and Leopold, J (1982) Joint Health and Safety Committees in the United Kingdom: Participation and Effectiveness - A Conflict?, *Economic and Industrial Democracy*, Vol 3, pp263-284.
- Beaumont, P, Coyle, R, Leopold, J and Schuller, T (1982) *The Determinants of Effective Joint Health and Safety Committees: a report of a project funded by the Leverhulme Trust*,

Glasgow: Centre for Research in Industrial Democracy and Participation, University of Glasgow.

Beck, M, Foster, J, Ryggvik, H and Woolfson, C (1998) *Piper Alpha - Ten Years After*, Glasgow: Centre for Regulatory Studies, University of Glasgow.

Becker, H (1967) Whose Side Are We On?, *Social Problems*, Vol 14, pp239-247.

Benn, T (1990) *Conflicts of Interest: Diaries 1977-80*, London: Hutchinson.

Bergman, D (1991) *Deaths at Work: accidents or corporate crime, the failure of inquests and the criminal justice system*: London Hazards Centre, Inquest and the Workers Educational Association.

Bergman, D (1994) *The Perfect Crime: how companies can get away with manslaughter in the workplace*: West Midlands Health and Safety Advice Centre.

Bernstein, M (1955) *Regulating Business by Independent Commission*, Princeton, New Jersey: Princeton University Press.

Beynon, H (1984) *Working for Ford*, Harmondsworth, Middlesex: Penguin.

Beynon, H (1988), *Regulating Research: Politics and Decision Making in Industrial Organisations*, in Bryman, A (ed.) *Doing Research in Organisations*, London: Routledge.

Bienefeld, M (1996) Is a Strong National Economy a Utopian Goal at the End of the Twentieth Century? in Boyer, R and Drache, D (eds.) *States Against Markets: the limits of globalisation*, London: Routledge.

Blackmore, G and Shannon, H (1995) Risk-based Safety Management Auditing, in *Major Hazards Onshore and Offshore*, IChemE Symposium Series No. 139, Rugby: IChemE.

Bode, R (1979) De Nederlandse Bourgeoisie Tussen de Twee Wereldoorlogen, *Cahiers voor de politieke en sociale wetenschappen*, Vol 2, no 4, pp9-50.

Boggs, C (1976) *Gramsci's Marxism*, London: Pluto.

Boyer, R and Drache, D (1996) Introduction to Boyer, R and Drache, D (eds.) *States Against Markets: the limits of globalisation*, London: Routledge.

Braithwaite, J and Fisse, B (1983) Self Regulation and the Control of Corporate Crime, in Shearing, C and Stenning, P (eds.) *Private Policing*, London: Sage.

Brandie, E (1994/95) Achieving the Balance Between Safety and Cost Reduction, *Offshore International*, Winter.

Braverman, H (1974) *Labour and Monopoly Capital: the degradation of work in the twentieth century*, New York: Monthly Review Press.

Brighton, P, Fearnley, P and Brearly, I (1995) HSE Assessment of Explosion Risk Analysis in Offshore Safety Cases, in *Major Hazards Onshore and Offshore*. IChemE Symposium Series No. 139, Rugby: IChemE.

Buchanan, D, Boddy, D and McCalman, J (1988) Getting In, Getting On, Getting Out and Getting Back, in Bryman, A (ed.) *Doing Research in Organisations*, London: Routledge.

Bulmer, M (1988) Some Reflections upon Research in Organisations, in Bryman, A (ed.) *Doing Research in Organisations*, London: Routledge.

Burgoyne Committee (1980) *Report into Offshore Safety*, Cmnd 7366, London: HMSO.

Cain, M (1990) Realist Philosophy and Standpoint Epistemologies or Feminist Criminology as a Successor Science, in Gelsthorpe, L and Morris, A (eds.) *Feminist Perspectives in Criminology*, Milton Keynes: Open University Press.

Caldwell, P, Croucher, R, Eva, D, and Oswald, R (1980) *What's Happened to Safety? How Unions are Using the Safety Representatives Regulations*, London: Workers Educational Association.

Carson, W (1970) Some Sociological Aspects of Strict Liability and the Enforcement of Factory Legislation, *Modern Law Review*, Vol. 33, July.

Carson, W (1974) Symbolic and Instrumental Dimensions of Early Factory Legislation: a case study in the social origins of criminal law, in Hood, R (ed) *Crime, Criminology and Public Policy*, London: Heinmann.

Carson, W (1982) *The Other Price of Britain's Oil*, New Brunswick, New Jersey: Rutgers University Press.

Cavanagh, M (1994) *A Comparison of Policy Network Models and Offshore Health and Safety in Britain and Norway*, unpublished undergraduate dissertation, Department of Government, University of Strathclyde.

Cavanagh, M (1998) Offshore Health and Safety Policy in the North Sea: policy networks and policy outcomes in Britain and Norway, in Marsh, D (ed.) *Comparing Policy Networks*, Milton Keynes: Open University Press.

Centre for Socio-legal Studies, Woolfson College, Oxford (1983) *An Agenda for Socio-legal Research into the Regulation of Health and Safety at Work*.

Channel 4 (1994) *Wasted Windfall*, Three part documentary series broadcast October/November 1994.

Christie, R (1980) Why Does Capital Need Energy? in Nore, P and Turner, T (eds.) *Oil and Class Struggle*, London: Zed.

Clegg, S (1989) *Frameworks Of Power*, London: Sage

Clutterbuck, R (1980) The State of Industrial Ill-Health in the United Kingdom, *International Journal of Health Services*, Vol 10, pp149-159.

Codrington, C and Henley, J (1981) The Industrial Relations of Injury and Death: safety representatives in the construction industry, *British Journal of Industrial Relations*, Vol 19, pp297-315.

