THE REGULATION OF HEALTH AND SAFETY IN SOUTH AFRICA'S MANUFACTURING INDUSTRY

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DEDICATION:
This thesis is dedicated to the memory of Far and Alex. They may not have shared all my interests, but I will always miss their support and companionship.
"If asked, workers will convincingly confirm that most factories are dangerous and unpleasant places to work in. Workers have to put up with the incessant noise from machines, dust from grinders or drills, heat from furnaces or the exposure to chemicals and gas fumes that are involved in various production processes. Workers will also tell that in the majority of factories, protective clothing is at a minimum and protective devices such as hand covers on machines, or air blankets to blanket fumes, or fans to blow away dust, are not often provided. This lack of protection results in many injuries, and in 1974 it was estimated that 100,000 hands, 50,000 feet and 40,000 eyes were badly injured, 31,000 men and women would be permanently maimed, several hundred were injured severely enough not to be able to return to work, and 2,284 were killed."

The above was written ten years ago and, for many workers, probably little has changed in the intervening years. Nevertheless, some changes have taken place. The figures have changed, conditions in many factories have changed and there has been a process of legislative reform incorporating new developments in the field of workplace health and safety. But perhaps the major change has been the coming of age of the democratic union movement in this country.

In many countries, particularly in some of the advanced capitalist countries, trade unions have historically played a crucial role in bringing about improvements in the working environment. The role of organised labour in improving occupational health and safety in North America, Western Europe and the Scandinavian countries has been especially marked since the 1960s, both through collective bargaining at the industry and national level and through the political

role of labour in these countries. The major objective of participation has been to assert "the principle of the active and priority role of workers and their representatives in occupational safety and health. These claims have been upheld as justified in a number of countries where these new elements of workers' rights - not only to be protected, but also to be informed about, to participate in decision taking on, and to exercise control over this protection - are now incorporated in the legislation."^2

The continued growth and maturing of South Africa's democratic unions has held out the prospect of unions here adopting a similar role (if different in form), particularly as the principle of participation in workers' health and safety would be consistent with other commonly held principles in the union movement - principles such as democracy and workers' control. And, indeed, over the last decade, unions that are today affiliates of both the Congress of South African Trade Unions (COSATU) and the National Council of Trade Unions (NACTU) have established a record of dealing with workplace health and safety, even if not always as a prominent feature of their activities.

A union which has accorded workplace health and safety exceptional attention is that organising in the country's most hazardous industry, mining, which "remains the industry in which safety and health issues are most vigorously contested."^3 The focus on health and safety in the mining industry dates back to the early part of this century, but it has been the militant National Union of Mineworkers (NUM) that, during the 1980s, has begun to confront employers on conditions of the underground environment.^4 It is, of

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4. A considerable body of sociological literature dealing with safety in the mining industry has been developed, largely through the work of Jean Leger and the Sociology
course, precisely the hazardous underground conditions that explain why the NUM has had health and safety placed high on its agenda by its members. In response, the NUM has placed safety squarely within the industry's framework of collective bargaining, both at the level of the individual mine and at the industry level. The union has also engaged the government department responsible for the industry over issues concerning mining safety and proposed legislation.

No union representing workers in the South African manufacturing sector has dealt as systematically and consistently with the health and safety concerns of its members as has the NUM. In contrast, unions in the manufacturing sector have generally tended to deal with safety matters on an ad hoc basis, mainly in individual plants, although occasionally at industry level. Some of the reasons for the difference are obvious, most notably that there are no extensively organised sectors that have accident and disease rates as high as those in mining. Hazards in many industries in the manufacturing sector also tend to be far less obvious and it is more often the case that some rudimentary forms of control are exercised to protect workers. A problem identified by Adler was that the statutorily established standards "are not seen as basic minima, but are the only standards and policing procedures allowed. The essential role of collective bargaining is excluded." In this regard, there has been some change since the late 1970s: present legislative regulation could be seen as establishing a minimum framework only and attempts at dealing with health and safety via the collective bargaining process have been made. But even where unions have achieved improvements, they have seldom been sustained, largely because of a failure to establish a continued role for organised labour in policing the workplace from the point of view of safety and health. Without such a role, very few ad hoc improvements achieved through collective bargaining, or through other means, are

5. Adler: op cit, 1979, p.65
likely to remain in force to protect the health and safety of future generations of workers.

Given the above characterisation of union approaches to regulating workplace health and safety in manufacturing, this thesis will, therefore, be concerned with trying to develop an understanding of what the difficulties have been in bringing about improvements to the working environment in manufacturing. The role of labour will be of central concern, but an attempt will also be made to analyse the role of the other participants in the regulatory process, namely, the state and employers. The period with which the thesis is concerned is the 1980s. The area is clearly a very broad one and no claims will be made to providing a comprehensive study. Rather, it is hoped that the present study will provide some new data and some original insights into the regulatory process which will provoke further discussion and research in the field of occupational health and safety in South Africa.

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In completing the thesis a number of persons have been of great help.

* I would like to acknowledge the co-operation of all the individuals who gave of their time during interviews. The persons who were interviewed for the two case studies gave particularly generously of their time.

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* During 1986 Willy Hofmeyr conducted some of the interviews on the implementation of the Machinery and Occupational Safety Act, data from which have been used as part of Chapter Three and for which I am very grateful.
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Finally, I owe a great deal to Jonny Myers, who introduced me to the field of occupational health and safety, taught me nearly all I know about the area and without whose help and support the thesis would still be in a state of disarray.
Introduction

This thesis is partly based on a research project undertaken while the writer was a member of the Industrial Health Research Group. The aim of the research, which was carried out in the period 1986 to early 1988, was to study the implementation of a particular piece of legislation, the Machinery and Occupational Safety Act. The research data did not, however, reveal much more than was already known about certain aspects of workplace health and safety and tended largely to confirm certain predictions that had been made by other writers about the nature of the Act and likely responses to it. More importantly, in analysing the way in which legislative intervention could shape practices around health and safety, it became clear that such practices could equally well be shaped in other ways, principally via employer and trade union initiatives. Indeed, it would appear that the latter, when they occur, may be the more successful initiatives in terms of establishing effective mechanisms for dealing with problems of health and safety in the workplace. In this case, Kahn-Freund's observation applies very aptly, namely, that "everywhere the effectiveness of the law depends on the unions far more than the unions depend on the effectiveness of the law." Any change to working conditions or the enforcement of existing legal regulation, however, invariably involves the interaction of the major parties to the labour relation, as well as the state, and it is primarily through this process of interaction - often struggle - that regulatory policies and practices are shaped. This fundamentally social process

1. See inter alia:
Maller J, Steinberg M: Health and safety: An issue in industrial relations. South African Labour Bulletin, 1984, 9(7);

is often ignored in the literature dealing with occupational health and safety, which tends to be concerned largely with general critique, specific epidemiological investigations or critiques of state policy. What has also received only limited attention is the extent to which trade unions do or do not participate in the regulation of production, particularly as regards improving the physical well-being of workers. The above deficiencies in the literature are particularly marked with regard to material dealing with the contemporary South African situation, although recent writing has attempted to fill in some of the gaps. ³

From its origins in a fairly specific project, then, the thesis grew into a more exploratory study, focusing on the regulatory process and the parties to the process and on the role of trade unions in controlling the working environment. An underlying issue is that of workplace health and safety itself, which, as a factor in any industrial relations scenario, combines two distinct aspects. On the one hand, there is a set of scientific concerns which have to do with most systems of production - concerns that relate to the raw materials used in production, the way they are used and the machinery that is used to produce goods. The evaluation of hazards in a system of production in turn depends on the medical sciences and techniques of industrial hygiene. On the other hand, health and safety at work is integrally tied to industrial relations - the relations between the different parties in the workplace which determine how work is done, the rules and procedures which govern the system of production and the management of such a system. The two components may often be interrelated, but they are not identical. A common denominator, however, is that of costs, which enter into decisions affecting most aspects of

production and the extent of which — perhaps particularly in the case of health and safety — is often determined by industrial relations factors.

Following on the above, a first hypothesis of the thesis is, therefore, that workplace health and safety is a more complex issue, both organisationally and technically, than other industrial relations issues. It is, moreover, precisely this complexity and the failure by either of the parties to the regulation process to adequately take into account both the technical and industrial relations components that often results in a failure to control, or only partial control of hazards at work.

The second hypothesis arose out of the writer's experience, as a member of the Industrial Health Research Group, of working with union organisers and union members on health and safety issues. What became apparent was that, although unions are adept at dealing with a wide range of issues, including health and safety, via the collective bargaining process, the way in which they do so is circumscribed by various factors, some of which are beyond the control of trade unions. Effective, preventive action on health and safety requires ongoing involvement by workers to monitor the working environment and to identify the areas of the system where they can intervene to prevent danger. In the South African situation, however, such factors as limited resources, state political intervention in industrial relations, the need to address basic rights of workers and inadequate wage rates limit the extent to which unions can adequately address preventive aspects of regulation. More often, unions and workers are obliged to maximise short term gains — the immediate removal of a hazard and/or compensation for damage. One could therefore hypothesize that institutional trade union pressure is commonly orientated towards short-term goals, which may be of limited preventive efficacy, rather than towards longer-term regulation of production as regards its effects on health and safety.
A final hypothesis concerns the roles of the respective parties to the regulation process, namely, the state, employers and organised labour. It has been suggested above, that it is necessary to deal analytically with regulation, as a process, occurring through the actions of the three parties, each of which brings somewhat different interests to bear on regulatory activity. Precisely because of the different interests at play, the respective roles of the state, employers and labour should ideally be clearly and positively defined, particularly with regard to the issue of compliance with regulation. The various roles and, to some extent, the interests of employers and labour, are most commonly governed by legislation which provides the ambit for formal regulation involving the state. But formal regulation is not the only source of role definition. The collective bargaining process is another source for the rules and procedures which govern the different interests and roles in industry - a mechanism for informal regulation. For effective regulation, which includes monitoring compliance with rules and procedures by both management and labour, there is, therefore, a need for a meshing of formal and informal regulation and a continued role for the state, not only at a consultative and legislative level, but in the workplace as well. It is hypothesized, however, that there is commonly a disjunctive between formal and informal regulation, or a disjunctive between the roles assigned to the state, employers and labour in regulating the workplace and the actual practices of the parties. Such disjunctures contribute to the failure of regulatory activity.

One of the main objectives of the thesis will be to examine the above hypotheses in the South African context. Apart from a brief historical overview of early forms of legislative regulation, the focus will be the period from the late 1970s to the present, with particular emphasis on the period covering the passage of the Machinery and Occupational Safety Act (MOSA). The main data against which the hypotheses will be examined will be a survey of the implementation of MOSA and two case studies of industry-level regulation.
The study is, however, also concerned with a broader set of objectives, the first being that of conceptualising the regulatory process: what does regulation mean, what are its determinants and what is its efficacy? A second important objective of the thesis arises from the context within which regulation takes place, namely the labour process, defined, following Burawoy, as "...the coordinated set of activities and relations involved in the transformation of raw materials into useful products." Through statutory regulation, the state intervenes directly into the labour process and it is the labour process which provides the terrain within which the other parties to the labour relation, namely employers and workers, interact and relate to the working environment. The thesis will, therefore, attempt to conceptualise health and safety in terms of the labour process.

A third objective will be to examine the organisational aspect of workplace health and safety. Since the 1960s there has been a clear move in a number of countries towards the development of organisational models that provide for worker participation in the monitoring of production vis-à-vis health and safety. Such models also attempt to shape the nature of the relationships between employers and labour around issues of health and safety. South Africa has followed this trend, although in its own particular way, and a central concern of the thesis will be to analyse and evaluate the model introduced in this country through the Machinery & Occupational Safety Act (MOSA). The introduction of the latter legislation highlights an important point about state regulation of production, namely, that it is by no means static and assumes different forms at different times, depending on the kinds of forces operating on the state and within its institutions. In this regard, MOSA represents an important shift in statutory regulation from its predecessor, the Factories Act. Under the old Act, duties were spelt out in detail, were to be enforced by government agents and occupational health and

safety was firmly separated from the broader sphere of organised industrial relations. MOSA has introduced a new philosophy of self-regulation and has also provided for an increased role for workers in health and safety matters at the workplace. An analysis of the shift will attempt to contextualise the contemporary model for the regulation of production and to evaluate its potential effectivity in the South African situation.

A final objective of the study has to do with questions concerning the role of South African unions in regulating occupational health and safety. In 1979, Adler outlined a number of conditions that he viewed as necessary prerequisites for unions to be in a position to make improvements to health and safety. These were:

* the establishment of free collective bargaining rights for all workers;

* recognition of the right of unions to include working conditions and their enforcement in the arena of collective bargaining and in industrial agreements;

* right of access by workers and unions to standards and research of semi-government bodies;

* withdrawal of secrecy provisions in the various Acts covering occupational health and safety;

* withdrawal of the clause in the Workmen's Compensation Act preventing civil actions for damages by workers against negligent employers. 5

Adler was writing in the pre-Wiehahn period and the amendments to the Industrial Conciliation Act later in that year, as well as subsequent changes, have all enforced the principle of collective bargaining as a means of achieving

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industrial peace. While many employers may still view health and safety as an area that falls outside of the scope of bargaining, there have been a number of precedents where unions have achieved significant improvements to working conditions through the bargaining process. Unions also have access to specialised research through the health and safety service organisations that have sprung up in nearly all the major centres during the 1980s. As regards the right of access to information concerning the production process, MOSA stipulates that it is a duty of employers to make employees conversant with the dangers attached to their work.6 The final condition, which would allow workers to make "employers' negligence a very expensive matter"7, has not been met and is unlikely to be met under the present political dispensation.

Clearly there have been significant changes in the conditions facing unions in South Africa. Yet the democratic unions, despite their organisational strength, resilience and innovativeness, have still not systematically incorporated health and safety into the range of issues with which they normally deal. Nor, despite some advances, is there a clear record of sustained improvements through the collective bargaining process. Why is this so?

As previously stated, part of the background to the present thesis was the writer's involvement in consultancy and service work on occupational health and safety. The valuable contact with unions provided an opportunity to observe some of the real problems they face in dealing with an area such as health and safety. Common problems include resistance by employers to any attempted interventions by unions; limited personnel resources, making it difficult for unionists to allocate the time necessary to deal adequately with issues, which, by their nature, often require lengthy and complex investigation and negotiation; and coping with frequent interruptions to any sustained programme of

6. General Administrative Regulations. GN R2206, GG 9453, 5 October 1984, section 5(h)
7. Adler: op cit, 1979, p.65
intervention arising out of the highly politicised industrial relations system and repressive political system in South Africa. In addition, unions in this country are also faced, by and large, with the problems that are thrown up by the inadequate educational system experienced by the majority of their members, the result of which is a real shortage of technical skills in the area of occupational health and safety.

The above factors could support the argument that the lack of systematic attention to health and safety reflects only a developmental phase and that, in time, when such problems have been overcome, South African unions, like others elsewhere, will turn their attention to health and safety and deal with it comprehensively. The latter argument should not, however, be accepted uncritically and the thesis will attempt to examine the capacity of unions to effect changes to working conditions and to identify the problems they face in doing so.

Chapter One will deal with the theoretical concerns of the thesis. The point of departure will be the Marxist analysis of the labour process and its influence on discussions of the labour process and workers' health. An attempt will be made to critically review the use of the concept of control in relation to struggles between employers and workers over working conditions. An alternative, in the form of 'control by rule', will be discussed and different sources of control over the labour process will be identified and discussed.

The second chapter will summarise the historical background to statutory regulation of health and safety in the manufacturing sector in South Africa. The chapter will primarily be concerned with the legislative changes and commissions of enquiry that preceded and resulted in the drafting of the Machinery and Occupational Safety Act. The passage of MOSA will be outlined and the major features of the Act will be discussed. The main aim of the chapter will be to examine the changing function of legislative regulation and the state's role in the regulatory process.
The third chapter analyses the implementation of MOSA, based on a sample survey of companies and trade unions in the Greater Cape Town area. The chapter will provide empirical information on responses to the state's model for regulation, as well as highlight certain aspects of the role of employers and unions in controlling workplace hazards.

Chapters Four and Five will present case studies of attempts at controlling specific hazards in the textile and fibre-cement industries. Chapter Four deals with a union-initiated campaign, directed at ascertaining the extent of exposure to cotton dust in the textile industry and preventing byssinosis, the respiratory disease caused by the dust. The Brown Lung Campaign, as it was referred to, was initiated by the National Union of Textile Workers during the early 1980s. Chapter Five provides an outline and assessment of the regulation of exposure to asbestos in the Everite company. The source of regulation in this case was primarily that of self-regulation by the employer, with the unionised workforce playing a supplementary, but important, role in seeking improvements in company practices and monitoring various aspects of health and safety in the workplace. Both case studies will attempt to demonstrate the various ways in which regulation is brought about; how the state, employers and labour may interact in changing the working environment; and what limitations exist on the role of the various parties.

The final chapter will present tentative conclusions with regard to the regulatory process in contemporary South Africa. The current model contained in MOSA will be evaluated and the hypotheses underlying the thesis will be discussed.
Throughout the thesis, the terms "occupational" and "workplace" will be used interchangeably with regard to health and safety. Both specify work as a context for health and safety. Health and safety will, in most cases, be used together. Although health usually refers to the longer-term effects on humans of a particular set of conditions or substances, safety is generally used to refer to protection from short-term, traumatic events. Often, however, the distinction becomes blurred.
Chapter 1: Regulating the workplace - a theoretical discussion

Introduction

The literature dealing with work and its effects on the health and safety of workers is extensive and often very depressing.\(^1\) Not only has it been amply demonstrated how hazardous work can be, but there is a large body of literature that deals with the alienating nature of work, as well as its stressful nature, in both medical and psychological terms.

Similar perspectives have been mirrored in the sociological literature from the time of Karl Marx to the resurgence of writing on the labour process, led by Harry Braverman's "Labour and Monopoly Capital".\(^2\) The focal point of the Marxist literature has necessarily been the exploitative nature of work, reflected in analyses of the various forms of control exercised over workers, the de-skilling of workers and other aspects of contemporary social and technical relations of production.

Resistance by workers to the conditions facing them has also been documented, highlighting the essentially conflictual nature of production under capitalism. What has, however, received less attention is the way in which facets of production have become the focus of negotiation between employers and workers and what the role of labour, in consequence, has been in changing the working environment.

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1. Examples are:

In the latter regard, occupational health and safety is an interesting field for study. Most productive activity carries some risk to workers' health, either through the materials used, or through the way in which work is carried out. Health and safety is also closely tied to industrial relations, being of concern to both parties involved in the process of production and often embodying conflicting interests between employers and workers. Yet health and safety appears less often to be a cause of overt conflict and more often the focus for regulatory activity, particularly in the form of legislative regulation, whereby the state enters directly into the labour process.

Turning to the South African situation during the 1970s and 1980s, a mainly black, trade union movement has emerged and has grown rapidly, making gains that have taken unions in other countries much longer to achieve. In less than ten years, the industrial relations scene has changed from one in which black trade unions demanded to be heard and employers refused to listen, to a situation in which the two parties bargain collectively. Not only have the parties bargained, but, over the years, as Friedman puts it, they increasingly "fought complex battles over concepts outsiders struggled to understand." The issues had changed too: unions demanded not only more pay and job security, but a say in ever more areas of factory life." Health and safety has been one of the areas at issue, raising the question of how and to what extent a dynamic union movement is able to effect changes in a particularly complicated aspect of working conditions.

But, to be able to evaluate the role of labour in regulating workplace conditions, it is necessary to have some

3. Although it is difficult to obtain exact figures for the number of strikes triggered by health and safety issues, it is estimated that such strikes seldom amount to more than 5% of the total strike figure in South Africa - if that. By far the largest proportion of strike triggers, over the last 3 years, were wage-related. See Financial Mail, 5 May 1989, pp.26-27

understanding of the nature of the relationship between the state, employers and labour, in particular, with regard to occupational health and safety. The primary context within which employers and workers relate to each other is the labour process and it is here, too, that the state intervenes to regulate working conditions. This chapter will, therefore, begin by exploring the relationship between the labour process and health, as well as some of the conceptions in the literature about the dominant issues in the relationship. An attempt will be made to characterise how health issues are dealt with organisationally in the labour process, through regulation, or 'control by rule', and the different sources of regulatory action will be discussed. A continuing theme in the chapter will be the different interests and capacities of employers and labour and the way that such factors shape action or inaction on health issues in the labour process. The final part of the chapter will look more explicitly at the question of workers' participation in health and safety, which will be discussed with reference to the issues raised in the chapter as a whole. Particular attention will be given to the issue of different interests and how various roles, orientated to monitoring safety, may be fulfilled in the light of the different interests.

The labour process and health

The labour process may be said to comprise a number of elements that are independent of any particular social formation. These are:

1. purposeful activity directed to work;
2. natural or raw materials as the objects on which work is performed;
3. the instruments of work, which take various technological forms.

Taken together, the components of the labour process form the general preconditions of all production. A further

crucial feature of the labour process is, in Marx's view, the interpenetration of the technical and human aspects, the material and the social. "Production, then, is both a material and a social process, an activity whereby people transform both their circumstances and themselves. Each of its facets, in Marx's view, conditions and constrains the other." 6

The first element of the labour process, namely, labour, or purposeful activity, becomes particularly important when dealing with the labour process under capitalism. In the latter context, Marx used the term, labour power, to indicate that the worker's mental and physical abilities exist in a relationship to employers or capital. It is in terms of that relationship that the ability to work becomes transformed into a process of producing value. Following Thompson's exposition of Marx's approach: "The production of commodities with a use value is not the sole goal of the capitalist. He needs to exchange those commodities for a price greater in value than the costs incurred in production. The process of production must therefore combine the labour process with the creation of value. Hence the labour process becomes inextricably linked to the struggle for profitable production." 7

For Marx, `profitable production' occurred not just through the production of value, but through the extension of production into creating surplus value, that is, value that is over and above that necessary for the payment of labour power and which can remain the legal property of the employer. The process of creating surplus value, the valorisation process, as Marx called it, is what combines with the labour process to give it its distinctively capitalist character.

The validity of Marx's labour theory of value is the subject of a debate which will not be dealt with here, but which, oddly enough, has largely been ignored in discussions on the labour process. Irrespective of whether the relationship between labour and capital is primarily determined by a struggle over the amount of surplus value to be produced, or whether it is more 'simply' driven by the struggle for profitable production, the central point remains that there are antagonistic relations at the heart of the labour process which, under particular conditions, embody conflicting interests. Such conflicting interests may be evident in any number of issues where the rate of profit accruing to employers is threatened by alternative ways of carrying out production, under conditions that may be more favourable to employees. Safer, or healthier conditions of work would be a case in point.

The Marxist analysis of the labour process has come to inform the discussion of worker's health in a number of different ways. As regards the latter two elements of the labour process mentioned above, namely, the objects on which work is performed and the instruments of work, referred to by Marx as the means of production, both can be investigated in terms of potential risks to health and safety. The objects of labour, or the raw materials put to use in the production process can be studied taking into account their physical, chemical and biological properties, any one of which could constitute health risks. Similarly, the instruments of labour, which serve as the intermediaries between the labourer and the objects of labour, need to be studied for their health effects and for the potential safety risks which, under certain conditions, they embody. Examples would be pneumatic drills, whose use can result in deafness and repetitive strain injury, or circular saws, which may, in certain circumstances, cause severe hand injuries.

The interrelation between the technical and social aspects of production, emphasised by Marx, applies equally to the instruments of labour, which can be analysed in terms of their technical sophistication, or as an expression of specific social relations. As Navarro puts it: "...areas to look at include the physical effort needed to execute work; the interaction between the workers, the objects of work, and the means of labour; and the degree of control that the workers have over the means of work and over the process of work. Each of these different components of the labour process is an expression of the social relations that created it. For example, the instruments of work created under machine capitalism characteristically impose on the worker a specific manner of working. The instruments of work, such as machines, dictate the rhythm of work and limit the decision making of the workers."\(^{10}\) The socially determined character of the labour process, therefore, can also be seen to have detrimental effects on health, particularly in terms of psycho-social stress factors.\(^{11}\)

At a more general level, there is the commonly repeated truism that employers place profits before health and that health and safety must be paid for out of profits. "It is an extra that employers may or may not decide to purchase, rather than an integral part of the way work is done."\(^{12}\) Such views may be informed by an accurate analysis of the constraints under which capitalist production takes place, but cannot address the particular circumstances and conditions under which hazards occur in production. More importantly, they do not incorporate any proposition that would allow for an explanation of the factors that lead to change and improvements to working conditions.

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10. ibid, p.11
11. Some of the most important work in the area was that of the late Bertil Gardell. For a useful overview, see Johnson J, Johansson G, Hall E: Introduction to special section: Work organisation, democratisation and health (dedicated to Professor Gardell). International Journal of Health Services, 1988, 18(4)
Navarro has attempted a more careful analysis of the labour process and health, drawing on Marx's distinction between absolute and relative surplus value in looking at the consequences for workers' health. He concludes: "...we can speak of absolute expropriation of health when the loss of health is due to the appropriation of absolute surplus value, the predominant form of exploitation in underdeveloped capitalist countries; and of relative expropriation of health when the loss of health is due to the appropriation of relative surplus value, the predominant form of exploitation in developed capitalist countries. Needless to say, the two types of expropriation of health can be superimposed on the same labourer." While it may be important to distinguish between differing degrees of exploitation, or differing intensities in the production of surplus, such distinctions lose their conceptual clarity when applied to other factors, such as health. When applied to something that is primarily an effect of productive activity, rather than a determining factor in the organisation or intensity of production, the comparison tends to serve a purely descriptive purpose. If one starts from the premise that most forms of productive activity carry some risk to health, there is surely no need to demonstrate degrees of risk with reference to value. What becomes important is to analyse the effects on workers of differing exposures to risk.

Another area of application of labour process theory to the study of workers' health is that relating to the control of production. It may perhaps be more accurate to characterise the area as a parallel concern, but it is one that has become central to recent thinking on the regulation of workplace health and safety.

Control and conflict over health and safety

In the literature on the labour process, a major theme which has emerged is that of 'control'. Control has been

14. ibid, p.13
recognised as a crucial issue in the capitalist labour process and common ground has been established in recognising the need for employers to exercise systematic control over the labour process in order to turn labour power into labour for profitable production.

The question of how control over the labour process was exercised at different points in time underlay Marx's discussion of the transition from manufacture to machinofacture. The gradual and uneven transition from a situation in which workers wielded the instruments of production and largely determined the rhythm of work, to a labour process in which machinery determined the pace of work and workers exercised a limited amount of independent activity, was captured by Marx in the shift from what he called the formal subordination, or subsumption, of labour to real subordination, or real subsumption of labour. More recently, and often in response to Braverman's important work, writers have considerably refined the concept of control in relation to the capitalist labour process and a large part of the debate has revolved around the question of how capitalist control of the labour process is obtained.

The fact that accumulation requires control of the labour process does "not tell us what form of control will be applicable in different circumstances. Nor does it distinguish between management choices based on considerations of short- and long-term profitability. No one has convincingly demonstrated that a particular form of control is necessary or inevitable for capitalism to function successfully." What the debate has revealed is that within the overall control of the labour process by capital, there are a variety of techniques available to management to ensure that authority can be exercised over the labour of employees. At the same time as control is exercised, however, some measure of voluntary compliance is

16. Braverman: op cit, 1974
required to facilitate the smooth running of productive activity. Management can therefore be seen as faced with the dilemma of ensuring both control and compliance in the labour process, so that "the task of labour process theory becomes that of understanding the combinations of control structures in the context of the specific economic location of the company or industry." \(^{18}\)

How do different strategies essentially aimed at ensuring continued production of surplus affect workplace health and safety? The beginnings of an answer lie in the presumption that health and safety may be one facet of productive activity where change and improvement is relative to the degree of control exercised by management over the labour process. This presumption has been applied to issues of workers' health in ways that are illustrated by the following quotations:

"Achievements in the OSH (Occupational Safety and Health) realm occupy a special place in this struggle (the class struggle), for they link both conditions of work and health provisions. But most important of all, they bear directly upon control of the work process - a central threat to capitalist control of the means of production." \(^{19}\)

"In order that the capitalist can maximise his profit he demands that he should have the right to 'control' every aspect of the production process - including his employees. Workers on the other hand may well wish to minimise the capitalist's right to control, and to exert the greatest possible degree of control over the production process. Given the initial premises of the capitalist system they can never be other than partially successful in this objective, since if they really did succeed in wresting 'control' from the capitalist they could

\(^{18}\) ibid, p.152

then determine the nature and size of 'profit', and the nature of the economic system would have been fundamentally altered. It must be recognised of course that unions do not necessarily pursue this objective in practice, but rather that they tend to concentrate upon trying to increase their members' share of the product of their labour. Nevertheless the fact remains that it is this conflict of interest, and struggle for control which underpins our entire industrial relations structure. Any analysis of the 'problem' of health and safety at work which ignores or distorts that reality cannot carry conviction."20

Maller has provided a very thorough discussion of the relationship between control and health and safety, arguing that:

"As the worker lost the ability to control his/her work, so too did the worker lose the ability to prevent accidents and exposure to dangerous and unhealthy substances. Thus, health and safety must be seen as a site of struggle within the context of the generalized contradiction between capital and labour. The former attempt to keep wages as low as possible and avoid expenditure on means of production that like health and safety are essentially non-productive - these would include ventilation and fume extraction, safety guards, design and buildings and machinery, plant layout etc. On the other hand workers attempt to maximise wages and improve working conditions."21

The view of workplace health and safety contained in the above quotations implies a number of propositions. These are:

1. that workers are conscious of dangers at work and have an interest in preventing these dangers;

2. that workers have an interest in and attempt to exercise control over the production process, including the health and safety aspects of the process;

3. that health and safety at work is an aspect of the production process that employers seek to control in order to maximise profit;

4. that health and safety is necessarily a conflictual issue between the parties to the labour relation, as it embodies the struggle for control over production.

