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Full Name of Author — Nom complet de l'auteur

BRIAN PIERCE TAYLOR

Date of Birth — Date de naissance

JULY 5, 1952

Country of Birth — Lieu de naissance

CANADA

Permanent Address — Résidence fixe

YERKINE ST.

DARTMOUTH, NOVA SCOTIA, BAY 1P3

Title of Thesis — Titre de la thèse

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Name of Supervisor — Nom du directeur de thèse

DENNIS OLSEN

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BRIAN TAYLOR
God was Responsible. All the Men Knew:
The State and the Restoration of Hegemony following two Workplace Disasters

by

Brian Pierce Taylor B.A. Honors (St. Mary's)

A thesis submitted to the Faculty of Graduate Studies in partial fulfillment of the requirements for the degree of Master of Arts

Department of Sociology and Anthropology

Carleton University
Ottawa, Ontario
May, 1984
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[Department of Student] Sociology + Anthropology
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God was Responsible: All the Men Knew:
The State and the Restoration of Hegemony following two Workplace Disasters

Submitted by

Brian Pierce Taylor, B.A. Honors (St. Mary's)
in partial fulfillment of the requirements for the degree of Master of Arts

Dennis Olsen
Professor Dennis Olsen
Thesis Supervisor

Gordon Aucoin
Chairman, Department of Sociology and Anthropology

Carleton University
May 30, 1984
Abstract

The unplanned nature of a workplace disaster creates a rupture in the social fabric of modern capitalist society, turning it into "an event" inadvertently. Information about unsafe conditions, previously under management control, become an embarrassment to both capitalists and state officials. The exposure of this information has the potential to produce a crisis of hegemony due to the sudden visibility of the contradictions of capitalism. Social order can only be superimposed on consequences that have already occurred.

The state, "an institution that not only reproduces class divisions in society but is also the site of class struggle", must attempt to recapture and renegotiate hegemony in society following a disaster in the workplace. This thesis looks at the commissions of inquiry that were convened to determine the cause of an explosion and fire in No. 26 Colliery in Glace Bay, Nova Scotia and the capsizing and sinking of the oil rig Ocean Ranger off the coast of Newfoundland. Our findings suggest that these public investigations were used, by the state, to shape, direct and define the disaster in a way that restored social order and allowed the accumulation process to continue.
Acknowledgements

A thesis, like one's life, is the result of many influences. It is at this point that I would like to pay my "debt" to those friends, colleagues and faculty who have contributed to this piece of my life. First of all I would like to thank my committee members, Dennis Olsen and Wally Clement for giving me the guidance and the freedom to complete this work. A special note of thanks to Ian Taylor for his helpful suggestions. I am also grateful to Joy Mannette for her assistance, conversation and tolerance during my "creative moment".

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Preface

In February 1979 I was working as a medical social worker at the Victoria General Hospital in Halifax, N.S. When six severely burned miners arrived from Glace Bay the confusion and tension on the "Burn Unit" was particularly acute. My colleagues tried to help all the families deal with the aftermath of the disaster in No. 26. Wives, mothers, fathers, sisters, brothers, sons and daughters made the weekly trips to and from Cape Breton, hanging on to shreds of hope that their husband, son, brother or father would make it through this terrible ordeal. In the weeks that followed there was a steady parade of politicians, union executives and "company men" who came to visit "the men and their families". Then, just as suddenly, the "official crisis" was over and they stopped coming. The miners were still there, the families were still there but for Devco and the politicians the crisis had passed.

During the time it has taken me to write this thesis I have often reflected on those months when I was more a part of the Glace Bay disaster than I realized. In February 1979 it never occurred to me that I would try to make more sense of this event other than to call it a mine disaster. The same was true of the sinking of the Ocean Ranger. I can recall remarking on the futility of looking for survivors. "Of course all the men died, no one can last for very long in the North Atlantic in February!"

This thesis is about the state and commissions of inquiry but more importantly it is about human suffering and tragedy.
On more than one occasion the fact that I was "discussing" the deaths of 96 men has kept me "honest" in my research. I don't expect they would all agree with me. I do however feel they should be remembered because they were systematically removed from the investigation process -- not once were their names mentioned in the reports. It was like they never existed or simply became the "miners" or the "rig workers" -- that's part of the process as well. Therefore, as a dedication, all their names appear in Appendix IV and VI of this thesis.

Finally, a note on the title of the thesis. It comes from a poem by Elizabeth Vepiot of Elgin, N.B. and was written about the Springhill mine disasters of 1956 and 1958. It captures, in a few lines, the essence of what I have tried to understand using many thousands of words.

We All Knew
(Springhill '56-'58)

For you see, all the men knew, we all knew.

Before the long funerals came a Hallowe'en Masquerade. Of index card men who didn't make the decisions.

Yet, hard, on the delivery table of a boardroom, came this death.

Soft hands, smooth from starched sleeves, Passed white papers, to stack a decision.

All our men knew. They went down ... laughing, swearing, singing, working.

Together.

Quietly,
Each held,
like a quote from the Bible,
a rabbit's foot, a curl in a locket, a prayer,

One hopeless hope:
Not today

Facts on white papers,
Become people in shrouds.
And when the card men
went home to their folders,
Men, women, children who
could not understand,
climbed hollow streets
from pithead to graveyard,
seeking out houses
that were no longer homes

Results of inquiries?
God was responsible.
All the men knew.
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Bibliography
CHAPTER 1

"WITH A LITTLE HELP FROM OUR FRIENDS"

STATE INFLUENCE IN THE CONTINUOUS PRODUCTION OF ENERGY
1.1 Section One: Introduction

When individuals are killed in a workplace disaster, there is an overwhelming quest to determine the 'cause' of their deaths. Medical, scientific and legal procedures are employed to explain the event. Later we argue that 'making sense' of the event using science, and legal rules, has become an intrinsic part of knowledge production under capitalist relations. An attempt has been made in the thesis to overcome this "normal" compulsion when trying to understand a coal mine disaster in Glace Bay or the sinking of the drill rig, Ocean Ranger. Our question is not how did the workers die, but rather, why were the workers in a Glace Bay coal mine when it exploded, and on a drill rig off Newfoundland when it sank? From a 'common sense' perspective, our question appears absurd or self-evident: they were mining coal and drilling oil! This response closes off an important area of understanding. To address our question correctly, we must analyze some of the "history" of state intervention in the continuous production of energy. We shall argue in this chapter that the state had a great deal to do with why these workers were in a coal mine, and on an oil rig, when they died.

Beginning with coal, we will show that both the provincial and federal states have had a very definite interest in maintaining the production of this commodity. Before World War I energy was needed to build and fuel the vast railway system that was linking the provinces of Canada. Energy was also needed in the war effort from 1914 to 1918. Finally, and most importantly, energy was
needed to move Canada into the industrial age. Coal was to provide the energy to accomplish these tasks. Up to the 1920s, state intervention, to maintain coal production in Cape Breton often took the form of military force. Later, legislation and collective bargaining rights helped change state intervention from coercion of resisting workers into a gaining of consensus from the total population for the state's leadership role. Following World War II, the primacy of coal as an energy source diminished; the coal mines and steel mill of Cape Breton became technologically redundant and the state was required to intervene in the face of local economic collapse. Spurred on by a need to maintain social order, the welfare state took over the coal and steel industries of Cape Breton.

In the post-war boom, the need for energy escalated rapidly. Technological innovations increased the use of a new and seemingly plentiful energy source—petroleum. Canada was in the position of being able to produce more energy than was required for domestic consumption. In line with federal policies, large quantities of oil and natural gas from the west were exported to the United States. Eastern Canada, however, imported cheap oil from the Middle East and South America. The 1973 'oil crisis' produced a political and economic debate that established a new energy policy and rapidly increased the exploration for gas and oil in Canada's North and off the East Coast.