Cohen, S and Taylor, L (1980) Talking Prison Blues in Bell, C and Newby, H (eds.) *Doing Sociological Research*, London: George Allen and Unwin.

Coleman, J (1985) Law and Power: The Sherman Antitrust Act and its Enforcement in the Petroleum Industry, *Social Problems*, Vol. 32, February.

Committee of Public Accounts (1973) *North Sea Oil and Gas* (parliamentary papers: HC 122 of 1972-73), London: HMSO

Cooper, C and Cartwright, S (1995) *Mental Health and Stress in the Workplace: a guide for employers*, London: HMSO (report printed and subsequently withdrawn by the Department of Health)

Cresswell, J. (1995) Oil Price Clouds Investment in Tomorrow's Rig Technology, *Offshore International*, Spring, 32-33.

Crompton, R and Jones, G (1988) Researching White Collar Organisations: Why sociologists should not stop doing case studies, in Bryman, A (ed.) *Doing Research in Organisations*, London: Routledge

Cullen, Lord (1990) Cmnd. 1310. *The Public Inquiry into the Piper Alpha Disaster* (2 volumes), London: HMSO.

Curtis, M (1996) CRINE Holds the Key to Survival, *Crinewatch*, January.

Cutler, T and James, P (1996) Does Safety Pay? a critical account of the Health and Safety Executive document: 'The Cost of Accidents', *Work, Employment and Society*, Vol 10, No 4, pp755-765.

Dalton, A (1991) *Health and Safety: An Agenda for Change*, London: Workers Educational Association.

Dawson, S, Willman, P Bamford, M, and Clinton, A (1988) *Safety at Work: The limits of self regulation*, Cambridge: Cambridge University Press.

Dell, E (1993) The Origins of Petroleum Revenue Tax, *Contemporary Record*, Volume 7, No 2, Autumn 1993.

Department of Employment (1978) *Department of Employment Gazette* (report of HM Factories Inspectorate Annual Report), April, London: HMSO

Department of Energy (1989) *Safety Representatives and Safety Committees on Offshore Installations Guidance Notes*, London: HMSO.

Department of Trade and Industry (1995) *The Energy Report: oil and gas resources of the United Kingdom*, London: HMSO.

Department of Trade and Industry (1996) *The Energy Report: oil and gas resources of the United Kingdom*, London: HMSO.

Department of Trade and Industry (1998) *The Energy Report: oil and gas resources of the United Kingdom*, London: HMSO.

Department of Trade and Industry, *Energy Trends* (various issues), London: DTI.

Echeverria, R (1989) Critique of Marx's 1857 Introduction in Rattansi, A (ed.) *Ideology, Method and Marx*, London: Routledge.

Eggar, T (1993) *Speech to the Cost Reduction Conference*, CRINE Conference organised by UKOOA and the Department of Trade and Industry, Queen Elizabeth II Conference Centre, 2nd and 3rd December.

Eggar, T (1994) The Cultural Challenge Ahead, *Crinewatch*, August.

Fagan, T (1995) *Social Policy and the Regulation of Health and Safety at Work*, paper presented to the Social Policy Association Annual Conference, Sheffield Hallam University, 18-20 July.

Financial Times (1998) Exxon and Mobil Seal \$75bn Deal, *FT.com website*, downloaded, 9 December 1998.

Finch, J (1986) *Research and Policy: the uses of qualitative methods in social and educational research*, Lewes, East Sussex: Falmer.

Flin, R and Slaven, G, eds. (1996) *Managing the Offshore Installation Workforce*, Tulsa, Oklahoma: PennWell.

Flin, R, Mearns, K, Fleming, M and Gordon, R (1996) *Safety Climate on the Brent Charlie Platform*: Report prepared for Mr. G Birnie of Shell Exploration and Production UK and Mr A Sanvor of Wood Group Engineering Contractors Ltd., unpublished report produced by the Robert Gordon University Offshore Management Centre.

Flin, R, Slaven, G and Carnegie, D (1996) Managers and Supervisors on Offshore Installations, in Flin, R and Slaven, G (eds) *Managing the Offshore Installation Workforce*, Tulsa, Oklahoma: PennWell.

Foley, C (1990) *Slaughter on Britain's Building Sites*: Connolly Publications.

Foster, J and Woolfson, C (1992) *Trade Unionism And Health And Safety Rights In Britain's Offshore Oil Industry*, London: International Centre For Trade Union Rights.

- Foster, J, Lipka, J, Maguiness, H and Munro, A (1994) *Restructuring in the UK Offshore Oil Industry: partnership or corporate power broking?*, unpublished paper, University of Paisley.
- Foster, J, Maguiness, H and Munro, A (1993) Scotland's Oil and Gas Industry and the Petroleum Revenue Tax, *Fraser of Allander Institute Quarterly Economic Commentary*, Vol. 14, No. 4, pp. 76-83.
- Fraser, S (1995) Focus Special. Oil Industry, *Scotland on Sunday*, 22 October.
- Gasteen, A and Sewel, J (1995) 'The Aberdeen Offshore Oil Industry: Core and Periphery', in Rubery, J, (ed.) *Employer Strategy and the Labour Market*, Oxford: Oxford University Press.
- Geis, G and Goff, C (1983) Introduction to Sutherland, E, *White Collar Crime: the uncut version*, London: Yale University Press.
- Geras, N (1972) Marx and the Critique of Political Economy in Blackburn, R (ed.) *Ideology in Social Science: readings in critical social theory*: Fontana/Collins.
- Giddens, A (1979) *Central Problems in Social Theory*, London: MacMillan.
- Giddens, A (1990) *Capitalism and Modern Social Theory*, Cambridge: Cambridge University Press.
- Gill, S. and Law, D. (1988) *The Global Political Economy. Perspectives, Problems, and Policies*, Hemel Hempstead: Harvester-Wheatsheaf.
- Gill, S. and Law, D. (1993) Global Hegemony and the Structural Power of Capital, in Gill, S, (ed) *Gramsci, Historical Materialism, and International Relations*, Cambridge: Cambridge University Press.
- Glendon, I and Booth, R (1982) Worker Participation in Occupational Health and Safety in Britain, *International Law Review*, Vol. 121.
- Gordon, R (1996) Contribution of Human Factors and Human Error to Accidents, in Flin, R and Slaven, G (eds) *Managing the Offshore Installation Workforce*, Tulsa, Oklahoma: PennWell.
- Gouldner, A (1973) *For Sociology: renewal and critique in sociology today*, London: Allen Lane.
- Gourlay, D (1996) Industrial Relations on Offshore Installations, in Flin, R and Slaven, G (eds) *Managing the Offshore Installation Workforce*, Tulsa, Oklahoma: PennWell.
- Gramsci, A (1996) *Selections from the Prison Notebooks*, London: Lawrence and Wishart.
- Grunberg, L (1983) The Effects of the Social Relations of Production on Productivity and Workers' Safety: an ignored set of relationships, *International Journal of Health Services*, Vol.3, No. 4.