Propositions (perhaps more accurately, assumptions) such as the above, are common in the literature dealing with workplace health and safety, but they are problematic in a number of respects. It is worth noting that "control" is not always used consistently to apply to attempts to ensure profitable production. In the above quotes, for example, it is used not only in the latter sense, but also in the relation to the organisation and "politics" of work more broadly.

Moving on to look at the propositions in more detail, the first proposition cannot easily be supported empirically. It can be demonstrated that workers' knowledge of hazards is often limited, because so many of the adverse health effects of production are very obscure. An example is the chemical industry, where lack of information about materials used is in most countries a serious constraint on the ability of workers to be conscious of hazards. It is only in last few years that the question of the right to information has become a topical issue in some countries, for instance the USA, where a Right to Know statute was only enacted in early
1988. As regards workers' interest in preventing dangers, objectively speaking, it could be argued that workers have an interest in a safe and healthy workplace, but then Marx claimed the same for their interest in communism. Even where the level of awareness of hazards is high - working underground in the mining industry would be an example - worker or union action to prevent hazards is not a given. In short, objective interests are not automatically translated into subjective forms of acting on those interests.

As regards the second proposition, it is crucial not to confuse resistance by workers and trade unions to adverse working conditions with attempts to control the production process in the sense of influencing the production of surplus. Resistance by workers can take place on a broad range of issues, such as exploitation, the relationship between effort and reward, labour intensification and the treatment of workers and their organisations. But such resistance is not always about control, either in the sense of determining production and output, or in the broader sense of being a 'political' struggle for power in the workplace. Conflict over conditions of work pertaining to health and safety, in particular, can broadly be said to be concerned with rights in the workplace, such as the right to information or right of access for evaluation purposes; improvements to the working environment; and may also take the form of protests over specific events, either accidents or disasters. Such conflict very often involves questions of financial expenditure, usually potentially increasing the costs of production, but such issues do not necessarily affect the way in which surplus is to be produced, or the rate at which it is to be produced. Nor can gaining further rights in the workplace automatically be linked to real or desired control over the production process.

As regards the third proposition, the argument that it cannot automatically be assumed that workers have an interest in the question of control, can be extended to employers as well. There certainly are cost factors
involved, which may lead to resistance by employers to demands for changes. Costs, or expenditure on the working environment, can be related to profit, but again, this is not necessarily directly relevant to the question of surplus value. Employers are, however, interested in the question of prerogative. Accordingly, the health of "their employees", or the safety of "their workplace", constitute areas over which employers generally seek to maintain power.

Perhaps the most common assumption in the literature on occupational health and safety is that it constitutes an area of conflict between employer and employee. Most industries do carry physical risks that could result in legitimate worker grievances and, as indicated above, in broad terms, there clearly are potential areas of conflict around this particular facet of the production process. In this sense, health and safety is perhaps no different from other aspects of the labour process which give rise to worker resistance and which become the subject of collective bargaining. The commonality of interest between employer and worker and the ideological effects of this commonality, tend, however, to be ignored.

Burawoy has provided interesting arguments about the way in which commonalities and consent are "constructed" ideologically in the labour process. It could be argued, however, that there are specific interests in health and safety which are objectively shared. In such cases commonalities do not necessarily need to be "constructed", although they do need to be organised in particular ways to be realised. Thus, workers have an objective (and subjective) interest in staying safe while at work, despite potential conflict with maximising output or taking short cuts in certain circumstances. Employers, on the other hand, can be said to have an interest in health insofar as accidents and illness caused by work can impede productivity.

There is also a broader sense in which interests of both employer and employee are bound together, namely an interest
in profit, which ensures the maintenance of the labour relation (most of the time). With regard to workers, Burawoy argues: "Proletarian existence rests not merely on today's wage but also on tomorrow's and the next day's. Unlike feudal serfs, who produce and consume their own surplus independently of the lord, capitalist labourers depend on the production of profit." The shared interest in the production of profit, together with the specific interests of both employer and worker in health and safety, provide an important basis for the containment of conflict. Insofar as there may be grounds for foregoing changes to the working environment in the interests of greater 'improvements' in terms and conditions of employment, so health and safety may be considered a lesser priority for both parties.

Summarising the discussion thusfar, it is possible to identify theoretically the elements of the labour process that pose risks to health and safety. These are, firstly, the means of production, which may embody direct, physical hazards. Secondly, there is the specifically capitalist character of the labour process, namely, the imperative for the production of surplus and the need for control over the labour process by capital to ensure profitable production. The drive for profitability may have direct effects on health and safety, depending on the particular form, or combination of forms of control, exercised over the labour process. Increased intensity of work may result in workers suffering from stress and being at greater risk of accidents. New forms of technology, introduced to increase output, can also embody new risks to workers. But it is difficult to specify exactly how the general contradiction between capital and labour affects the health and safety of workers, which may depend on the particular forms of control exercised over labour and the degree of compliance which may or may not exist in the labour process.

The use of the concept of control in the discussion of health and safety has thus been accompanied by a number of problematic assumptions about the relationship between employers and workers within the context of the labour process. A key problem area identified has to do with the looseness with which the concepts of conflict and control have been used. Seldom are any answers provided to questions such as: Why is control necessary? Why are there opposing interests and what are these? What is antagonistic about the relations between employers and labour, generally, and with reference to health and safety?

The lack of conceptual clarity present in the debate on the labour process, it has been argued above, has been transferred into the discussion of workplace health and safety. While the importance of conflict cannot be ignored, the elements of consensus and the common interests of employers and workers also require explanation. Such an explanation may, in fact, be particularly important with regard to occupational health and safety, a facet of production where there may be greater interdependence between management and labour in the process of establishing controls over both the working environment and over the humans within that environment. The nature of control itself requires reassessment in relation to health and safety at work.

Regulation: Control by rule

In discussing the labour process and health, a useful approach has been identified by Laurell in suggesting the need to "penetrate the content of the processes of struggle, going beyond the formal frameworks in which they occurred." Such an approach is important, not only theoretically, but also with regard to understanding and

23. For a discussion of these problems in relation to the labour process debate, see Cohen S: A labour process to nowhere? New Left Review, 1987, No.165
evaluating specific policies and practices which become established to deal with health and safety in the longer term.

Health and safety in the workplace may differ from other aspects of the labour process in the way that employers and employees conceive of it and especially in the way that it is dealt with politically at the enterprise level. The differences are determined by the various components that can generally be distinguished in any issue concerning health and/or safety, whether as the subject of conflict, or when approached co-operatively by employers and workers. On the one hand, there are technical aspects, such that medical, industrial hygiene and engineering skills are needed to determine the medical effects of hazards, the extent of problems and the necessary preventive measures. On the other hand, there is the industrial relations context, which has to do with how the problems become apparent, the "solutions" that are instituted to deal with the problems and the mechanisms that become established to deal with future problems. Both the technical and the industrial relation components are clearly interlinked in any health and safety issue and these require discrete identification, analysis and evaluation. At the more abstract level, these components would be analogous to the technical and social relations of production.

The above components must also be viewed in relation to hazards in production, not as static phenomena, but as recurring issues. Although the degree of recurrence will vary from one enterprise to another, the combination of material and behavioural factors which underlie hazards, ensures that there are nearly always risks attached to productive activity. Finally, the state may also have a direct presence in issues concerning health and safety in the workplace, in both the technical and industrial relations components, depending on particular state policies regarding regulation and/or enforcement of health and safety at work.
The technical and industrial relations components of health and safety, as well as the recurring nature of the issues, introduces three crucial variables into the analysis of workplace health and safety. The first concerns the way in which rules, which provide guidelines for the regulation of the workplace to employers in particular, but also to workers, are defined. The second concerns the extent of the rules, how far-reaching they are in preventing hazards; for instance, whether, to protect workers from dusts and fumes, only masks are provided, or whether extractor fans are installed. The third concerns the way rules are enforced, in other words, what organisational procedures are created for ongoing monitoring of the workplace. The above three variables form the basis for the kind of control that lies at the heart of workplace health and safety, a form of control which does not have as its outcome any direct effect on the production of surplus value, on accumulation or on exploitation, but which is primarily concerned with regulating the effects of productive activities on workers.

In Hyman's terms, the study of workplace health and safety therefore entails study of one of many "processes of control over work relations...",25 that is, the form of control which is exercised over work relations and over the technical aspects of production with the aim of preventing adverse health effects and protecting the safety of workers. Used in this sense, control by rule, or regulation, does not necessarily become divorced from the question of power and the struggle for power between employers and workers, but it does imply allowing for different uses of power. Hyman distinguishes between two aspects of power: 'power for' and 'power over', both of which could usefully be applied to the process of regulation.26 In the case of the former, power is primarily a resource, used in the service of collective interests, or increased power is used for the 'general benefit'. More typical, however, is the use of power by an individual or group 'over' others. As Hyman argues: "In

26. ibid, p.26
capitalist society, because of the manifold conflict of interests which exist, power relations are normally of this kind.  

While the latter may be dominant in the area of health and safety as well, the presence of elements of cooperation and common interest can result in the use of power to serve common goals or collective interests.

The regulation of health and safety is thus not divorced from conflict, power and processes of struggle between the parties to the labour relation, nor is it divorced from common interests and the possibility of co-operation. The way in which control by rule comes to be exercised will depend very much on the specific situation and also on the source of regulation that is brought to bear on workplace hazards.

Sources of regulation

Under capitalism three sources of regulation may be identified: that imposed by the state via legislation, that which is brought about by employers through self-regulation and regulation initiated by organised labour, usually through the collective bargaining process. The three sources of regulation obviously interact, but, from within each of the three, different rules and different forms of control emerge, affecting both the technical and the industrial relations components of health and safety. Some points with regard to each source will be highlighted.

1. Legislative regulation

In the area of occupational health and safety, it could be argued that, historically, legislation has been the primary source of regulation, serving as a precursor to initiatives at the enterprise level and reflecting the interventionist

27. ibid, p.27
role of the state. The state's role has, nevertheless, been shaped in particular circumstances. With reference to early factory legislation in the United Kingdom, Carson has argued that it should not be seen as a "laudable victory for humanitarianism over early, ruthless capitalism." Rather, "the industrial capitalism of the first half of the nineteenth century carried within itself its own impetus towards regulation. The logic of the very system itself involved a thrust towards the development of statutory controls over conditions at the workplace. Thus, for example, that system's need of a healthy workforce, both for purposes of more efficient labour and for market expansion through military might, was clearly recognised at the time, as was the potential role of legislation and enforcement in supplying it." During this early period, it is argued, regulation also served the important function of reducing competition between different enterprises by providing for similar conditions of employment - an argument that has also been applied to the early factory legislation in South Africa (see Chapter 2).

The above line of argument, essentially concerned with the function of law as an expression of the relationship between state and capital, is given theoretical support by writers such as Poulantzas, who argue for a conceptualisation of state intervention (via law as well as other mechanisms) as "the specifically capitalist form of the State's presence in the relations of production." Although such analysis has been applied to the contemporary capitalist state, it could equally be valid with respect to the regulatory functions of the state in the early phase of industrial capitalism. In other words, it is a general function of the capitalist state to intervene in such a way as to ensure the conditions for the reproduction and accumulation of capital, including

30. ibid, p.63
the protection of labour, through inter alia, regulating the conditions facing workers in the production process.

Regulatory legislation seldom, however, goes much beyond what is possible for most employers to achieve with regard to meeting certain standards or conditions. The influence of employers on the legislative process in many cases limits the standards that are set. Nevertheless, all labour law, including legislation relating to workplace health and safety, is concerned with social power - "the principal purpose of labour law is to regulate, to support and to restrain the power of management and the power of organised labour." 32 Legislation dealing with occupational health and safety is, however, usually quite specific in the way that it regulates and restrain power, in that it has generally been "positive". It has "since its inception, said, and it continues to say to the employer "thou shalt", for example, ensure that dangerous machinery is securely fenced or that ladders do not slip." 33

It is important to recognise that differing conditions, economically, socially and politically, affect the form of state intervention at particular points in time, as well as the form of legislative intervention. Thus, in the South African situation, the state's general function - that of ensuring the conditions for the reproduction and accumulation of capital - underlay both the Factories Act and MOSA, but the very different forms of the two legislative interventions were shaped by particular historical conditions.

2. Employer self-regulation

The foregoing discussion of the role of the state in regulating production provides a context within which to assess the scope for employer self-regulation, insofar as specific legal obligations could prompt a more general

33. ibid, p.40
awareness, or sense of duty amongst employers which could lead to pro-active, self-regulation. There are crucial limitations on such a possibility, however, the most important perhaps being that employers will, as a rule, adopt a cost-benefit approach to questions of health and safety. The context within which they operate, dictates that enterprises continue to exist, only so long as they continue to show a profit. Sass has stated this succinctly, as follows: "Industrial safety is profitable only when direct and indirect costs associated with accidents exceed the cost of eliminating those accidents, and, by the same token, management has even less of an incentive to moderate the negative health effects flowing from a workplace as very few of the costs associated with industrial illness are absorbed by the industry that produces them."

Despite the objective limitations imposed on employer self-regulation by a cost-benefit framework, there are identifiable circumstances which give rise to self-regulation, usually in the form of direct or indirect pressure on employers. The first set of circumstances relates to internal conditions, which result in employers establishing forms of control to counter the risks faced by their workers. Such circumstances would include the case of disasters in industry, or where there are known hazards involved in the production process. Examples of the latter would be the production of gas or the case of oil refineries. In such situations, self-regulation is crucial from the point of view of continued production and avoidance of the high costs attached to the kinds of hazards involved in the production process. Self-regulation in such situations, while being ostensibly concerned with safety and health, is therefore simultaneously necessary due to the dictates of accumulation, the costs of accidents certainly exceeding the costs of reducing risks. In such situations, moreover, self-regulation of workplace safety appears to influence the form of managerial control over the labour

34. Sass R: Alternative policies in the administration of occupational health and safety programs. Economic and Industrial Democracy, 1987, 8(2), p.244
process as a whole. The organisation of safety at oil refineries, for instance, frequently assumes a strictly hierarchical form, starting with top management personnel and stretching down to the 'shop-floor'. Such effects on overall managerial control tend to support one of Thompson's conclusions, that "within the overall control of the labour process by capital there are a variety of techniques and structures available." 35

A second set of circumstances relates to external conditions and their influence on management strategy. 36 A good example of the influence of external conditions is the asbestos industry, where increasing knowledge of the medical effects of exposure, compensation claims by workers who have contracted one of the asbestos-related diseases and a growing environmental lobby have had the effect of prompting certain employers using asbestos in the mining and manufacturing industry to embark on in-company health and safety programmes.

The above circumstances may be said to be conducive to the establishment of regulatory practices within an enterprise. It should be noted, however, that self-regulation commonly occurs as a result of particular pressures being exercised on employers.

Before leaving the subject of self-regulation, reference should be made to an additional feature of the corporate environment which may prompt the adoption of effective self-regulatory practices, namely, the growth of multinational corporations (MNCs). In general, it may be said that changes in the area of health and safety are likely to be effected more easily in larger corporations, where there tend to be better information systems, more developed structures within the company to allow for responses to developments and, most importantly, greater resources, both material, human and financial, to allow for the

36. A more general discussion of the topic is given by Hyman R: Managerial strategies in industrial relations and the control of labour. Unpublished mimeo: n/d
implementation of new policies. In the case of corporations operating on a multinational basis, such factors are generally present and when changes, new policies or new strategies are introduced within one part of the operation, there is a good chance that they will spread to operations in other countries. As in the case of other circumstances influencing self-regulation, however, the pace at which the spread of new policies takes place, tends to be dependent on factors such as labour pressure, public awareness and different cost-benefit payoffs.

3. Trade union regulation

A crucial source of regulation in many countries has historically been the organised labour movement, primarily through trade unions. The primary ways in which unions provide a source of regulation are, on the one hand, through the political process and, on the other hand, through the collective bargaining process. The two are not mutually exclusive and are generally interrelated in ways that are shaped by national characteristics regarding the political role of unions and the type of industrial relations system.

A risky, but nevertheless useful generalisation in the latter regard is to be found in Kahn-Freund's work:
"...regulatory legislation is apt to prevail over collective bargaining where and when the political pressure power of the workers exceeds their industrial pressure power and, with great caution, this proposition can be reversed. It is sometimes (but not always) the case that, as the unions get industrially stronger, the significance of collective bargaining grows and that of legislation diminishes whilst, as their political influence increases, so does the volume and significance of regulatory legislation." 37 The relationship between trade unions and the state implied in the foregoing generalisation is perhaps too linear and too simple, especially as regards the ability of organised labour to express its interest politically through the state in ways that can be of benefit to workers. It should also

be remembered that regulatory legislation covers a wide range of issues and health and safety may not always follow the same pattern as that of wages or hours of work, for instance.

Trade union influence on regulation occurs at various levels — at plant level, at industry level and at the national level — and there may be a combination of regulatory forms brought to bear at the various levels. An example is that of collective agreements which may be negotiated for a single company, for an industry or at the national level. Such agreements may also become transformed into law, or they may exist as an alternative, or adjunct to the law. Thus, since 1942, Sweden's industrial relations system has been characterised by the use of collective agreements in the area of health and safety. Generally speaking, however, in the capitalist countries, the process of bargaining collective agreements "concentrates on wages, monetary benefits and other conditions of employment; issues of safety and health at work being of secondary importance only." 38

What has become increasingly important over the last ten to fifteen years with regard to the role of unions in regulating the working environment, is the question of workers' participation in health and safety. In a number of countries there has been a gradual acceptance of the principle that workers and their representatives can play an effective role in regulating the workplace due to their daily work experience and intimate knowledge of processes and conditions of work. This development has been an uneven one, "stronger in those countries with a history of industrial democracy, and in those where trade unions have become most safety conscious and forceful in asserting a right to participate in decision-making." 39

The form of worker participation varies widely from country to country, but it appears possible to identify two broad lines of approach. The first lies in promoting consultation, 'constructive discussion' and co-operative effort in dealing with health and safety. The second approach tends to introduce some sort of supervision and investigation, in association with definite forms of intervention, where there are, or are likely to be, infringements of rules or imminent danger. Strong arguments can be made for both lines of approach, even though they differ in underlying theoretical principles and in the practical effects that they may have.

The former approach is limited by the assumption of an identity of interests between employers and workers in safety matters, which, as has been indicated, is not absolute. In the face of any conflict of interest, workers' delegates, whether they be safety representatives or members of a safety committee, will have little chance, with only consultative prerogatives, to defend the cause of safety. It has therefore been argued that participation through a co-operative model should be complemented by collective bargaining on safety issues.

The second approach to safety organisation is generally characterised by the safety representatives having wider powers with regard to such matters as inspections, supervision, the right to stop work and making obligatory recommendations. Here, the emphasis lies more strongly on the confrontational aspects of the employer-worker relation and on effective control of managerial activities in the field of health and safety. Interestingly enough, the second approach underlies regulatory legislation in some Scandinavian countries and in the socialist countries of Eastern Europe. This approach to safety organisation has the advantage of allowing safety representatives to take more meaningful steps in the case of non-compliance. But it

40. Szubert: op cit, 1983, p.45
41. See Gunningham: op cit, 1985, p.47
42. Szubert: op cit, 1983, p.46
may also place representatives in a difficult position in relation to the management whose workplace they are to control, while at the same time being subordinate to them as employees. Due to the contradictory pressures, "worker's representatives may be induced to act cautiously and to moderate their requirements for the promotion of safety and health at work." To counteract such tendencies, it is important that safety representatives be supported by trade union organisation which can provide support for their role and functions.

Both approaches to the organisation of health and safety at work could thus be said to leave a significant role for trade unions and collective bargaining, whether to counteract the limitations of a predominantly consultative and consensual model, or to provide support for safety representatives operating within the context of a more conflictual model of safety organisation. It should be borne in mind, however, that there is, within the two models, great variation in the form taken by worker participation and, furthermore, that trade unions are far from uniform in the way that they relate to the field of health and safety. The nature of the relationship between state and trade unions also has an important bearing on the legislative framework providing for worker participation, in turn influencing the variations between countries.

The broad approaches outlined do, however, capture an essential feature of workplace health and safety, namely its conflictual and, simultaneously, its consensual nature. Thus, at the level of industrial relations systems, there is scope for both consultation and negotiation, for both cooperative ventures and for a reliance on collective bargaining, to ensure regulation of health and safety.

43. ibid
Summary

The preceding discussion started with an attempt to conceptualise health and safety in terms of labour process theory. The different elements of the labour process were identified, together with their effects on the health and safety of workers. Given the stress in labour process theory on the exploitative nature of the relationship between labour and capital, the concept of control was identified as being of particular importance and it was argued that the concept has been transferred, uncritically, into the discussion of health and the labour process. After examining some important flaws in the use of the concept of control in the literature on the labour process and health, an attempt was made to specify more exactly the nature of control, as it applies to the effects of production on health and safety. It was suggested that it is primarily through the establishment of rules, procedures and policies, that forms of control over the labour process are exercised. The ways in which such forms of control come to be exercised may be shaped both by conflict and/or by consensual relations in the labour process and are also likely to be influenced by the source of regulation – the state, employers and trade unions being the major sources of regulation.

The three sources of regulation identified above are all complex in the way that they are determined and may also be problematic in their effects when evaluated individually. Legislative regulation has traditionally been relatively weak in many countries, as regards the requirements of the law, 'weak' enforcement and inadequate legal penalties for non-compliance. Employer self-regulation and trade union regulation, as the major informal mechanisms for regulation, also, however, suffer from limitations.

Employer self-regulation is constrained by the primary economic aims of management, which, when they do allow for changes in the area of health and safety, all too often dictate a form in keeping with managerial strategies of
control. A more important limitation has to do with ongoing monitoring of health and safety programmes within enterprises: objective monitoring cannot be undertaken by only one party to the labour relation; rather it requires shared responsibilities and a more equal distribution of power.

Perhaps the most important way of achieving the latter would be via direct participation of workers in the regulation of production from the point of view of health and safety. Such participation could address the social and technical context within which occupational hazards are generated, namely the labour process. Recent developments in regulatory legislation in a number of countries have in fact attempted to provide such a basis for the organisation of health and safety at the plant level, particularly through the participation of workers in regulatory activities.

In the light of the foregoing, the following chapter will examine the legislative framework established in South Africa, particularly the model introduced in the 1980s for the regulation of health and safety in the manufacturing sector.
Chapter 2: State regulation in South Africa - From the Factories Act to the Machinery & Occupational Safety Act

Introduction

Legislative regulation of occupational health and safety in South Africa began in the early part of the 20th century in the mining industry. Recognition of the adverse effects of mining on health led to the first Commission of Inquiry into Phthisis in 1902 (the Milner Commission), followed by further commissions in 1905 and 1911. In 1911 the Mines and Works Act was passed, which was, inter alia, aimed at protecting the health of mine workers. State intervention during this early period should be seen in the context of the increasing militancy of mine workers and their political representation in the Labour Party, which served as strong influencing factors on the state. There had, furthermore, been considerable consolidation and expansion of the industry, which could thus afford to pay compensation and introduce some preventive measures.

The same conditions were not present outside of the mining industry, however, and it was only after the First World War that legislation dealing with working conditions in manufacturing was promulgated. The first Factories Act (No.28) of 1918 was amended in 1936 and then replaced by a more substantive piece of legislation, namely, the Factories, Machinery and Building Work Act (No.22) of 1941. Forty-two years later the latter was replaced by the Machinery and Occupational Safety Act (No.6 of 1983) (MOSA), which transformed the nature of legislative regulation in significant ways.

The aims of this chapter will be, firstly, to examine very briefly the nature of the Factories Act and explanations as to its origins. Secondly, the transition from the Factories Act

to MOSA will be traced and, in particular, an attempt made to contextualise the latter piece of legislation. Finally, MOSA will be analysed with reference to the concept of regulation embodied in the Act and the implications for the parties involved in the regulatory process.

Early regulation of manufacturing industry

The first attempt at legislative regulation of manufacturing industry came from the Cape Town Trade and Labour Board which initiated the tabling of draft legislation in Parliament in 1907. The legislation was aimed at ensuring control over factories, but "was, for various reasons, not proceeded with at the time." The industrial development that took place during World War I provided impetus for legislative regulation, while the influenza epidemic of 1918 focussed attention on health issues in both the occupational and public settings. Such factors contributed to the promulgation of the first Factories Act (No.28 of 1918), as well as the Public Health Act (No.36 of 1919). The administration of the Factories Act was the responsibility of the Department of Mines and Industries until 1924, when it was taken over by the newly formed Department of Labour. It is likely that, at the time, the Department of Labour was more concerned with the implementation of the newly promulgated Industrial Conciliation Act and with the incorporation of organised labour into state structures, rather than with the enforcement of regulations concerning the working environment in a burgeoning manufacturing industry.

The first Factories Act was a very basic piece of legislation and it was another 23 years before the more substantive and far-reaching Factories, Machinery and Building Work Act (hereafter the Factories Act) was passed. The Factories Act of 1941 was a broad-ranging piece of legislation which had as one of its aims, the prevention of accidents at work. It was, however, also aimed at providing regulation and control of

3. ibid
factories. regulation of hours and conditions of work in factories more generally and supervision of the use of machinery. Except for very minor amendments, the Act remained unchanged for close on 19 years, during which time the number of registered factories increased from 6,335 in 1942 to 17,146 in 1959. Eventually, in 1960, a lengthy amendment was passed, dealing mainly with certain shortcomings of the Act and administrative procedures.

Probably the most significant amendment to the Act, from the point of view of health and safety, came in 1967 when a separate chapter was added which dealt specifically with the protection of health and safety of employees. The main thrust of the chapter was to give the Minister the power to prohibit the use of certain substances and processes and to require employers to provide medical examinations and medical supervision, should the nature of the production process warrant such measures. These features, essentially concerned with occupational health, were not continued in MOSA, for reasons which may be found in a debate over the allocation of responsibilities between government departments, referred to below.

An important aspect of the Factories Act was the Regulations published in terms of the Act. The Regulations were a set of more detailed technical requirements concerning various aspects of work and the working environment, health and welfare in factories and the use of machinery. From 1963, numerous amendments and corrections to the regulations were published, including, for instance, the substitution of metric weights and measures for the former imperial measurements. The revised regulations also included the first technical standard, published in October 1974, which specified a maximum noise level of 85 decibels (dB A).

An interesting aspect of the legislative change which took place during the 1960s and early 1970s concerned the findings

5. ibid, p. 2
of a departmental committee formed to investigate the incidence of occupational diseases. The committee reported in 1963 and, as a result of its recommendations, arrangements were made for closer co-operation between the Departments of Labour and Health. According to Myers, "it was intended that a number of physicians in the Department of Health would be appointed inspectors in terms of the Factories Act to assist in the implementation of legislation and to draft regulations, but the latter never took place." This early attempt at co-operation between the Departments of Health and Labour is interesting, as it appears to signify a perceived dichotomy between occupational health, on the one hand, and occupational safety, on the other, and some attempts at overcoming the dichotomy. The debate over which government department should take responsibility for the various aspects of occupational health and safety continues to this day and has been reflected in legislation that has fragmented functions in the area. This issue will be discussed further later in this chapter.

Forces for regulation

The most important attempt to analyse the reasons for the promulgation of the Factories Act is that of Budlender. Her theoretical point of departure situates regulatory control in relation to the form of capitalist production, a form of production that "encourages the employer to extract the maximum amount of labour out of his workers in any given period, in that he can in this way appropriate more surplus value in proportion to the wage, the paid labour." Individual employers therefore minimise all expenditure, including expenditure on safety equipment and improvements in the working environment, which does not contribute to a direct improvement in output. According to Budlender, "from the individual viewpoint such improvements would seem pure

8. ibid, p.141
charity, and against the logic of production and profit-making." 9

While the latter view may apply in the case of individual employers, it cannot be assumed to apply to the capitalist class as a whole. Budlender's argument is that for the capitalist class and its representation by the state (social capital), a primary concern becomes that of ensuring the continued reproduction of the working class. The latter concern becomes particularly important in the face of a limited supply of labour. Thus, "steps have to be taken to curb the worst excesses of the system and to protect the workers' health and productive capabilities in order that not only the individual capitalist, but social capital as a whole, will continue to be able to obtain the labour power necessary for its functioning." 10 The task of regulating conditions has traditionally been carried out by the state, in its role of representative of social capital.