The focus of this chapter, therefore, is not on how 12 men died in a coal mine in Glace Bay in 1979, nor on how 84 men died on the Ocean Ranger in 1982. We have plenty of 'scientific' and
'medical' information to answer those questions. Our concern is with the structural conditions, the influences, and the constraints in the society which dictate where workers will be employed, how they will be employed, and the risks they will encounter. To this end, we must understand the need for social order, the state's role in maintaining a particular kind of order, and the history of state interventions in two particular sites of the Canadian economy: Cape Breton coal production and east coast offshore oil exploration. The chapter begins with a historical discussion of provincial and federal state influence in the coal industry of Cape Breton. The second part of the chapter is devoted to an investigation of state intervention (both provincial and federal) in east coast offshore oil exploration.
1.2 Early Mining Activity

The extraction of coal on Cape Breton Island began in the late 1600's; however, it was not until the formation of the General Mining Association (G.M.A.) in 1826 that coal mining was conducted on anything other than a small scale by private individuals. Coal production for the region rose from 12,000 tons in 1827 to 120,000 tons in 1856. However, the Nova Scotia government had no control over the group of British investors that owned the G.M.A. The investors had obtained the rights to all coal reserves in Nova Scotia from Frederic, Duke of York, in 1827. In 1856 the G.M.A. relinquished its coal rights to the provincial government, but in return received full title to coal fields in Cape Breton, Pictou and Cumberland counties. Following this shift in the rights to coal extraction, numerous investors were encouraged to apply for coal leases, many of whom were prominent politicians of the day. The influx of capital to invest in this vast and important resource of the province was to continue until the 1890's. More than thirty mines were opened between the time the province obtained control of the reserves in 1856 and the consolidation of the province's coal resources by Dominion Coal Company in 1894 (MacEwen, 1976: 4-6).

In addition to its central role in the development of the coal mines, the provincial government was required to maintain public order and with growing militancy among certain groups of the working class, the coercive strength of the state was often tested.
In 1876, the militia first was called to maintain social order during a coal strike in Cape Breton. They returned in 1882 for the same reason. A year later they mustered in Halifax ready once again to provide police duty during a coal strike in Cape Breton but difficulties with recruitment, equipment and transportation prevented them from being sent (Morton, 1970: 409, 418).

The provincial state did not completely abandon its use of armed intervention to maintain social order in the coal mining districts of Nova Scotia, but other endeavors were made to contain the labour strife that was developing in this country. There were early attempts to formulate legislation, one of the earliest being the Compulsory Arbitration Act of 1888. This act was strongly supported by the Provincial Workmen's Association (P.W.A.), which was the dominant labour organization in the coal fields up until 1909 (Logan, 1948: 171). A close association between the provincial Liberal Party and the P.W.A. was also testimony of the attempts by the state to intervene in the volatile labour situation that surrounded coal mining in Nova Scotia. From its beginning in 1879, the P.W.A. had been committed to the idea of having arbitration replace strike action as a way of settling disputes over wages and working conditions. Their ideological role in reproducing public order was also apparent from their emphasis on hard work and self-reliance as well as promising independence through faithful toil (Frank; Macgillivray, 1976: 14).

The 1890's saw some significant changes in both ownership and control of the Cape Breton coal mining district. In 1893, the
Dominion Coal Company was formed through an alliance of New England, Nova Scotian and Montreal capitalists. Dominion Coal soon had control of all mining operations in the Sydney coal field with the exception of holdings by the General Mining Association in Sydney Mines. This was not without the assistance of the provincial government who provided the company with a 99-year lease on all unassigned coal resources in Cape Breton (Frank, 1980: 287). This was the beginning of a number of mergers that culminated in the formation of the Dominion Iron and Steel Corporation (1901) which controlled the coal and steel companies of Cape Breton as well as the Cumberland Railway and Coal Company. Not only did this company represent a powerful alliance of Toronto and Montreal investors but it also maintained links to the Bank of Montreal and the Bank of Commerce. When the Dominion Iron and Steel Corporation's board members were added, the group held 179 company directorships (Frank, 1980: 287). With the start of the First World War, the Cape Breton coal fields were no longer an area for local investment but had come under the control of financial interests in central Canada.

1.3 Federal State Involvement

The Canadian federal state was not idle during this time as it tried to control labour strife through parliament. The years leading up to the turn of the century found many Canadian workers engaged in bitter disputes with their employers. The trade union acts of the 1870's had freed unions from charges of conspiracy
and the Conciliation Act of 1900 was adopted from the 1896 British act of the same name. In 1901 the act was used to help settle a dispute between the Nova Scotia Steel and Coal Company and its employees in Sydney and New Glasgow. The act was used again in 1904 to help settle a controversy between the employees and management of Dominion Iron and Steel Company when the workers were locked out of the Sydney Steel Plant. This was not, however, before troops were brought in to keep order.

In 1907 the federal government passed legislation creating the Industrial Disputes Investigation Act. This act was extended in 1916 to cover industries producing war materials. Among its extended provisions was the use of one man commissions and royal commissions to investigate and settle disputes.

The Federal Department of Labour was not long picking up on the extended provisions under this act. In the spring of 1917, the department received application from two unions (the P.W.A. and the newly formed United Mine Workers of Nova Scotia) for conciliation services and for an investigation into depressed wages in Glace Bay coal mines. A Royal Commission was quickly convened to investigate not only the situation at Glace Bay but also Sydney Mines and Springhill (MacEwan, 1976: 44-45).

1:4 The Troubled Besco Years

The end of the First World War saw the demand for Nova Scotia steel fall sharply. Consequently, the coal industry also suffered from the loss of its principal market (Frank, 1980: 292). It was
in this period of unstable economic conditions that a group of Canadian, United States and British investors launched the British Empire Steel Corporation (BESCO) reputed at the time to be Canada's largest industrial corporation. The elaborate financial arrangements that composed the Besco merger required an annual operating profit of $8 million in order for it to meet its commitments. Besco never attained this ambitious goal and by 1925 had accumulated a deficit of $5.7 million. In an attempt to compensate for a burdensome financial structure and weak markets, the directors of Besco embarked on a process of: 1) reducing the cost of labour power in the coal industry and 2) recruiting state support for the coal and steel industry (Frank, 1980: 292). The former plan of action led to one of the most horrific periods of labour struggle in Cape Breton's history.

When wage negotiations failed between the United Mine Workers of America (U.M.W. of A.) and the Dominion Coal Company (part of the Besco merger) in 1920, a Federal Royal Commission (Quirk Commission) was established to inquire into the Nova Scotia and New Brunswick coal industries. The recommendations of the commission were rejected by both union and management and a strike was approved by the U.M.W. of A. membership. The Federal Department of Labour quickly called a conference of union and management with G.H. Brown (Assistant Deputy Minister of Labour) as government representative. The agreement that was reached (known as the Montreal Agreement) was accepted by the miners and management. Besco, however, enforced the contract to the letter and many men received no wage increase at all (MacEwen, 1976: 63).
In January 1922, Besco instituted a 35% reduction of wages in its coal mines. The Federal Department of Labour appointed a conciliation board (Gillen Commission\textsuperscript{10}) under the Industrial Disputes Investigation Act. However, the recommendations were rejected and the miners soon organized a slow down strike (striking on the job). On August 15, 1922, the union called for a one-hundred per cent strike\textsuperscript{11}. The following day, the first troop train arrived from Halifax with 200 soldiers and five 18-pound field guns. In the days that followed, 250 more troops arrived from Quebec and Cape Breton County was declared a police district. This allowed for the raising of a 1,000 man special police force to supervise the district along with ten R.C.M.P. officers to act as advisors. The rationale for the action was that since the mines were owned by the public, they had to be protected (Macgillivray, 1974: 52).

The steel operations in Sydney were also feeling the effects of Besco's attempts to remain financially afloat. Their union, the Amalgamated Association of Iron, Steel and Tin Workers, had represented Sydney steelworkers since 1917. With the takeover by Besco attempts were made to form an employer-employee council but this was rejected by the workers in December 1922. March 1923 saw attempts by Besco to maintain an open shop, no check-off for union dues and no wage increase. By the end of June 1923 the union men at the steel plant walked off the job. Military troops were again called in, a total of 1,150 before the strike was over (Macgillivray, 1974: 56). Heavy handed police tactics led to the assaulting of a group of persons returning from church.
Partly as a result of the above incident, sympathy strikes were begun by miners in Cape Breton. These were led by J.B. McLachlan, Secretary Treasurer, and Dan Livingstone, President, of the United Mine Workers, District 26. McLachlan and Livingstone were arrested for their efforts and eventually charged with seditious libel. The strikes failed and both steelworkers and miners returned to work by the end of July 1923. The violence that had ensued did prompt the federal government into appointing a Royal Commission to investigate the industrial unrest in Cape Breton (Robertson Commission).