- Grunberg, L (1986) Workplace Relations in the Economic Crisis: A comparison of a British and a French Automobile Plant, *Sociology*, Vol. 20, No. 4.
- Hall, R (1995) *Regulating Health and Safety Offshore in Britain and Norway*, Unpublished MA dissertation, Keele University.
- Hall, S, Critcher, C, Jefferson, T, Clarke, J, Roberts, B (1978) *Policing the Crisis: mugging, the state and law and order*, London: MacMillan.
- Hammer, A with Lydon, N (1987) *Witness to History*, London: Simon and Schuster.
- Hann, D (1986) *Government and North Sea Oil*, Basingstoke: MacMillan.
- Harding, S (1986) *The Science Question in Feminism*, Milton Keynes: Open University Press.
- Harding, S (1991) *Whose Science? Whose Knowledge?*, Milton Keynes: Open University Press.
- Harding, S (1994) Feminism and Theories of Scientific Knowledge in Evans, M (ed.) *The Woman Question*, London: Sage.
- Harman, C (1996) Globalisation: a critique of a new orthodoxy. *International Socialism*, vol. 73, Winter.
- Harris, J (1992) *Against Relativism*, La Salle, Illinois, US: Open Court.
- Harris, T (1995) The Post-Capitalist Executive: an interview with Peter Drucker, in Ohmae, K (ed.) *The Evolving Global Economy: making sense of the new world order*, Boston: Harvard Business Review Press.
- Hartsock, N (1983) The Feminist Standpoint: developing the ground for a specifically feminist historical materialism in Harding, S and Hintikka, M (eds.) *Discovering Reality: feminist perspectives on epistemology, metaphysics, methodology, and philosophy of science*, Dordrecht, Netherlands: D. Reidel.
- Harvey, L (1990) *Critical Social Research*, London: Unwin Hyman.
- Harvie, C (1994) *Fool's Gold. The Story of North Sea Oil*, London: Hamish Hamilton.
- Hawkins, K (1983) Bargain and Bluff: Compliance strategy and deterrence in the enforcement of regulation, *Law and Policy Quarterly*, Vol. 5, pp35-73.
- Hawkins, K (1984) *Environment and Enforcement: Regulation and the social definition of pollution*, Oxford: Clarendon Press.
- Hawkins, K (1990) Compliance Strategy, Prosecution Policy and Aunt Sally: A comment on Pearce and Tombs, *British Journal of Criminology*, Vol. 30, pp444-466.

Hawkins, K (1991) Enforcing Regulation: more of the same from Pearce and Tombs, *British Journal of Criminology*, Vol 31, pp427-430.

Hay, C and Watson, M (1998) The Discourse of Globalisation and the Logic of No Alternative, in *Contemporary Political Studies 1998*, Volume II, Political Studies Association of the United Kingdom.

Hayek, F (1979) *The Road to Serfdom*, London: Routledge and Kegan Paul.

Hillyard, P and Sim, J (1997) The Political Economy of Socio-legal Research, in Thomas, P (ed.) *Socio-Legal Studies*, Aldershot: Dartmouth

Hirsch, J (1978) The State Apparatus and Social Reproduction: elements of a theory of the bourgeois state, in Holloway, J and Picciotto, S (eds.) *State and Capital: a Marxist debate*, London: Edward Arnold.

Hirst, P and Thompson, P (1996) *Globalisation in Question*, Cambridge: Polity.

Hobbs, D (1988) *Doing the Business: Entrepreneurship, the Working Class and Detectives in East London*, Oxford: Clarendon.

Hollis, M and Lukes, S (1982) *Rationality and Relativism*, Blackwell: Oxford.

Holloway, J and Picciotto, S (1978) Toward a Materialist Theory of the State, in Holloway, J and Picciotto, S (eds.) *State and Capital: a Marxist debate*, London: Edward Arnold.

Holmwood, J (1995) Feminism and Epistemology: What Kind of Successor Science?, *Sociology*, Vol 29. pp411-428.

Hopkins, A and Palser, J (1987) The Causes of Coal Mine Accidents, *Industrial Relations Journal*, Vol 18, No 1, Spring.

HSC (1998) *Annual Report and Accounts, 1997/98*, London: Health and Safety Commission.

HSE (1985) *Deadly Maintenance. Plant and machinery. A study of fatal accidents at work*, London: HMSO.

HSE (1987) Major Injuries by Size of Manufacturing Establishment, in *Health and Safety Statistics 1984-85*, London: HMSO.