An important qualification by Budlender concerns self-regulation by individual employers, generally larger companies, aware of the need for "controlled exploitation", due to their own larger labour needs. The reasons for employer or managerial self-regulation may be more complex that those presented by Budlender, as will be illustrated with reference to the case study of Everite (see Chapter 5), and require analysis of a broader range of factors which may prompt expenditure on the working environment. But, in the context of forces shaping state legislative regulation, Budlender argues convincingly that self-regulation in some cases leads on to forms of joint capital-state control over working conditions. Since such joint controls would not cover all areas of industry, however, and since some employers may not choose to exercise any self-regulation, "some sort of general regulation became important, to obviate unfair competition by the smaller competitors against the bigger capitals, by the smaller capitals not incurring extra expenditures and thus being able to offer their goods at lower

9. ibid, p.142
10. ibid
prices, and — in the interests of industrial peace — to avoid excessive exploitation of labour."\textsuperscript{11}

Applying the above argument to the South African situation, Budlender finds evidence to show a change from a situation in which employers displayed little concern for the conditions of production, to one where some of the bigger and more organised employers began to adopt a "wider perspective". By 1918, the then Secretary for Mines and Industries, Mr H Warrington Smyth, "found consistent support for the (Factories) Act from all Manufacturers Associations in the country. He found that employers of the better class were aware that standard legislation of this kind constituted a base for competitors who had less high ideas as to how to treat their employees. An Act of this kind protected the better class of employers."\textsuperscript{12} Budlender does not, unfortunately, analyse the conditions surrounding the passage of the Factories Act of 1941. Given that the state had at that point assumed quite a different form from the state of the post-World War I period, the same set of explanatory factors cannot be assumed. Nevertheless, the broad function fulfilled by the state via such legislation, namely, to ensure the continued productive capability of labour, would remain the same. In the latter respect, the upgrading of the Act in 1941 could be said to reflect the expansion of secondary industry that had taken place, the increased use of machinery and the substantial increase in occupational accidents and fatalities.\textsuperscript{13}

Budlender's main argument — that the regulation and control contained in the Act were imposed primarily in the interests of capital and that, even while restricting capital, the regulations did not fundamentally affect its functioning and profitability — could be said to be borne out by the nature of pre-World War II factory legislation. While imposing particular forms of regulation and gradually broadening the

\textsuperscript{11} ibid
\textsuperscript{12} SA Commercial and Manufacturers Record, 1918, p.361; quoted in Budlender, ibid, p.143
\textsuperscript{13} Budlender gives figures showing a 278\% increase in accidents and a 175\% increase in fatalities in the period 1924-1940
scope of regulation, the changes were largely in the interests of capital and the benefits to labour were limited.

With regard to the role of organised labour in shaping the Factories Act, Budlender suggests that "organised presentation of demands within the workplace, in ICs and at wage board sittings, as well as on the wider political front, strengthened the case of those advocating factory reform, and hastened up its implementation, as well as influencing its form." With regard to specific aspects of the Act, there is not much evidence to suggest any substantive influence by labour as far as the safety and welfare provisions of the Act are concerned. Other aspects of the Factories Act, however, especially those relating to hours of work and segregation of facilities, were influenced by the National Party and their Afrikaner nationalist partners in the trade union movement. Budlender also argues that the "imposition of general conditions on all workers favoured the employment of white workers."

Perhaps it was because organised labour did not substantially influence the legislation of the time, that the form taken by the Factories Act had the effect of diminishing the potential for workers to exercise control over their working environment. Budlender argues that the potential for workers to use the law to their advantage was decreased by the nature of the regulations enacted in terms of the Factories Act of 1918, regulations which failed to adopt "positive" and "certain" legal principles, but which were couched in broad and often vague terminology. The effect was to complicate enforcement and annual reports of the period "are a series of complaints with regard to the inadequacy of provision with regard to ventilation, lighting, structure and cloakrooms, and the difficulty of enforcement in view of the subjectivity of

14. ibid, p.184
16. Budlender. op cit, p.182
the measure of adequacy in this regard.”17 The 1941 Act introduced the principle of regulation on a large scale and empowered the Minister to make provisions on a wide range of subjects. The Minister was also empowered, in terms of Section 54, to exempt employers from most clauses of the Act. Budlender argues that the increased bureaucratic administration that characterised the Factories Act, as well as the difficulties for workers of finding their way through a maze of regulations, did little to enhance the ability of labour to control conditions at work. Furthermore, difficulties of gaining access to documentation on rules and regulations left workers in ignorance and meant “that workers could not insist themselves on employers’ observing the law, but had, rather to rely on state officials.”18

While Budlender’s analysis highlights a particular bias in the legislation with regard to ‘right to know’ provisions, it at the same time begs the question of the role of unions in regulating the working environment during the period under review. In general terms, the ability of trade unions to intervene to effect changes at the workplace cannot be said to be dependent on supportive legislation only, but has also been shaped by other factors, such as organisational coherence, or awareness of health and safety problems and their consequences for workers. Thus, while the Factories Act could be seen to embody an unfavourable bias with regard to labour, it does not necessarily follow that such bias alone would prevent unions from ensuring compliance by employers with the health and safety standards established by the law. Budlender’s overall conclusion nevertheless seems valid, namely that the Factories Act “was a case of a general, state-imposed set of conditions calculated to avoid excesses and so to avoid the organisational and economic disadvantages which such excesses could cause.”19

17. ibid, p.150
18. ibid, p.151
19. ibid, p.152
From Factories Act to MOSA

As indicated previously, the Factories Act of 1941 did not remain unchanged as far as occupational health and safety was concerned. Important amendments were passed in 1960 and 1963 and provision for granting paid sick leave to workers was introduced by amendment in 1967. In addition, the Regulations underwent a number of revisions during the 1960s and 1970s. It should also be borne in mind that the Factories Act was not exhaustive of the legislation regulating conditions in factories. Acts such as the Atmospheric Pollution Prevention Act of 1965, the Environmental Planning Act of 1967 and the Health Act of 1977, while not the focus of the present study, contain provisions which seek to regulate certain industrial activities, also regulated by the Factories Act, and therefore form part of state legislative regulation during the same period.

In attempting to situate the legislative changes that resulted in the repeal of the Factories Act and its replacement with the Machinery and Occupational Safety Act of 1983, a useful starting point would, however, be the Erasmus Commission established in 1974. The terms of reference of the Commission were to investigate the nature, extent and effects of occupational diseases, statutory protection of health at work and various aspects of occupational health services.

Since the Commission reported in 1976, it has become a major reference point for discussions of occupational health in South Africa. The Commission painted a dismal picture of the state of workers' health; it was critical of statutory protection of health at work, which was found to be fragmented, incomplete and out of date; and it found that occupational health services outside of the mining industry were very limited. Despite the political impact of the Erasmus Commission, only a few minor recommendations were, however, accepted and implemented in subsequent legislation.

and it was only in 1988 that legislative proposals appeared which could arguably be seen as a more substantive response to some of Erasmus's recommendations.21

The many recommendations put forward called for far-reaching changes to the occupational health system and, although not all are pertinent to the discussion at hand, it may be worthwhile highlighting some aspects of the recommendations. The report recommended, inter alia, that one Act dealing exclusively with occupational health be drafted. It is worth noting that the Commission's definition of occupational health did not include accidents. In other words, while being aware of the international trend towards dealing with occupational health and safety as two sides of the same coin, the Commission opted for a narrow interpretation of its terms of reference.

Along with a single Act, Erasmus also recommended that occupational health should fall under one independent department which would act as an 'umbrella' department. It was recommended that this should be the Department of Health, as it was then called. Interestingly enough, Erasmus has gone on record more recently, still arguing for this administrative structure, despite the fact that trends in legislation and government thinking point in a quite different direction. The reason advanced by Erasmus for occupational health being administered by the Department of National Health and Population Development is "that a department directly concerned with production cannot ultimately be a judge where occupational health in its own field is concerned, and because the Commission viewed with dismay the fragmented state of legislation dealing with the subject scattered through eleven departments of State."22 The Commission had found that, at the time of its investigation, 71.9% of the economically active population (5.78 million of 8 million) were not covered

21. These are the proposed Occupational Medicine and Occupational Diseases Bill and the Compensation for Occupational Diseases Bill, published by the Department of National Health and Population Development in 1987
by legislation relating to occupational disease. It estimated that, if its recommendations concerning an improved administrative structure were adopted, approximately 6 million industrial workers would be protected by legislation.23

Another important recommendation by the Commission was that managements "should be obliged to consult workers or their representatives on industrial health problems and working conditions and to grant them a hearing when they have complaints."24 This line of thinking could be seen as a sign of the times, representing some awareness of the emerging black trade union movement and of legislation being passed in other countries at that time. In the USA, the Occupational Safety and Health Act of 1970 and in the UK, the Health and Safety at Work Act, promulgated in 1974, were also granting workers increased rights to participation in workplace health and safety. However, the discussion in the report preceding the recommendation reflected the rather narrow interpretation that the Commission was to give to workers' involvement. The Commission did not, for instance, envisage co-operation between workers and management resulting in "freely recognising pressure groups among the workers or acceding to their demands."25 In a similar vein, the Commission rejected the possibility of trade unions appointing representatives who would have the right to inspect a workplace, a right conferred on British coal miners since 1872 and extended to all British miners by the 1954 Mines and Quarries Act. The reasons given for its stance were that South Africa's trade union history was not as old as that of Britain; that 'races' in South Africa had different norms and would not always agree on demands; and that many miners were foreigners, who might "become the biggest pressure groups with the most unreasonable demands and as aliens they may even seek to dictate labour policy in this country."26

What the Commission did envisage was the establishment of joint safety committees, consisting of representatives of both

23. RP 55/1976: op cit, p.96
24. ibid, p.98
25. ibid, p.41
26. ibid
management and workers, which would meet regularly for
discussions on safety matters. For the purposes of such
committees, the Commission was of the opinion that workers in
industry should be able to elect their own representatives,
although the constitution of the committees was to be left to
the discretion of management.27 The proposal was very similar
to the liaison committees which were provided for by the
Department of Labour's new law, the Black Labour Relations
Regulation Act of 1973. In the period after the latter law
was passed, employers rushed to form liaison committees and,
by 1974, 1200 committees had been formed and the figure
continued to grow.28 (After the massive strikes in Durban in
1973, independent unions also continued their growth which,
although perhaps not as rapid as that of the employer-
initiated liaison committees, was to prove more lasting, as
the unions were far more popular with black workers than were
the liaison committees.) The joint safety committees proposed
by Erasmus did not, however, receive official sanction and,
even if they had been written into law in some way, it is
unlikely that their growth would have been as spectacular as
that of the liaison committees. The proposal constituted an
important symbolic change, however, because, for the first
time in the history of South African occupational health and
safety legislation, there was some recognition that workers in
the manufacturing sector should be entitled to involvement in
health and safety matters at plant level.

Despite the crisis of occupational health highlighted by
Erasmus, it took another eight years before legislation was
introduced specifically to regulate health and safety in
industry. The origins of what was to become MOSA need,
however, to be traced more directly to another Commission
established in 1977, namely the Wiehahn Commission. Much has
been written about the Wiehahn Commission, its background, its
recommendations for restructuring the country's industrial
relations system and the process that led to the recognition

27. ibid
28. Friedman S: Building tomorrow today: African workers in
pp.54-55
of African trade unionism under what became the Labour Relations Act. This ground will not be explored again here. What is relevant is that the protection of workers' safety and health formed part of the Commission's investigation and was dealt with in Part 4 of the Commission's Report.

Wiehahn was instructed to investigate thirteen Acts of Parliament with reference to:

"(i) the adjustment of the existing system for the regulation of labour relations in South Africa with the object of making it provide more effectively for the needs of our changing times;

(ii) the adjustment, if necessary, of the existing machinery for the prevention and settlement of disputes which changing needs may require;

(iii) the elimination of bottle-necks and other problems which are at present being experienced within the entire sphere of labour; and

(iv) the methods and means by which a foundation for the creation and expansion of sound labour relations may be laid for the future of South Africa." 

In line with its terms of reference, the most important aspects of the Commission's work had to do with changes to what was then the Industrial Conciliation Act, particularly with regard to the incorporation of black workers into the official system. In reviewing the Factories Act, which contained the most important provisions concerning health and safety, Wiehahn made six recommendations, five of which were accepted by the government in its White Paper. The sixth, concerning women and shift work, was deferred until later parts of the Commission's report, dealing with the issue, were

29. See, inter alia: Friedman: ibid, pp.149-203; South African Labour Bulletin, 1979, 5(2)
published. The five recommendations which were accepted, were:

1. The Factories Act should be consolidated with the Shops and Offices Act and should be renamed the Occupational Health and Safety Act (OHS Act).

2. To rationalise efforts regarding health and safety, a directorate of occupational health and safety should be established within the Department of Manpower Utilisation. The main task of the directorate would be to administer legislation relating to health and safety at work and to establish the necessary administrative machinery to ensure the maintenance and promotion of workers' health and safety. It was also envisaged that the directorate would take over and control as much as possible of the existing state machinery engaged in the latter task and co-ordinate the efforts of other organisations, such as the National Occupational Safety Association (NOSA).

3. The reporting of statistics relevant to occupational health should be rationalised between the Workmen's Compensation Act and the new OHS Act.

4. The regulations of the Factories Act should be reviewed by the directorate of occupational health and safety, in consultation with organised industry, commerce and employees' organisations, with a view to adapting them to modern needs and techniques.

5. The consolidation of the Factories Act and the Shops and Offices Act should be undertaken by the Department of Manpower Utilisation.

The Wiehahn recommendations were nowhere near as far-reaching as those of the Erasmus Commission, but they were significant in that they laid the ground for change to the Factories Act and provided a crucial vehicle for the Department of Manpower Utilisation, in the form of the directorate, to carry out the

31. Wiehahn: op cit, p.376
change. The spirit of reform introduced by Wiehahn also provided an important context and set of guidelines for further change. As the present head of what is now the Directorate of Occupational Safety put it: "The Wiehahn Commission was a very convenient and very timeous vehicle to effect changes that, as most of these things go, had been on the cards for quite a while."\(^3\)

MOSA: What's in an Act?

The first sign of legislative change came on 31 July 1981, with the publication of the Draft Machinery and Occupational and Safety Bill. The draft bill was fairly bland: the main departure from the Factories Act was a substantially extended scope, both in terms of the industries and the employees to be covered. In November of the same year another draft appeared, this time called the Draft Machinery, Occupational Safety and Occupational Health Bill. Neither of the bills was passed, but the intention was to repeal the Factories Act, to replace it with a modernized version for the protection of both the health and the safety of workers and also to provide for the establishment of an Advisory Committee on Occupational Health.

Clear definitions of occupational health and occupational hygiene had been incorporated in the November draft. Chapter 3 of the November draft supported a dualistic approach by formulating clearly which occupational health matters were to be dealt with by the Department of Health and which would come under the jurisdiction of the Department of Manpower, in consultation with the Department of Health. Provision was also made for regulations with regard to providing both preventive and curative health services for workers.\(^3\)

Occupational hygiene matters were to be the concern of employers and officials of the Department of Manpower, in

\(^{32}\) Interview: I Mulder, Chief Director, & P Haupt, Director, Directorate of Occupational Safety, Dept. of Manpower: 15 March 1989

consultation with the occupational health officer of the Department of Health.

A number of factors contributed to the division of functions among government departments, beginning with the recommendation of the Erasmus Commission that occupational health should fall under one Act, to be administered by the Department of Health. The government was apparently "not comfortable" with the latter recommendation and there had also been a number of objections from industry, who saw occupational health as being part of the labour field. As a result the government did not publish a White Paper on Erasmus. Instead an inter-departmental committee was established in 1977 to look into the matter. While the committee was still sitting, Wiehahn published his Report, recommending that a Directorate of Occupational Health and Safety be established in the Department of Manpower, a recommendation accepted in the subsequent White Paper. Opinion in the inter-departmental committee seems to have varied, from initially favouring the scenario suggested by Erasmus, to favouring that of Wiehahn. It was in the midst of the apparent confusion that the November bill was published. Shortly afterwards, however, the Commission on Administration, a statutory institution responsible for reviewing and allocating functions and responsibilities between government departments, carried out an investigation on the matter. It recommended to the government that occupational health be split into two branches:

**occupational hygiene** - the technical preventive measures to be carried out in the workplace - which should be the responsibility of the Department of Manpower, and;

**occupational medicine** - the medical monitoring of employees - which was allocated to the Department of Health.

The outcome was the publication, on 2 March 1983, of the new Machinery and Occupational Safety Act (MOSA), which excluded the section of the November 1981 draft on occupational health.

34. Interview: Mulder & Haupt
The Explanatory Memorandum stated that "Occupational Medicine falls under the jurisdiction of the Department of Health and Welfare and is not provided for in this Bill", and occupational hygiene was now defined as the "technical preventive measures to be taken at the workplace to protect the health of employees". A significant feature of MOSA was therefore the concept it embodied of what aspects of occupational health and safety were to be regulated by the Department of Manpower, namely safety and hygiene. (Later developments have, however, begun to cloud this issue, with the Asbestos and Draft Lead regulations dealing with occupational health matters as well as safety and hygiene.)

The major shortcoming of the outcome contained in MOSA was the fact that legislation on occupational health was once again delayed and critics were quick to point out that the omission detracted from the overall value of the legislation. As argued by Benatar et al: "In our opinion there should be no clear distinction between health and safety in the workplace. The two are intimately interwoven. To attempt to provide a separate set of regulations and separate inspectorates under two different ministerial departments, one for safety and one for health, would lead to unnecessary expense and chaos." Perhaps more importantly, the distinction between safety and health, adopted in the South African legislation, has laid the basis for a dual regulating system, one which may be incapable of dealing holistically and efficiently with workplace hazards and their effects on employees.

In terms of the allocation of responsibility between government departments for safety and health, the South African government is not alone in having opted for a dualistic model. As Luigi Parmeggiani, President of the International Commission on Occupational Health and also the technical editor of the ILO's Encyclopaedia of Occupational Health and Safety writes: "The competent authority for occupational health is the Ministry of Labour in some countries, the Ministry of Health in others; in most countries

the central authority has sole responsibility, in others the central and local authorities act together. In general, the competence lies with the Ministry of Labour in those countries which have a long tradition of worker protection at the workplace; this has the advantage of bringing together, under one authority, both the technical and the medical aspects of occupational safety and health in a coherent unit, better integrated and better able to deal with problems arising in individual enterprises. If, however, the Ministry of Health is the competent authority, this ensures better dovetailing of occupational medicine into the field of public health as a whole and thus seems preferable in the developing countries, where the meagre resources for health and medical care require the fixing of priorities at the national level and where workers' health is more often at risk from public health conditions than from occupational factors. 37

A developing international trend in assigning responsibility among government departments and public authorities has, in fact, been moves towards single, unified regulating systems. It could be debated back and forth whether, in South Africa, a single, unified body governing industrial health and safety should be based in the Department of Manpower, or in the Department of Health. What is essential, however, is that there be a "well-organised, competent medical component in the structure as a whole, with its main objectives the maintenance and promotion of the health of worker populations." 38 A component embodying such objectives would also go some way to meeting the ILO principle, contained in its Occupational Safety and Health Convention, 1981 (No. 155), that workers' health and safety are inseparable.

In terms of addressing the dichotomy between occupational safety and health, MOSA did not provide any real solutions. The parallel issue of departmental responsibility for the various functions was also not resolved by the Act, although it indicated a clear direction contrary to that of the Erasmus

Commission, namely that the Department of Manpower would maintain responsibility for occupational safety and hygiene.

A model for workplace regulation

The most important point of departure contained in the Machinery and Occupational Safety Bill, which was presented to Parliament in March 1983 and passed later in the year, lay in the organisational structures for which it provided, namely, the system of Safety Committees and Safety Representatives. In certain quarters, the latter was also to become the most controversial feature of MOSA.

Approximately 15 months passed between the publication of the Draft Machinery, Occupational Safety and Occupational Health Bill and the tabling of the Machinery and Occupational Safety Bill in Parliament. During that time, the Commission for Administration was looking into departmental responsibilities and senior officials of Department of Manpower's Directorate of Occupational Safety were touring the USA, Canada and the UK. During the tour they also studied European legislation on occupational health and safety.

An important feature of the legislation of the three countries visited and of many European countries was the incorporation of some form of worker participation in exercising control over occupational health and safety. The most common form of participation was found to be that of safety committees, joint management-labour forums, with a consultative role and functions that varied from country to country, but which most often included an advisory role and plant-level hazard analysis. The international origin of such committees could be traced back "to a resolution submitted by the Uruguayan workers' delegation to the International Labour Conference in 1928."39 Apart from the committees, the nature and extent of worker participation varied a great deal from country to country but, by the late 1970s, it had become commonplace to find some form of statutory provision for workers' participation.

As demonstrated above, the concept of joint management-labour committees in the area of health and safety was not new in South Africa. Erasmus had proposed them and Wiehahn had proposed participation by organised labour. It was therefore not surprising that the Machinery and Occupational Safety Bill introduced a form of worker participation in health and safety issues, which was accepted with one important amendment and enacted in MOSA. The model introduced by MOSA is as follows:

At the national level there is an Advisory Council for Occupational Safety (ACOS), similar in form and function to its Canadian counterpart, the Advisory Council on Occupational Health and Occupational Safety (ACOHOS). ACOS is composed of representatives of the Departments of Manpower and Health (two each), a representative from the Workmen's Compensation Commissioner's office and two representatives each of employers and employees. The role of ACOS is to undertake investigations and to advise and make recommendations to the Minister of Manpower, who appoints all members of the Council. 40

At plant level, MOSA provides for a system of safety representatives and safety committees. The Act requires employers to designate as safety representatives one or more full-time employees who are acquainted with conditions at the workplace. In any firm there must be a minimum of one safety representative per 50 employees, except where there are less than 20 employees, in which case the requirement falls away. The functions of safety representatives are to inspect the workplace at least once a month, to write reports of inspections for the employer or the safety committee, to report on accidents and to act as a general watchdog on health and safety. Safety representatives are also required to attend safety committee meetings.

40. Explanatory Memorandum on the Machinery and Occupational Safety Bill. WP 6/1983
In plants where more than one safety representative has been designated, employers are required to establish safety committees. It is up to the employer to decide on the composition of the committee and the committee must meet at least once every three months. The safety committee is required to go over the inspection and accident reports of the safety representatives on a regular basis, to make recommendations to management about improving safety, to report serious accidents to a Factory Inspector and to use its rights to make the workplace safer.

In essence, the above was the organisational system introduced by MOSA, one which gave management the dominant role in establishing a safety committee and in deciding its composition. With respect to the safety representatives, the act remained ambiguous: employers were to designate in writing one or more safety representatives. In the 1981 Bills there was provision for the election of safety representatives, an option preferred by the Department of Manpower. But, in the words of one of the drafters of MOSA: "the government decided as a matter of policy that they did not want the election of safety representatives. They would rather have the prerogative with the employer to designate safety representatives, but, very carefully they refrained from specifying who the employer should designate, or how he should arrive at his decision ....It was very carefully and deliberately done, it was left open-ended.”

In choosing such a solution, South Africa was adopting a somewhat unique position, as is perhaps true for much of the industrial relations field in the 1970s and 1980s. In comparative terms, three options can be identified internationally in the way in which safety representatives fill their positions: appointment by the employer, appointment by a union and election by the employees. Examples of the first option, where safety representatives are

42. Interview: Mulder & Haupt
appointed by employers, are countries such as Austria, West Germany and Spain. The second option is followed in the UK, Canada and Sweden, while the election of safety representatives by employees is found in Denmark and Poland. Legal approaches adopted in various countries cannot easily be categorised, however, as they sometimes allow for alternative methods of appointment of safety representatives, according to the degree of unionisation, or in consultation with other forms of statutory workplace organisation, such as works councils.

The option in MOSA nevertheless appears unique in that it follows the first solution above, the appointment of safety representatives by employers, but leaves open the possibility of either a union or employees nominating or electing their representatives. In theory then, one could argue that MOSA leaves open the possibility of some form of democratic worker participation in occupational health and safety via the function of the safety representative. This was the most radical departure of the Act from previous legislation and recommendations.

In the adoption of the safety committee concept, MOSA was less unusual, both in comparison with other countries and in that the committees closely resembled the old liaison committees introduced by the Black Labour Relations Regulation Act of 1973. It is interesting to note that it is only in the socialist countries of Eastern Europe that safety committees are set up within the trade union structure; in most other countries they are joint bodies, as is the case in MOSA.

Philosophical departures of the Machinery and Occupational Safety Act

While the introduction of the safety representative system was a fairly radical departure from the traditional South African occupational health and safety arena, it would have to be seen

alongside of other aspects of the new thinking which underlay MOSA, the most important of which was the concept of self-regulation embodied in the Act. The new thinking was well captured in the following extract from the Report of the Director-General of the Department of Manpower, but drafted by the Chief Director of the Occupational Safety Division:

"One of the Department's basic points of departure is that safe conditions at a workplace cannot be ensured by legislation alone, but that this is to a large extent a self-regulating activity that should be left to the employer in collaboration with his employees. In this regard the Act provides that employers must appoint safety representatives from among their employees and safety committees to act as a watchdog and to identify dangers at the workplace in good time and bring these to the attention of the employer, who must in turn take the necessary corrective steps for the safeguarding of his employees, where necessary." 44

The above approach has a number of implications for the parties concerned in the regulatory process, some of which will be dealt with in the following chapters. The first point to note is that a strategy of self-regulation enables the state to play a qualitatively different role in relation to employers in the enforcement of regulations. The factory inspectorate need no longer play a prescriptive, paternalistic role, strictly enforcing the detailed letter of the law, but, under MOSA, are able to play a different role, that of "auditors of safety management systems." 45 As the Chief Director explained:

"...whereas previously the inspector would go to a factory and go to the grinding wheel and measure the gap between the guard and the wheel and say: "OK, by law that should be 8mm. and yours is 10mm. Hence you have contravened the law, correct within 30 days or I

44. Report of the Director-General, Dept of Manpower, for the year ended 31/12/87. RP 72/1988
45. Interview: Mulder & Haupt
am instituting prosecution.' Under the MOS Act he would go to that factory and he wouldn't even look at the grinding wheel, or anything else for that matter, he would go and sit down with the manager and say: 'OK, where's the chairman of your safety committee, where's your record of incidents, etc.' He would talk to the safety reps, look at the minutes of the SC meetings, evaluate safety performance in terms of WCC records. He would do a walkabout, yes, normally accompanied by the SR for that particular department. So the whole function has changed, he (the inspector) has gone from policeman to auditor."

The latter approach to health and safety was clearly argued in 1972 by the influential Robens Committee, established in the UK to make recommendations concerning occupational health and safety organisation. The fundamental declaration of the report was as follows: "The primary responsibility for doing something about the present levels of occupational accidents and diseases lies with those who create the risks and those who work with them." The report warned against the tendency to rely too much on government regulations and not enough on voluntary efforts and individual responsibility. It went on to argue that legislation should concern itself not so much with circumstantial details, but should "rather aim to shape attitudes and create the infrastructure for a better organisation of occupational safety and health by industry's own efforts." The Robens report later became the basis for restructuring and modernising the organisation of occupational health and safety in the UK and its influence, whether direct or via the UK system, on MOSA is quite obvious.

Accompanying the move to self-regulation is a much clearer delimitation of responsibility in MOSA as compared with the Factories Act. In the former, responsibility clearly rests with the employer, perhaps a necessary adjunct to the self-

46. ibid
49. ibid
regulatory model, insofar as it is no longer the role of the state to define what constitutes dangerous working conditions and to prescribe the necessary precautions. The principle is perhaps best illustrated by reference to the following examples from the Acts:

The Factories, Machinery and Building Work Act, chapter 5a, section 39a states:

"(1) If the Minister is of the opinion that any activity carried on in any factory or on any premises on which machinery is used or building work or excavation work is performed, is such that the health or safety of persons employed in connection therewith will be endangered by their continued employment in connection therewith, he may by notice in the Gazette, .... declare such activity to be a specified activity.

(2) No person shall engage any person to perform work in connection with any activity declared to be a specified activity in terms of subsection (1), unless such person has been examined within the prescribed period by a registered medical practitioner...."

What could be seen as replacing the above in MOSA may be found in the General Administrative Regulations, the first set of regulations promulgated in terms of MOSA and gazetted in October 1984, shortly after the Act itself came into effect:

"5. Without derogating from any specific duty imposed on employers or users of machinery by the Act or these regulations, every employer or user of machinery, as the case may be, shall -

(f) establish, as far as is reasonable, what dangers to the safety of persons are attached to any work that is performed, any article which is processed, used, handled, stored or transported and any machinery which is used in his business and, further, he shall establish what precautionary measures should be taken
with respect to such work, article or machinery in
order to protect the safety of persons and he shall
provide the necessary means for, and apply such
precautionary measures;

(g) take such steps as may be necessary to remove any
threat or potential threat to the safety of persons as
far as is practicable;"

The transfer of responsibility from "the Minister" is clear.
In theory, the onus of responsibility on the employer could
also grant a certain amount of power to the other party to
regulation at the enterprise level, namely the employees,
insofar as the law defines broad parameters for their
monitoring of the way in which an employer carries out his or
her statutory responsibility.

An important qualification to any discussion of
responsibilities has to do with the phrases, "as far as is
practicable", or "as far as is reasonable". On the face of
it, such phrases may be a loophole for employers to argue
their way out of having to do anything more than the bare
minimum in the workplace. The now defunct Trade Union Council
of SA (TUCSA) raised the issue in their submissions on the
General Administrative Regulations, where they argued:
"...the word "reasonable" is too open to conflicting
interpretation. The Council would strongly urge that this
term be substituted by "every possible measure", which whilst
still being unavoidably vague, leaves less room to employers
who may wish to find loopholes in order to circumvent the
spirit and intention of this Section in the Regulations."

On the other hand, it could be argued that there are
precedents in common law for defining what would constitute
"reasonable" action. Moreover, the terms imply an obligation
for employers to take positive steps, in certain instances
measurable against defined standards and duties.

50. Records of the Trade Union Council of South Africa: Letter
from JA Grobbelaar to the Director General: Manpower, 14
March 1984.
Nevertheless, the key test of MOSA and the regulatory model that it introduced lay in its implementation and in the responses of employers and workers to it.