In the fall and winter of 1924-25, Besco was beginning to flounder but the situation for the coal miners was even worse. Unemployment, reductions in what were already starvation wages, and finally, the loss of credit at the company stores forced the miners into a strike. One death, looting and burning followed.

A provincial police force of 75 men were called in, as were 2,000 Canadian troops (MacEwan, 1976: 140; Macgillivray, 1974: 62). The strike, which ran from March until August 1925, was settled with the assistance of Premier E.G. Rhodes who promised as one of the terms of agreement the appointment of a Royal Commission to investigate all aspects of the coal industry in Nova Scotia (the first Duncan Commission).

The spring of 1926 saw the Canadian banking community lose confidence in the Besco group of companies. The Bank of Commerce and the Bank of Montreal refused short term financing. The Dominion Iron and Steel Company went into receivership in July 1926.
followed by Dominion Steel in 1927. The President of Besco, Roy Wolvin, attempted a reorganization in July 1927. He failed to win the support of shareholders and he resigned his position in January 1928 (Frank, 1980: 296).

1.5 Old Wine in New Bottles: Dosco and the State 1928-1949

The departure of the infamous Roy Wolvin cleared the way for the takeover of Besco by a group of individuals dominated by the Royal Bank of Canada's director C.B. McNought. A new company was formed, the Dominion Steel and Coal Corporation (DOSCO), which operated coal mines and the steel plant until 1968.

The first negotiations between the U.M.W. and Dosco in November 1931 broke down and a Royal Commission of Inquiry was appointed. When its members reported in February 1932, they had recommended a wage cut of from 10% to 12½% and the closing of four collieries, resulting in the firing of 2575 men (MacEwan, 1976: 162). Despite protests from their union, the members accepted Dosco's "reallocation plan".

In early 1933 the Sydney Steel plant stopped operating after two years of reduced production. Steel plants in other parts of Canada discontinued producing as well. Two of Dosco's four coal companies went into receivership as Nova Scotia and Canada moved further into the economic depression that would last until the Second World War. As provincial and federal governments tried to cope with the devastating collapse of the economy, the prospect of a 1937 provincial election in Nova Scotia prompted the passing of the first Trade Union Act in Canada (MacEwan, 1976: 211). The
provincial Liberals were rewarded with a majority in the House of Assembly including many 'labour' seats.

During this time the Nova Scotia Department of Public Works and Mines reported on the Inverness collieries (1936-37) and a provincial Royal Commission investigated the Acadia Coal Company, although it did not report its findings until 1939. The federal government was also involved at this time. The Minister of Labour was called upon to conciliate in contract negotiations between Dosco and its steelworkers in 1939. The passage of Order-in-Council P.C. 3495 in November 1939 extended the regulations of the Industrial Disputes Investigation Act to cover defence projects and the production of munitions and war supplies. It was under provisions of this act that the McTague Royal Commission of 1941 was appointed. In that same year, the National War Labour Board was established with nine regional boards (Logan, 1956: 13). Further investigations took place under the Barlow Royal Commission (1942) and the Royal Commission on Coal (1944). Following the report of this commission, the Dominion Coal Board was established as was the Maritime Coal Production Assistance Act of 1949 (MacEwan, 1976: 285).

1.6 Devco, Sysco and the Welfare State

Beginning in 1950 the coal mines of Nova Scotia began a rapid decline. Rising production costs, competition from oil, the lack of a national coal policy and outdated mining methods have been cited as the cause (MacEwan, 1976: 285). These were confirmed by the Royal Commission on Canada's Economic Prospects.
which reported in the spring of 1958. When the Diefenbaker government came to power, they appointed their own Royal Commission on Coal (1959) but it was never acted upon.

The death knell for the Cape Breton coal fields was sounded with the appointment of Dr. J. Richardson Donald to report on the Cape Breton coal problem. A promise made by Liberal Allen J. MacEachen in the 1965 federal election campaign was the original impetus to the commissioning of this report. For some time, the Dominion Coal Company had been indicating it needed $25 million in government aid to rehabilitate existing collieries and open a new mine in Cape Breton. The U.M.W. and local opinion prompted MacEachen to announce the granting of this sum during the campaign of 1965. Following the election, the Liberal government decided a detailed report was needed on how the money would be spent. Consequently, the Donald Report was announced in January 1966. Instead of a promised restoration of the coal mining industry, the report recommended the closure of all mines by 1981. The government initially suppressed the report until October 1966 and in the confusion that followed its release, the Minister of Mines was sent to Cape Breton to 'investigate' the situation (MacEwan, 1976: 335-336).

The Pearson government finally announced the establishment of the Cape Breton Development Corporation (DEVCO). This was a federal crown corporation whose mandate was to operate the mines and close them only when alternate employment became available through new industry. Almost as a premonition, suggestions were
made that the Liberal government should also take over the steel plant at Sydney. The proposal was rejected but by October 1967, the federal government was facing this very prospect as an announcement was made that the owners of the Sydney plant would discontinue operations April 30, 1968. The eventual outcome was to see another crown corporation formed, this time by the Province of Nova Scotia, to operate the steel plant under the name of the Sydney Steel Corporation (SYSCO).

This, however, was not the last of state intervention in the coal and steel industries of Cape Breton. The steel plant has required the constant infusion of provincial and federal money to keep it operating. Deteriorating equipment plus the depressed markets of the 1970's and 1980's have left Sysco on a precipice during most of this time. The Devco coal division has continued to lose money since its incorporation in 1967. The world oil crisis of 1973 brought great promise for an increased demand for coal. Although the Nova Scotia Power Corporation (crown agency) began a program of conversion from oil fired to coal fired electrical generation, two factors stalled the development of what were high hopes for Cape Breton coal. First was the fact that the world recession had generally depressed the demand for coal, inspite of high oil prices, and secondly, connected with the recession, was the reduced production of the Sydney Steel plant which was Devco's largest customer for coking coal.

1.7 The Changes in State Intervention

Our discussion had led us through some of the more dramatic ways the state has intervened in the industrial area of Cape
Breton. We have documented a gradual shift in the way the state has intervened in this area. From the 1870's to the 1920's, the state overwhelmingly used its coercive powers to maintain social order. That is not to say that this was the only tactic used for we have uncovered evidence of legislation and other methods of quelling labour strife. Following the 1920's, two facts seem to point to reasons for the state's movement away from armed force to maintain social order: 1) amendments to the Militia Act in 1924 made it more difficult for local authorities to use the military to control strikes; and 2) the slow but progressive movement toward collective bargaining and state conciliation boards to settle labour/management disputes. With the stability of formal labour-management relations, the more noticeable form of state intervention became economic assistance to industry. Although the content and method of state intervention has changed over the years, we would argue that the function -- the maintenance of social order -- has remained the same throughout.

Not all state intervention comes in the form of military force or economic aid. Other methods are used to handle routine matters or to intervene quickly to establish social order after a sudden event. One of these latter methods has been consistently to 'make sense' of the sudden and often fatal events that occur in coal mining. We are speaking of coal mine disasters. The forum that has been used to 'make sense' of the event has been the disaster inquiry.
1.8 State Involvement in the Workplace: The Coal Mine Disaster

The word disaster has been somewhat difficult to define and we will return to its meaning and implications in Chapter II. For the moment we will interpret mine disaster to mean the sudden death of workers by explosion, fire or accident while engaged in underground work. The disaster temporarily disrupts social order and the state intervenes ostensibly to determine the cause and prevent the event from occurring again.