HSE (1993) *The Cost of Accidents at Work*, London: HMSO.

HSE (1995a) *An Interim Evaluation of the Offshore Installations (Safety Case) Regulations 1992*, HSE Books.

HSE (1995b) *RIDDOR: a guide to the regulations*, HSE Books.

HSE (1996) *Offshore Safety Research and Development Programme Project Handbook 1996*, HSE Books.

HSE (1998a) *A Guide to the Offshore Installations (Safety Representatives and Safety Committees) Regulations 1989*, HSE Books.

HSE (1998b) *Minister Emphasises Key Role of Workforce in Offshore Safety*, HSE News Release, 21 May.

Hughes, G (1996) *The Politics of Criminological Research* in Sapsford, R (ed.) *Researching Crime and Criminal Justice*, Sage: London.

Hunt, A (1994) *Governing the Socio-legal Project: or what do research councils do?*, *Journal of Law and Society*, 21, pp 520-528.

Hutter, B (1986) *An Inspector Calls: The importance of proactive enforcement in a regulatory context*, *British Journal of Criminology*, Vol. 26, pp114-128.

Hutter, B (1993) *Regulating Employers and Employees: Health and Safety in the Workplace*, *Journal of Law and Society*, Vol 20, pp452-470.

Hutton, W (1995) *The State We're In*, London: Jonathon Cape.

Hutton, W (1996) *Cashing in on the North Sea Bubble*, *The Guardian*, 7 February.

Institute of Petroleum (1995) *Know More About Oil: The North Sea*, London, IoP.

James, P (1992) *Reforming British Health and Safety Law: a framework for discussion*, *Industrial Law Journal*, Vol 21, pp83-105.

James, P (1993) *The European Community: A positive force for UK Health and Safety Law?*, London: Institute of Employment Rights.

Jessop, B (1990a) *State Theory: putting capitalist states in their place*, Cambridge: Polity Press.

Jessop, B (1990b) *Regulation Theories in Retrospect and Prospect*, *Economy and Society*, Vol. 19, No 2, pp154-215.

Joll, J (1977) *Gramsci*, London: Fortuna/Collins.

Keat, R and Urry, J (1982) *Social Theory as Social Science*, London: Routledge and Kegan Paul, 2nd edition.

Keesing's Contemporary Archives, April 1986, Longmans: London.

Kellner, D (1989) *Critical Theory, Marxism and Modernity*, Cambridge: Polity.

Kemp, A (1994) *Cost-cutting - the Answer to Low Oil Prices*, *Press and Journal*, 24 February.

- Kemp, A and MacDonald, B (1993) *Economic Aspects of Cost Savings in the UKCS, Strategies for Cost Reduction in the New Era*, CRINE Conference organised by UKOOA and the Department of Trade and Industry, Queen Elizabeth II Conference Centre, 2nd and 3rd December.
- Kennedy, G, ed. (1976) *The Radical Approach: papers on an independent Scotland*, Edinburgh: Palingenesis.
- Kossoris, M (1938) Industrial Injuries and the Business Cycle, *Monthly Labor Review*, March.
- Kossoris, M (1943) Changes in Injury Frequency Rates and Employment in Manufacturing 1936-41, *Monthly Labor Review*, May.
- Kubursi, A and Mansur, S (1994) The Political Economy of Middle East Oil, in Stubbs, R and Underhill, G (eds) *Political Economy and the Changing Global Order*, London: MacMillan.
- Lascelles, D (1993) Still Plenty of North Sea Life, *Financial Times*, 6 February.
- Lascelles, D. (1996) North Sea Field of Dreams, *Financial Times*, 12 June.
- Lavelette, M (1991) *Some Very Peculiar Practices - work organisation and safety in the North Sea oil and gas industry*, unpublished paper, University of Aberdeen.
- Lavelette, M and Wright, C (1991) *The Cullen Report - making the North Sea safe?*, *Critical Social Policy*, July, 60-69.
- Lawson, N (1992) *The View From Number Eleven*, London: Bantam.
- Lee, G and Wrench, J (1980) Accident Prone Immigrants: an assumption challenge?, *Sociology*, Vol. 14, No. 4.
- Lee, R (1993) *Doing Research on Sensitive Topics*, London: Sage.
- Legge, K (1995) *Human Resource Management: rhetorics and realities*, London: MacMillan.
- Longstreth, F (1979) The City, Industry and the State, in Crouch, C (ed.) *State and Economy in Contemporary Capitalism*, London: Croon Helm.
- Lukacs, G (1971) *History and Class Consciousness*, London: Merlin.
- Lukes, S (1974) *Power: a radical view*, London: MacMillan.
- MacDonald, G (1993) Pub Meeting Sets Up Cost-Cutting System for Smaller Projects, *The Herald*, 2 December.
- MacFarlane, C (1993) Participation: the lost strand in offshore safety, in Foster, J and Woolfson, C (eds) *Workforce Involvement and Health and Safety Offshore: power, language and information technology, proceedings of the international conference*, Glasgow: Scottish Trade Union Congress.