Summary

This chapter has traced the change in state legislative regulation from the early Factories Act through to the Machinery and Occupational Safety Act of 1984. In the formative period of factory legislation, the major force shaping legislative regulation was seen, following Budlender, to be capital's need to curb the worst excesses of the production system and to protect workers' productive capabilities in the interests of capital as a whole. While the foregoing view could be demonstrated empirically in relation to early factory legislation, the social forces influencing subsequent changes to factory legislation, are more obscure.

During the 1970s and 1980s, the Erasmus and Wiehahn Commissions of Inquiry made significant recommendations regarding change to occupational health and safety legislation. Conflicting recommendations of the two commissions reproduced a fragmentation of functions and responsibilities between different government departments. The separation of responsibilities for occupational health, on the one hand, and occupational safety and hygiene, on the other, between the Departments of Health and Manpower, respectively, has reinforced a dualism which, while certainly not unique in comparative terms, can only serve to weaken state regulation of workplace health and safety. The adoption of the dualism or split responsibility cannot easily be related to the interest of any particular social group or class. Rather, it would appear, superficially at least, to have more to do with internal dynamics between state departments, which have, over time, come to assume responsibility for particular functions and which may have developed vested interests in continuing such functions. The influence of the state itself on the form of legislative regulation does not necessarily contradict the argument that the state continues to legislate in such a way as to ensure
the interests of 'social capital', or of capital as a whole. The latter could be seen to remain an underlying function of the state and of legislation, which may be achieved in different ways and through different forms of legislation at different points in time.

The legislative changes in the area of occupational health and safety over the last two decades, both proposed and adopted, were undoubtedly influenced by the growth of the democratic union movement. The attraction of the Erasmus Commission to the concept of joint safety committees could quite possibly have been influenced by the state's response to the emergence of the democratic unions, a response encapsulated in the promotion of the liaison committee system. Similarly, while the Wiehahn Commission was perhaps not so specific about the form of regulation of workplace health and safety, it recommended definite changes to the legislative framework. More important was the spirit of reform introduced by Wiehahn as regards the recognition of black trade unions, a reform which found a resonance in the more far-reaching changes contained in MOSA, in particular, that of the safety representative system.

But, while the union movement may have had an indirect influence on legislative change in the field of occupational health and safety, other factors also influenced the passage of MOSA. International developments in safety legislation no doubt also had an effect, as is clearly reflected in the safety committee and safety representative system, an organisational system for workplace health and safety that had been introduced into the legislation of a number of countries by the early 1980s. The Robens Committee report appears to have been particularly influential, as there are a number of parallels between its recommendations and the outcome in MOSA - the concept of self-regulation being one crucial example.

While the above factors may constitute influences on the form of legislation to be found in MOSA, they do not provide clear explanations as to the aim of the state in introducing MOSA at the time that it did. Comprehensive evidence, from which such
aims may be deduced, is, in the case of MOSA, hard to come by. The first real critique of the Act to have appeared in the literature, suggested that: "What MOSA amounts to, then, is a move by state and management to pre-empt organisation around health and safety that is controlled by workers/unions, and to put in its place a system that is more easily dominated by management, and in which the workers have no real say by law."51

One of the concerns of the following chapter will be to discuss whether the latter critique was an accurate assessment of the aims behind MOSA. Some of the major criticisms of MOSA will also receive attention. The major focus of the following chapter will, however, be an empirical assessment of the implementation of MOSA in the Greater Cape Town area and the likely practical effects of the regulatory model contained in the Act.

Chapter 3: The implementation of the Machinery and Occupational Safety Act.

Introduction

The Machinery and Occupational Safety Act (MOSA) was promulgated in March 1983 and came into operation on 5 October 1984. The stated aim of the Act is to provide for the protection of the health and safety of employees at work and to provide safety measures in connection with machinery. It does so partly through substantive provisions in the Act, but mainly as an enabling measure, which, as in the case of the Factories Act, finds practical expression in the regulations made in terms of the Act. Unlike its predecessor, the Factories Act, MOSA applies not only to employees in factories and building work, but to all persons in employment, including the public sector, agriculture, commerce, local government and domestic service. MOSA is therefore far broader in scope than its predecessor and, as was discussed in the previous chapter, it also introduced a new approach to health and safety in the workplace.

Shortly after the Act was passed, MOSA met with a considerable amount of criticism, mainly from independent trade unions, industrial relations consultants and occupational health professionals. One of the aims of this chapter will be to review the criticisms of the Act, in particular, those regarding the most important and also the most controversial provisions of MOSA, pertaining to the appointment of safety representatives and safety committees.

Given that companies are legally required to do so, it can be assumed that there has been widespread compliance with the provisions of the Act concerning the establishment of safety committees and designation of safety representatives. Since the Act came into operation, there has, however, been virtually no investigation of how the Act is being implemented, or how management and labour have responded to
the organisation of health and safety in the workplace. The main aim of this chapter will thus be to investigate the latter questions and to evaluate the likely implications of present trends. The material on which the chapter is based was collected in a questionnaire survey, carried out in industry in the Greater Cape Town area, between 1986 and 1987. The research methodology of the survey will be presented, followed by an analytic discussion of the main findings.

Early criticisms of MOSA

The crux of the organisational model in MOSA, which was also the basis for the introduction of self-regulation, lay in the provisions relating to the establishment of a system of safety representatives and safety committees. While recognising the significance of such provisions, commentators were also at their most critical in this area, especially with regard to:

* the possibility of safety representatives being appointed rather than elected;

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1. The only research-based paper available is that by Kruger V: A pilot study into the implementation of MOSA and management’s attitude to worker and union participation. Presented to the ASSA Conference, Univ. of Natal, June 1986

2. The earliest and perhaps still the most significant critique of MOSA was that of Myers J, Steinberg M: Health and safety organisation: A perspective on the Machinery and Occupational Safety Act. South African Labour Bulletin, 1983, 8(8) & 9(9). Other important critiques that have been drawn on here:
   Maller J, Steinberg M: Health and safety: An issue in industrial relations. South African Labour Bulletin, 1984, 9(7);
   Bendix S: The implementation of the Machinery and Occupational Safety Act. Industrial Relations Journal, 1984, 4(4);
the potential for safety committees to be structured as liaison committees, dominated by management and potentially divisive of organised workers.

It was argued that such features would allow management to dominate the structures and operate them solely in pursuit of their own interests. Furthermore, the features in question were seen as an attempt to pre-empt union involvement in the area of health and safety. The criticism was most clearly spelt out by Maller: "MOSA, like the Erasmus Commission can be seen as an attempt by the State and capital to control trade union and democratic worker organisation around working conditions, and to pre-empt worker demands that could adversely affect productivity and profitability." Other critics argued that MOSA was out of line with the spirit of the reforms introduced by Wiehahn and that the Act saw things "in terms of management and the state only...there is no provision whatsoever in this act for the participation of workers/unions." The latter criticism is not entirely accurate, as there is provision in MOSA for worker representation on the Advisory Council (ACOS) and, as discussed in the previous chapter, the manner in which the safety representative system is to be established, is ambiguous. The more important point raised by the early critics, albeit in an indirect way, had to do with the question of participation or non-participation by workers in the structures introduced by MOSA. On that point, the criticisms could be read as coming down very firmly on the side of non-participation. Although no great debate about MOSA developed amongst the democratic unions, it should be noted that the Act and the early criticisms of it came only a short while after the heated debate on the question of registration by trade unions in terms of the new labour dispensation. It seems quite possible that responses to MOSA were influenced by some of the issues in the latter debate.

5. For a summary of the registration debate and a reproduction of some of the key contributions, see:
Some of the critics of MOSA certainly shared the view of those who argued that allowing African unions to register was purely an attempt at disorganisation. The latter view arises from a particular understanding of the form of law, one in which the extension of certain rights is seen primarily in terms of potentially destructive effects on collective labour and originating in intentions on the part of the state and capital to disorganise labour. What is lost sight of is that the form of law is often contradictory, "since the extension of rights serves not only to disorganise labour but also as an inhibition on the power of the state, as a means of defence for labour against the power of capital and as a way of consolidating and generalising gains made through shop floor struggle." Thus it could be argued that an analysis of MOSA as a more contradictory piece of legislation could well reveal greater scope for unions to use the rights contained in the Act to advance the health and safety interests of their members. The latter argument will be discussed further below.

There was also a perception, commonly held by early commentators, that health and safety was an emerging issue in industrial relations and that MOSA created a potential area for conflict over control of safety representation in the workplace. The perception was no doubt based on attempts by some unions to negotiate over health and safety matters and to challenge the way that MOSA's health and safety structures were established. While these and subsequent attempts by unions at tackling health and safety issues are significant, the perception may prove to have been based on a miscalculation of the extent to which the democratic unions have moved beyond the traditional areas of collective bargaining. At the time that MOSA was passed, it was certainly the case that unions were, by and large, dealing with health and safety matters on an infrequent and ad hoc basis. As stated in the 1983 annual report of the Federation of South African Trade Unions (FOSATU), "the experience was

that bargaining over health and safety was very difficult in an environment that still required a struggle for basic recognition rights.7

In the light of the criticisms of MOSA and perceptions of the industrial relations of workplace health and safety, what were the trends in the implementation of the Act? Furthermore, how were the trade unions responding? These were some of the concerns that underlay the questionnaire survey carried out in 1986 - 1987.

The implementation of MOSA in Cape Town

1. Research methodology

Two questionnaires were devised, one to be used in the case of companies and the other for trade unions (appended as Appendix 1 and 2 respectively). The two questionnaires had slightly different aims. In the case of the company questionnaire, the aims were to elicit company policy on health and safety, to gather basic data on the implementation of MOSA in the particular company and to serve as a control for the information gained from the trade unions. The aims of the trade union questionnaire were to gather general information on the union's experience of MOSA and of health and safety issues, as well as to gather specific information on union policy regarding MOSA and/or health and safety.

Structured, in-depth interviews, based on the questionnaires, were used throughout the survey. In total, 50 interviews were carried out, 36 being with company managements and 14 with trade unions (listings of all companies and unions interviewed are provided in Appendix 3).

Selection of companies for interview was based on the Workmen's Compensation Act Accident Fund list, grouped according to different ranges of numbers of employees and

categorised by the non-standard industrial classification used by the Workmen's Compensation Commissioner's office. Although the information contained in the listing is not up to date in all cases, all companies are, by law, required to register with the Accident Fund; the list is therefore probably the most comprehensive listing of companies available. The sample size was taken at five percent of all companies in the Greater Cape Town area, in the size range 50-1000 employees (since MOSA requires that one safety representative be designated per 50 employees) and amounted to 36 companies.

Ten companies, all taken from the Printing, Paper and Packaging sub-sector of the manufacturing sector, were initially selected for a pilot study. As there were no substantial changes to the questionnaire after the pilot, the ten companies were included in the total sample. A further 26 companies were then randomly selected from the list, making up the required total of 36 companies. Three of the companies selected turned out to have less than 50 employees, while five companies refused to grant interviews; they were replaced by other companies, on a random basis. The 36 companies interviewed represented the following sub-sectors of the manufacturing sector, in order of numerical prevalence in the sample:

- printing, paper and packaging (10);
- metal, motor and engineering (8);
- textile (7);
- food (4);
- wood (2);
- building and construction (1);
- chemicals and plastics (1);
- petroleum products (1);
- leather (1);
- hosiery (1).

Two trade unions interviewed as part of the pilot were also included in the total union sample of fourteen unions, which represented 34% of the 41 trade unions operative in the Greater Cape Town area at the time. The unions sampled claimed, on the basis of signed-up membership figures and the
operation of the closed shop, to represent in the region of 81,800 workers. Of the fourteen unions, eight were not then affiliated to any of the major trade union federations, although the eight included ex-TUCSA affiliates. Five of the unions interviewed are affiliated to COSATU and one is affiliated to NACTU.

2. Management responses

The results of the survey of companies broadly confirmed the early criticisms as regards the responses of management to the Act.

* The majority of safety representatives in the companies investigated were appointed (see Figure 1) and most safety representatives fell into job categories of top management to skilled worker (23 companies). Twenty-nine companies had mainly supervisory staff in the positions of safety representatives and only ten companies included safety representatives from the categories of semi-skilled to unskilled worker.

* In 18 companies, or 51% of the sample, management used explicit criteria in the appointment of safety representatives, ranging from seniority, authority and responsibility to literacy and degree of skill — all of which would tend to exclude semi-skilled operatives and labourers.

* The safety committees were in nearly all cases management-dominated bodies, whose structure and membership were determined by management. Only one company had a safety committee representative of all employees. Moreover, in larger companies, it was found that the type of structure employed was one that had, as its principal decision making committee, a central safety committee consisting of top management, departmental heads and the Safety Officer. Below the central committee were a number of departmentally-based safety committees, consisting of departmental heads, the safety representatives and/or supervisory staff.
FIGURE 1: Method of designation of safety representatives

Safety Establishment
Safety Representatives

- Appointed: 27
- Co-opted: 4
- Volunteered: 2
- Elected: 3
- Co-opted: 4
Reports were relayed from lower levels of the structure to the central safety committee, where decisions were made and then in turn relayed back down to the departmental safety committees.

The survey thus tended to confirm that the predominant interpretation of MOSA and the most common approach to the organisation of health and safety was one resulting in a hierarchical approach, accompanied by a bureaucratic form of control over health and safety matters by the higher grades of employee. Given what amounts to managerial dominance of the area, it is interesting to note that 30 of the companies interviewed were nevertheless of the opinion that health and safety constitutes an area of mutual interest between management and workers. Only four companies regarded the area of health and safety as one embodying conflicting interests, despite the fact that 26 companies in the sample were unionised.

Despite the form of safety organisation found in the sample, there were, however, some interesting features in the way that the safety representative and safety committee system was functioning. The most striking was the fact that only 15 (42%) of the companies surveyed actually use the safety representative and safety committee system as the main mechanism for addressing health and safety issues in the workplace (see Figure 2). In a number of cases, problems relating to health and safety were still dealt with on an individual basis, that is, between the individual concerned and the foreman, supervisor or company medical personnel. In other cases, pre-existing mechanisms were still being used to deal with issues. Such mechanisms ranged from responsibility remaining with foremen or departmental heads, to addressing problems through a safety committee only, usually a committee which pre-dated MOSA.

Furthermore, regarding the actual functions of safety representatives, while all were reported to carry out the required inspections, in only 17 companies (47%) were safety representatives reported to carry responsibility for accident
**FIGURE 2** Mechanism for dealing with Health and Safety Issues

- **SRs & SC** - via the Safety Representatives (SRs) and Safety Committees (SCs)
- **Individual** - on an individual basis
- **SRs, SC & Oth** - via SR's, SC and others (e.g., shop stewards, company nurse, engineers)
- **SC** - via the Safety Committee
- **Management** - by management and foremen

**FIGURE 3** Safety Representatives Functions

- **IAR** - Inspection and accident reporting
- **IAR/E** - Inspection and some accident/emergency reporting
- **IO** - Inspections only
- **AO** - Accident reporting only
- **CO** - "Close observation"
or incident reporting as well (see Figure 3). While MOSA is not insistent on safety representatives having the latter responsibilities, it does allow for the possibility, but it would seem that in practice a significant number of safety representatives are limited to one basic function only, namely the monthly inspection. When asked whether the safety representatives should have more extensive powers than those vested in them by MOSA, 29 companies (81%) felt that this would be unnecessary.

Almost half (47%) of the companies investigated (17) expressed dissatisfaction with the Act on a wide range of issues, such as the inadequate training of safety representatives, concern at the lack of employee involvement and the extent to which MOSA is management-orientated. It is interesting to note that unions would be in agreement on a number of these points. Despite evidence of some dissatisfaction with aspects of the Act, however, the investigation tended to confirm the obvious assumption that management viewed health and safety as an area for which it was responsible and also considered it the duty of management to see that health and safety precautions are enforced and policed. Only eight companies viewed health and safety as an area where there should be joint responsibility by both management and employees and only five companies conceived of the policing of health and safety as being the responsibility of both management and the safety representatives.

It could be argued that the assumption by the companies, that health and safety in effect constitutes a managerial prerogative, is bolstered by MOSA itself, in that the Act places full responsibility on management for safety in the workplace and requires self-regulation for the monitoring and improvement of health and safety. Prerogatives do not, however, necessarily imply clear strategy as evidenced by the way in which MOSA is being implemented.

The fact that organisational structures in the workplace are management-dominated does not necessarily give rise to any clear policy and strategy for dealing with workplace problems
and hazards. In this context, it is worth noting that only nine (25%) of the companies interviewed, had a specific policy on health and safety.

The effect of MOSA on many companies has, however, been an increased awareness of health and safety and greater alertness to hazards at work. The increased awareness, while being a positive effect of legislative regulation, is, unfortunately, not necessarily thoroughgoing and, very often, the result appears to have been the provision of more protective equipment to the workers, rather than addressing the problem at source. In the larger companies, particularly where there are certain hazards associated with the production process, the effect of MOSA has been more limited, tending more to streamline existing practices and procedures.

In effect, there is formal compliance with the law, beyond which a number of variables come into play to shape the way that health and safety is handled. The variables include: size of company, nature of company activity, past practices in health and safety, the role of unions in the company and the effects of the economic climate on the firm - and some of the variables interrelate. For instance, smaller companies which are under pressure to remain competitive, tend to be less concerned with health and safety. This does not mean that they do not comply with MOSA, but they generally do so in a way which reduces health and safety to a mere legal formality rather than an issue which may require time, money and sound industrial relations practices to ensure improvements to and regular monitoring of the working environment.

3. Trade unions and the implementation of MOSA

According to at least half of the union officials interviewed, health and safety has not been an area over which members have expressed much concern, or where any industrial action has been taken. An additional reflection of the fact that health and safety appears to occupy a relatively low place on the agenda of many unions, is the finding that, of 14 unions surveyed, only one had any written policy on MOSA. The
latter was by way of an inclusion in recognition agreements to ensure that shop stewards would, for the purposes of the Act, be recognised as safety representatives.

An exception to the above was found in the case of Transport & General Workers Union (T&GWU), where members in one or two companies have consistently advanced health and safety problems of an acute nature. One effect has clearly been to increase the awareness of organisers in the union of the issue of health and safety, in turn ensuring a more systematic approach to the issue within the union as a whole. (Although not part of the present investigation, a similar situation could be expected to exist in the case of the National Union of Mineworkers.)

More generally, three broad responses to MOSA were identified amongst unions across the spectrum, that is, from the more conservative, establishment unions to those affiliated to COSATU and NACTU. The responses are as follows:

1. Uncritical participation: This tends to characterise the response of the ex-TUCSA unions who have accepted MOSA as a step in the right direction. Such unions are usually well-established and have Sick Benefit Funds, through which complaints about health and safety tend to be processed in a bureaucratic and individual way. There is often an absence of a more general awareness of health and safety as a matter to be dealt with systematically between workers and management on the shop floor.

2. Boycott: This was the initial response of some unions that are today affiliates of COSATU. The main reasons advanced for the response were that MOSA was undemocratic in nature and did not include unions at all. For some unions, it was considered that health and safety should be dealt with using the normal channels through which grievances are raised with management, that is, through the shop steward committees.
3. **Strategic participation**: The third response, one that could be called strategic participation, was a relatively new response adopted by some unions, some of which are affiliates of COSATU, others not. The response may be characterised by:

* A minimum position, involving management acceptance of union participation through election of safety representatives, coupled with a recognition that safety representatives are accountable to the workers who elected them.

* A maximum position, embodied in a Health and Safety Agreement which codifies a set of principles, procedures and structures relating specifically to health and safety organisation in a particular company.

To date, two such agreements have been signed and research carried out in 1987 found that a further 11 unions were proposing or were in the process of negotiating health and safety agreements. The agreements which have been negotiated, one by the T&GWU at Turnall (Cape) and the other by the South African Allied Workers Union (SAAWU) at Malcomess (East London), are loosely based on MOSA, but also attempted to address a number of deficiencies in the Act.

Firstly, the agreements provide for the election of safety representatives, who by and large carry out the duties envisaged for them in the Act. Secondly, where safety committees are concerned, the agreements provide for a two-tier system consisting, on the one hand, of a management health and safety committee and, on the other, of a safety committee, comprising safety representatives and, should the union so choose, a nominated shop steward. In at least one of the agreements, the safety committee is not regarded as a negotiating committee and it is recognised that the latter function will continue to be vested in the union's shop.

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steward committee. The latter feature implicitly conceives of health and safety as an issue that is not one merely requiring consultation between parties, but one that requires negotiation in the most important industrial relations structure within the firm. There are other features of the agreements which vest more rights in the hands of workers than does MOSA, such as access to information, access to company premises for union officials, access for experts of the union's choice in disputes and access to medical records.

How such agreements would work in practice remains to be seen. The agreement between T&GWU and Turnall (Cape) unfortunately fell away as a result of a takeover of the company, before the agreement could be properly implemented. But such agreements would potentially put "workers, through their safety representatives and advisors, in a strong position to monitor health and safety issues and control management prerogatives in this area." At the same time, agreements of any kind can take a long time to negotiate, which may mean that unions are unable to gain basic rights on health and safety until such time as an agreement is signed. In the latter respect, health and safety agreements are open to the same kind of manipulation as are recognition agreements. Such problems may force unions to adopt different strategies towards health and safety agreements, such as negotiating a very short agreement on basic rights, or including a section on health and safety in the recognition agreement, as appears to be the practice in the Food & Allied Workers Union (FAWU).

Overall, however, it would appear that health and safety is not an area that has been considered in any systematic way by unions in the Greater Cape Town area and it seems likely that the same applies to unions in the rest of the country as well. This is not to imply that unions are not concerned with the area, but have for various reasons not adopted a thorough-going approach. Most often, it would appear that health and

9. Finnemore M: Recent developments in health and safety agreements. Unpublished paper, Industrial Relations Unit, Univ. of Port Elizabeth: n/d
safety is dealt with by unions on an ad hoc basis in response to a particular situation - for example, where someone has been killed or seriously injured.

Discussion

The above survey was carried out on a relatively small sample, in only one geographic area of South Africa. It was also conducted at an early stage of the implementation of MOSA. Given the new approach introduced by the Act, it is likely that management and labour would require a longer period of time in which to establish mutually satisfactory working relationships around health and safety which could lead to meaningful improvements to the working environment.

The major trends to emerge from the survey point to the fact that companies are interpreting MOSA in a restrictive sense and in a way which does not always have very much content as regards effective preventive measures. Despite the ambiguous wording of the Act with regard to worker representation in the plant-level safety structures, most safety representative and safety committee systems are effectively controlled by management. The form of control exercised by management over safety organisation is perhaps best captured in the concept of "bureaucratic control", characterised by Edwards in the following terms:

"Bureaucratic control ... differs from the simple forms of control in that it grows out of the formal structure of the firm, rather than simply emanating from the personal relationships between workers and bosses ... bureaucratic control is embedded in the social and organisational structure of the firm and is built into job categories, work rules, promotion procedures, discipline, wage scales, definitions of responsibilities, and the like. Bureaucratic control
establishes the impersonal force of "company rules" or "company policy" as the basis for control."

In the case of safety organisation, it is the law itself, in the form of MOSA, which provides the basis for control and which also serves to institutionalise the exercise of hierarchical power around health and safety through the safety committee and safety representative system. While the involvement of management in the area of health and safety is certainly necessary in terms of improving safety, it needs to be of such a nature as to provide support for the safety system as a whole and to elicit the participation of workers therein. The support of the workforce for any system of safety organisation, particularly for safety representatives, has been found to be particularly important, in that it is the workforce who provide information about the day-to-day hazards of work and who are in a position to pass on such information to safety representatives.

The most common way in which MOSA is being implemented is, however, one that is unlikely to have strong participation by shop floor workers or even support by them. The limited form of worker participation in health and safety is likely to circumscribe the effectiveness of MOSA as regulatory legislation and also to limit the attempt at self-regulation introduced by the Act. The foregoing should be seen in conjunction with the findings of the survey that, in many cases, management still uses old or parallel systems to deal with health and safety and that the responsibilities and functioning of safety representatives are limited, a situation considered desirable by the majority of companies.

Despite the fact that MOSA does not guarantee a democratic form of worker participation, the Act does not explicitly exclude it. The exclusion of workers has occurred in the

practical implementation of the Act. MOSA has, moreover, introduced a number of rights for employees in the area of health and safety, as well as defining specific duties for employers. Nevertheless, trade unions have, by and large, not responded positively to the Act. The unions which have accepted MOSA, tend to be those which are less active at the shop floor level and whose members are therefore less likely to become particularly involved in the area of health and safety through their trade unions. Most of the trade unions that are active at the shop floor level and in the collective bargaining process, namely those unions affiliated to COSATU and NACTU, appear to have chosen not to rely on MOSA for workplace regulation. Some of the latter unions have endorsed the role of safety representatives, provided that they gain their positions through elections by workers. In such cases, it is very likely that the representatives would carry on their health and safety function as an extension of their role of workplace representative, as was found to be the case in a survey of the operation of the safety representative system in the printing industry in the UK.

A significant attempt by some unions to meet the challenge of bargaining over health and safety has been through the negotiation of health and safety agreements. Such agreements have presented an alternative to the organisation of health and safety activities to that contained in MOSA. The alternative contained in the agreements has been influenced by MOSA, but has also gone beyond many of the deficiencies contained in the Act. Nevertheless, further research would be required to reveal the effectiveness of such agreements in practice.

One reason why certain trade unions have not endorsed MOSA may be found in the stance adopted towards the collective bargaining process by the democratic unions. Since their

13. The duties and responsibilities of employers are contained in the General Administrative Regulations, published under GN R2206, 5 October 1984, section 5
emergence in the early 1970s, such unions have, by and large, operated at plant level and have built their power bases on the representation of workers in every sphere of activity and in many work-related issues. For the democratic unions, worker representation at the plant level is equated with representation by elected shop stewards and perhaps the 'neutral' form of representation proposed by MOSA, albeit for the health and safety arena, was doomed from the start, irrespective of the intentions behind the legislation.

The above characterisation of current union approaches may be set against the view expressed by a number of the company representatives interviewed in the survey: the prospect of union involvement in health and safety structures evoked suspicion, on the assumption that unions are politically motivated on the issue. An early commentary on the implementation of MOSA, expressed similar concerns, although in a more sophisticated form: "Ideally health and safety should constitute an area for co-operation between management and the workforce. However, to expect such co-operation within South Africa's particular circumstances and at a stage where unions establishing themselves at plant level are envious of every issue not within their sphere of jurisdiction and where other unions not yet established are using every issue to gain entry, is perhaps unrealistic." 15 The assumptions underlying such arguments are, unfortunately, flawed and could be read as implying that trade union concern with health and safety is somehow illegitimate. The assumptions do not, in any event, correlate with the status of health and safety as an issue for unions, at least in the Greater Cape Town area. In the context of the above survey findings regarding health and safety as a union concern, it would clearly be incorrect to make the assumption that unions are 'envious' of the issue and would like it to be brought within their jurisdiction, that unions may 'use the issue to gain entry', or that they are politically motivated on the issue.

15. Bendix S: op cit, p.63
For the moment, then, the implementation of MOSA appears to be characterised by compliance with the letter of the law, but not always with the real interests of workers in mind. In a situation where management seldom sees a need to negotiate on health and safety and where the issue does not have a regular presence on the bargaining table from the side of unions, it would appear that health and safety remains an "emerging industrial relations issue". More importantly, the legislative framework within which the issue may be raised, remains flawed.

It may, however, be possible to draw a parallel with the industrial relations situation as it existed in the mid- to late 1970's. At that time a number of powerful, emerging unions were granted de facto recognition by employers with whom they were having dealings, despite the lack of legal standing and access to the statutory system of collective bargaining. The position obviously changed in the post-Wiehahn period and with subsequent changes to the Labour Relations Act. But, as far as MOSA is concerned, it may be possible to envisage a similar scenario, whereby incremental changes in the law come about, reflecting improvements which are established in practice between employers and trade unions in the area of health and safety.

In general, however, it takes time and money to establish a safe working environment and, in South Africa, it will probably take even longer, given the high financial costs of improvements, due to past neglect, poor motivation, inadequate legislation and given that health and safety is a relatively new concern for both employers and trade unions.

Summary

This chapter has briefly reviewed some of the major criticisms that were made of MOSA at the time that it was promulgated. A survey of the implementation of MOSA in the manufacturing sector in the Greater Cape Town area was then presented, focussing on the way in which companies were establishing the
safety representative and safety committee system provided for by the Act.

The general pattern to have emerged was one in which companies had established safety systems dominated by the more skilled grades of employee and managerial staff. The safety systems were implementing the rules and procedures required by the law through hierarchical safety representative and safety committee structures, effectively exercising a bureaucratic form of control over the area of health and safety. In many cases, however, companies were implementing only the minimum requirements of MOSA, to some extent coupled with dissatisfaction with certain requirements of the law, particularly as regards the responsibilities placed on management. There was also a marked lack of instances of any company policy towards the area of health and safety. An important feature of the company interviews was the extent to which different variables ultimately shaped the way in which health and safety was dealt with by any particular company. Thus, although legislative regulation provided a minimum framework for dealing with health and safety at the plant level, the content given to regulation tended to be determined more by factors such as size of the enterprise, past practices around health and safety and, very importantly, the nature of production and its hazard profile.

Through interviews with trade union officials, it was found that responses to MOSA were largely determined by the particular tradition of which any union was a part. Some unions would have their members appointed as safety representatives, who would then attend the safety committee meetings, but there was little evidence of such unions putting their own stamp on the way in which regulation of the workplace was to be carried out. Other unions have tended to bypass MOSA entirely, preferring to deal with the health and safety concerns of their members through established channels at plant level, namely the shop steward system. A minority of unions have attempted to engage with the self-regulatory model contained in MOSA, by insisting on participation on their own terms, that is, by electing safety representatives and
maintaining the right to negotiate over health and safety issues. One of the unions surveyed had negotiated a health and safety agreement as an alternative model for regulation, but one that was influenced by MOSA.