Prior to 1918 coal mine disasters in Nova Scotia were investigated by a coroner's inquest that included a jury. Its function was to determine the immediate cause of the disaster and subsequently, the cause of death of the workers involved. The format of the inquest was similar to the disaster inquiries of today. A presiding official would hear evidence from witnesses including miners, company officials and experts in the field of coal mining. The jury would then bring in its verdict based on the evidence presented. Some of the jury members were miners whose perception of the accident often conflicted with that of management. This method of inquiry proved somewhat dangerous since the jury could identify who was at fault for the disaster. Company officials were left open to charges of neglect and possible criminal charges for the death of employees. The Nova Scotia government amended its Coal Mines Regulation Act at the end of World War I to allow the Minister of Mines to appoint one or more persons, possessing legal or special knowledge, to hold investigations into any mine accident (Labour Gazette XX: 1489).
Furthermore, the introduction of a Workmen's Compensation Board in 1917 effectively eliminated any chance of workers bringing legal action against their employer. In addition to the powers of investigation contained under this act, the Nova Scotia government has appointed two Royal Commissions (1957, 1959) to investigate mine disasters at Springhill. However, with the take over of the mines in Cape Breton by Devco the investigation of disasters in these mines has become a federal responsibility and come under the jurisdiction of the Canada Labour Code. Investigations and reports are made possible under the Inquiries Act of Canada. As we will see in Chapter III, when a fire in Number 26 Colliery at Glace Bay caused the death of twelve miners on February 24, 1979 the Federal Minister of Labour appointed Roy Elstrom of Labour Canada to conduct an investigation of the explosion.

1.9 The Changing Need for Energy

We will now turn our attention to describing the increased role the state, both federally and provincially, has had in the development of the petroleum industry of Canada. Since energy (first in the form of coal and now also as oil, natural gas, hydro and nuclear power) has had such an importance for the development of the national economy, it has frequently attracted the attention of both the provincial and federal state. We have seen from our discussion the interest the state had in maintaining the supply of coal to the Canadian market. The decline of coal has shifted the state's attention to other forms of energy.
Following the oil crisis of 1973, the Canadian state announced that Canada was to become energy self-sufficient before the turn of the century. With the development of Petro Canada and the National Energy Program, the Canadian state began to aggressively intervene in the development of 'frontier' exploration in Canada's North and off the East Coast. The discussion will begin with an examination of the early years when state intervention was mostly in the form of guidelines and will move on to the events after the 'crisis' of 1973.
1.10 **Section Two: State Influence in the Oil and Gas Industry in Canada**

Our principal concern in this section is to trace for the reader the increasing involvement of the federal and provincial governments of Canada in the exploration and production of oil and natural gas. The most important date to remember is 1973. That is when the industrial world, that had become so dependent upon cheap supplies of oil, suddenly was faced with the reality of rapidly increasing prices and threats of shortages. Canada was in some instances more fortunate than other nations. Within her boundaries were large reserves of oil and gas but control was maintained by multinational oil companies. Historically, Canada has relied on the extraction and export of natural resources. The oil crisis of 1973 changed this policy toward oil and natural gas and replaced it with a federal energy plan that reflected economic nationalism. It also shifted petroleum exploration from 'conventional' to 'frontier' locations.

We begin with those early years of plentiful supply and little control and then move to the changes that occurred after 'the crisis of 1973'.

1.11 **The Early Years**

The discovery and production of oil in Canada began in South Western Ontario in the 1850's and 1860's. However, it was not until February 1947 when Leduc #1 'came in' that Canada became a major producer of the fuel that would produce such changes in the industrial world. In the previous section we saw that the importance of coal rapidly declined following the Second World War.
This is directly attributable to the increase in production and consumption of oil and later natural gas\textsuperscript{27}. This rapid rise to prominence was partly due to the ample supply of oil but also to the diversity of the by-products produced in refining: gasoline for transportation, heating oils, solvents and petro chemicals.

Post war industrial development owes much to the abundance of this energy source but the success of oil has a great deal to do with capital's ability to diversify the usefulness of this commodity for consumers and industry. When electrical power is produced from oil this second energy form can be used to protect property, run machinery, increase productivity. Historically it was used to lengthen the working day\textsuperscript{28}. In the form of gasoline, diesel fuel and airplane fuel, it can be used to speed up transportation, increase markets and expand the supply of raw materials. Reporting on the vast numbers of new industries that have developed around the by-products of petroleum would require more time and effort than this project will allow.

Despite the importance of oil to Canada's industrial productivity, both the federal and provincial governments exerted little influence in the petroleum industry prior to 1973. The Canadian oil and gas industry was, and still is, largely controlled by subsidiaries of multinational oil companies. Eighty per cent of this foreign ownership was in United States based firms (Laxer, 1983: 8). These multinational firms had, in the years following 1945, wanted to increase exports of Canadian oil and natural gas to the United States. The Federal Government was in favour of this
because its own economic strategy was based on the encouragement of foreign investment in resource extraction and export (Laxer, 1983: 9). The first significant instance of state intervention came when the National Oil Policy was established in 1961. Canada was split in two with the Ottawa Valley used as the demarcation line. Oil and gas consumers west of the Ottawa Valley would be supplied by western Canadian producers with the surplus exported to the United States. Eastern Canada would be supplied by imported oil from Venezuela and the Middle East.

1.12 The Energy Crisis

The energy crisis of 1973 caused devastating shock waves through the world economy and Canada was not to be spared their effects. In addition to the increased price of oil, the petroleum industry began to claim that Canada's reserves of western oil were inadequate to supply the market and that new sources of oil were required. Also, the eastern Canadian market was caught directly in the rapidly escalating price for oil from OPEC members in the Middle East and Venezuela. This was followed by the realization that reliance upon imported oil could have serious repercussions if the supplies were cut off. The solution to both these problems was deemed to be the replacement of imported oil with Canadian produced oil and gas.

Throughout the 1970's, the Federal Liberal Government was engaged in an energy debate that revolved around four main issues. First, the need for freedom from imported oil. This was originally called the need for energy self-sufficiency, later changed to self-
reliance and finally to energy security (Voyer, 1983: 18). This in itself shows the changing attitude of the federal government as it became committed to the notion of Canada supplying its own energy needs. Secondly, the need for greater government presence in this vital sector of the Canadian economy. This led to a third feature, the need to intersect two areas of government planning, energy policy and economic policy. Finally, it was realized that energy mega projects, like the tar sands development and offshore exploration, could yield high industrial benefits to the Canadian economy (Voyer, 1983: 18).

The energy debate, both publicly and politically, produced a strange combination of euphoric nationalism and global pessimism. One result was the launching of Canada's public oil company in 1975. Laxer (1983: 56) claims PetroCanada was a response to the insecurity created by the oil companies prediction that Canada was running out of oil. However, the nationalistic sales promotion that followed the take over of Petro Pina in 1981 has proven to be a politically astute move on the part of federal Liberals. Regardless of its partisan motivations, the establishment of PetroCanada was not the first incidence of government investment in the Canadian petroleum industry although it is undeniably the most dramatic. As far back as 1967 the federal government had been investing in joint exploration and drilling programs in Canada's arctic islands through Panarctic Oils (Crane, 1982: 61). When PetroCanada was formed the Canadian government transferred to this agency its 15% equity in the Syncrude Oil Sands project.
and its 45% interest in Panarctic Oils Ltd. (Laxer, 1983: 59).

The primary objective of the new corporation had been to act as a facilitator to encourage private companies to enter high-risk exploration. It was not to be a direct competitor to the private sector. This commitment was honoured by a substantial joint venture with Mobil Canada and Shell Canada in exploring for oil and gas off the east coast of Canada. However after acquiring Atlantic Richfield in 1976, PetroCanada was soon on the road to purchasing conventional production and marketing assets (Laxer, 1983: 60-61). Petro Fina was the most widely publicized acquisition but there is no clear indication that the crown oil company will or will not stop there.

1.13 The National Energy Policy

The next significant step in federal government policy was the announced plan for greater Canadian participation in the oil and gas industry under the National Energy Program (N.E.P.). The policy was proclaimed in October 1981 and was really a formalization of the commitments the government had articulated during the energy debate of the 1970's.

The N.E.P. acknowledged that energy had a special place in the development of both the economic and the social structure of Canada. Indeed, the federal government felt "... this Program to be eminently in the national interest" (Canada, 1980: 2). Consequently, three objectives for federal action were outlined by the N.E.P.:
1. It must establish the basis for Canadians to seize control of their own energy future through security of supply and ultimately independence from the world oil market.