- MacFarlane, C (1995) Some (critical) Comments on Risk Analysis, in *Offshore Safety in a Cost Conscious Environment for British and Norwegian Perspectives*, Aberdeen: Offshore Information Centre.
- Mackay, T (1995) CRINE Hype Hides 'Actual Impact', *Press and Journal*, 24 April.
- Mackay, T (1998) What Price a Hike in Tax Take?, *Press and Journal*, 29 June.
- Mahon, R (1979) Regulatory Agencies: Captive Agents or Hegemonic Apparatuses, *Studies in Political Economy*, Vol 1, No 1.
- Marek, J, Iversen, E and Hellesoy, O (1987) Risk, Organisation and Safety on an Oil Platform, in Singleton, W and Hovden, J (eds.) *Risk and Decisions*, Chichester: John Wiley.
- Marx, K (1977) *Capital, vol. I*, London: Lawrence and Wishart.
- Marx, K (1984) *Capital, vol. III*, London: Lawrence and Wishart.
- Marx, K and Engels, F (1968) *The German Ideology*, Moscow: Progress Publishers.
- Mayhew, C and Quinlan, M (1997) Subcontracting and Occupational Health and Safety in the Residential Building Industry, *Industrial Relations Journal*, Vol. 28, pp192-205.
- McClung Lee, A (1978) *Sociology for Whom?*, New York: Oxford University Press.
- McLellan, D (1972) *The Thought of Karl Marx*, London: MacMillan.
- McLennan, G (1995) Feminism, Epistemology and Postmodernism: Reflections on Current Ambivalence, *Sociology*, Vol 29, 391-409.
- Merton, R (1938) Social Structure and Anomie, *American Sociological Review*, October, pp672-682.
- Merton, R (1968) *Social Theory and Social Structure*, New York: Free Press.
- Miliband, R (1973) Poulantzas and the Capitalist State, *New Left Review*, 82, Nov-Dec, pp83-92.
- Miliband, R (1974) *The State in Capitalist Society: the analysis of the western system of power*, London: Quartet.
- Mitchell, R (1993) *Secrecy and Fieldwork*, Qualitative Methods Series 29: Newbury Park, California: Sage.
- Monbiot, G (1998) Free Speech Comes Dear, *The Guardian*, 8 October.
- Moore, R (1991) *The Price of Safety: the market, workers' rights and the law*, London: Institute of Employment Rights.

Moore, R and Wybrow, P (198?) *Women in the North Sea Oil Industry: a report for the Equal Opportunities Commission*, Manchester: Equal Opportunities Commission.

Morera, E (1990) *Gramsci's Historicism: A realist interpretation*, London: Routledge.

MORI (1997) *Shell Expro Survey: Pan Expro results summary*, unpublished research report prepared for Shell Expro.

Motamen, H (1983) *Macroeconomics of North Sea Oil in the United Kingdom*, London: Heinemann.

Nichols, T (1975) The Sociology of Accidents and the Social Production of Industrial Injury in Esland, G and others (eds.) *People and Work*, Edinburgh: Holmes McDougal.

Nichols, T (1986) Industrial Injuries in British Manufacturing in the 1980s - A commentary on Wright's Article, *Sociological Review*, pp290 - 306.

Nichols, T (1989) The Business Cycle and Industrial Injuries in British Manufacturing Over a Quarter of a Century: continuities in industrial injury research, *Sociological Review*, Vol 37, pp538-550.

Nichols, T (1991) Industrial Injuries in British Manufacturing Industry and Cyclical Effects: continuities and discontinuities in industrial injury research, *Sociological Review*, Vol 39 pp131-139.

Nichols, T (1997) *The Sociology of Industrial Injury*, London: Mansell

Nichols, T and Armstrong, P (1973) *Safety or Profit?*, Bristol: Falling Wall Press.

Nichols, T and Beynon, H (1977) *Living with Capitalism: class relations and the modern factory*, London: Routledge.

Nichols, T, Dennis, A and Guy, W (1995) Size of Employment Unit and Injury Rates in British Manufacturing: a secondary analysis of WIRS 1990 data, *Industrial Relations Journal*, 26, pp45-65.

Nore, P and Turner, T (1980) Introduction, in Nore, P and Turner, T (eds.) *Oil and Class Struggle*, London: Zed.

O'Conner, J (1973) *The Fiscal Crisis of the State*: New York, St Martins.

Odell, P (1986) *Oil and World Power*, London: Pelican.

Ohmae, K (1995) Preface to Ohmae, K (ed.) *The Evolving Global Economy: making sense of the new world order*, Boston: Harvard Business Review Press.

Ohmae, K (1996) *The End of the Nation State*, Boston: Free Press.

- OIAC (1994) *Play Your Part: how offshore workers can help improve health and safety*, Sheffield: HSE Books.
- OILC (1991) *Striking Out: new directions for offshore workers and their unions*, Aberdeen: Offshore Information Centre.
- OILC (1994) *Safety Auditing From Below*, paper presented to the Conference on Human Factors in Offshore Safety, Aberdeen, 27-28 September.
- OILC (1996) News Release, 17th January.
- OILC (1997) *The Working Time Directive and the Offshore Worker - all you will ever need to know*, Aberdeen: OILC.
- Overbeek, H (1990) *Global Capitalism and National Decline: the Thatcher decade in perspective*, London: Unwin Hyman.
- Pate-Cornell, E (1993) Learning From the Piper Alpha Accident: A postmortem analysis of technical and organisational factors, *Risk Analysis*, Vol. 13, No 2.
- Pate-Cornell, E (1995) Managing Fire Risk on Board Offshore Platforms: lessons from Piper Alpha, *Fire Technology*, Second Quarter.
- Pearce, F and Tombs, S (1990) Ideology, Hegemony and Empiricism, *British Journal of Criminology*, Vol. 30, pp423-443.
- Pearce, F and Tombs, S (1991) Policing Corporate "Skid Rows": a reply to Keith Hawkins, *British Journal of Criminology*, 31, pp415-426.
- Pearce, F and Tombs, S (1996a) *The Strange Case of the Sociological "Silence" on Safety at Work*, paper presented to the BSA Annual Conference, Reading, 1-4 April.
- Pearce, F and Tombs, S (1996b) Hegemony, Risk and Governance: "social" regulation and the US chemical industry, *Economy and Society*, Vol 25, No 3.
- Pearce, F and Tombs, S (1997), Hazards, Law and Class: Contextualising the Regulation of Corporate Crime, *Social and Legal Studies*, Vol. 6, Number 1, 79-107.
- Pearce, F and Tombs, S (1998), *Toxic Capitalism: corporate crime and the chemical industry*, Aldershot: Dartmouth.
- Petrella, R (1997) Globalisation and Internationalisation: the dynamics of an emerging world order, in Boyer, R and Drache, D (eds.) *States Against Markets: the limits of globalisation*, London: Routledge.
- Phillips, J (1998) *Review of the Energy Industry 1973-98*, unpublished paper, Centre for Business History, University of Glasgow.