The general finding with regard to the trade unions was that health and safety issues had not featured prominently amongst their activities. While critical of MOSA, a number of unions had also not developed any alternative form of regulation which could take into account the legal obligation on companies to implement the Act, while at the same time addressing some of the deficiencies of MOSA. Instead, there was a general tendency amongst these unions to rely on their own shop floor tradition, one of bargaining at plant level through elected worker representatives.

The following chapter will attempt to examine in greater detail the dynamics of a particular trade union initiative in the area of workplace health and safety, one carried out independently of the legislative framework for regulation.
Chapter 4: Brown lung in the SA textile industry - A union campaign for control

Introduction

The previous two chapters have attempted to provide an analysis of the regulatory model introduced by MOSA, its background, some of the problems in its implementation and information on responses to it by management and trade unions. An organisational approach to workplace safety and health is, however, a recent legislative phenomenon in South Africa and it would be unrealistic to expect major changes in attitudes and practices at an early stage. Nevertheless, the trends which have emerged two to four years after the Act was promulgated, suggest that the new system of regulation may not work as effectively, or as smoothly, as was intended by the legislators.

Regulation of workplace health and safety does not, however, only come about through legislative intervention. As outlined in chapter 1, regulation should be considered from the point of view of employer initiatives, as well as, and perhaps more importantly, the role of the collective bargaining process and the initiatives of trade unions. The aim of this chapter and that following will be to develop two case studies, which allow for an exploration of the other forms of regulation.

The use of case studies has the obvious disadvantage of dealing with specific situations, from which it may be difficult to generalise to other situations. In the studies discussed in the following chapters, the occupational hazards which are the subject of regulation, arise from the use of specific substances in the production process. The substances in question, cotton and asbestos dusts, give rise to specific diseases, which do not occur in many other industries. The occurrence of particular occupational diseases also unavoidably introduces the issue of workmen's compensation, which has featured prominently in both case
studies. Compensation, albeit of crucial importance to workers and in the field of occupational health, will not, however, be dealt with in any depth, as it detours into areas that are not the focus of this thesis.

Despite the specifics of the studies used here and the problem of generalisability, the use of case studies does allow for an in-depth look at the responses of employers and organised workers to the dangers associated with work, how improvements are achieved and the kinds of monitoring systems that are set in place. It was suggested in the previous chapter that the participation of workers in the regulatory process in manufacturing industry may generally be relatively weak. In contrast, in the case studies dealt with here, organised workers have played a role in improving the working environment. There is thus a bias in favour of organised workers in the following studies, but it is one purposefully chosen to allow for an examination of the role which organised workers may play in the area of health and safety.

In the literature on South African trade unionism, there are very few case studies on the role of trade unions in dealing with health and safety problems facing their members. The lack is particularly marked in the case of the manufacturing industry, whereas in the case of the mining industry and the recent attempts of the National Union of Mineworkers to intervene on health and safety matters, Leger has undertaken important studies in the last few years.1 The following cases are therefore in some senses atypical, in that they are among the few sustained initiatives on health and safety by independent, democratic unions in the manufacturing sector.

This chapter concerns a union-initiated campaign to combat the effects of exposure to cotton dust amongst its members. The campaign was launched in 1982 and continued over the next two years; it encompassed many facets of occupational health and safety and represented what was probably the first major trade union initiative in the area. The form of the campaign conducted by the union, the National Union of Textile Workers (NUTW), will be described and an attempt will be made to assess the impact of the campaign and to discuss its advantages and shortcomings.

The SA textile industry - Background to unionisation

The South African textile industry presently employs 104 000 persons, had a total turnover of R3.9 billion in 1987 and consumes 270 000 tons of fibre a year. In international terms, it is a fairly small industry and its fibre consumption is only 0.7% of total worldwide demand. The roots of the industry in South Africa go back to the late 1920s, when a local cotton blanket industry was established - although some blanket factories had been in existence before that time, none was of much significance. It was only after the second World War, however, that the industry expanded very rapidly, due in part to strong encouragement from the state, particularly the Industrial Development Corporation (IDC).

In the early phase of the industry's growth, factories had been fairly evenly spread throughout the major centres. From the late 1950s, however, the geographic focus changed and, increasingly, the Durban-Pineton-Maritzburg (D-P-M) complex became the most important textile area, with the Eastern Cape as the second largest concentration of textile production. A number of reasons have been advanced for the regionalised growth of textile manufacturing, for instance: the favourable location of Durban in relation to both raw

4. Ibid, p.4
materials and markets; the proximity of a large population of potential consumers of blankets, rugs and related products, the manufacture of which formed the original basis of the textile industry; and the high humidity in the D-P-M area which is suitable for knitting and weaving, in that there is less development of static electricity than in a dry climate.

Hirsch, however, focusses on another factor as the major reason, namely, "the readily available supply of cheap non-European labour ... of great advantage in an industry where wage costs comprise a large proportion of operating costs." The production process in the manufacture of textiles is one that relies mainly on semi- and unskilled workers, with only about 20% of the total workforce being skilled. A large proportion of textile workers are women, so that "the reserve army for the industry is even larger than for other industries." The industry's major labour requirements are thus that it be cheap, plentiful and disciplined, requirements that have historically been adequately met in Natal and also the Eastern Cape.

The implications of the above characteristics for employees in the industry are that they have very few skills with which to bargain. Wages in the industry have thus historically been very low and labour turnover has been high until quite recently. In addition, employees are often faced with employers who "will seldom hesitate before firing a worker, and will even replace half his plant's workforce if they are not as co-operative as he might wish." A clear illustration of the latter characterisation occurred in 1984, during the Brown Lung Campaign, when, at one of the textile mills, 850 out of 1000 workers were dismissed after a work stoppage.

5. ibid, p.6
6. ibid, p.10
7. ibid
Despite the above characteristics of the industry, or perhaps because of them, trade unions have been actively supported by textile workers. The first union to establish a presence was the Textile Workers Industrial Union (TWIU), registered in 1932 by JC (Jimmy) Bolton. At the time the TWIU was organising mainly white workers. In 1950, the African Textile Workers Industrial Union (ATWIU) was founded; formally affiliated to the TWIU, it worked very closely with the latter. Both unions became important affiliates of the South African Congress of Trade Unions (SACTU) and it was only in 1964 that the TWIU disaffiliated from SACTU, after a more conservative grouping had taken over the running of the union. By the late 1960s TWIU had affiliated to the more conservative union federation, TUCSA; there was "no longer any mention of ATWIU, and it appears that it died with the defeat of the nationalist movements."¹⁰

Active trade unionism in the textile industry only really emerged again in the early 1970s and especially after the massive Durban strikes of 1973. Paradoxically, the resurgence initially occurred through the TWIU, but after the formation of the parallel, unregistered National Union of Textile Workers (NUTW) in September 1973, it was the latter that rapidly grew to become the major force in the industry. The NUTW went on to become a founder member of the Trade Union Advisory Co-ordinating Council (TUACC), which was later absorbed into the Federation of South African Trade Unions (FOSATU). When COSATU was formed in December 1985, NUTW affiliated to it. Since the formation of COSATU, the NUTW has merged with the TWIU and the National Union of Garment Workers (NUGW) to form the Amalgamated Clothing and Textile Workers Unions of South Africa (ACTWUSA). At the time of writing ACTWUSA is at an advanced stage of negotiation with the Garment and Allied Workers Union (GAWU) and a merger seems set for September 1989. The result would be a unified union representing the majority of workers in both the garment and textile

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9. Hirsch: op cit, 1979, pp.16-17
10. ibid, p.32
industries and, with approximately 200 000 members, the second largest affiliate of COSATU.

It was the NUTW, however, that launched the Brown Lung Campaign in 1982, prior to the mergers, at a time when it had in the region of 23-25 000 members in the textile, knitting, clothing and leather sectors.

Brown lung and textile production

The textile industry, like most other industries, has its fair share of safety and health hazards. Hazards that have been identified, include:

* Noise: Many textile processes are characterised by noise levels which are often in excess of the legal limit of 85 decibels (dBa). The machinery used in the industry does not generally fall within the category of precision machinery: "gear wheels are rough cast and not precision cut and consequently they make more noise." To obtain a substantial reduction in noise levels would require that machinery be redesigned.

* Lighting: Exceptionally high standards of lighting are required in certain textile processes, such as drawing-in (where the worker has to thread by means of a reed-hook thousands of threads per day through the "healds and reed"), the weaving of coloured cloths and close examination. In many textile factories natural daylight is not used to best effect, because windows are not kept clean and the inside walls and tops of rooms are not painted or finished in a colour with a high reflection factor.

12. ibid
* Toxic substances: Such substances are mainly used in the manufacture of synthetic and artificial fibres. Toxic dangers also exist in the dyeing section of the textile industry. In dyeing, certain dyestuff intermediates can produce bladder cancer. 13

* Hours of work: The textile industry the world over has been characterised by extremely long working hours, with some mills in some countries employing workers for 13 hours a day, 7 days a week, with only 3 days' annual holiday. 14 More recently, there has been a widespread movement towards the introduction of shift systems, which appears to have reduced the physical and mental strain on workers to some extent, with a corresponding decrease in the accident and sickness rates. Shift work, however, carries its own set of problems with regard to workers' health. 15

* Dust: The most dangerous dust found in the industry is asbestos dust, which may be present in the working atmosphere of all asbestos spinning, yarn preparation and weaving workrooms. The most widespread dust, however, is that giving rise to byssinosis. This respiratory disease occurs in workers exposed to dust in cotton, flax and hemp mills, but has not been found in the spinning of man-made fibres. Until recently, "it was considered that byssinosis occurred only in workers in the fibre opening and cleaning processes up to the carding machine but some medical authorities have found cases in the later processes of yarn winding, especially in high-speed winding." 16 The most dusty process is that of carding.

(See diagrammatic representation of the production process on the following page.)

13. ibid, p.2169
14. ibid
RAW COTTON BALES IN

OPENING
Cotton bales are opened, blended and cleaned by beating.

BLOW ROOM
Giant fans blow cotton into the air and separate the fibres.

CARDING
The cotton is fed into carding machines where wire teeth are used to separate and straighten the fibres. A gauze-like web of cleaned cotton is rolled into a strand called "slivers" and rolled into tall, round containers.

DRAWING
Several slivers are combined into a rope-like strand.

ROVING
Rope-like strands go to roving frames, made parallel, twisted and rolled on a bobbin.

SPINNING
The spinning frame draws strands into a single smaller strand and twists it into yarn.

WEAVING
Yarn goes to weaving machines and is made into fabric.

COTTON CLOTH OUT

Basic steps in the manufacture of cotton fabric.
Byssinosis, popularly known as brown lung, is a chronic respiratory disease, characterised by chest tightness and breathlessness at work, usually after a weekend break or other absences. In the late stages of byssinosis, workers who suffer from it, may become severely disabled with chronic bronchitis and emphysema.

While there is considerable lack of clarity regarding the aetiology of the disease, the mechanism of bronchoconstriction is known to involve an agent contained in the leaves of the cotton plant, but not in the fibres or seeds. There is also evidence that certain endotoxins in bacteria found in cotton plants may be aetiologically important.\(^\text{17}\) The prevalence and severity of byssinosis is determined primarily by the amount of dust in the workplace and the length of exposure, but other factors such as air pollution outside the factory, cigarette smoking and respiratory infection are also important contributory factors. Two additional points about byssinosis are worth noting: firstly, surveys of the disease have found no association between symptoms of byssinosis, on the one hand, and sex or ethnic origin, on the other hand; and, secondly, despite a strong association between length of service and presence of symptoms, recent studies have shown that the prevalence of symptoms amongst cotton workers who have worked less than one year in carding or spinning rooms, may be the same as that amongst workers with longer exposures in the same mill.\(^\text{18}\) In other words, the same prevalence of symptoms can be expected amongst South African textile workers, even those with short periods of service, as has been found amongst workers in other countries, or workers with longer service.

In South Africa, 'official awareness' of byssinosis led to the extension of compensation under the Workmen's Compensation Act to byssinosis in 1973. There was, however, no real knowledge of the extent of the problem and, by 1982.

\(^{17}\) ibid, p.351
only one case of byssinosis had officially been recorded and compensated by the Workmen's Compensation Commissioner (WCC). As regards the textile industry employers at the time, the comments of the Erasmus Commission with regard to industry in general were entirely applicable: "... it has regrettably to be stated categorically that ... industrial health not only occupies a secondary position in industry in this country, but that industrialists have put very little time, money and organisation into the prevention of occupational diseases." 19 Real changes in the industry were only initiated after the NUTW began its Brown Lung Campaign in 1982. As White puts it: "The realisation by the NUTW in 1982 that textile employers were ignoring occupational health in turn led to a realisation by employers that they could no longer comfortably continue to do so." 20

The Brown Lung Campaign

The large-scale investigation of exposure to cotton dust by the NUTW began with a simple question: John Copelyn, then General Secretary of NUTW, asking Dr Neil White what he knew about byssinosis. That was in early 1981 and, at the time, White knew little about the disease: "I recalled that byssinosis had occupied a paragraph or two of my notes at medical school". 21 After some visits to factories, some investigation of the literature and after examining some workers, White began to build up a picture of a serious disease, which had been virtually ignored, despite its implications for the approximately 50 000 workers in the industry, the majority of whom were members of either the NUTW or TWIU. At that stage only one person, a white foreman from the Industex plant in Port Elizabeth, had ever received compensation for byssinosis. Soon after White started his investigations, he submitted a claim for compensation on behalf of a machine operator in the spinning department of the Natal Thread factory in Hammarsdale, a

20. White: op cit, 1985, chapter 3, p.27
21. ibid, chapter 1, p.1
certain John Hlela, who became the second person to be compensated for the disease.\textsuperscript{22}

Neil White was formally introduced to the National Executive Committee of the NUTW in July 1981 and, at this meeting, discussions took place about the form of a campaign. Factories were selected where it was hoped to conduct medical screenings and a booklet was planned which would serve as an educative tool on brown lung. At the time, White was employed by the Cape Town-based Health Care Trust, an organisation servicing community organisations and trade unions in the field of primary health. It was only two years later, in July 1983, that NUTW created the post of Medical Officer, which White filled from September 1983. Prior to that time, however, White was already clearly integrated into the national operation of the union and regularly attended National and Branch Executive meetings, where he reported on the campaign and where progress was discussed.\textsuperscript{23}

The campaign conducted by the union consisted of medical screenings at 12 textile mills and covered approximately 5000 unionised textile workers.\textsuperscript{24} At each mill, respiratory symptom questionnaires were administered, workers' heights and weights were measured and lung function tests were carried out. At three of the mills surveyed, dust measurements were also carried out, using a vertical elutriator static sampler. The basic procedure for the surveys was for the shop stewards committee to obtain the cooperation of the management, whereafter a general meeting was held with all employees at which the campaign was explained and discussed. Union shop stewards played an important part in the campaign, they were "active in


\textsuperscript{23}Minutes of NUTW National Executive Committee, July 1981-August 1985

directing the campaigns - addressing workers meetings, interviewing members and explaining how the lung function test works. "25 Once a survey had been completed, a report of the findings would be presented to the shop stewards committee and the management. The reports, while highlighting the level of exposure to cotton dust in the plants, also put forward recommendations on how the situation could be improved and thus provided a basis for the negotiation of improvements.

During the course of the campaign, discussion took place at both the individual factory level and at union Executive Committee meetings about the demands to be raised in connection with the campaign. The following were the principal demands made of the various managements:

* a safe and healthy workplace
* clean air and proper ventilation systems
* effective respirators where needed
* reasonable access to a union-appointed doctor
* workers affected by byssinosis to be transferred to dust-free areas of work at the same rate of pay and to have opportunities to be retrained in a new occupation
* company co-operation with claims for Workmen's Compensation
* company recognition of the World Health Organisation's recommended standard of 0.2 mg/cu.m. as the Permissible Exposure Limit for cotton dust

The demands, while far-reaching in their ramifications, were in most cases in themselves relatively modest and some of them were achieved as a direct result of the campaign; for instance, the transfer of workers affected by byssinosis to dust-free areas has generally become a standard practice in the industry. Company responses to the campaign were not always co-operative, however, and there was a certain amount of resistance from managements that did not want their factories investigated. In such cases, the surveys were

conducted away from the factories, in halls in nearby residential areas. At one mill in the Cape Town area, the management agreed to co-operate with the campaign, but during the course of the survey, opposition developed from a rival union, which had a small proportion of members in the plant. The union in question was the Textile Workers Industrial Union, which intervened by alleging "unethical" behaviour by the NUTW doctor, on the grounds that he was not examining members of the TWIU. Although the TWIU even went so far as to threaten to take the company to court, if it continued co-operating with the campaign, the threats were not pursued and the survey at the plant was completed.26

Responsibility for an organised, public response by employers fell to the national employers association for the industry, the Textile Federation (TF). The TF was established in 1975 as an amalgamation of three existing employer organisations and serves the industry primarily as a trade organisation and lobbying body with government.27 Although the TF had not, prior to the early 1980s, played any significant role in occupational health and safety matters, it had begun to collect information on the subject of byssinosis in 1982. In mid-1984, an announcement was made that a special committee had been established "to investigate the whole question of byssinosis which committee has been gathering and channelling all available information to Textile Federation members and there is still much fundamental research, both environmental and medical with special reference to South African conditions, to be carried out."28 Whether the special committee had, in fact, existed prior to 1984 is not clear.

26. ibid
27. Interview: Brian Brink, Deputy-Director, Textile Federation: 15 March 1989
28. Press release by the Frame Group: Byssinosis in perspective - Textile manufacturers have been active. 11 June 1984
In July 1984 the TF hosted a seminar for the industry and thereafter released a press statement which is worth quoting at some length:

"The industry pledged its full resources and support to undertaking a comprehensive and scientifically based research programme. This will investigate dust levels in all sectors of the industry and will also initiate and proceed with a medical screening survey in order to evaluate the prevalence of and sensitivity to byssinosis and its relationship to the quantities of cotton dust in the spinning mills.

It is intended that these comprehensive and properly conducted tests will lead to recommendations to be made to government regarding drafting of dust level regulations and the prevention of byssinosis becoming a health hazard in this industry.

This survey and the eventual prevention programme will involve the industry in an investment of many millions of rands to ensure a health hazard-free environment for all its workers.

This initiative by the Textile Federation and its cotton processing members is unique to the extent that the industry did not wait for regulations to be framed, but will in fact assist in their drafting and will consult fully with government on this aspect." 29

Although it had taken a long time for the industry to embark on self-regulation, there is no doubt that the programme outlined was an ambitious, but potentially effective one. There are, however, a number of points worth noting about it.

29. Press release to the Industrial Editor of the Natal Mercury from S Shlagman, Executive-Director, Textile Federation, 6 July 1984
Firstly, with regard to the second press statement quoted above, the impression conveyed was that the industry was embarking on action to prevent byssinosis "becoming a health hazard". The statement ignored the fact that the survey reports tabled by the NUTW in individual companies had already provided clear evidence of unacceptably high dust levels in a number of work-stations, as well as of symptoms of byssinosis amongst workers. It was also revealing that the TF expressed a commitment to consulting with government, but failed to mention plans to consult with the NUTW, the major union within the industry. The lack of any reference to the NUTW was all the more surprising in the context of fairly extensive media coverage of the Brown Lung Campaign on the basis of information obtained from White and the NUTW. The media coverage preceded the TF's seminar and both press releases and no doubt constituted an important form of pressure on the industry to make a response.

Secondly, with regard to the relationship of the TF to the industry, it would appear that it fulfilled an important co-ordinating role between the various companies, irrespective of differences which may have existed between companies on certain issues. By 1984, the NUTW had conducted surveys at Braaitex in the Transvaal, David Whitehead in Tongaat, Industex in Port Elizabeth, Table Bay Spinners in Cape Town and Mooi River Textiles. Thus, the TF statement of July 1984 could be considered a response representative of most companies within the industry to union initiatives, such as the Brown Lung Campaign, within individual companies at the plant level.

A third point has to do with the timing of the TF's public response to the union's campaign. The press releases quoted above, from the Frame Group and the TF, were both made in mid-1984, at a time when factories within the Frame Group had been targeted by NUTW for surveys. Although it would seem that the industry's research into byssinosis had started at least 18 months previously, there does not appear to have been any result which warranted a public statement—certainly none was quoted. It is more likely that the
effects of the campaign began to be felt much more sharply within the industry, once the largest group in the industry became the focus for the campaign, thus prompting the press releases. At the time, NUTW was still not recognised by the Frame Group and relations between the two parties were at a delicate stage. It would certainly have been convenient for Frame to be able to deflect any pressure from the union by referring to its co-operation with the initiatives of the TF, rather than having to respond directly to any questions about health hazards in its plants. The latter interpretation is clearly borne out by press reports of the time. Billy Paddock and Mike Robertson of the Daily News, for instance, quoted Selwyn Lurie, the Joint Managing Director of Consolidated Textile Mills (the largest company within the Frame Group) as saying that "their company was co-operating with an investigation set up by the Textile Federation and would comply with any of its recommendations. He said that they were taking steps to keep a check on the problem by having their medical checks stepped up and also by the use of waste filtration to cut down the levels of dust." 30

A final point and perhaps the most important to note about the 1984 press releases, is that the research initiative announced at that time has still not borne any fruit five years later. The TF has established a data base into which is entered information from its member mills on dust levels measured in the mills. The information is contained in quarterly returns submitted to the TF. But there is no evidence to suggest that the TF has used the data to make recommendations to the government regarding the drafting of a cotton dust regulation, as initially stated.

The Directorate of Occupational Safety was certainly also aware of the developments in the industry and is partly to blame for not seeing to the enactment of a cotton dust regulation under MOSA - and they have pleaded guilty to

delays in this regard. According to the Chief Director, however, there is an "exposure limit which is enforceable, in terms of the special powers of the inspectors. Every inspector has in his possession a copy of the American Conference of Governmental and Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) in which an exposure limit for cotton dust is specified (at 0.2 mg/cu m.) and in terms of the special powers that the inspectors have, he can enforce this if he deems it necessary." Drafting a cotton dust regulation has been further complicated, for the Directorate of Occupational Safety, by the relatively undeveloped state of research into the aetiology of byssinosis.

The performance of the TF in aiding the regulatory process in the industry has thus been rather mediocre. The TF did co-ordinate the bulk purchase of lung function machines for its various member companies, to be used in the medical screening programmes which were introduced in the wake of the union's campaign. But it was the Brown Lung Campaign which constituted the primary reason for the considerable change brought about at the level of individual companies. A clear illustration of the process of change is provided by David Whitehead & Sons, a subsidiary of the Tongaat-Hulett Group.

The campaign at David Whitehead

Prior to the early 1980s, there had been few real attempts at regulating the cotton dust hazard in the David Whitehead plant. In the early 1980s there was an occupational health service at the plant and a Cotton Dust Awareness Committee had been established. There was no worker education programme, however, and little real knowledge or awareness, on the side of either management or workers, of

31. Interview: I Mulder, Chief Director, and P Haupt, Director, Directorate of Occupational Safety, Dept. of Manpower: 15 March 1989
32. ibid
byssinosis. As explained by a worker who was a shop steward in the factory at the time:

"The only education that one would get from the company was that the factory was the safest place that one could be in. Nobody ever hinted that there could be dangers. The only dangers that would be identified would be if one was not wearing one's boots, then one might have metal falling on one's toes and if you were in the workshop, you had to have a helmet, all those sorts of things. But as far as dust is concerned and noise ... it was as if the factory was safe ... until this campaign was started."  

The management of David Whitehead was open to co-operation with the union's campaign and after it was completed, negotiations for improvements appear to have been productive. The management was not entirely happy with the dust measurement results obtained by White and his team, but the result was that they introduced their own measuring programme which is still being carried out.

The use of compressed air for cleaning machinery, a practice which contributes significantly to overall dust levels, has been stopped in the plant and there has been an improvement in existing ventilation systems and the installation of some additional ventilation. Such changes may have contributed to the drop in dust levels that have been reported for the plant from 1983 to the present.

Of equal importance is the claim that the incidence of byssinosis has dropped. Medical screening was introduced after the campaign and the occupational health clinic's medical programme now includes audiometry testing and pre-.

33. The information on David Whitehead has been gained primarily from two interviews: one with David Stacey, the Personnel Manager at the company (10 March 1989); and the other with Elias Banda, presently an organiser with ACTWUSA, but a shop steward at David Whitehead at the time of the campaign (26 January 1989)
34. Interview: Elias Banda
in- and post-employment screenings which focus on lung function and respiratory problems. The decreased incidence of byssinosis is partly attributed to improved detection of individuals thought to be susceptible, such as those with decreased lung function or heavy smokers. New employees with any respiratory problems or decreased lung function are placed in departments other than spinning, which is where the highest dust levels are found, and job transfers with rate retention are effected for those whose lung function decreases while in employment.

An interesting feature of the campaign at David Whitehead was the attempt at negotiating a health and safety agreement outlining a set of rights and practices regarding health and safety and the working environment. Although negotiation of the agreement was not pursued for more than a few meetings, it was certainly the first time that such an agreement had been tabled by a South African trade union. Since then, a few health and safety agreements have been tabled by other trade unions.35

The activism around health and safety which was initiated by the union campaign at David Whitehead, was not sustained for very long, at least in terms of the involvement of workers in such matters at plant level. The implementation of MOSA, for instance, has proceeded with little influence from the union members at the factory, who have not been keen to participate in the structures provided for by the Act. The lack of participation is in accordance with informal policy in the union as a whole and will be discussed below. The implication has been that the safety representative and safety committee structures have been a managerial initiative, comprising mainly supervisory staff. Thus, the only structured form of ongoing monitoring of health and safety matters and, particularly, of the cotton dust hazard, is confined almost entirely to the supervisory and managerial staff in the company.

35. See Finnemore M, Pallit L: Recent developments in health and safety agreements at the workplace in South Africa. Industrial Relations Journal, 1987, 7(2)
The prevalence of byssinosis and the struggle for compensation

Having dealt briefly with the course of the Brown Lung Campaign, the responses to it by the industry and the form it took at the David Whitehead plant, it may be appropriate at this point to examine the incidence of brown lung discovered by the union and the attempts to gain compensation for byssinotics. There is a problem in doing so, however, as it is necessary to draw on different sources which quote different study populations. On the one hand, there is reference to the "full scope of the investigation" by the NUTW, which took in 5000 union members in 12 textile mills in different parts of the country—mainly in Natal. Of the 5000 workers screened for byssinosis, 700 were non-exposed controls. On the other hand, there is available a very thorough discussion of an epidemiological investigation of 2421 subjects in 6 mills, written up for academic purposes. The latter forms a subset of the former. With regard to the full investigation, it would appear that "as many as 16 of every 100 spinners have been found to have symptoms of brown lung." Turning to the findings of the in depth epidemiological investigation, the prevalence of "byssinosis symptoms (all grades) amongst cotton workers was 11.1% in spinning, 6.1% in winding and 6.4% in weaving departments."

When compared with studies of English, American, Tanzanian and Indian workers, a lower prevalence of byssinosis symptoms was found among South African cotton textile workers. An important factor which was thought to have influenced the results, was the high labour turnover rate in the textile mills which were investigated. As the incidence of byssinosis is related to exposure to cotton dust, length of service was in this instance thought to be an important variable. Only 6.9% of the workers investigated had more

37. White: op cit, 1985
38. NUTW: op cit, 1984, p.86
39. White: op cit, 1985
than 20 years service in the industry. The reasons for
the comparatively short lengths of service was "thought to
be related to the relatively recent establishment of the SA
textile industry (all of the mills studied having been
established 25 - 30 years ago) and a number of factors
characterising labour relations in the industry - such as
low wages, the extensive use of migrant labour and the
generally low level of skill required to operate textile
machinery and the consequent ease with which workers can be
replaced." Accordingly, comparisons between countries
would only be meaningful if rates, adjusted for length of
service and other confounding variables, could be compared
between South Africa and other countries.

Along with the medical examinations, the dust measurements
carried out also indicated the existence of a cotton dust
hazard in the plants surveyed. Altogether 22 dust level
measurements were carried out in three mills. As noted by
White: "Twenty two samples clearly do not constitute a full
investigation of the large floor area contained in three
textile mills." The results did, however, indicate that
in two of the mills, there were work areas where samples
were in excess of the WHO recommended Permissible Exposure
Limit of 0.2 mg/cu.m.

One of the major responses by the NUTW to the findings of
the campaign was to submit claims for compensation on behalf
of the workers diagnosed as suffering from byssinosis. In
total, 66 claims were submitted from among the 4300 exposed
workers screened for byssinosis, giving a referral rate of
15.0 per 1000. Based on the referral rate, "it can be
estimated that there would be approximately 640 persons
disabled by byssinosis among the workforce of 40 000
employed in the cotton industry in the period 1982/3." By the end of 1984, only eight claimants had, however, been
compensated, while a number of others, whose claims had been
turned down, had their claims on appeal in terms of section

40. ibid
41. ibid, chapter 4, p.67
42. ibid, chapter 4, p.65
43. ibid, chapter 6, p.18
25 of the Workmen's Compensation Act. The extent of the time lag is hardly surprising, as the processing of claims for occupational diseases, in particular, by the office of the Workmen's Compensation Commissioner "can take up to two years to be processed." 44

A significant development in the NUTW's pursuit of compensation was an attempt by White, as the union's medical officer, to introduce changes to the preliminary guidelines used by the WCC to assess claims for byssinosis. The preliminary guidelines were used for judging cases of suspected byssinosis and had been drafted by Dr F J Wiles, the then Director of the Medical Bureau for Occupational Diseases (MBOD), which serves as a research and medical reference body primarily for the mining industry, but also for all other industries with regard to occupational diseases. The preliminary guidelines formed part of the basis for the decision not to compensate a number of the claims submitted by the NUTW. One of the latter claimants was, however, subsequently compensated after his case was taken on appeal. The success of the appeal posed an implicit challenge to the assessment procedure of the MBOD and presented an opportunity for further debate over appropriate guidelines.