2. It must offer to Canadians, all Canadians, the real opportunity to participate in the energy industry in general and the petroleum industry in particular, and to share in the benefits of industry expansion.

3. It must establish a petroleum pricing and revenue-sharing regime that recognizes the requirements of fairness to all Canadians no matter where they live.

(Canada, 1980: 2) (emphasis original)

However, contained within the program were three specific goals for the Canadianization of what had become, since 1973, a vital economic resource.

1. at least 50% Canadian ownership of oil and gas production by 1990;

2. Canadian control of a significant number of the larger oil and gas firms;

3. an early increase in the share of the oil and gas sector owned by the Government of Canada.

(Canada, 1980: 49)

Government petroleum policy had previously been confined to guidelines; now the state had an agency (PetroCanada) that could actually ensure these policies were acted upon. James Laxer claims that the N.E.P. was "... an exercise in economic nationalism" (1983: 79). Although this is undoubtedly true, the effect the program has had on the Canadian oil and gas industry cannot be attributed solely to the rhetoric of nationalistic politicians. These effects, both economic and social, have had their greatest impact in two areas of Canada, one of which we will examine in some detail.
1.14 Oil and Gas Exploration on 'Canada Lands'

The National Energy Program was intended to establish a long range and comprehensive policy for energy development on a national scale. The real impact of the N.E.P. was designed to encourage oil companies to undertake exploration in frontier or high risk areas of the country known as Canada Lands. (see Appendix I). To date the two areas that have seen the most activity have been the Beaufort Sea and the East Coast of Canada.

Oil and gas exploration on the east coast of Canada began off Sable Island in 1959 and on the Grand Banks in 1964. Although pockets of oil and gas had been found in these areas over the years exploration yielded nothing of commercial interest until the discovery of Venture B-43 off Sable Island in 1979 and the Hibernia field on the Grand Banks in the same year. In addition, significant amounts of natural gas have been discovered off the coast of Labrador. The usual method of arranging for the financing of these exploration activities involves a number of oil companies organizing into a consortium. This minimizes the risk to any one company but also takes advantage of the Petroleum Incentive Program. Petro Canada is guaranteed a 25% interest in exploration on Canada Lands under the terms of the N.E.P. Petro Canada enters into agreements with its partners strictly on a commercial basis but selects areas that conform to its policy of exploring on lands that are in the national interest of Canadians (Voyer, 1983: 29). Having Petro Canada as a consortium partner also has certain advantages as Voyer (1983) points out. "Being part of a
commercial consortium also gives Petro Canada leverage should Ottawa push too hard for acceptance of certain policies that could have negative impact on the consortium's operating cost effectiveness" (29-30). Having a state agency as one of your partners can also provide the multinational oil companies with an important lobby in Ottawa.

The cost of exploring for oil and gas in submarine lands is enormous. In 1979 total oil and gas industry expenditures for the East Coast alone were $180 million (Laxer, 1983: 161). By far the largest participant in exploration in Canada is Petro. Canada. It spends 60-65% of its budget on exploration while the oil industry, on average, only spends 20% on this activity (Voyer, 1983: 28). According to its annual report of 1981, Petro Canada had participated in two thirds of the wells drilled in the high arctic and on the East Coast. From 1976 to 1982, this crown corporation was responsible for 50% of the industry expenditures in offshore development in Canada (Voyer, 1983: 29). By the end of 1982, nearly $1 billion had been spent by Petro Canada on frontier exploration, 60% of that had gone to the Scotia Shelf and the Grand Banks (Voyer, 1983: 29).

The possibility of oil or gas production on the east coast is very attractive to the federal government, although it is not without its problems. Firstly, production in this area would mean closing the door on imported oil in the region that was most vulnerable during the energy crisis of 1973. Furthermore, east coast oil is estimated to cost $15 a barrel to produce (Laxer, 1983: 162).
Compared with an estimated price of $26 a barrel for Beaufort Sea oil, the choice is obvious except when it comes to federal jurisdiction. The Beaufort Sea is in undisputed federal territory. This is not the case on the east coast, although the Nova Scotia government came to terms with Ottawa in March 1982. Let us briefly look at the agreement between these two governments and then turn our attention to the (as of this writing) ongoing dispute between Newfoundland and the Federal Government.

1.15 The East Coast Jurisdiction: "One Down, One to Go"

The dispute over ownership of the resources contained under the sea off the east coast of Canada would require a thesis in itself to explain. Political rivalries, power plays, regional disparities, and political elections all figure prominently in what has been a political tug of war for over a decade. However, the bottom line of the dispute is easily identified. The federal government claims it owns the natural resources contained under the sea off the coast of Newfoundland and Nova Scotia. It is willing to share the revenue from these resources with the province claiming ownership; but the federal government wants to designate the percentage of revenue the provincial government will receive. As well, Ottawa wants to control the development of these resources. The provinces claim they own the resources and therefore should control development. They have indicated a willingness to share the revenue but the proportion flowing to the federal government would be substantially reduced.
In March 1982 the Nova Scotia government reached an agreement with its federal counterpart, on resource management and the sharing of revenue from offshore oil and gas\textsuperscript{34}. The issue of ownership was set aside and a joint management board was established. The board is controlled by the federal government while the province has minority participation. When Sable Island gas comes on stream the revenue breakdown will be: industry 42\%, Nova Scotia 31\%, Ottawa 13\% and the remaining 14\% will be shared between provincial and federal crown corporations (Laxer, 1983: 164). It can hardly be considered coincidental that in July 1982 Petro Canada and two of its partners announced a $500 million, three year exploration program for the Scotian Shelf (Voyer, 1983: 30).

The terms of agreement allow Nova Scotia goods and services to receive preferential treatment for use in the offshore as long as they are competitive in terms of price, quality, and delivery time. The Department of Development will also monitor the placing of contracts that exceed $50,000. Also, local workers will be given qualified preference and there will be a review and modification of training programs. Finally, provincially located institutions will be given an opportunity to participate in offshore research and development projects (Voyer, 1983: 41). The agreement between Canada and Nova Scotia gave Halifax a decided edge in the race to become the "Petroleum Capital" of the east. Should Newfoundland negotiate a better deal with Ottawa a clause in the Nova Scotia agreement will allow it to benefit in a similar way.

Although the Newfoundland government has not reached an agreement with Ottawa over offshore resources they have a well
articulated policy for regulation and development of this valuable industry. In fact the 1977 White Paper issued by the Newfoundland government was very close to the policies later adopted by the National Energy Program. The Newfoundland Petroleum Directorate has been assigned management and coordination responsibilities for oil and gas activities. To date, companies involved in exploration and development must have management offices based in Newfoundland. A preferential system has been established whereby first choice is given to local sources of labour, equipment and services that are to be used by the industry. Companies involved in offshore work are required to spend specified minimum amounts on research and development as well as education and training. A crown corporation has been established that can have a 40% interest in the development of wells on provincial lands in addition to sitting on the operating committee of a specific field of exploration. Finally, the province also has provisions to control the pace at which the offshore industry will develop (Voyer, 1983: 39). In spite of these government regulations and interventions the benefits to Newfoundland have been small when considered against the large sums spent in the industry. Between 1979-81 total exploration expenditures for the Newfoundland fields was $740 million. Seventy-five per cent of this went to Canadian based firms. Newfoundland firms received 10 per cent (Voyer, 1983: 40). Offshore drill rigs employed 750 local workers in 1979, while onshore related work employed 300 workers (Laxer, 1983: 165).
1.16 Summary

Our discussion has noted that Canada's energy resources have frequently attracted the attention of the state. Intervention in the coal industry of Cape Breton first took the form of military protection. It was argued that this was done to reinstate or preserve social order; defined as the protection of all citizens from the action of a few. These actions by the state also broke down worker resistance and thereby allowed production to proceed in a way that was favourable to the individual coal mine owners. Regardless of what action prompted the intervention, coercive tactics by the federal and provincial state were gradually replaced by legislative measures to ensure that social harmony was maintained.