- Portella, J. (1985) *Oil Politics and Economics*, paper presented at 26th Annual Convention of the International Studies Association, Washington DC, 8th March.
- Poulantzas, N (1972) The Problem of the Capitalist State, in Blackburn, R (ed.) *Ideology in Social Science: readings in critical social theory*, London: Fontana/Collins.
- Poulantzas, N (1976a) *Political Power and Social Classes*, London: NLB
- Poulantzas, N (1976b) *The Capitalist State: a reply to Miliband and Laclau*, New Left Review, 95.
- Poulantzas, N (1978) *State, Power, Socialism*: London, NLB.
- Quick, A (1991) *Unequal Risks: accidents and social policy*, London: Socialist Health Association.
- Ramazanoglu, C (1989) Improving on Sociology: Problems in taking a feminist standpoint, *Sociology*, Vol. 23, pp427-442.
- Ramazanoglu, C (1992) On Feminist Methodology: Male Reason Versus Female Empowerment, *Sociology*, Vol. 26, pp207-212.
- Reich, R (1992) *The Work of Nations*, Vintage.
- Richardson, G, Ogus, A and Burrows, P (1983) *Policing Pollution: A study of regulation and enforcement*, Oxford: Clarendon.
- Rideout, R (1979) *Principles of Labour Law*: London, Butterworth.
- Risley, A (1995) The Challenges of the Nineties, *Offshore International*, Spring, 4-6.
- Robens, Lord (1972) *Safety and Health at Work: Report of the Committee 1970-72*, Cmnd 5034, London: HMSO.
- Rose, H (1983) Hand, Brain and Heart: a feminist epistemology for the natural sciences, *Journal of Women in Culture and Society*, vol 1.
- Rothermund, H (1994) Importance of Cost, *Crinewatch*, October.
- Rutledge, I and Wright, P (1996) *Taxing the Second Oil Boom: a fair deal or a raw deal?*, unpublished paper, University of Sheffield.
- Sampson, A (1979) Foreword to Bailey, M (1979) *Oilgate*, Sevenoaks, Kent: Hodder and Stoughton.
- Sampson, A (1993) *The Seven Sisters*, London, Hodder and Stoughton.
- Sanders, A (1997) Criminal Justice: The Development of Criminal Justice Research in Britain in Thomas, P (ed.) *Socio-Legal Studies*, Aldershot: Dartmouth

Sass, R and Crook, G (1981) Accident Proneness: science or non-science? *International Journal of Health Services*, 11, 175-190.

Sewell, J (1995) Trade Unionism and Employer Policies in the Aberdeen Oil Industry in Gallie, D, Penn, R and Rose, M, (eds.) *Trade Unionism in Recession*: Oxford University Press.

Showstack-Sassoon, A (1980) *Gramsci's Politics*, London: Croom Helm.

Sim, J (1998) *New Labour and the Crime and Disorder Act*, paper presented to Riverside Constituency Labour Party Conference on Crime and Justice, Blackburne House, Liverpool, September 5th.

Simon, D (1994) *Speech to the 1994 CBI Annual Conference*, 8 November.

Simpson, D (1986) *The Economics of Self-Government in Scotland*, Edinburgh: SNP Research Office.

Slaven, G (1996) Selecting and Training the Offshore Workforce, in Flin, R and Slaven, G (eds) *Managing the Offshore Installation Workforce*, Tulsa, Oklahoma: PennWell.

Smallman, C (1994) Offshore Safety Management Systems: Current practice and a prescription for change, *Disaster Prevention and Management*, Vol 3, pp33-58.

Smith, D (1988) *The Everyday World as Problematic: a feminist sociology*, Milton Keynes: Open University Press.

Smith, D (1990) Corporate Power and the Politics of Uncertainty: conflicts surrounding major hazard plants at Canvey Island, *Industrial Crisis Quarterly*, No. 4.

Smith, D and Sipika, C (1992) Back from the Brink - post-crisis management, *Long Range Planning*, Vol 26., Number 1.

Smith, D and Tombs, S (1995) Beyond Self-Regulation: towards a critique of self-regulation as a control strategy for hazardous activities, *Journal of Management Studies*, Vol. 32, No. 5.

Smith, P (1975) The Political Economy of North Sea Oil, in Brown, G (ed.) *Red Paper on Scotland*, Edinburgh: EUSPB Press.

Snider, L (1991) The Regulatory Dance: understanding reform processes in corporate crime, *International Journal of the Sociology of Law*, Vol. 19.

Snider, L (1993) *Bad Business: corporate crime in Canada*, Toronto: Nelson.

Spaven, M Ras, H Morrison, A and Wright, C (1993) *The Effectiveness of Offshore Safety Representatives: A report to the Health and Safety Executive*, London: HSE.

Stokes, R (1998) Will Tax Burn the Life Out of North Sea Oil, *Scotland on Sunday*, Focus section, June 7.

STUC Annual Report to conference, Aberdeen, 1973.

Sutherland, E (1983) *White Collar Crime: the uncut version*, London: Yale University Press.

Sutherland, V and Cooper, C (1986) *Man and Accidents Offshore*, London: Lloyds.