Proposed modifications to the guidelines were accordingly forwarded to the Directors of the MBOD and the National Centre for Occupational Health (NCOH) by White. As a result, a special meeting of the NCOH/MBOD joint panel was held to discuss the question of compensation guidelines for byssinosis. 45 Apart from members of both the NCOH and the MBOD, White for the NUTW and Dr Grobbelaar for the Textile Federation were also present. The debate over appropriate guidelines is a complex one that will not be entered here. Suffice it to say that while there appears to have been

45. The Joint Panel, which served as a reference body for cases submitted for compensation of occupational disease, was abolished in 1986
agreement on the issue of criteria, there was no consensus on the question of reference values for pulmonary function. The end result of the debate was that the NCOH decided to draft a set of guidelines for use by its own medical panel; the guidelines were recommended to the WCC, but do not appear to have been formally adopted by the latter. The significance of the above developments is summed up by White: "It is the first time that such a body of expert medical opinion has met to consider criteria for compensating byssinosis. In doing so the assessment of cotton textile workers for medico-legal purposes has been made much more precise. As an exercise it would be worth repeating for other occupational diseases as well." 47

Despite the rather innovative intervention by a union staff member, the compensation of cases submitted by the union continued to drag on over a lengthy period. In the period 1982 to 1986, of the 66 original submissions, 38 claims were accepted, while a number were still on appeal. 48 The emphasis that was placed on compensation as part of the Brown Lung Campaign may also have detracted somewhat from other aspects of the campaign, particularly the continued monitoring of improvements at the plant level.

Assessment of the NUTW's Brown Lung Campaign

The first point to note about the union initiated campaign and, arguably, its most significant achievement is the extent to which it was able to alert union members to the hazards of cotton dust and to the health and safety aspects of their work. As White put it, once the union had determined that brown lung was an important problem in the factories where surveys were conducted, "this message permeated deeply into the ranks of the Union membership..." 49 The awareness-raising aspect should not be

46. White: op cit, 1985, chapter 6, p.19
47. ibid, chapter 6, pp.20-21
seen as being only an exercise in informing textile workers of the hazard of cotton dust, but encompassed other aspects as well, such as medical screening measures, preventive measures, compensation and comparisons with the way in which cotton dust exposure has been regulated in other countries. The significant level of participation of union members, particularly of shop stewards, in the running of the campaign in individual factories and in the negotiation of improvements no doubt deepened their awareness of the issues and contributed to what was a fairly thorough educative process.

The Brown Lung Campaign also had the important effect of boosting the image of the union and mobilising its existing members, as well as potential members in the industry. This was particularly true for the David Whitehead plant where a strike just prior to the campaign had significantly reduced union membership through dismissals and resignations. The campaign provided an ideal recruiting mechanism, as the medical screenings were provided for all workers in the plant and not just union members, so that the union was seen as providing a service to workers. During the course of the campaign, about 300-400 workers in the plant decided to join the union, thereby boosting its majority amongst the workforce. The campaign also received a fair amount of coverage in the commercial press and particularly in union newspapers. Almost every edition of FOSATU Worker News in the period 1982-4 carried an article on the campaign.

Another important organisational result of the Brown Lung Campaign was that it provided the basis for NUTW's contact with the American Clothing and Textile Workers Union (ACTWU), which has subsequently grown into "very systematic contact." At the time of the campaign, the Health and Safety Officer of ACTWU, Eric Frumin, visited South Africa and spent a two week period with White, assisting with health and safety. In fact, the model for dealing with

50. Interview: Elias Banda
51. Interview: John Copelyn, General Secretary of ACTWUSA (former General Secretary of NUTW): 7 February 1989
health and safety adopted by the NUTW, namely, that of establishing a special health and safety portfolio within the union, appears to have been borrowed directly from ACTWU.

The NUTW's creation of the portfolio of medical officer was a new approach within the independent union movement and it was also the first time that a doctor had filled such a position within a union. Subsequently the National Union of Mineworkers has established an entire Health and Safety Department, but the independent unions have generally tended to rely on the skills of health and safety service organisations for assistance on such issues. A few unions in other countries have their own health and safety portfolios, not necessarily staffed by medical personnel, or such services are provided through a national union federation - the Swedish LO (Landsorganisationen), for example, employs a medical doctor who heads a health and safety division.

There appear to be some major advantages to having specialist medical skills available from within a trade union, or through a union federation. One advantage lies in the maximal access that it affords the union membership to services in the health and safety area. A second advantage is the access that the medical or health and safety personnel have to the various decision making structures of the union. Moreover, health and safety portfolios located within unions provide a centre from which activities around health and safety can be initiated, monitored and sustained. The success, albeit short-lived, of the portfolio of medical officer in the NUTW appears to have been grounded on such factors as the above.

Nevertheless, it is debatable which would be the most effective option for unions to follow: whether to have a health and safety function provided from within an individual union, whether to contract with outside organisations to provide these services, or whether to expect a union federation to provide such services to all
its affiliates. The advantages and disadvantages of the various options will not be discussed here, but it is worth highlighting the obvious disadvantage of the model chosen by the NUTW, namely, that in appointing a professional, the union took on a specific set of skills and intellectual resources which could not easily be reproduced within the union. There are many aspects of health and safety that unions can and do deal with, but there are also technical and medical components which require specialised medical or para-medical expertise. When White left the NUTW in 1984, most of the union's health and safety activities went into rapid decline and the Brown Lung Campaign did not progress any further except for certain compensation claims still being pursued. White was, in fact, replaced by another medical doctor, Mark Colvin, but, due to various internal tensions, the latter's stay with the union did not last more than about 6 months.52

Even although White was replaced, a question does arise regarding the permanence of the job of Medical Officer in the NUTW, given that 'campaigns' do not usually run indefinitely. In fact, the title, Brown Lung Campaign, is something of a misnomer, as it does not adequately capture the way in which the union conceptualised its health and safety activity at the time. Although various persons within the NUTW may initially have conceived of a specific campaign, with specific aims to be achieved within a limited time period, by 1983 it was apparent that the union had a quite different conception of what was to happen around health and safety. It was in mid-1983 that White was employed as Medical Officer and the job was established on a long-term basis, as a position from which the union's health and safety programme was to be co-ordinated.53 For example, towards the end of 1983, discussions were taking place about possible campaigns regarding chemicals, dyes and noise within the textile industry and Colvin later started to obtain lists of dyes and chemicals used in

52. Interview: Mark Colvin, Industrial Health Unit, Univ. of Natal (former Medical Officer, NUTW): 27 January 1989
53. Interview: John Copelyn; Minutes of NUTW National Executive Committee, 9-12 July 1983
various textile mills. So, although the NUTW started with a specific campaign to tackle exposure to cotton dust, improve working conditions for its members in the dustiest departments of textile mills and to obtain compensation for byssinotics, its thrust had soon moved further afield to other aspects of health and safety. In discussing the campaign, John Copelyn, then General Secretary of the union, explained as follows:

"It (the Brown Lung Campaign) has got all the campaign elements to it, it has the capacity to mobilise people vigorously around health and safety, it's got the prospect of improving conditions in the plants, mainly by taking employers by surprise and vigorously campaigning. So, for example, in our industry it is a practice to blow-clean machines and all the dust goes back in the air and everyone can breathe it in to their hearts content, as long as the machines are alright. Those are things that need to be highlighted, they need to be campaigned against, they need to be challenged and you have to have a whole propaganda dimension to it. but the question that comes out of all the campaigning is: What do you intend to sustain? What we had in mind to sustain was developing an education programme amongst the stewards, developing positions around the safety committees (provided for by MOSA) in the factories and broadening beyond the brown lung issue into other health and safety areas." 

The above conceptualisation was unique amongst the unions at the time and constitutes a significant aspect of what is usually referred to as the Brown Lung Campaign.

Unfortunately, it was the inability of the union to sustain activity around health and safety, particularly its failure to define a role for workers at the shop floor level with regard to such issues, that was the major shortcoming of the Brown Lung Campaign. Moreover, the union's programme ended at a crucial time, just when the state's new model for

54. Interview: John Copelyn
regulation of workplace health and safety had been legislated in the form of MOSA. Despite the fact that the NUTW had begun to formulate a position on the safety representative and safety committee system contained in the Act, it was not able to formulate any alternative in practice and the level of participation by union members in the campaign was not carried forward into more lasting forms of involvement in other aspects of health and safety. In addition, the union was not able to monitor the gains made as a result of the campaign on a longer term basis.

Despite the short duration of the NUTW's campaign, it resulted in a number of tangible improvements in working conditions, work practices and medical practices in a number of textile mills. As a direct result of the campaign:

* dust levels have been reported to have been reduced and are being monitored on a continuous basis;
* blow cleaning is no longer practised in the plants;
* workers who suffer reduced lung function are transferred to other jobs;
* regular lung function screenings are carried out;
* a number of workers found to be suffering from byssinosis have received some compensation.

The fact that companies in which surveys were conducted found themselves so totally "outclassed" on the issues that were being raised in negotiations around the reports, may have contributed to their apparent willingness to improve working conditions. Provided with such strong evidence of the existence of a cotton dust hazard in their factories and made aware of the existence of byssinosis in their workforce, facts of which the industry had been largely ignorant, there was little else they could do, but agree to improve conditions and to regulate the major health problem facing their employees.

55. NUTW: Internal memorandum dealing with the policy question: What is our attitude to certain provisions of the new Machinery and Occupational Safety Act? N/d
The fact that practices such as those mentioned above have been institutionalised in the industry has much to do with the response of managements. As discussed in chapter 1, managerial responses to workplace health and safety matters are, however, by no means homogeneous, or simply characterised in terms of cost benefit analysis and are frequently shaped by a variety of other factors. As illustrated by the David Whitehead case, some managements have appeared quite willing to introduce changes which are perceived to be in the interests of employees and are also open to the participation of union members in the area of health and safety, on terms that may be negotiable. Other companies, such as the Frame Group, despite an initial defensiveness and lack of co-operation with the union's campaign, have also introduced the relevant changes. The response by Frame was, however, clearly complicated by its broader relationship with the NUTW, one characterised by strong resistance to unionisation, and it could be argued that the introduction of changes had more to do with a desire to maintain control of an area seen to fall within the ambit of managerial prerogatives. Such a response is not uncommon in the area of occupational health and safety, where the institution of the company doctor reigns supreme and any challenges to existing or potential company medical practices are strongly resisted by management, as well as by health professionals.

In the case of the Brown Lung Campaign, a significant proportion of the textile industry did, however, accede to the demands of the NUTW and the fact that they did introduce changes must be ascribed primarily to the pressure that was brought to bear by the union. But, regardless of the reasons behind the company responses, which varied between companies, the overall effect was that management re-established control at the technical level of the labour process. Furthermore, with the introduction of changes at the plant level, the introduction of a research programme by the TF and with the assistance of MOSA, management put itself in a strong position to regain the industrial relations highground in the area of health and safety.
The outcome at the level of state regulation remains unsatisfactory. As already mentioned there has been little effort to promulgate any legal regulation governing cotton dust exposure and there are no indications that such regulation may be forthcoming in the near future. The only direct intervention by the Department of Manpower took the form of visits by factory inspectors to all mills from which compensation claims arose and investigations of those mills. The findings of the inspectors were "kept secret from the Union, in spite of the fact that the Union had initiated these claims." 56 While it was made apparent to the major textile corporations that measures are required to prevent byssinosis, "it cannot be expected that all will follow suit until effective legislation is promulgated." 57 In this regard, the US Cotton Dust Standard could serve as a model for a regulation promulgated in terms of MOSA, one that sets standards for dust levels, for medical surveillance and for comprehensive surveillance of the workplace. Responsibility for the implementation of such a regulation should not be left entirely to employers, however, but should be monitored by the Department of Manpower and by trade unions.

Summary.

The NUTW's Brown Lung Campaign started in 1982 with the first textile mills being surveyed in that year. Less than two years later, the campaign and the emergent health and safety programme of the union came to a standstill, due in part to the disappearance of the portfolio of medical officer, but also as a result of the union's failure to define and sustain a role for itself around health and safety issues in the textile mills.

Despite the problems experienced by the union, it had, in a relatively short period, succeeded in raising the awareness of both its own members and their employers with regard to the hazard of cotton dust and byssinosis, the disease that

56. White: In Zwi & Duncan Saunders (eds): op cit, 1985
57. White: op cit, 1989, p.442
exposed workers were contracting in the mills. The survey co-ordinated by White, as medical officer in the union, was able to confirm "a definite, although modest, prevalence of byssinosis in the South African cotton textile industry. Additional confirmation has come from the awarding of Workmen's Compensation disability pensions for byssinosis to 38 workers between 1982 and 1986."88 During the course of the campaign, the union was able to engage a number of the major employers in the textile industry on conditions in the plants and was successful in demanding improvements.

The employer association for the industry, the Textile Federation, co-ordinated a response to the campaign and established a research programme to ascertain dust levels and the prevalence of byssinosis among its member companies. Partly through the intervention of the TF, but also through the responses of individual companies to demands by the NUTW, management was able to assert its own control over the major health issue in the industry. The move to control the detection and surveillance of the cotton dust problem was reinforced by the legal requirement on companies, through MOSA, to establish an organisational system to deal with health and safety on an ongoing basis. In the textile companies, however, the system is run by management and the union has not encouraged participation.

The Brown Lung Campaign was thus able to achieve real improvements for textile workers in their working conditions and aided a number of workers suffering from byssinosis in gaining compensation. In the absence of continued monitoring by organised workers, however, it remains to be seen whether improvements in the companies where the union is active, will be lasting and whether further claims for compensation will be efficiently dealt with. Furthermore, such gains as were made by the NUTW have been confined to the companies where it was organised. There may have been a ripple effect to other companies, where the NUTW was not active, through the role of the TF. But, in the absence of legislative regulation and the effective implementation of

58. ibid, p.441
such regulation by state, management and labour throughout the textile industry, brown lung may still constitute a health hazard to certain workers.

The following chapter will focus on the fibre-cement industry and the process through which regulation of asbestos dust has come about in the major company in this industry.
Chapter 5: Unions, management and health in the asbestos-cement industry

Introduction

Asbestos has historically been an important product in the South African economy. The country has for some time been the world's third largest producer of raw asbestos and internal consumption, particularly for use in building products, is high. The largest internal market for asbestos lies in the asbestos-cement, or fibre-cement industry, which produces a variety of low-cost building products. Within the industry, one company has been dominant for over 45 years, namely Everite, the local subsidiary of the Swiss-based multinational, Eternit. The following case study will focus on the development of regulatory practices at Everite.

Unlike the Brown Lung Campaign, where regulatory practices were initiated as a result of a union campaign, regulation at Everite was initiated by management, although there were important effects on various practices once the company recognised an independent union in the mid-1980s. The state has also played a more direct role in regulating the use of asbestos through the promulgation of an Asbestos Regulation in 1987, which introduced a dust standard and various forms of control over the use of the substance. In respect of the role of the company management and the state, therefore, the Everite case study differs markedly from the previous case. The high profile and controversial history of asbestos as a health hazard, as well as the severity of its effects on health, also make the case study rather atypical. On the other hand, the way in which health has become an industrial relations issue at Everite has features in common with many other industrial situations. For instance, there are similarities between the case studies with regard to the difficulties encountered by unions when attempting to engage in workplace regulation and with regard to the disjuncture between formal and informal regulation.
A pivotal factor in the Everite case is the raw material which has been the focus of regulation, namely, asbestos. Asbestos has been known for its fire-resistant properties since antiquity, although it has been used commercially for less than a hundred years. During the time of its commercial usage, asbestos has become a highly controversial substance, about which a substantial body of literature exists, with extensive documentation of its effects on health. Asbestos is a fibrous mineral silicate with four main types in use. Chrysotile, or white asbestos, is obtained from serpentine ore. Crocidolite (blue) asbestos, amosite (brown) asbestos and anthophyllite are all types of amphibole asbestos. There are two main groups of diseases associated with exposure to asbestos: those affecting the lung and pleura and the asbestos-related cancers. The former include asbestosis, which may develop during exposure to asbestos, whereas the latter may involve latency periods of between 15 and 50 years and often occur after employment has ceased. Collectively the diseases are referred to as asbestos-related diseases, commonly abbreviated as ARDs.

There has been much debate regarding the effects of asbestos on health, particularly concerning the question of a dose-response relationship: whether there is a safe level of exposure, the nature of the dose-latency relationship and the effects of other factors, such as smoking, on the development of cancer in exposed persons. These debates will not receive much attention here. But, while further scientific evidence may certainly bring to light new findings regarding the aetiology of the disease and its pathology, the bottom line remains that asbestos is a proven carcinogen and that people exposed to various types of asbestos fibre have been shown to suffer an excessive rate of cancer, as well as the other asbestos-related diseases. In the circumstances, the "case against asbestos usage from

2. ibid
a health point of view has already been concluded." The real issues in the present period concern the various ways of controlling asbestos exposure in different social and economic settings and the move to substitute asbestos with other cost-effective materials. Myers has provided a succinct statement of the problem from a South African perspective:

"The main problem today is cancer and the main problem out of the cancers is lung cancer, secondarily mesothelioma. Furthermore, asbestos is particularly hazardous in Third World countries where people receive poor education, where products are sold in a way in which they ultimately get to people who do not know about the hazards associated with a particular product, where public housing is constructed with a lot of asbestos-cement materials and often in a way that leads to exposure, both during the construction process and later through environmental exposure. In this situation, I actually think that asbestos should be fully substituted and I think that there are cost-effective substitutes for almost all of its usages." 4

The following chapter will begin by discussing the record of Everite in controlling exposure to asbestos and the legislative regulations that have been promulgated to control asbestos use. The major focus will, however, be on the changes that have taken place in the company's plants during the 1980s, the period in which Everite workers joined a trade union and involved themselves, through their union, in issues to do with asbestos and health.

4. Interview: Jonathon Myers, Dept of Community Health, UCT (formerly consultant to the union while a member of the IHRG); 20 March 1989
The origins of self-regulation at Everite

The Everite company first started production of asbestos-cement building products in 1942 at a plant at Kliprivier, south of Johannesburg. As the company grew, plants were established in other centres and, by the 1970s, there were manufacturing plants at Brackenfell, near Cape Town, in East London and in Port Elizabeth. The Port Elizabeth factory was closed in the early 1980s and thereafter only a small distribution depot was retained in Port Elizabeth. In 1987, the company engaged in a major rationalisation following its acquisition of the asbestos-cement division of Turner & Newall, a British multinational. The result was the closures of the Turnall (Cape) plant at Blackheath, as well as a plant at Ga-Rankuwa near Pretoria, and the incorporation of Turnall's Durban plant into Everite's asbestos-cement division. Following the re-alignment, the company employed some 2500 persons, employed mainly in factories at Kliprivier, Brackenfell, Durban and East London. Since then, the number will have dropped by a few hundred following the closure of the East London plant in April 1989.

In the early period of the company's operations there was no attempt at controlling exposure to asbestos dust, nor was there any medical or industrial hygiene monitoring programme. It is therefore difficult to know what conditions were like at the Everite plants, although what evidence there is, suggests that there were high dust levels and that work practices were not greatly influenced by health considerations. According to Everite's Technical Manager: "During the 1940s dust removal was carried out in the interests of good housekeeping rather than because of health reasons. Our milling process was dry and asbestos was blown through ducting into huge silos into which workers went from time to time. There is no doubt that many of our workers in those days were exposed to very high
concentrations of asbestos dust ..." By the mid-fifties, a wet milling process had been introduced, which probably had the effect of decreasing dust levels, but it was only from the 1960s that conscious attempts were made to monitor dust levels. The factors that prompted the changed attitude by the company are not easily identifiable, but it would appear that the most important influence was the international focus that was developing regarding the effects of asbestos on health.

From the 1930s onwards, reports had appeared in the scientific literature linking asbestos exposure to lung cancer and mesothelioma. A particularly influential early report, although it did not appear in the scientific literature, was the 1947 report of the Chief Factory Inspector in the United Kingdom. The report produced cumulative statistics and analysis for all known cases of asbestosis in the UK for the period 1924 to 1946 and found an incidence of lung cancers of 13.2% (31 cases out of 235). The chances of such a high incidence of lung cancers occurring, given a real likelihood the same as that of the general population (1%), were extremely remote and pointed unmistakably to an occupational origin of the cancers.6

Closer to home, a report appeared of 33 cases of the rare pleural cancer linked to asbestos, namely, mesothelioma, found in miners in the the north western Cape. The Everite company, in fact, had a large share of asbestos production in the area at that time.7 The study by Wagner, Sleggs and Marchand, published in 1960 in the British Journal of Industrial Medicine, served to focus "worldwide attention on mesothelioma as an asbestos cancer. In 32 of the cases, an occupational or environmental history of exposure to

asbestos was obtained. In the latter, the exposures clustered around the crocidolite mines of the North West Cape Province." The first of the cases had, in fact, been reported by Wagner earlier to the Pneumoconiosis Conference at the University of Witwatersrand in 1959, a prestigious international conference focussing on respiratory diseases caused by the inhalation of fibrogenic dust.

The report of Wagner et al was followed in 1964 by a study by Selikoff and Churg of asbestos insulation workers, an epidemiological study "that would ultimately compel unanimity of opinion." The latter study followed up workers more than 20 years after the onset of exposure and demonstrated grossly excessive mortality from lung cancer, mesothelioma, and gastrointestinal cancer, in addition to asbestosis. The above are only a few examples of the growing academic focus that was developing, both nationally and internationally, regarding the hazards of asbestos. The academic focus contributed to public awareness of the asbestos and health issue and the Wagner and Selikoff studies, in particular, were key contributions to the process.

In the light of the above, it is perhaps surprising that Everite started taking action only at a relatively late stage and that, when it did, it appears to have been geared initially only to monitoring dust levels and not to implementing comprehensive controls. At first, starting in 1961, dust levels were measured on an infrequent basis by company staff. Following the increasing spate of adverse information regarding asbestos, "Everite was obliged to pay increasing attention to dust control measures" and, in 1969, the then Pneumoconiosis Research Unit carried out the first independent and detailed measurements at the Kliprivier plant. Later, in the early 1970s, dust surveys

8. Castleman: op cit, p.92
9. ibid, p.97
at the Kliprivier and Brackenfell plants were conducted by the National Research Institute for Occupational Diseases (NRIOD - later the National Centre for Occupational Health or NCOH). From the early 1970s onwards, a clearer trend emerged of moves towards the establishment of a programmatic and comprehensive approach by the management of Everite to the asbestos and health issue. Supplementing earlier attempts at monitoring dust levels, investigations were done to identify sources of dust, for instance, from bags broken before or during transport to the plants. As the Technical Manager, Hans Guettinger saw these efforts, "not all sources of dust emission could be tackled simultaneously, and where conditions were sufficiently bad to place workers at risk, dust masks were issued."\(^{12}\)

A significant development took place in 1971 when Everite and other interested manufacturers met with the government's Chief Air-Pollution Control Officer and agreed to reduce dust levels to the United Kingdom standard of 2 fibres per millilitre (f/ml) by 1974. The UK standard had been promulgated in 1969, although, in line with international trends as regards airborne asbestos dust levels, standards were steadily revised downwards during the 1970s and 1980s as scientific evidence continued to demonstrate the risk of contracting ARDs at ever lower levels of exposure. At present, "the crucial low end of the dose-response curve remains a matter of scientific dispute, with a wide range of uncertainty."\(^{13}\) At Everite the initial target of 2 f/ml by the end of 1974 "was found to be too optimistic and 2 f/ml was only reached by the end of 1978 in 99% of sampled areas."\(^{14}\)

Alongside of efforts to reduce dust levels, other important changes took place at Everite during the 1970s. These were that:

\(^{12}\) ibid, p.19
\(^{13}\) Castleman: op cit, 1984, p.247
\(^{14}\) Guettinger: op cit, 1986, p.19
* A group medical consultant was appointed, leading to the establishment of a structured programme of medical surveillance in 1977. The programme formed the basis for the medical surveillance that continues at Everite today and which consists of regular X-rays, lung function tests and clinical examinations. The frequency of the tests depends on the employee's length of service and increases after 10 years of service.

* In 1976 the company, recognising the importance of including an educational component in its attempts to control asbestos exposure, included information on asbestos in an induction programme for employees. "Since 1976 all employees were subsequently exposed to an education programme informing them of the dangers of exposure to dust and how they could help in the dust suppression programme." 15

* Another aspect of the education programme was the introduction of labelling of all products with labels displaying warnings that asbestos is dangerous to health. Perhaps co-incidentally, the introduction of labelling occurred about the time of a visit to South Africa in 1983 by a well-known American critic of the asbestos industry, Barry Castileman.

* A final development, but arguably the most important, was the beginnings of a research programme into alternative fibre technology. Research had been initiated in 1976 within Eternit, the Swiss parent company, but Everite locally started its own research in 1979.

By the late 1970s, Everite had thus made a start at establishing particular forms of self-regulation aimed primarily at monitoring the working environment and the health of employees and introducing some education and direct controls. The trend towards control continued during the 1980s, but regulation also became more complex after the recognition by the company of a representative union.

15. ibid, p.20
Before analysing the impact of unionisation on the asbestos and health issue, however, it would be useful to examine briefly the trajectory of the company's self-regulation during the 1980s and the extent to which it either continued or departed from the pattern established up to that period.

Management and state regulation of asbestos in the 1980s

A point of departure seems to have been the establishment in 1982 of what was then called the Asbestos and Health Task Force (which changed its name to the Law, Science and Environment Team (LSET) in 1985), consisting of management personnel from the various departments in the company. A consultant with the title, Public Affairs Consultant, was contracted to co-ordinate the activities of the task force, whose role it was to manage Everite's health and safety programme. This it did by dividing the programme into four discrete components and initiating new developments within each of the components, which were as follows:

* Information and education: During the 1980s a far more active and assertive public relations exercise was undertaken by the company. A position paper was compiled, in which, inter alia, the company acknowledged the "consequences of excessive occupational exposure to asbestos ... and, for the first time, a public admission that an alternative fibre research programme had been initiated." The position paper was widely distributed, particularly to the media. The induction programme for workers was also revised and updated and a Safety Manual was compiled, based on the ILO's Code of Practice regarding the use of asbestos. Everite also began to attempt to inform contractors and end-users of asbestos products about safe working practices and about the asbestos and health issue generally. The latter information was partly disseminated via the South African

Fibre Cement Manufacturers Association (SAFCMA), an umbrella body for the industry established during the 1960s (now called the Fibre Cement Association), within which Everite plays the role of "senior partner".

* Dust control and dust monitoring: Prior to the 1980s the company had already invested fairly substantial amounts of money in dust control equipment, but the expenditure curve climbed sharply after 1982 (see Figure 4). An explanation put forward by the company for the pattern of expenditure is that: "ironically it proved a lot less expensive to reduce dust counts from say 10 f/ml down to 5 f/ml than to reduce dust counts from say 1 f/ml down to 0.5 f/ml. In recent years increasing technical sophistication has been necessary to control dust." 18 A large part of the costs appears to have been due to the upgrading of extraction systems and the installation of high capacity dust filters. Heavy duty vacuum cleaners were also introduced, along with "a number of automatic feeding and handling systems to eliminate, or at least reduce, the manual handling of raw asbestos or waste." 19 Other aspects of dust control addressed by Everite are the use of extraction systems and slow-running machines for use in machining and working asbestos-cement products, together with improved methods for recycling waste and waste management in general. As regards dust levels in the plants, Everite spokespersons recently claimed that there were no counts above the 1 f/ml legal limit and that the vast majority (more than 90%) "are routinely below 0.5 f/ml". 20

* Health surveillance: A crucial component of the Asbestos and Health programme is health surveillance, which was put in place in 1976 and which has since then undergone refinements rather than major changes. The area of health surveillance is one in which unionisation has had an important impact.

18. Guettinger: op cit, 1986, p.20
19. ibid, p.22
20. Gibson & van Zyl: op cit, 1988, p.18
FIGURE 4

CUMMULATIVE CAPITAL EXPENDITURE BY EVERITE

ON CONTROL OF ASBESTOS DUST

SINCE 1976

Alternative fibre research programme: Everite has continued with its research programme into alternative fibres for building materials. By 1988, it had launched non-asbestos fibre-cement in the flat sheet range of products and had undertaken a verbal commitment to phase out asbestos fibre from all products, except pipes, by the early 1990s. The search for alternative fibres would suggest that the company has de facto recognised the dangers of working with asbestos. Everite's official position, however, continues to be that the material can be used safely under strictly controlled conditions.21

Concurrent with the above developments, which were mainly concerned with the labour process at Everite and the company's public profile, the 1980s saw an unusual development regarding legislative regulation of asbestos. What occurred was that the Fibre Cement Association approached the Department of Manpower towards the end of 1984, suggesting that an asbestos regulation be promulgated under the new Machinery and Occupational Safety Act. The reasons for doing so, from Everite's point of view, were twofold. Firstly, legislative regulation was seen as a means whereby an outside audit could be exercised over the industry's attempts at self-regulation. The context was that "a great many aspersions had been cast on the integrity and credibility of the industry by any number of critics"22 and, in the absence of independent audits, the effectivity of the company's own control mechanisms was not convincing to outsiders. Secondly, parallel to the strategic need for an independent source of regulation and auditing function, was "a very real belief on the part of the industry that outside of the members of the Association, a great many other asbestos users were perhaps 50 years behind the time and, yes, there was a kind of moral element to that concern, but there was also a more selfish element. That is, the industry could get its house in order as much as it liked but if everyone else was making a mess on the asbestos issue then it wouldn't help as the broad public would continue to

21. ibid, p.16
22. Interview: Gibson et al
have a very negative attitude to asbestos use." Thus the Fibre Cement Association believed that legislation could be beneficial, since it was thought that it would be accompanied by policing and credibility.