Labour strife was not the only disruptive factor in the society. Following the destructive social and economic effects of the depression of the 1930's, the Canadian state intervened in ways that would counteract fluctuations in the 'business cycle'. Changes in technology has also meant that the state must now provide economic assistance to specific industries or regions of the country. The coal mines of Cape Breton became particularly vulnerable as industries modernized after World War II and petroleum consumption rapidly increased. Additionally, the remaining market for Cape Breton coal was steadily eroded by sources of cheaper United States coal. Faced with the collapse of the coal industry and the social destruction and disorder that would follow, the federal government acquired the resources and socialized what had become an unproductive sphere of the local economy. State intervention
limited the adverse effects of social dislocation and economic distortion and helped protect all citizens from the actions of a few. The provincial government performed a similar function when they took over the Sydney steel plant in 1968. Similarly, the actions of the federal and provincial governments following 1973 can be seen as the state intervening to re-establish social and economic order in the face of potentially destructive actions by the OPEC cartel and the possibility that Canada was running out of oil. Increasingly, the state is required to level out the peaks and troughs of the national and local economy. Frequently these fluctuations originate in the international economy; an area where the Canadian State can exert little influence.

These incidences of state action have been highlighted in an attempt to show the progression of intervention from the late nineteenth century. They have also been used to explore the breadth of powers the state has at its disposal. The reaction of the state to the specific incidents of social disorder seems to be based upon two factors: 1) the novelty of the incident and 2) the particular importance placed on the sector of society affected. As illustrations of these points we can look at the way state intervention has evolved to deal with occurrence of strikes in various industries. At one time, strikes presented the state with a particular problematic. The reaction to strikes in the coal industry, which at the time was considered vital, was to use to the fullest extent the state's power to coerce. With the advancement of the labour movement, legislation was adopted to deal with
strikes and the reaction of the state became less severe and more routinized.

The state's handling of the oil crisis of 1973 reflects a similar method of dealing with social disruption. Following the price escalation of OPEC oil the Canadian state took what was considered to be radical action for a liberal democratic government: 1) establishing a public oil company, 2) producing an energy program whose objective it was to Canadianize the petroleum industry and 3) the take over of a medium sized oil company. As the Canadian economy and society adjusted to the new price of oil, the state established routine ways of handling the price increase and developed a strategy for exploration and development of a domestic energy supply.

When faced with actual or perceived threats to social order the state has a wide range of options from which it can plan its intervention. These options are constrained by the novelty of the event, the importance of the sector of society affected and by the location of the threat to social order. In addition the state contains agencies and institutions designed to deal with ongoing disruptions to social order. We must be careful, however, not to perceive the routine way in which these threats are dealt with as an indication of the minimal influence they would have if left unchecked.

In the next chapter we will be examining workplace disasters and the way the state handles the potentially disruptive effects a disaster can have on social order. The control of workplace
disaster must not be seen as an indication of the relatively few consequences it can have on a society. Instead we must see the systematic control of these disasters as representative of the significance the state places on the maintenance of social order in this particular area. Following the discussion on this type of disaster, we will theoretically investigate the advanced capitalist state.
Footnotes

1 In 1873 Senator David McKeen, later to become Lieutenant-Governor of Nova Scotia, was president of Caledonia Coal Company. In that same year, Senator I.S. McLennan was president of the International Coal Company located in what is now Glace Bay (MacEwan, 1976: 5).

2 The relationship between the P.W.A. and the provincial government is evident from the numerous pieces of legislation, pertaining to mines, that it was able to successfully lobby for from 1880 onwards. Logan (1948: 172-183) describes in detail the legislation that was passed between 1880-1915. In addition, Robert Drummond, first Grand Secretary of the P.W.A., was appointed to the Legislative Council of Nova Scotia (equivalent to present day Senate) in 1891 (Frank, 1979: 301-302).

3 The settlement of these two disputes gives us an indication of the importance of the coal industry to the national economy and a sign of the influence the coal companies had in federal political life. During the 1901 dispute and the 1904 lockout, the Dominion Department of Labour sent its Deputy Minister, W.L. Mackenzie King, to institute conciliation proceedings.

4 The Industrial Disputes Investigation Act did not prevent the majority of troops of the Halifax Garrison from spending from July 1909 to March 1910 in Glace Bay and Sydney. A strike at the Springhill mine saw the militia spend 280 days there in 1910-11 (Morton, 1970: 423).

5 Logan (1956: 8-9) discusses the Industrial Disputes Investigation Act and the extension of its power through Orders-in-Council during World War I.

6 The Composition of the Royal Commission was: Justice A. Chisholm, Nova Scotia Supreme Court, Dr. John Forrest D.D., former president of Dalhousie University, John Jay, Longshoreman's Association of Halifax. We draw the readers attention to the presence of a Supreme Court Judge on the Commission. Later in the thesis we will be discussing the rule of law and its role in producing hegemonic domination in society.

7 The Besco merger further consolidated the coal and steel industries of Nova Scotia. A total of six companies were involved in the merger: Dominion Steel, Dominion Coal, Dominion Iron and Steel, Nova Scotia Steel and Coal, Eastern Car and Halifax Shipyards (Frank, 1980: 299).

8 Composed of Mr. E. McG. Quirk (Chairman), Mr. W.P. Hutchinson and Sir William Stavert.
MacEwan indicates that Roy Wolvin, President of Besco, claimed he was influenced in his decision by both the provincial and federal governments. According to MacEwan, Wolvin was requested by Ottawa to settle the dispute thus preventing the interruption of coal production (1976: 63).

Composed of Mr. U.E. Gillen (Chairman), Colonel W.E. Thompson and James Ling.

Striking on the job meant that the daily output of coal was slowed down. The Company lost money due to the fact they had to pay full wages to pumpmen, haulagemen and repairmen. The one hundred percent strike meant all workers walked out including pumpmen and fanmen. The shafts would slowly fill with water and gas and destroy the mine.

McLachlan was sentenced to two years in penitentiary. Following an unsuccessful appeal to the Nova Scotia Supreme Court, McLachlan's lawyer appealed to the Federal Cabinet and obtained his client's release after serving three months.

Dr. J.W. Robertson LL.D., President of the Canadian Red Cross Society (Chairman), J.J. Johnston, Fred Bancroft.


Composed of Sir A.R. Duncan, Chairman of the advisory committee to the British Department of Mines, Rev. H.R. MacPherson, President of St. Francis Xavier University and Major H. Cronyn, President of Mutual Life Assurance Co.

The inquiry, known as the second-Duncan Commission, was chaired by Sir A.R. Duncan who headed the Royal Commission of 1925. Other members were Rev. H.P. MacPherson and J.W. Macmillan.

The association between 'labour' and the Liberal Party went back to the days of the P.W.A. and Robert Drummond. The Trade Union Act itself secured for workers the check off system, union recognition by employers and collective bargaining with the trade union representing the majority of workers.

Composed of Justice C.P. McTague (Chairman), R.P. Bell and F.R. Scott.

The Barlow Commission was set up to investigate wage rates in steel plants in Sydney and Sault Saint Marie. It was composed of Justice F.H. Barlow (Chairman), J.T. Stewart, J.K. Gordon. The Coal Commission was composed of Justice W.F. Carroll (Chair), A.J. Morrison, C.C. MacLaurin.
20 Composed of W.L. Gordon (Chairman), O. Lussier, A.E. Grauer, A.S. Stewart, R. Gushue. A special study had been commissioned on the Nova Scotia Coal industry.

21 One man commission -- Justice I.C. Rand.

22 The DEVECO Corporation is divided into two divisions: one is concerned with operating the coal mines; the other, Industrial Development, with creating new industry in the area.

23 When the Robertson Royal Commission was established Prime Minister Mackenzie King wrote to Dr. J.W. Robertson suggesting that amendments were required to the laws allowing troops to be called during industrial strikes. When Robertson submitted his report in early 1924 it contained the recommended changes (Macgillivray, 1974: 58-59).

24 Following a coroner's inquest into an explosion at a New Waterford mine in 1917, company officials of the Dominion Coal Company were charged with manslaughter. During criminal proceedings, the jury brought in a not guilty verdict (Cape Breton's Magazine, 1978: 11; MacEwan, 1976: 48-51).