Sutherland, V and Cooper, C (1991) *Stress and Accidents in the Offshore Oil and Gas Industry*, Houston: Gulf.

The Robert Gordon University (1995) *The Alumni Newsletter*, Issue 3, February.

Thomas, R (1996) Plunder! a tale of oil and greed, *The Guardian*, 15 June.

Thompson, P (1989) *The Nature of Work*, 2nd ed., London: MacMillan.

Thompson, P and McHugh, D (1995) *Work Organisations: a critical introduction*, London: MacMillan.

Tinsley, S (1994) Storm Brewing Over North Sea, *Scotland on Sunday*, 18 September.

Todd, I (1996) *Better Business is Better Safety*, paper presented to CRINE: Learning to Survive, The Queen Elizabeth II Conference Centre, London, 31st January - 1st February.

Tombs, S (1988) The Causes of Coal-Mine Accidents, Worker Autonomy, and the Myth of the Small Firm, *Industrial Relations Journal*, Autumn, pp248-251.

Tombs, S (1990) Industrial Injuries in British Manufacturing Industry, *Sociological Review*, Vol 38, pp324-343.

Tombs, S (1990) Piper Alpha - a case study in distorted communication?, in *The Control of Major Hazards*. IChemE Symposium Series No. 122, 99-111.

Tombs, S (1991a) Piper Alpha and the Cullen Inquiry: beyond "distorted communication"?' in Cox, R and Walters, M (eds) *Offshore Safety and Reliability*, London and New York: Elsevier.

Tombs, S (1991b) Injury and Ill-health in the Chemical Industry: decentring the accident prone victim, *Industrial Crisis Quarterly*, Vol. 5, 59-75.

Tombs, S (1992) Safety, Statistics and Business Cycles: a response to Nichols, *Sociological Review*, Vol. 40, pp132-145.

Tombs, S (1995) Law, Resistance and Reform: 'regulating' safety crimes in the UK, *Social and Legal Studies*, Vol. 4.

Tombs, S (1996) Injury, Death and the Deregulation Fetish: The Politics of Occupational Safety Regulation in UK Manufacturing Industries, *International Journal of Health Services*, Vol 26, pp310-329.

Tuft, V (1994a) *President's Day Address. CRINE - Cost Reduction Initiative for the New Era*, London: Marine Management Holdings Ltd.

Tuft, V (1994b) Partners in CRINE, *Crinewatch*, August.

UKOOA (1994) Minutes of the General Council held at 10 am on Wednesday 12th April, at the Institute of Petroleum, London.

UKOOA (1996) *Official Statistics confirm offshore industry's improving safety performance*, Press Release, 18 March, London: UKOOA.

UKOOA (1997a) Our Track Record, *UKOOA website*, last amended 22 October, downloaded, 18 August 1998.

UKOOA (1997b) Annual Report.

UKOOA (1998a) *North Sea Oil, we all get a lot out of it*, Information Pack issued by UKOOA, April.

UKOOA (1998b) Piper Alpha Media Briefing, *UKOOA website*, last amended 19 July 1998, downloaded, 18 August 1998.

UKOOA (1998c) A Step Change in Safety, *UKOOA website*, last amended 22 October 1997, downloaded, 18 August 1998.

UKOOA (1998d) Current Reserves and Projected Life, *UKOOA website*, downloaded, 21 December 1998.

Underhill, G (1994) Conceptualising the Changing Global Order, in Stubbs, R and Underhill, G (eds.) *Political Economy and the Changing Global Order*, London: MacMillan.

Vaughan, T (1967) Governmental Intervention in Social Research: Political and ethical dimensions in the Wichita jury recordings, in Sjoberg, G (ed.) *Ethics, Politics and Social Research*, Cambridge, Mass.: Schenkman.

Vulliamy, D (1993) Review of the SI971 Report on the Effectiveness of Offshore Safety Representatives, in Foster, J and Woolfson, C (eds) *Workforce Involvement and Health and Safety Offshore: power, language and information technology, proceedings of the international conference*, Glasgow: Scottish Trade Union Congress.

Walters, D (1987) Health and Safety and Trade Union Workplace Organisation - a case study in the printing industry, *Industrial Relations Journal*, Vol 18, Spring.

Walters, D (1993) Employee Representation on Health and Safety in Britain and Europe, in Foster, J and Woolfson, C (eds) *Workforce Involvement and Health and Safety Offshore*:

power, language and information technology, proceedings of the international conference, Glasgow: Scottish Trade Union Congress.

Walters, D and Gourlay, S (1990) *Statutory Employee Involvement in Health and Safety at the Workplace: A report of the implementation and effectiveness of the safety representatives and safety committees regulations 1977*, London: HSE.

Walters, D and James, P (1998) *Robens Revisited - the case for a review of occupational health and safety regulation*, London: Institute for Employment Rights.

Walters, D, Dalton, A and Gee, D (1993) *Worker and Trade Union Representation on Health and Safety in Europe: the theory, practice and the potential*, Brussels: Trade Union Technical Bureau, European Trade Union Federation.

Weber, M (1949) *The Methodology of the Social Sciences*, Chicago: Free Press.

Westwood, J (1995) World Offshore Activity. An Upturn in Sight, *Offshore International*, Spring..

Whyte, D (1992) *Trade Union Organisation in the North Sea Oil Industry: an analysis of offshore industrial relations and the trade union strategy*, unpublished undergraduate thesis, Robert Gordon University.

Whyte, D (1997) Moving the Goalposts: The Deregulation of Safety in the Post-Piper Alpha Offshore Oil Industry in Stanyer, J and Stoker, G (eds.) *Contemporary Political Studies 1997*, Volume 2, Political Studies Association of the United Kingdom.