The Occupational Safety Division of the Department of Manpower responded very promptly to the suggestion of the Association and an advisory committee was established, consisting of representatives of the asbestos-cement industry, the motor industry and the Department. Roughly three years later, an Asbestos Regulation was passed in terms of the Machinery and Occupational Safety Act. Interestingly enough, there appears to have been little conflict on the advisory committee over the standard to be set: from the outset, the asbestos-cement industry recommended a standard of 1 f/ml, the standard that, in fact, became the official legal limit. The only areas of debate on the committee were over the wording of aspects of the regulation and on the frequency of measurements at the workplace. The final regulation is thus one which has been strongly influenced by the industry and which, by and large, conforms to practices that have been carried out for some time in companies such as Everite.

Although the Asbestos Regulations place many important and long overdue duties on employers to control and prevent exposure to asbestos dust, they exhibit a number of problems:

* There is a lack of any differentiation between fibre types.

* Employers who use asbestos "occasionally and incidental to their main activity", are exempted.

23. Interview: Gibson et al
24. Asbestos Regulations. GG No.10700, 10 April 1987
25. Interview: Gibson et al
* Worker participation in monitoring functions is not included and the safety representative and safety committee system is neglected. In fact, the regulations only once refer to the health and safety structures outlined in MOSA, "which completely contradicts the spirit of the act in terms of which these regulations have been promulgated."26

* By setting a standard for asbestos, or an exposure limit, the regulations imply that, at low levels of exposure, the risk of contracting one of the ARDs is small enough to be acceptable. This is a position that remains controversial.27

The major source of regulation as between the state and the company thus continued at Everite to be management self-regulation. Legislative regulation in the asbestos case must, however, be seen in the broader context within which the Asbestos Regulations exist, namely MOSA and its principle of self-regulation. In terms of the latter principle, the industry's desire for an independent audit of certain of its practices, such as dust monitoring, cannot easily be met by the state, as the legislative framework limits the state's role in regulation and, if anything, attempts to reinforce the practice of self-regulation.

Despite some discrepancy between the industry's expectations and the state's role in the regulatory process, certain advantages of legislative regulation were, however, still available to Everite. Gibson summed up the feelings of the company and the industry about the regulations as follows:

"The fact that there are regulations has satisfied the Fibre Cement Association's objectives in a sense. There is greater credibility now for industry's efforts and, of course, there is the

27. ibid, pp.78-79; and Castleman B, Ziem G: Corporate influence on threshold limit values. American Journal of Industrial Medicine, 1988, 13(5), p.556
comfort that despite the shortage of manpower, the
Inspectors are able to concentrate on, perhaps the
small number of asbestos users who traditionally
have paid absolutely no attention, knowing, perhaps,
that they could rely on companies like Everite,
Rocla and the bigger users to comply as best they
can."

Seen from Everite's position, state legislative regulation
could thus be said to have at least as much to do with
politics and economics within the industry and the use of a
contentious substance in production, as it has to do with
actual control of the working environment.

Politics of a very different sort entered the scene with
unionisation of the company from 1982 onwards and it was
from that source that a far more strident monitoring of
health and safety practices was to emerge.

Unionisation at Everite

The first contact between Everite workers and a trade union
occurred in Port Elizabeth in 1982, when what was then
called the General Workers Union (GWU) began to recruit
members from amongst the workforce. Shortly afterwards, in
March 1983, the Port Elizabeth plant was closed down and 74
workers were retrenched. Some of the workers alleged that
they were told that they had a "touch of asbestos" and that
they should see their own doctors about it. In this
regard, the GWU approached a health and safety service
organisation, the Industrial Health Research Group (IHRG),
which had been established in 1980 and which was based at
the University of Cape Town. The IHRG included a medical
doctor on its staff and members of the group travelled to
Port Elizabeth to trace the retrenched workers and to
examine them. Only 25 workers were traced and they had lung
function tests performed on them and were X-rayed. Of the

28. Interview: Gibson et al
29. IHRG: Report on activities for the period 1 January to
   10 May 1983, p.3
25, four had claims for compensation submitted to the Workmen's Compensation Commissioner later in 1983.

A more sustained attempt at unionisation followed at the Brackenfell plant from 1983 onwards. Here there was strong resistance by management to unionisation and a number of obstacles were placed in the way of union organisers, such as denying them access to the hostel where most of the workers were resident, effectively "amounting to a bar on workers having contact with the union, even in their own time."30 Eventually, after a turbulent period at the plant, a recognition agreement was entered into between the union and Everite in late 1984. Although the workers appear to have been aware of the dangers of asbestos - "intensely aware of the health hazards of working with asbestos" in the words of one union organiser31 - it was only after the union had gained recognition, that health and safety issues could be addressed directly.

The union's engagement with the asbestos and health issue may be categorised into three broad areas of activity, which overlap in certain respects. These have been:
* improving and monitoring company medical services
* campaigning for the improvement of compensation for ARDs
* introducing an alternative, worker-orientated health and safety system in the company.

Before outlining the above areas of activity in more detail, it is worth noting that, throughout its involvement with the asbestos and health issue, the union drew fairly extensively on the services of the IHRG. In contrast to the model adopted by the NUTW in its Brown Lung Campaign, in the Everite case, specialist skills were called on as required by the workers at the company, or when suggested by union organisers, but in a way that also involved the joint formulation of goals and strategies. The form that the

31. Text of a talk by Ray Lazarus, T&GWU, to the UCT Medical Students Conference, 30 July 1986, p.3
specialist assistance has taken is, therefore, one in which "the IHRG acted to support workers in taking up their demands in line with their priorities." What then were those demands and priorities?

Shortly after the union gained recognition at the Brackenfell plant, two fairly large retrenchments took place within the space of a few weeks. Workers had previously expressed real unhappiness about the quality of the company's medical service. When it came to workers having to leave the company and return to the Transkei and Ciskei, the shop stewards committee decided that, in the case of all retrenched workers, an independent medical opinion should be sought by way of a post-employment medical check, with particular reference to signs of any of the ARDs. To obtain a second opinion was no simple matter, however, as it entailed obtaining access to the medical records of the workers who were to be retrenched, records that were kept by the company's medical personnel. The company initially refused access to the existing records and it was only in response to threatened legal action that the medical records were released and the X-rays of retrenched workers could be read by a union-nominated doctor. Negotiations aimed at establishing a standard practice, whereby workers could obtain a second opinion by a doctor of their choice, were to take roughly a year - almost as long as the negotiation over recognition. Once the other Everite plants had become unionised, the same procedure was extended to cover the company on a national basis.

The importance of the union-initiated monitoring of the company's medical service and, particularly, the practice of the company doctor is related to the complexity of diagnosing asbestosis. High quality X-rays are critically important for the early detection of asbestosis and experience in reading X-rays for the disease plays an important role, as, in its early stages, it is particularly difficult to detect. An independent monitoring system was thus able to check on quite specific issues to do with

32. ibid, p.2
diagnosis and, therefore, also the practice regarding the submission of cases for compensation purposes. The effects were to reveal a more accurate picture of the prevalence of ARDs in the company's plants and to establish clearer guidelines for the submission of cases for compensation. It is interesting to note that there was a notable increase in the rate of claims for compensation submitted by the company on behalf of workers with suspected asbestosis and a similar increase in successful claims after the union and members of the IHRG began providing an independent medical opinion and effective audit of company medical practices. According to an organiser of the union, "in the 2 year period following the union gaining a majority at the factory, almost as many cases of ARD were detected as in the 30 years prior to unionisation."

A related initiative by the union was that of conducting a worker self-survey, aimed primarily at gathering reliable information on the workforce at the Brackenfell plant and checking the accuracy of company data. The survey was started in 1985 and involved the shop stewards at the Brackenfell plant administering short questionnaires to all union members, gathering information about age, length of service and occupational history. Besides generating reliable information, however, the committee also felt "that it was important to spread interest and information about the health problems at Everite more broadly, and involve all workers in the issue, and that the survey was an important first step in this process." The issue of ensuring informed participation has, indeed, been a constant theme of the union's involvement at Everite. From 1984 onwards, a number of seminars were conducted with shop stewards, expanding the knowledge which they had gained from the company's induction programme. One shop steward went so far

34. Lazarus: op cit, 1986, p.4
35. IHRG: Report on activities for the period 1 January to 31 March 1985, p.5
as to argue that "the shop stewards were the teachers of the supervisors on the problems of asbestos in the factory."\textsuperscript{36}

The second area of activity which reflected a vital concern of workers was that of compensation. Indeed, compensation was seen as such a central issue to many workers, that Robert Moni, an employee at Everite from 1975 to 1986 and a shop steward following unionisation, stated that "the way we fought the asbestos issue was through compensation."\textsuperscript{37} The union played a role in two major areas. The first was that relating to the medical surveillance programme, particularly the periodic and post-employment medical screenings and the results of X-ray readings. Here shop stewards learned relatively quickly how to ensure proper channels of communication between company medical personnel and workers who had claims submitted on their behalf for compensation, but who were often unclear about the implications. Where workers were unsure or worried about the results of their X-rays, shop stewards were also able to ensure that medical release forms were completed and that the relevant medical records were referred to the IHRG for a second opinion.

The second area involved attempts to counter changes in the system of compensation for occupational diseases and to improve on the company's own compensation scheme. In early 1984, the company had announced a progressive compensation scheme, whereby workers who were certified by the Workmen's Compensation Commissioner as suffering from any of the ARDs, were given the option of early retirement with full benefits. In terms of the option, workers disabled by ARDs were entitled to receive a company pension, which supplemented their workmen's compensation pension up to the level of their last basic wage before retirement on grounds of ill-health. The supplementary pension was payable (with annual increments) until pensionable age. Thereafter, an old-age pension, based on continuous service with the company to retirement age, was payable. In 1985 the Workmen's

\textsuperscript{36} Interview: Robert Moni, former shop steward, Everite, Brackenfell: 6 May 1989

\textsuperscript{37} Interview: Robert Moni
Compensation Commissioner changed the rules determining compensation of occupational lung disease in a way that, inter alia, created a new category of disablement entitled to only a small lump sum payment— the 20% disability category.38 By that time, given the improved rate of submission by the company referred to above, the majority of cases being submitted were, in fact, of early asbestosis, hence, under the new system classified as 20% disabled. Everite's response to the change was to argue that its compensation scheme was tied to the WCC pension and that workers classified as 20% disabled, who only received a lump sum, were, therefore, not eligible for early retirement and the company's compensation package. Many workers were decidedly unhappy about the prospect of receiving very little compensation for an occupational disease, particularly one that is progressive. Thus the changes placed the system of compensation very firmly on the union's agenda.

The union's response to the changes was to address particular demands to both the WCC and Everite. With regard to the former, the company initiated a meeting with the WCC, attended by worker and company representatives and a member of the IHRG. This was followed by a meeting with an associated body, the Medical Bureau for Occupation Diseases (MBOD). Although not successful in altering the position of the WCC, "the meetings were probably the first time that the WCC had come face to face with the workers they are supposed to serve!"39 Attempts were also made by the union to negotiate improvements to the company's compensation package and here the company conceded that if a worker certified 20% was retrenched or dismissed and later deteriorated, he/she would then be eligible for full compensation. Those classified as being 20% disabled who resign, remain excluded.40 Despite the latter small improvements, the

40. Text of a talk by Ray Lazarus to UCT Sociology students, August 1988
compensation issue remains an issue for the union at Everite.

Dual models for organising safety and health, or one model for all?

The focus on compensation could be seen essentially as a defensive approach to the asbestos and health issue, which prevents disease in an indirect way only, by increasing the costs of disease to the company. A more assertive approach was evident when the union tabled a draft health and safety agreement in September 1986. The union had had prior experience of health and safety agreements, as it had signed what was probably the first such agreement in South Africa, in March 1986 with another asbestos cement manufacturer, namely, Turnall (Cape).41 Ironically, the agreement fell away when Turnall was taken over by Everite a year later and before the Everite agreement had been finalised.

The draft agreement tabled at Everite was extensive, but essentially made provision for the involvement of workers, through safety representatives and shop stewards, in improving health and safety at Everite. It included clauses on regular monitoring, adherence to certain standards and the provision of information on hazards and changes in working practices. Along with the aim of increasing the direct involvement of workers in monitoring health and safety, the agreement was seen as a way of codifying certain rights which had already been established in practice, such as the right of the union to negotiate over aspects of the asbestos and health issue and the right of access to medical records. Finally, the agreement presented the union's alternative to the organisational model contained in MOSA, the latter model having been implemented at the various Everite plants already in 1984. The key aspects of the union model were an acceptance of the concept of safety representatives as embodied in MOSA, although they would be.

elected positions, with greater powers than provided for in the Act, and the establishment of a two-tier committee system. One safety committee, or set of committees, would consist of the safety representatives elected from predetermined areas of the plant, together with some shop stewards, and the other would be a management safety committee with the power to effect changes in conditions requested by the worker safety committee. Within this dual system, the shop stewards committee retained the right to negotiate on all health and safety issues and working conditions.

Negotiations on an agreement started in January 1987 and the first round was followed by further meetings in May and July 1987. By that stage the union was negotiating with the company on a national, centralised basis, which meant that meetings were more difficult to co-ordinate and, when they were convened, the agendas were often very lengthy. After July 1987 a number of other important issues were given priority over the health and safety agreement, such as the transfer of the Turnall workers to Everite and then wage negotiations.

An important factor contributing to the delay in negotiations on the health and safety agreement arose as a result of an issue having nothing to do with Everite as such. The issue was a series of mergers, first involving the GWU as a whole and later affecting its members at Everite. The GWU had decided at its 1984 National Conference, in the interests of developing trade union unity, to limit the industrial areas in which members would be recruited: the building products sector, however, remained within its scope. The union had also decided to "continue with the moves to form a new federation with other progressive unions."42 Unity talks between a number of unions, including the GWU, eventually resulted in the formation of the Congress of South African Trade Unions.

(COSATU) in November 1985. An ambitious policy objective of the new federation was to establish one, national union in each major industrial sector within six months of the formation of COSATU. In line with that policy, the GWU had already started talks with the Transport & General Workers Union (T&GWU) prior to the formation of COSATU, but the talks became more concrete in early 1986 and the merger finally took place in May of that year.43

Shortly after the merger of GWU and T&GWU, the new T&GWU began the process of transferring all its members in the building products sector, including Everite, to a new union, the Construction & Allied Workers Union (CAWU). The effect of COSATU's policy of rationalising unions within specific industrial sectors was particularly problematic in the construction sector, where there was little evidence of effective worker organisation prior to the formation of CAWU. The three unions involved in the merger to form CAWU were SAAWU, GAWU and T&GWU; all had expanded in different regions, within different companies in both the construction and the building products sectors. The only well established worker organisation within national companies, however, appears to have been that in the Corobrik and Everite companies, organised by the T&GWU. The uneven features, along with the differing political traditions of the three unions, presented very real difficulties in the way of establishing a financially viable and well co-ordinated national organisation in a sector historically characterised by poor working conditions and very little democratic or independent unionisation. Despite the problems, the merger went ahead, but the process itself placed numerous demands on the time and resources of the memberships and staff of the respective unions, detracting from tasks such as dealing with health and safety issues. Added to this was the fact that leading shop stewards at Everite were elected office bearers in the new Executive of CAWU, thereby preoccupying them with the affairs of the CAWU.

43. ibid p.141
There were thus a number of objective obstacles in the way of concluding negotiations around the agreement and, at the time of writing, it was still not back on the negotiating table - almost three years after it had first been presented for discussion. Before the delay, agreement had been reached on a number of issues, however, one key item being the decision to retain a unitary safety committee system, based very much on MOSA. The position of the management was very firmly in favour of retaining the existing system, established after MOSA was introduced in 1984 and consisting of a departmentally based committee system with appointed safety representatives and representatives of management. Everite management were prepared to integrate additional features into the existing system, such as providing for the election of safety representatives. Despite some reservations, the majority of union delegates who attended the negotiations felt "that it was worth trying the system to see how it worked. If there were problems, the union could propose amendments at a later stage - or withdraw from the agreement."  

Perhaps the most important problem with regard to the agreement, at least from the side of the union, related to the lack of progress in dealing with specific problems of health and safety at factory and national level during the time that the agreement was under negotiation. The organiser previously responsible for the Everite company, put it this way:

"When specific health and safety issues have come up, more often than not, management has referred these to the national negotiations on health and safety. For example, a clause in the retrenchment procedure, dealing with screening of workers about to be retrenched, was referred to the health and safety negotiations. At the same time, shop stewards have tended to focus their energies as regards health and safety on the agreement. It is possible that in so doing, smaller (but important)
health and safety issues have not been given the attention that they would otherwise have received.\textsuperscript{45}

In the process of attempting to establish an alternative framework, union-initiated activities in the area of health and safety have thus largely come to a standstill. What continues is the independent audit of X-ray reading and WCA submissions, carried out by the IHRG. The continued, but largely ad hoc, monitoring function by union-contracted specialists can be contrasted with the Brown Lung Campaign of the NUTW. In the case of the latter, the union did not succeed in establishing an ongoing monitoring system for the technical controls and medical surveillance introduced by management, due largely to the withdrawal of available specialist skills from the union and the subsequent decline of activity in the area of health and safety. At Everite some independent monitoring continues over the medical surveillance programme, but with little role being played by workers around health and safety on the shop floor.

Nevertheless, there does appear to be a commitment by both the management and the union members to finalising the agreement and implementing it.\textsuperscript{46} It would seem quite possible that some form of negotiated involvement of workers in the pre-existing system of safety organisation will eventuate. On the other hand, the drawn out strike that is taking place in Everite nationally at the time of writing may have the effect of further delaying the reappearance of the health and safety agreement on the negotiating table.

Assessment

Of the three parties to the regulatory process at Everite, there is no doubt that the management has played the dominant role in controlling exposure to asbestos dust. Self-regulation, brought about by certain forms of public

\textsuperscript{45}. Interview: Ray Lazarus
\textsuperscript{46}. Interviews: Gibson et al; Shop stewards committee, Everite, Kliprivier: 30 January 1989
pressure, the potential threat of consumer pressure and the costs (present and potential) of compensation, has been the primary force behind the company's adopting a programmatic approach to the asbestos and health issue. The programme has included a search for alternative fibres and the substitution for asbestos in many of the company's products.

Perhaps the major issues raised by the above form of regulation have to do with the way in which company practices are audited and the nature of the system for continuous and effective monitoring of all aspects of the asbestos and health issue at the plant level. The two issues may be interrelated, but they are not identical.

With regard to auditing company practices, it could be argued that such auditing is primarily the role of the relevant government department, guided by the legislative framework established through the Asbestos Regulations. As indicated above, however, the framework was very heavily influenced by Everite itself. As a result the company should have no problems complying with the regulations — in fact, Everite is generally in a position to remain ahead of compliance with legislative standards. The ability to stay ahead of legislative regulation thus leaves the role of the state undefined with regard to enforcing and auditing regulatory measures in a company like Everite. On the other hand, the problems in the Asbestos Regulations discussed above, may weaken their effectivity in relation to other corporate users of raw asbestos or asbestos containing products. 47

Additional forms of auditing health and safety activities at Everite have been initiated by the company management. Since the early 1970s, the company has subscribed to the safety rating system provided by the National Occupational Safety Association (NOSA) and, by 1988, all the Everite plants had received a five-star rating, the highest provided by NOSA. The NOSA system is, however, mainly focussed on good housekeeping, which Everite management itself sees "as

47. IHRG: op cit, 1987
only one element in safety management." A recent initiative by Everite, which marks a significant step towards the possibility of effective and independent auditing of its activities, is that of the Safety Audit Committee (SAC), established in mid-1989. The SAC is modelled on a similar committee set up by Eternit's Latin-American subsidiary and consists of a committee of academic and scientific investigators, some of whom have considerable expertise in the area of occupational health and the asbestos issue and whose role will be to monitor all aspects of the company's health and safety programme.

To date, however, the most effective check on company practices has been that brought about by the involvement of the union. Once the union had established the right of access and the right to negotiate health and safety issues, it was in a position to begin monitoring various company activities, principally the activities of the medical service. As a result, there was a definite move on the part of management "from the paternalistic type of approach to a more consultative and a more participative approach."

The union's role could thus be characterised as being largely concerned with monitoring existing practices and policies on the part of management and through such involvement, ensuring important improvements. In the process of doing so, the union, with the assistance of the IHRG, was able to deepen the workers' understanding of various aspects of the asbestos and health issue.

Through the engagement with the problems of compensation for asbestosis, the union was responding to direct needs on the part of its members and ensuring proper communication on what is a complex medical and legal set of questions. The focus on compensation has, however, tended, at times, to overshadow other aspects of the asbestos and health issue.

48. Interview: B Gibson et al
49. Personal communication from Brian Gibson, Public Affairs Consultant to Everite and Secretary of the SAC, 13 March 1989
50. Interview: B Gibson et al
As was the case in the Brown Lung Campaign, the emphasis on compensation has detracted from activities oriented more towards questions of prevention of exposure and controls over the use and handling of asbestos in the production process.

The real problem area for the union and for plant level regulation as a whole, however, relates to the organisational system for health and safety. A number of functions are already being carried out by the company, some of which are required in terms of MOSA. The form in which they have been implemented, in particular with regard to inspections, training and the health and safety structures, has been determined by an interpretation of the law that is common to many companies. Standards for dust levels, environmental monitoring and health examinations are also in place, but with regard to the latter, MOSA provides little more than a baseline. Although workers may not be satisfied with all the existing practices, the fact that they already exist, implies very different levels of experience in dealing with health and safety issues between workers and management. As a result, it will undoubtedly be difficult for the union to establish entirely new practices and structures. Instead the union will be faced with the challenge of ensuring the most favourable terms on which workers enter the pre-existing health and safety structure, one which is, moreover, orientated to a bureaucratic form of control over health and safety.

On the basis of the company's record to date, it could be argued that management has primarily been concerned to establish audits of its health and safety programme by external agencies and has tended to bypass the essential role of workers in plant level regulation. The reasons appear twofold. Firstly, there is the extent to which health and safety is bound up with the overall industrial relations situation in the company - one in which a unionised workforce adopts a negotiating approach to all plant level matters concerning its members, whereas management tends towards maintaining its own prerogative on
a number of issues, particularly where costs are concerned. Furthermore, the underlying approach of management to health and safety differs from that of the union in that management sees the area as one characterised by co-operative relations and a mutuality of interest. The latter view may be shared to some extent by the workers, but perceptions of their relationship to management in the area of health and safety are shaped by management-worker relations on a number of other issues, both past and present - resulting in perceptions that change over time and in relation to specific issues.

A second reason contributing to the tendency of Everite management to bypass the union with regard to plant level regulation must lie in the extent to which the company management has become sensitised to all issues related to safety and health, because of the controversies surrounding asbestos. Such sensitivity has lead to a situation whereby it is felt that "anybody who has the slightest dissatisfaction with safety and health matters, I think, must realise that they will get a very prompt and positive response from management ... its just the way Everite is built right now." It could be argued that the latter attitude has been necessary to counter any detrimental effect on the company's sales arising from adverse publicity concerning its product.

It could be argued that the actions of the company management in dealing with safety and health, as described earlier, require or depend upon a relatively tight form of control over the area. The ability of a union to contest such a managerial style, through participation in the organisation of health and safety on its own terms, could clearly jeopardise the ability of management to continue to exercise such a form of control.

Turning to a comparison with the previous case study, unlike the textile industry, regulation at Everite has thus been set in motion primarily through the management of the

51. Interview: B Gibson et al
company. The extent of regulation has evolved from early attempts at simply ascertaining dust levels, to the adoption of a far more comprehensive safety management programme, including surveillance of both environmental and medical factors. But, due to the controversial nature of asbestos internationally and the sensitivity generated at the management level of the company over its use of the substance, the form of regulation has largely been characterised by the use of the existing company hierarchy to enforce regulation. Along with the employment of specialist skills in the engineering, medical and public relations spheres, management has thus tended towards overall dominance of all aspects of the asbestos and health issue. With regard to the form of regulation, Everite thus exhibits characteristics similar to the response of the textile companies to the Brown Lung Campaign. Both cases also demonstrate a relative weakness of organised labour vis a vis management, in terms of a failure to establish a structured role in the day-to-day monitoring of health and safety at the plant level.

Summary

The Everite case study has attempted to outline the way in which the company gradually developed a response to the hazards associated with asbestos. Due initially to the international and local focus on the substance, the company established a health and safety programme, characterised by voluntary compliance with standards chosen by the company. The standards used were in line with certain international developments in the regulation of asbestos, but stopped short of the more stringent regulatory practices adopted in some countries. A significant feature of the evolving self-regulation in Everite was the establishment of an alternative fibre research programme in the late 1970s. During the 1980s, state legislative regulation, formulated in terms of MOSA, was initiated and influenced by the Fibre Cement Association, in which Everite played an important role.
In the 1980s, unionisation of the company led to the workforce, with the assistance of union consultants, beginning to assert a role in the area of health and safety through the collective bargaining process. The role was largely focussed on monitoring company practices in medical surveillance and taking up various issues concerning workmen's compensation. The only real engagement with the regulatory process as such came with the attempt to negotiate a health and safety agreement. The agreement was aimed at codifying certain rights and practices that had already been established in the company, but also at providing a framework through which workers would be able to participate in monitoring all aspects of health and safety. As a result of various obstacles, the latter attempt by the union has not reached any conclusion. Instead, what exists in Everite is a framework for managing safety that is, by and large, shaped by MOSA and which bypasses the union. In addition, there are management initiatives, in the form of a system for co-ordinating Everite's health and safety programme, and, more recently, the creation of a committee, aimed at providing an independent audit of the company's self-regulation.

Like the Brown Lung Campaign, the Everite case, therefore, demonstrates a form of regulation in which the rules have largely been established by one party, namely, management. Responsibility for monitoring the implementation of the rules also rests with the management. Although an alternative source of regulation exists in both cases, in the form of a representative union, the goals set by the unions have in both cases been primarily short-term. The result has been significant improvements for workers, but has not led to workers playing a longer-term role in the area of health and safety. As long as the unions at both Everite and in the textile companies continue to maintain a presence, however, the potential exists for them to intervene in the regulatory process through the organised strength of their members on the shop floor.
Conclusion

This thesis set out, rather ambitiously, to examine a number of hypotheses in the South African context. In addition, it had the objectives of conceptualising regulation, examining contemporary organisational aspects of workplace health and safety and, finally, examining the capacity of unions to effect changes to working conditions. In concluding, it would be appropriate to return briefly to the hypotheses and to discuss the objectives in the light of the material that has been presented in the thesis.

All three hypotheses had a common theme, namely, that there are certain factors which tend to contribute to a failure of regulatory activity in the manufacturing sector. One significant factor is the nature of health and safety itself, which, it was proposed, should be seen as a particularly complex issue, one that embodies both organisational and technical aspects. It is, moreover, through the failure of management and labour to take adequate account of the various dimensions to the issue, that regulation may be weakened.

That occupational health and safety is a complex issue should be uncontroversial. The detection of dangers at work, industrial hygiene monitoring and medical surveillance bring together medical and physical sciences and the high level skills required for their practice. Moreover, there are large areas of disputation in these fields and the outcome of particular activities, such as assessing the X-ray of a worker exposed to asbestos, or determining the lung function of a worker with symptoms of byssinosis, may be influenced by a variety of factors, many of which have to do with socio-political and socio-economic factors.

As the case studies presented in the thesis have tried to show, such complexities pose problems for trade unions, in that they often have to rely on specialist skills. Such reliance is not necessarily problematic in itself, but may become so, if the technicalities of dealing with health and
safety matters are not complemented by an organisational approach that provides a clear role for workers in the area. Such an imbalance was, to some extent, present in both the Everite case and in the Brown Lung Campaign. As regards the approach of management to health and safety issues, the way in which MOSA has been implemented, suggests that the technical skills required to monitor health and safety have largely been ignored. The fact that the functions of safety representatives are very limited is, however, largely determined by the failure of the Act to specify a need for safety representatives to receive adequate training, particularly in the area of industrial hygiene.

Conceptually, it could be argued that to separate workplace health and safety into technical and organisational components ignores the way in which production is simultaneously a technical and social process, in which 'technical' matters are constrained and indeed defined by the social relations of which they are a part. The discussion in the preceding chapters has, if anything, confirmed the validity of such an approach and thereby highlighted an over-simplification in the original hypothesis. However, in terms of the skills and resources required of both management and unions to effectively regulate production, the distinction retains some usefulness.