25 The exact date of amendment has not been established but is presumed to be 1918 or 1919. Cameron (1973) indicates that the last coroner's inquest to investigate an explosion followed the Allan shaft disaster in Stellarton, N.S. in 1918. The Coal Mines Regulation Act was amended shortly after (1973: 164). In November 1920 the Labour Gazette (Vol. 20: 1489), in a comparison of legislation in various provinces of Canada, mentioned that Nova Scotia had provisions under its mines legislation to appoint one or more persons to investigate mining accidents.

26 For a discussion of the implementation of the Workmen's Compensation Act in Nova Scotia see Taylor (1983).
In 1945 coal was used to fill 51.5% of Canada's needs for energy; by 1973 it supplied only 10%. Oil fulfilled only 18.5% of Canada's energy needs in 1945; 1973 saw consumption at 47%. Natural gas has likewise seen dramatic increases: in 1945 consumption was at 2.3%, by 1973 it stood at 19.9% (Laxer, 1983: 10).

Energy, from its many sources, assists the capitalist in extracting more surplus value from workers. Workers are required to produce products for which they are paid wages. However, according to Marx (1977: 643-654) the wages they receive represent only a portion of their actual labour power. The remainder, called surplus value, is appropriated by the capitalist when the products are sold at a profit. Surplus value can be increased by lengthening the working day so that more time can be spent producing for the capitalist. This is called absolute surplus value and was accomplished by introducing electric light into the workplace.

A second way of increasing surplus value is to have workers produce more in less time. The increased surplus obtained in this way is called relative surplus value and is usually accomplished by the use of machinery. Once again, energy, in the form of electricity, is used to run this machinery. Energy, in general, can be used to increase both absolute and relative surplus value. Petroleum has been used to produce electrical energy but this fuel has made its greatest contribution in the area of transportation. The versatility and portability of petroleum, in its many energy forms, has been extremely productive for capital accumulation. See Christie (1980) for a more detailed discussion of capital's need for energy.

The Federal Government originally had no involvement in the Syncrude project. In 1974 one of the partners, Atlantic Richfield, withdrew and the entire project was threatened. The federal government responded by offering concessions to the remaining investors and established the 15% equity that later went to Petro Canada (Shaffer, 1983: 230).

The N.E.P. proposed new legislation to cover the management of Canada Lands (see Appendix I). This provided Petro Canada with a guaranteed 25% interest in oil and gas exploration and also a leading edge in the development of commercial discoveries. In the past, exploration and development of a particular area had been left to the discretion of the lease holder with some lenient work requirements provided by legislation. Under the N.E.P. the program of leasing land was changed to an exploration agreement which included drilling orders, production orders, prior approval of transfers and assignments and also provision to designate Petro Canada as operator of the project (Canada, 1980: 45-47).
31 Example: Venture B-43 (Sable Island) -- Mobil Oil 42%, Petro Canada 30%, Texaco 18%, British Columbia Coal 10%. Hibernia -- Mobil Oil 28%, Gulf Canada 25%, Chevron Standard 16%, Petro Canada 25%, Columbia Gas Development 6%. The reader's attention is drawn to Mobile Oil Canada who is involved in both of the East Coast projects that are being considered for production (Voyer, 1983: 15-16).

32 Under provisions of the N.E.P. the federal government replaced tax breaks and right offs with a grant program called the Petroleum Incentives Program. Basically, this new system provided incentive payments to companies that were 50% Canadian owned and controlled. The initial grant (10% of approved costs for 1982, 1983-thereafter 15%) went to exploration anywhere in Canada. But this increased if these companies were 75% Canadian owned and controlled. The grant increased again if either of these groups did exploration on Canada Lands (Canada, 1980: 39-41).

33 The issue of control over development is expressed at many levels of controversy. For example, January and February are the two most hazardous months on the North Atlantic. Winter storms, ice packs and almost continuous fog makes offshore drilling particularly dangerous on the Grand Banks. In February 1984 the Newfoundland government ordered the oil rigs to discontinue drilling until the federal government improved search and rescue facilities in Newfoundland. The federal government ordered the drilling companies to continue under threat of revoking their exploration agreements. The rigs stayed in place while the two governments met to settle another aspect of the jurisdictional dispute.

34 The agreement was officially called Canada-Nova Scotia Agreement on Offshore Oil and Gas. Resource Management and Revenue Sharing.

35 The requirement to use local labour has established a dangerous practice in the oil industry off Newfoundland. Under provincial government direction the multinational companies have traded a worker's competence for their residence. Untrained workers are drawn into offshore jobs by the promise of large paychecks. If they become injured they are easily replaced from a reserve army of provincially unemployed workers that is now approaching 25%.

36 It must be noted that the speed with which the state reacts and the methods it uses are constrained by the location of the threat to social order. For example the "F.L.O. Crisis" of 1970 was handled quickly in spite of the novelty of the threat. This was due to the fact that the threat was from an "internal source". Reaction was swift since the state did not have to consider the international aspects of the problem. Also the fact that the
threat did not come from a capitalist enterprise broadened the choice of methods of dealing with the problem.

The "oil crisis", however, had both international implications and required that the state deal with capitalist enterprises, thereby slowing down the reaction time and limiting the options open for consideration. The fact that the "reaction" was implemented over nearly ten years and has not seriously disrupted any capitalist relations is testimony of its "radical" nature.
CHAPTER 2

WORKPLACE DISASTER,
THE STATE,
AND HEGEMONIC CULTURAL ORDER
2.1 SECTION 1: Introduction

A sociological definition of disaster can only be considered in terms of its social causes and its social effects. The concept "disaster" in sociology can never be considered apart from its effects on collective social behaviour. From its beginnings, the sociological study of disaster has tried to refine and specify what a disaster is and as a counter position, what is the social response that occurs after the "momentary event". Most studies have developed an interdisciplinary approach, drawing practical knowledge and theoretical construction from the social and behavioural sciences. In their attempts to grapple with an often elusive concept, many researchers have left unasked some difficult but important questions. These questions center around how a disaster is defined and where a disaster can occur.

In this chapter we will begin the discussion by looking at how the term "disaster" has been dealt with in sociology. We then examine the important features this definition leaves out of our understanding and try to refine our explanation by looking at one site of disaster -- the industrial workplace. We conclude the first section with a new interpretation of disaster; one that includes death and injury on the job.

The second section of the chapter will require us to turn our attention to the negotiation and renegotiation of a hegemonic cultural order. This requires that we first look at the role of the state in a capitalist society and then define what we mean by total social authority or hegemony. Next we must look at how hegemony is negotiated or "won" through the institutions of the
state. Finally we must examine how the state negotiates social order when a "crisis of hegemony" occurs.

2.2 Defining Disaster: The Traditional Approach

The "sociology of disaster" had its beginnings in the work of Samuel Prince (1920) who examined the effects the Halifax Explosion had on collective social behaviour. Despite the fact that this first study dealt with a "man-made disaster" most of the work that followed looked at disasters resulting from "natural" causes.¹

The concept "natural disaster" brings to mind events such as earthquakes, floods or violent storms. This is an inadequate sociological formula since these elements do not always produce socially catastrophic results. One individual killed in a hurricane, although tragic, is seldom seen as a disaster. An earthquake that causes no property damage is seen only as a curiosity. Consequently a purely scientific definition of disaster does not fit neatly into a sociological classification. Despite this fact many of the concepts that have shaped disaster research in sociology seem to have been borrowed from, or at least influenced by, ideas in the natural sciences. For example, Harry Moore (1956: 733) isolated the characteristic of "nonpredictability" as being essential when an event was being considered as a disaster. He went on to theorize that because individuals or institutions were inadequately prepared for the event, it often had a disorganizing effect on them. At the institutional level, officials waited for
"accurate" information before they decided what changes had taken place and what would be the most effective response.

After this initial stage, when little is done until enough information is received, Moore indicated that a period of intense activity followed. This he defined as the "rescue period". Spurred on by prevailing sentiment that it is better to do something than to do nothing, orders are issued and obeyed. Moore saw this as the overwhelming demand to reassert control in the situation. The need for efficiency forged alliances between former rivals. Moore went on to explain how and when these alliances broke down and also discussed the overall social consequences the disaster had on a community (1965: 735-737).