Whyte, D and Tombs, S (1996) *Capital on the Loose: safety, regulation and power in the UK offshore oil industry*, paper presented to the Joint Meetings of the Law and Society Association and the Research Committee on Sociology of Law, University of Strathclyde, 10-13 July.

Whyte, D, Smith, D and Tombs, S (1995) Offshore Safety Management in the New Era: what about the workers?, in *Major Hazards Onshore and Offshore*. IChemE Symposium Series No. 139, Rugby: IChemE, 35-53.

Whyte, D, Tombs, S and Smith, D (1996) Not Required Back (or don't rock the boat if you want to keep your job), *Occupational Safety and Health*, January.

Wilson, H (1979) *The Final Term: the Labour Government 1974-76*, London: Weidenfeld and Nicolson.

WoodMackenzie (1996a) *North Sea Report*, Number 276, April/May.

WoodMackenzie (1996b) *North Sea Report*, Number 279, August.

WoodMackenzie (1996c) *North Sea Report*, Number 282, November.

WoodMackenzie (1996d) *North Sea Report*, Number 283, December.

WoodMackenzie (1998a) *North Sea Report*, Number 302, July.

WoodMackenzie (1998b) *North Sea Report*, Number 304, September.

WoodMackenzie (1998c) *North Sea Report*, Number 305, October.

Woolfson, C (1995a) *Deregulation: the politics of health and safety, a report prepared for the STUC in conjunction with the International Centre for Trade Union Rights*, Glasgow: University of Glasgow.

Woolfson, C (1995b) *The Deregulation of the British Continental Shelf: the hidden agenda, in Offshore Safety in a Cost Conscious Environment for British and Norwegian Perspectives*, Aberdeen: Offshore Information Centre.

Woolfson, C and Beck, M (1995) *Seven Years After Piper Alpha: Safety Claims and the New Safety Case Regime*, Glasgow: University of Glasgow.

Woolfson, C and Beck, M (1998) *The Lessons of Piper Alpha: onshore and offshore safety in Scotland today*, Workers Memorial Day Lecture, delivered at Edinburgh Trades Council, 28th April.

Woolfson, C, Foster, J and Beck, M (1996) *Paying for the Piper: Capital and Labour in Britain's Offshore Oil Industry*, London: Mansell.

Wrench, J (1996) *Hazardous Work: Ethnicity, Gender and Resistance*, paper presented to the BSA Annual Conference, Reading, 1-4 April.

Wrench, J and Lee, G (1980) *Piecework and Industrial Accidents: two contemporary case studies*, *Sociology*, Vol. 16, No. 4.

Wright, C (1986) *Routine Deaths: fatal accidents in the offshore oil industry*, *Sociological Review*, Vol 34, pp265-289.

Wright, C (1993) *The Effect of Work Group Organisation on Responses to a Total Emergency in the Offshore Oil Industry*, in Foster, J and Woolfson, C (eds) *Workforce Involvement and Health and Safety Offshore: power, language and information technology, proceedings of the international conference*, Glasgow: Scottish Trade Union Congress.

Wright, C (1994) *A Fallible Safety System: institutionalised irrationality in the offshore oil and gas industry*, *Sociological Review*, Vol 42, pp79-103.

Wybrow, P (1982) *The Scottish Labour Movement and the Offshore Oil Industry*, in Dickson, T (ed.) *Capital and Class in Scotland*: Edinburgh, John Donald

Yergin, D (1991) *The Prize. The epic quest for oil, money and power*, London: Simon & Schuster.

Appendix: interview schedule for interviews with workers.

Introduction

Background to interviewee's position as an offshore worker - job - where - how long in this job - employer type.

General

How has offshore safety management changed since Piper Alpha? Has the process of change been noticeable on the platforms?

- Amongst other workers
- Amongst managers and supervisors
- A general change in working practices?

How has your job changed?

- Organisational restructuring.
- Training.
- Working with new safety and control systems.

How does approach to safety vary from installation to installation/operator to operator/employer to employer (based upon direct/indirect experience)? How?

Do you have an input into the way that safety procedures and practices are implemented and monitored? What type of input? How often does this happen? How effective are these inputs?

Safety Case and Safety Management Systems

To what extent have you been involved in the preparation of safety cases? Or in the preparation of a safety management system? Describe this process.

How effective has this process been in involving the workforce?

Safety Committees

Experience of being a safety representative or of working with other safety representatives.

How effective is the system of safety representatives and safety committees?

- At responding to immediate and long term concerns?
- At providing a forum for workers to raise grievances/suggestions for improvement?
- How are the decisions of the safety committee dealt with by employer/operator?
- Evidence/examples of this?

How are workers encouraged to take part in safety committees? Both as a safety representative and in using the safety representatives as a channel for raising issues?

Trade Unions

Role of trade unions offshore.

Are you in a union? Any problems with maintaining trade union membership/non-membership?

Is there a shop steward/trade union representative on your platform? Relationship between trade union and management on platform.

Training

What form of training have you received since you started working offshore? In the last 2 years?

- In-house training by employer.
- Specialist/safety training
- Training on the installation.

Have you received training on safety procedures and practices?

Do you feel that the training that you or those you work with have received has been adequate? What training that you have not received do you think would be useful/desirable.

Working on the Installation

How do you rate the safety practices on the platform you work on now?

- Priority given to safety by management and colleagues.
- Communication between workers and supervisors on operational matters?
- Response to accidents and incidents.

Reporting safety concerns to line management or to your supervisor. examples.

Regulator

HSE inspections.

Relationship between safety representatives/HSE and between management/HSE.

Have you made contact with the HSE for any reason? Details.

Management of the Installation

Response to accidents and incidents.

Observation of safety procedures on a day to day basis.

Communication between managers/supervisors and workers on the installation.

Integration of contract workers into operators systems? e.g. recruitment and training procedures.