With regard to the second hypothesis, namely that trade union pressure is commonly orientated towards short-term goals, which may of limited preventive efficacy, it could be concluded that the material presented in the thesis bears out the hypothesis. In the case studies, compensation played a major role and, in neither situation, has the union been able to engage systematically with monitoring health and safety on a longer term basis, nor been able to monitor the success of the preventive measures introduced as a result of their demands. That is not to say that the unions which fall within the democratic tradition of unionism in South Africa, are incapable of effecting changes and improvements to the working environment. On the contrary,
the thesis has tried to demonstrate the substantial gains made by certain unions through the collective bargaining process. So long as trade unions have to rely on dealing with regulation of health and safety through a collective bargaining process that is dominated by a host of other priorities, however, their ability to formulate longer-term policy and preventive strategy around health and safety will be limited.

The final hypothesis, concerning the apparent disjuncture between formal and informal regulation and between the roles assigned to state, employers and workers and their actual practices, was aimed at guiding the analysis of legislative regulation and regulation through the collective bargaining process. Through the analysis of the contemporary legislative framework and the implementation of MOSA, as well as the case studies, an attempt was made to demonstrate different sources of regulation and the way they may interact. Perhaps the most significant feature of the South African situation is the existence of a duality in the regulatory process, with regulation being effected by trade unions through collective bargaining, alongside a legislative framework aimed at ensuring plant level regulation through the combined efforts of management and labour. Given the dualism, it could be argued that a disjuncture does exist between the different sources of regulation, insofar as trade unions have not been incorporated into the formal legislative framework for the regulation of workplace health and safety. On the other hand, the roles of the different parties to the regulatory process and their practices are determined by a complex set of factors, which are independent of whether they engage with the regulatory process through a formal legal obligation, or through collective bargaining. To come to grips with some of the above factors, the thesis had as one of its objectives the conceptualisation of regulation.
From a range of radical writing on workplace health and safety, a dominant approach identified was one which views the control of dangers in production within the context of antagonistic relations between workers and employers. Moreover, the literature is based on the assumption that managerial strategies of control over the labour process are a constant factor in industrial relations and that interventions by organised labour to effect changes also have to do with the question of control.

In contrast, the present thesis has tried to suggest that the nature of control, as it applies to health and safety, amounts to regulation, or control, by means of rules and procedures. The concept of regulation has been used to specify particular forms of control over production, which are aimed at technical and behavioural aspects and which, more importantly, may be in the interest of both employers and workers. Thus there is an important interdependence between employers and workers in the labour process, with regard to health and safety, despite the fact that the particular interests of the parties in the regulation of production may differ. Their interdependence is, inter alia, based on the fact that improvements in working conditions may require the fulfillment of a responsibility by the employer, while the implementation of certain procedures, aimed at ensuring safe working practices, requires the co-operation and participation of workers.

The existence of an objective interdependence between employers and workers and a mutual interest in reducing the degree of risk associated with production does not, however, necessarily lead to co-operative relationships. The South African situation provides evidence of industrial relations which are characterised by high levels of conflict and a collective bargaining system that tends towards antagonistic co-operation.

In both case studies examined in Chapters 4 and 5, changes to the production process and the monitoring of hazards and their effects were introduced in the context of management-
union relations that exhibited a relatively high degree of conflict. For instance, in the case of the Brown Lung Campaign, there was a strike at David Whitehead just prior to the campaign, as well as the protracted struggle by the NUTW for recognition at the Frame group of companies. The process leading up to the recognition of the GWU at Everite and the union's attempt to gain access to the medical records of its members was also a very conflictual process. But in both cases, there were co-operative elements as well. The NUTW gained access for the purposes of the survey at David Whitehead and other plants, and the managements of a number of companies agreed to a number of the unions demands quite readily. At Everite, co-operation did eventuate with regard to the union's role in the medical surveillance programme.

It could be argued however, that the co-existence of co-operative and conflictual relations is a feature of most issues that are subject to collective bargaining. What is more specific to the area of health and safety is the way in which regulation comes about and what it achieves, both in terms of technical controls over production and in terms of its impact on industrial relations.

In the textile companies in which the NUTW campaigned for improvements, there were few pre-existing forms of control by management over factors affecting health and safety. It took roughly two years before the various companies, guided by and co-ordinated in their actions by the Textile Federation, moved to implement a comprehensive research and medical monitoring programme. Their response could arguably be seen as an attempt by management in the industry to gain the initiative, presumably, to enable management to formulate responses unilaterally, rather than through the collective bargaining process. In the case of Everite, it has been argued that the management are concerned to maintain a particular system for dealing with health and safety matters, a system that enables them to exercise a particular form of control, given the sensitivities surrounding the use of asbestos in production. The form of
control adopted in the Everite case could be described as bureaucratic control, as conceptually developed by Edwards.\(^1\)

In both cases, however, the development of a certain form of control and its application to the area of health and safety does not appear to be directly connected with the concern by management to organise the appropriation of surplus. Rather, it could be argued, on the basis of the Everite and the Brown Lung Campaign studies, that control related to health and safety is concerned with the effects of production and is therefore precisely related to regulation over work and the way in which work is carried out. Thus, regulation implies a social process, from which both sides to the labour relation stand to gain and in which it is possible for control over an 'external environment' to be shared between actors. In both the asbestos-cement and the textile industries, for example, unionisation has led to a situation whereby the collective bargaining process provides a vehicle for informal regulation and a means whereby an organised workforce is able to exercise some influence over the regulatory process. The studies have also, however, illustrated the difficulties that unions may experience with regard to engaging with both the technical and industrial relations aspects of health and safety matters, particularly as regards the definition and maintenance of a clear role for workers at the plant level.

To conceive of regulation as a process of control over the working environment, via the establishment of rules and procedures, does not necessarily contradict the existence of fundamental antagonisms between capital and labour and the fact that within the capitalist labour process the existence of conflict becomes the 'normal' state of affairs. In the latter regard, it is perhaps the absence of conflict, or the way in which an absence of conflict is achieved, that requires more urgent analysis, particularly in the field of health and safety. What this thesis suggests is that

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control may operate at different levels: at the level of the working environment and the actions of individuals within that environment, at the level of work organisation and at the level of organising the appropriation of surplus. The concept of regulation suggested in the thesis requires further research, however, particularly in the light of critical comments on the idea of 'levels of control' advanced by writers such as Ramsay.²

The regulation of production also crucially involves the state, as a source of legislation aimed at establishing the minimum standards necessary for production to proceed, having regard to the health and safety of workers. In South Africa, the state has historically played a limited role, both in that legislative regulation has been minimal and in that there has been weak enforcement of legislation. With the introduction of MOSA and the concept of self-regulation contained in the Act, the state could be seen to be addressing the historical limitation on its own role, but it has done so by withdrawing further from direct, formal regulation and by establishing a system whereby responsibility for regulation rests primarily with the employer and, to a limited extent, with workers.

Through MOSA and its regulations, the state has placed new limits on freedom of action of management in the workplace and its freedom to ignore the effects of production on the health and safety of workers. But, at the same time as introducing such limitations, MOSA provides a relatively weak and ambiguous system for monitoring the extent to which management complies with its responsibilities. Everite's search for alternative auditing systems is evidence of the failure of the legislative framework to provide effective checks on regulatory activities. More importantly, the way in which the Act is being implemented, especially with regard to the safety representative and safety committee

system, undermines the role of labour in the regulation process and thereby cripples the potential for effective self-regulation, a form of regulation in which management and labour 'share' control over the working environment. In other countries, particularly the Scandinavian countries, the state has intervened in such a way as to contribute significantly to the growth of workplace organisation around health and safety and to the erosion of managerial authority with regard to such issues. The right of safety representatives in Sweden to stop work is a clear example. It is only through the state's intervening in such ways that self-regulation at the enterprise level can be meaningful.

In the case of MOSA, it could be argued that the Act does provide significant rights and powers for the safety representatives and for organised labour to use in the interests of its members. Moreover, were trade unions to engage with the system set in place by MOSA, it is quite possible that they would be able to acquire further powers within the area of health and safety. Such a scenario would be analogous to the protection that unions have gained in the area of unfair dismissals through the various rulings of the Industrial Court. But research on the implementation of MOSA and the two case studies demonstrate that trade unions have, by and large, not engaged with the legislative framework, nor have they been successful in establishing any alternative to the system provided for by the Act. As a result of the absence of any structured role for workers, a disjuncture has developed in the regulatory process. The disjuncture can be seen in that management complies with its legal responsibilities, insofar as it is necessary to do so; a management-dominated and bureaucratically controlled safety system monitors safety at the enterprise level; and the state polices a system that is unlikely, in many cases, to accurately reveal the state of health and safety in a particular plant.

An important contributory factor in the decision of unions not to use or participate in the safety system provided for by MOSA, is the particular shop-floor tradition of the
democratic trade unions in this country. As demonstrated in the thesis, that tradition has enabled unions to deal effectively with a range of health and safety issues through the collective bargaining process and through the role of shop steward structures. Given that tradition, MOSA was perhaps doomed to failure as regards the self-regulation philosophy, in that it imported a model that did not take into account some crucial realities of the South African industrial relations system.

There are, however, also some important limitations to the shop-floor bargaining tradition of many trade unions, when applied to issues in the area of health and safety. Firstly, to rely on shop-floor bargaining when management is legally obliged to implement a safety system, which can all too easily reflect its particular interests, is to risk weakening the role of workers in continued monitoring of production. Secondly, dealing with health and safety issues through the collective bargaining process, on an ad hoc basis, runs the risk of ignoring the need for workers and unions to develop the particular skills required to deal with complex technical and industrial relations aspects of the dangers of work. Finally, the shop-floor tradition of dealing with health and safety is unable to engage with the regulatory process as it applies to manufacturing industry as a whole. For instance, in both the Everite case and in the case of the Brown Lung Campaign, the respective unions were able to achieve significant gains in the particular plants in which they were organised, but they were unable to have any impact on the way that other, possibly unorganised, plants in the industry were to be regulated. For unions to be able to play a role in regulation on an industry-wide basis would, however, require that they re-evaluate their interaction with the relevant government departments. Such a role would also require concrete advantages for the unions.
The potential role for a tripartite relationship in the regulation of industrial sectors, is an area that would require further research. Equally, in the context of the complexities of workplace health and safety that the thesis has tried to demonstrate, the problematic legislative model for regulation established during the 1980s and the particularities of industrial relations in this country, further research on effective and lasting alternatives would be appropriate. If the thesis has begun to lay the ground for such research, it will have fulfilled an important, albeit unstated, objective.
APPENDIX 1: IMPLEMENTATION OF THE MACHINERY AND OCCUPATIONAL SAFETY ACT - COMPANY QUESTIONNAIRE
Company Questionnaire.

Section A: Company Data

1. Date of interview

2. Name of interviewee(s)

3. Name of Company

4. Product manufactured/company activity

5. Does your Company have more than one plant in Cape Town?
   yes(1)    no(2)
   If yes, specify: name address

6. Number of employees:
   white:
   Asian:
   coloured:
   African:
   Total:

7. What would you say are the typical safety and health hazards peculiar to your industry?

8. Do you keep statistical reports of accidents?
   all minor accidents (1)
   all major accidents (2)
   all accidents (3)
   no statistics kept (4)
   other - specify (5)
If statistics are kept, could these be made available?

Section 8: MOSA

9. Are you familiar with the Machinery and Occupational Safety Act and have you had any experience of its workings?

yes - familiar (1) no (4)

experience (2)

both (3)

1. Safety Representatives (SR's)

10. Do you have Safety Representatives in your plant(s)?

yes (1) no (2)

11. If yes, how many?

plant number

12. If no, for what reasons?

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------------------------------------------------------------------

13. Since what date have you had SR's?

14. What process led to SR's being designated?

SR's: appointed by management

elected by employees

elected but subject to management approval i.e. veto by management

appointed, but consultation with union/employees

volunteered

co-opted

other - specify
15. What position do the Safety Representatives occupy in the company?

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<thead>
<tr>
<th></th>
<th>No. of SR's</th>
<th>Plant 1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. top management</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>b. middle management</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>c. supervisory staff</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>d. skilled worker</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>e. semi-skilled worker</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>f. unskilled worker</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>g. other - specify</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

16. Are any of the following qualifying criteria usually employed in the designation of SR's?

- literacy
  - [ ]

- health and safety training
  - [ ]

- level of skill eg. skilled, unskilled, managerial
  - [ ]

- other - specify
  - [ ]
17. What functions are being fulfilled by the SR's and how often?

<table>
<thead>
<tr>
<th></th>
<th>.1</th>
<th>.2</th>
<th>.3</th>
<th>.4</th>
<th>.5</th>
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<tbody>
<tr>
<td></td>
<td>daily/ weekly/ monthly/ other/ ad hoc emergencies</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Inspections: (1) 

Accident Reports: (2) 

other - specify: (3) 

18. To whom are Safety Representatives accountable?

Safety Committee (1) 
Chief Engineer (2) 
Safety Officer (3) 
management (4) 
shop stewards committee (5) 
other - specify (6) 

19. How are SR's trained:

NOSA courses (1) 
company courses (2) 
as part of induction programmes (3) 
union courses (4) 
other - specify (5) 

20. Who determines the content of training courses?

NOSA (1) 
company (2) 
union (3) 
other (4) 

21. How many days training do SR's have per year?
22. Is training carried out during working hours i.e. paid time off for training?
   yes (1)   no (2)

23. Does your company run a general induction programme?
   yes (1)   no (2)

24. If yes, does this programme include a safety component?
   yes (1)   no (2)

25. Does your safety training affect your accident rate and health & safety record?
   yes (1)   no (2)

If yes, please specify


26. Is there a Safety Committee in the plant?
   yes (1)   no (2)

27. If there is more than one committee, how many committees are there?


28. What is the structure of the SC(s)?
   No. of members:
   No. that are: management
29. If there is more than one committee, how do the safety committees relate to each other?

30. When was the committee(s) established?

Section C: Employee Representation and Health & Safety

31. Are there any trade unions operating in your company?
   yes (1)   no (2)   name(s) of union(s)  [ ]

32. If yes, do you have recognition agreements with any of the unions?
   yes (1)   no (2)  [ ]
33. Does your company have a Health and Safety agreement(s) with any Trade Union?

yes (1) no (2) if yes, with which union? 

34. If you do not have a Health and Safety agreement, do you have Health and Safety clauses in a General Agreement?

yes (1) no (2) 

35. Do you negotiate issues relating to health and safety as part of the proceedings of the Industrial Council?

yes (1) no (2) 

no company participation in IC. (3)

36. Besides the Safety Committee, are there any other committees in the plant(s), for instance, a union shop stewards committee?

yes (1) no (2) 

If yes, specify type of committee

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37. If there is a shop stewards committee, does it involve itself in health and safety issues?

yes (1) no (2) don't know. (3)

38. If yes, what is the relationship of this committee to the Safety Committee?

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Section D. MOSA - General & Opinion

39. Describe the mechanism by which health and safety has been dealt with in the workplace (both before and after MOSA)

Before After

raised on an individual basis (1) [ ] [ ]
on ad hoc basis in course of regular discussions (2)
with union representatives

in negotiations between a shop stewards committee (3)
and management

by a Safety Committee (4)

by the Chief Engineer (5)

by the Safety Officer (6)

via the SR's and SC (7)

other - specify (8)

40. Have there been any changes in the use of Personal Protective Equipment after the implementation of MOSA?

- no change (1)
- increased use of PPE (2)
- not applicable (3)
- other - specify (4)

41. Was the use of PPE enforced before MOSA?

- yes (1)
- no (2)

42. Are employees penalised for not using PPE?

- yes (1)
- no (2)
- other (3)

43. Who currently has primary responsibility for ensuring that the workplace is safe and healthy?

Rank in order of importance

- management (1)
- employees (2)
- company doctors/ nurses (3)
- engineers (4)
- trade unions (5)
44. Who has primary responsibility for seeing that health and safety precautions are observed?

Rank in order of importance

management (1)
employees (2)
trade unions (3)
company doctors/nurses (4)
engineers (5)
other - specify (6)

45. If you feel that the responsibility for health and safety rests with management, why should this be the case?

46. Do you see health and safety as:

an area of mutual interest for management and employees (1)

an area involving a conflict of interest (2)

other - specify (3)
47. Are you happy with the way the Safety Representative system works?

yes (1) no (2)

Please comment

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---------------------------------------------------------------------

48. Are you happy with the way the Safety Committee system works?

yes (1) no (2)

Please comment

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49. Do you think that SR's should have more extensive powers than those set out in MOSA?

yes (1) no (2)

Please give reasons

---------------------------------------------------------------------
---------------------------------------------------------------------

50. Do you think that Safety Representatives should have the following rights:

the right to be elected by employees yes (1) no (2)

the right to refuse to do dangerous work yes (1) no (2)

the right to the following information:

*laws, regulations & exemptions* yes (1) no (2)
*substances used  yes(1)  no(2)
*machinery used  yes(1)  no(2)
*new processes  yes(1)  no(2)
*results of safety tests  yes(1)  no(2)
*results of tests of safety equipment  yes(1)  no(2)
*group results of medical tests  yes(1)  no(2)
(that don’t identify personal information)
*medical records (with employee permission)  yes(1)  no(2)
*accident and sickness records  yes(1)  no(2)
*factory inspector’s activities  yes(1)  no(2)
*the right to negotiate health and safety issues through the shop stewards committee  yes(1)  no(2)

51. Do your health & safety structures adequately cover shift and night workers?
yes (1)  no (2)  other (3)

Section E: General

52a. What are the main factors affecting the accident rate in your firm?
52b. What are the main factors affecting health & safety generally in the firm?

53. What is your attitude to employees bringing medical or engineering experts into the plant to advise them?

- generally acceptable (1)
- generally unacceptable (2)
- depending on circumstances (3)
- combination of above - specify (4)
- other - specify (5)

54. Does your company have a Safety policy?
- yes (1)
- no (2)

55. If yes, is this policy actively subscribed to, or does it set out the company's intentions on health and safety?
- subscribed to (1)
- intentions (2)
- other (3)

56. Are employees bound to this policy, or are they made to sign any document binding them to any other company policy or practice?
- bound to company policy (1)
- not bound to policy (2)
- not required to sign any documents (3)
- sign for receipt of PPE (4)
- sign other documents (5)

57. Would your Company be prepared to form part of a standard sampling frame for future use?
APPENDIX 2: IMPLEMENTATION OF THE MACHINERY AND OCCUPATIONAL SAFETY ACT - TRADE UNION QUESTIONNAIRE
Trade Union Questionnaire.

Section A: General

1. Date of interview
2. Name of interviewee(s)
3. Name of Union
4. Branch of union
5. Branch Membership: signed up paid up

6. Sectors in which you are organizing in Greater Cape Town

7. In which firms are you operating/recognised?

8. In how many organised firms have your members expressed concern about dangerous working conditions causing accidents and industrial disease?
   most (1)
some/ a fair number (2)
few (3)
none (4)

9. In how many firms have your members actually taken up issues of dangerous working conditions with management?
   most (1)
some/ a fair number (2)
few (3)
none (4)
10. Could you mention two of the most important issues raised and specify the workplaces involved?

<table>
<thead>
<tr>
<th>workplaces</th>
<th>issue</th>
<th>dates</th>
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</table>

11. Do you have health and safety agreements with any companies/workplaces?

yes (1) no (2) If yes, list number of workplaces covered

12. Do you have Health and Safety clauses in any of your General or Recognition Agreements?

yes (1) no (2)

Section B: MOSA

13. Are you familiar with the Machinery and Occupational Safety Act and have you had any experience of its workings?

yes - familiar (1) no (4)

experience (2) both (3)

1. Safety Representatives (SR's)

14. Are there SR's in the workplaces at which you have members?

yes (1) no (2) don't know (3)
15. Where there are SR's, have they generally been:

- appointed by management (1)
- elected by workers (2)
- elected but subject to management approval ie. veto by management (3)
- other - specify (4)

16. Are any of the following qualifying criteria usually employed in the designation of SR’s?

- literacy (1)
- health and safety training (2)
- level of skill eg. skilled, unskilled, managerial (3)
- other - specify (4)
- none (5)

17. Do any SR’s hold official positions in the union?

- eg. shop stewards (executive members)
- other

18. To whom are Safety Representatives accountable?

- Safety Committee (1)
- Safety Officer (2)
- Chief Engineer (3)
- management (4)
- shop stewards committee (5)
- other - specify (6)

19. Does your union provide training for committee members, shop stewards or others in health and safety issues?

- yes (1)
- no (2)

20. Does training take place during working hours ie. paid time off for training?

- most training during working hours (1)
- some " " " (2)
- very little training during working hours (3)
- no " " " " (4)
2. Safety Committee

21. Are there SC's in any of the workplaces in which you have members?

yes (1) no (2) don't know (3)

22. In your experience, have SC's generally been established by:

management (1)
management in consultation with union (2)
other - specify (3)
don't know (4)

23. What structure do the SC's usually take?

membership - mainly management (1)
mainly management and SR's (2)
management and union representatives (3)
other (4)

3. MOSA - General

24. Would it be better for shop stewards to have overall responsibility for health and safety issues, rather than the Safety Representatives? Is this the case in any of your organised factories?
25. What is the relationship between the Shop Stewards committee, the SR's and the Safety Committee?

Section C: General and Opinions on Health and Safety

26. Describe the mechanism by which health and safety has been dealt with in the workplace (both before and after MOSA) Before After

- raised on an individual basis (1)
- on ad hoc basis in course of regular discussions with union representatives (2)
- in negotiations between a shop stewards committee and management (3)
- by a safety committee (4)
- by the Chief Engineer (5)
- by the Safety Officer (6)
- via the SR's and SC (7)
- other - specify (8)

27. Who currently has primary responsibility for ensuring that the workplace is safe and healthy?

Rank in order importance

- management (1)
- employees (2)
- trade unions (3)
- company doctors/nurses (4)
- engineers (5)
- other - specify (6)
28. Who has primary responsibility for seeing that health and safety precautions are observed?

Rank in order importance

<table>
<thead>
<tr>
<th>Rank</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>management</td>
</tr>
<tr>
<td>2</td>
<td>employees</td>
</tr>
<tr>
<td>3</td>
<td>trade unions</td>
</tr>
<tr>
<td>4</td>
<td>company doctors/nurses</td>
</tr>
<tr>
<td>5</td>
<td>engineers</td>
</tr>
<tr>
<td>6</td>
<td>shop stewards</td>
</tr>
<tr>
<td>7</td>
<td>safety representatives</td>
</tr>
<tr>
<td>8</td>
<td>other - specify</td>
</tr>
</tbody>
</table>

29. If you feel that the responsibility for health and safety rests with management, why should this be the case?

30. Do you see health and safety as:

- an area of mutual interest for management and employees (1)
- an area involving a conflict of interest (2)
- other - specify (3)

31. Are you happy with the way the Safety Representative system works?

- yes (1)
- no (2)

Please comment
32. Are you happy with the way the Safety Committee system works?
   Yes (1)  No (2)
   Please comment

33. Do you think that SR's should have more extensive powers than those set out in MOSA?
   Yes (1)  No (2)

34. Do you think that Safety Representatives should have the following rights:
   The right to be elected by employees Yes (1) No (2)
   The right to refuse to do dangerous work Yes (1) No (2)
   The right to negotiate health and safety issues through the shop stewards committee or the safety committee Yes (1) No (2)
   The right to the following information:
      *laws, regulations & exemptions Yes (1) No (2)
      *substances used Yes (1) No (2)
      *machinery used Yes (1) No (2)
      *new processes Yes (1) No (2)
      *results of safety tests Yes (1) No (2)
      *results of tests of safety equipment Yes (1) No (2)
      *group results of medical tests Yes (1) No (2)
      *medical records with employees permission Yes (1) No (2)
      *accident and sickness records Yes (1) No (2)
      *factory inspector's activities Yes (1) No (2)
35. Are shift and night workers adequately covered by the health and safety structures that exist in the workplaces in which you have members?

Yes (1) No (2) Other (3)

36. Have there been any changes in the use of Personal Protective Equipment after the implementation of MOSA?

No change (1) Increased use of PPE (2) Not applicable (3) Other - specify (4)

37. Was the use of PPE enforced before MOSA?

Yes (1) No (2)

38. Have your members generally been penalised for not using PPE?

Yes (1) No (2) Some (3) Don't know (4)

Section D: General

39. Has awareness of, and action on health and safety issues increased in your organisation in the last few years?

Yes (1) No (2) If yes, specify (3)

40. What has been the general policy of your union towards the implementation of MOSA, particularly with respect to Safety Representatives and Safety Committees?
41. General Comments

42. Would your organisation be interested in receiving literature on MOSA

43. Would your organization be prepared to be part of a standard sampling frame in future?
APPENDIX 3: SCHEDULE OF INTERVIEWS
Appendix 3: Schedule of Interviews

MOSA and its implementation

State
I Mulder, Chief Director and P Haupt, Director, Directorate of Occupational Safety, Department of Manpower: 15 March 1989

Unions
Building Workers Union: General Secretary
Food & Allied Workers Union (FAWU): Cape Town Asst Branch Secretary
Jewellers & Goldsmiths Union: General Secretary
Liquor & Catering Trades Employees Union: General Secretary
Media Workers Association of SA (MWASA): Cape Town Branch Secretary
Motor Industries Combined Workers Union (MICWU): Secretary, Cape Town division
National Union of Leatherworkers: Cape Town Branch Secretary
SA Woodworkers Union: General Secretary
South African Chemical Workers Union (SACWU): Cape Town Branch Secretary
South African Typographical Union (SATU): Cape Town Branch Secretary
Textile Workers Industrial Union (TWIU): National Education Officer
Tramways & Omnibus Workers Union (TOWU): General Secretary
Transport & General Workers Union (T&GWU): Cape Town Branch Secretary

Employers
(Numbers in brackets indicate approximate number of employees per company)
Airton Timbers: Manager and Safety Co-ordinator (93)
Alia Candy Co (Pty) Ltd: Manager (45)
Apeldoorn Lighthouse Net & Twine (Pty) Ltd: General Manager and Chairperson of Safety Committee (525)
Argus Printing & Publishing Co: Chief Engineer (800)
Caltex Oil (SA) (Pty) Ltd: Loss Control Co-ordinator (520)
Cape & Transvaal Printers (Pty) Ltd: Chief Engineer (972)
Consol Ltd: Plant Protection Officer (647)
Continental Hosiery Manufacturers (Pty) Ltd: Manager (165)
Dairybelle Corp: Manager (1044)
Derek Butcher: General Manager (140)
Dorbyl Marine (Pty) Ltd: Manager (145)
Exactocraft (Pty) Ltd: Works Manager (100)
ICS Foods: Admin Manager (308)
Industrial Hard Chrome (Pty) Ltd: Works Manager (29)
Kohler General Packaging: General Manager and Safety Officer (432)
Macralls: Manager (77)
MB Blow Moulders: Manager (100)
Meritex (Pty) Ltd: Admin Manager, Engineering Manager and Safety Officer (1600)
Metal Box SA Ltd: Plant Manager (780)
Mondi Board Mills: Safety Officer (279)
Multimech: Works Manager and Safety Committee Chairperson
Nampak Corrugated Containers WP: Chief Engineer (537)
Nampak Paper Ltd: Training Officer (358)
Nasionale Boekdrukkery: General Manager and Safety Officer (460)
Nasionale Tydskrifte: Chief Engineer (735)
Nova Knits (Pty) Ltd: General Manager (65)*
Optima-Hydraulics (Pty) Ltd: Manager (35)
Orbit Motors (Pty) Ltd: General Manager (300)
Panther Shoe Co Ltd: Production Manager (331)
Press Spinning & Stamping Co (Pty) Ltd: Manager (55)
Ready Mixed Concrete (Cape) (Pty) Ltd: Personnel Manager (234)
SA Nylon Spinners (Pty) Ltd: Safety Officer (1614)
SASKO: IR Manager (123)
Sewrite Clothing Manufacturers: General Manager (205)
Svenmill: General Manager and Safety Officer (480)
Swartklip Products (Pty) Ltd: IR Manager (950)
Tory Fashions (Pty) Ltd: Manager (775)

Case Study: The Brown Lung Campaign

Union
Elias Banda, Organiser, ACTWUSA (formerly shop steward at David Whitehead & Sons): 26 January 1989
John Copelyn, General Secretary, ACTWUSA (formerly General Secretary, NUTW): 7 February 1989
Neil White, Groote Schuur Hospital, Cape Town (formerly with NUTW): 11 January 1989
Mark Colvin, Industrial Health Unit, University of Natal (formerly with NUTW): 27 January 1989

Employers
David Stacey, Personnel Manager, David Whitehead & Sons: 10 March 1989
Brian Brink, Deputy-Director, Textile Federation: 15 March 1989

Case Study: The Asbestos Cement Industry

Union
Shop stewards committee, Everite, Kliprivier: 30 January 1989
Robert Moni, former shop steward, Everite, Brackenfell: 6 May 1989
Ray Lazarus, former T&GWU and CAWU organiser: 29 June 1989
Jonathan Myers, Dept of Community Health, UCT (formerly consultant to the union as a member of the Industrial Health Research Group): 20 March 1989

Employer
B Gibson, Issue Management Consultant to Everite Ltd; and P du Preez and K Sorsa of Everite Ltd: 31 January 1989
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General Administrative Regulations. (GN R2206) GG 9453, 5 October 1984


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NUTW: Minutes of the National Executive Committee, July 1981 - August 1985

NUTW: Letter from N White to General Secretary, 6 July 1984

Textile Federation: Press release by S Shlagman, Executive-Director, to the Industrial Editor of the Natal Mercury, 6 July 1984

Trade Union Council of South Africa: Letter from JA Grobbelaar to the Director General: Manpower, 14 March 1984