Moore's conception of disaster held that a sudden event caused individuals to react to the situation, often in counterproductive ways. This was inevitably due to the fact that they had to function with incomplete information regarding the situation, using procedures that were not designed for the sets of circumstances they were faced with. The disaster, for Moore, was a sudden interference, a rupture in the social fabric that required repair.

Following directly from work by Moore (1956) and others (Prince 1920, Geen & Mann 1925, Carr 1932, Sorokin 1942) research in the area moved in the direction of: 1) the response of a society to large scale upheaval; 2) the response of individuals and groups to dislocation following the event; 3) task organization for rescue and recovery; 4) patterns for the restoration of social
functioning (Turner, 1976: 753). The definition of disaster that is available from these earlier studies indicates that a disaster is a social disruption in which a physical agent produces changes in the social system and these changes also have an impact on individual or group behaviour. In other words, there is a social response to the social disruption (Quarantelli, 1978: 3).

2.3 Disaster as Cultural Disruption

All too often research into the social effects of disaster saw the catastrophe as an "act of God" or a "bolt from the blue" and dealt only with the consequences of disaster. In reaction to this earlier work, but also as an attempt to refine the definition of disaster, Turner (1976) is critical of writers, like Moore, who have concentrated on the disruption of the social structure following a disaster. Instead he suggests that the disaster event should be seen as "cultural disruption" (1976: 755). Firstly, as destructive forces are unleashed the physical environment is changed and this is disruptive to the everyday conception of the way things ought to be. A second cultural disruption results from the occurrence of the event itself. People begin to ask, "How could such a thing happen?" (Turner, 1976: 755). Seen in this concept, the disaster becomes a challenge to existing cultural assumptions. These assumptions include beliefs about the society, its hazards and the precautions taken against these hazards embodied in laws or codes of practice. Turner (1976: 757) also indicates that there are less formal, commonsense rules that
govern the handling of a situation in a safe manner. The disaster or, "... cultural collapse occurs because of some inaccuracy or inadequacy in the accepted norms or beliefs" of society (1976: 758). However, Turner quickly points out that the discrepancy between how the world was thought to work and the way it actually works rarely develops suddenly. Instead events accumulate over time until there exists a discrepancy between the existing norms and beliefs and the actual world and its hazards (1976: 758).

Part of the utility of Turner's approach was that he did not attempt to define the sequence of events for all types of disasters, as Moore had done. Rather he looks at the "pre" and "post" phases of certain types of disasters. Seven of the thirteen disasters that Turner investigated were identifiable as occurring on the job or in the workplace³. To assess the development of a disaster a total of six stages⁴ are outlined but of particular interest to our discussion is the final stage -- "full cultural readjustment". During this last stage, attempts are made to discover how previously approved precautions could have been so inadequate. If the community or society is to prevent the disaster from re-occurring, existing ideas about hazards and the means of avoiding them must be reviewed and revised. Particularly helpful in this respect is the public enquiry. By examining and considering the adjustments that must be made (not only to laws and statutes but also to beliefs and assumptions) the society can begin its "cultural restoration process" (Turner, 1976: 764).
Although this discussion moves us away from the idea that a disaster can only be a "sudden natural crisis" precipitated by an "act of God", Turner's approach does not call into question any of the dominant political, economic or cultural beliefs and conditions that prevail in society. Turner, like earlier writers, suggests that the order of the social system, although disrupted temporarily, can and must be restored. This is best accomplished through administrative and organizational measures that will allow for a high degree of disaster prediction and control. This will reduce the number of large-scale disruptive events (Turner, 1976: 771).

Before continuing we are required to qualify our use of the word disaster. This is made necessary by the fact that in the forthcoming section we will be developing an argument that applies almost exclusively to a subgroup of disasters that occur indirectly from human activity.

2.4 Natural and Man-Made Disasters

Disasters occur from a variety of sources. In order to provide a better analysis of the concept, two subgroups -- natural and man-made -- must be defined. Natural disasters result directly from weather conditions or geological anomalies and as such arise from outside the social system. Man-made disasters are indirectly the products of human endeavour and therefore arise inside the social system. Although man-made disasters are not necessarily intended acts, their potential exists wherever and whenever human
activities provide conditions sufficient for the event to occur (Zabrovsky, 1979: 91-93). Defined in these terms, the man-made disaster is a miscalculation or accident that occurs as a result of human activity\(^5\). The "line" that separates an accident from a disaster is the somewhat elusive notion of magnitude. In addition the prestige or position of any individual(s) killed or injured in the event must be considered as part of the complex nature of socially defined disaster (Turner, 1976: 754).

The industrial workplace provides many of the appropriate conditions in which a large scale accident may occur. Under capitalist relations of production, industrial activity is considered important not only for the products produced but also for the amount of profit that accrues to the owners. Consequently, not all participants in the accumulation process agree on what constitutes a hazard in the workplace nor do they agree on what, in general, is the cause of workplace injury and death. The two themes, workplace hazard and workplace injury or death, are intimately tied together. This is not because the workplace is seen as a hazard, but rather because the hazard is often linked to the workers themselves. We turn to a brief discussion on the current explanations for death and injury occurring on the job.

2.5 Explanations for Workplace Injury and Death

Our discussion begins by looking at three themes that run through the literature on occupational injury and death\(^6\). The first is the theory of the accident-prone worker. Although human
error has always been cited as the cause of workplace accidents, following World War I a set of principles developed that looked at the psychological aspects of worker behaviour and set forth an observable and identifiable set of concepts. This theory attributed most accidents to the peculiar characteristics of some employees which caused them to be accident-prone (Berman, 1978: 23). Also contained in this approach was the notion that failure to maintain health and safety in the workplace was due to some flaw in the worker's personality or character (Crawford, 1977: 673). Therefore, the biggest hazard in the workplace was the personal characteristics of the individual worker. Through education programs, management regulations or programs to help the worker change his or her "life style", the person learned to have better work habits.

The accident proneness theory left many questions unanswered and forced researchers to look to the medical and natural sciences for explanations. Although the approach they developed had many of the elements of the previous theory, researchers did emphasize the interplay of work environment and worker behaviour. Injury and death on the job resulted from three factors: 1) the physical and social environment of work; 2) the behavioural characteristics of workers; 3) the interaction of both (Reschenthaler, 1979: 24).

Critics of these psychological and social-psychological approaches have suggested that prevention, rather than cure, is the route to take when trying to eliminate workplace death and injury. To do this the three main actors that define and shape the nature of work in society must be examined (labour, management
and government). Structural contradictions between and within these three groups make it difficult to protect workers from hazards associated with their job. Therefore, the solution to workplace injury and death involves co-operation from scientists, physicians, managers, lawyers and government officials. Advocates of this approach also indicate that the worker must also be involved in the elimination of occupational hazards (Sass 1979, Nichols and Armstrong 1973).

According to the first two approaches workers are wholly or partly at fault for injury or death on the job. Consequently, the elimination of occupational hazards must take the form of training, education, regulation and technological innovation. The third approach indicates that no one person or group is completely at fault for worker injury or death. The problem should be handled through an industrial relations approach that emphasises negotiation, co-operation and preventive research.

This discussion on individual occupational injury and death should not be seen in isolation from our debate on large scale "accidents" in the workplace (ie. man-made disaster). Regardless of the magnitude of the event, "accidents" on the job must have a cause otherwise they would become simply an "act of God" or a "bolt from the blue". Investigators, operating within a capitalist economy, have a limited number of explanations at their disposal. Limited, we would argue to the three outlined above. With these options to choose from, the origin of the accident must result from one or all of the following sources: worker error;
the interplay of the work environment and the worker's behaviour; the inconsistent and conflicting priorities of labour, management and government that hamper the development and implementation of safer work conditions. None of these explanations critically question the structural relationships that exist in a capitalist society. In fact, most of them strengthen those relationships by advocating control and regulation on the part of management.

Earlier studies of disaster have had a tendency to examine the event as a social problem. This has meant identifying the harmful conditions and then suggesting ways of solving the problem. This has had long range implications for the sociological study of this phenomenon; implications that we will examine in detail.

2.6 Accidents as "Normal" Events

We have been critical of the majority of studies undertaken in the "sociology of disaster" for insisting that the best way to combat disaster is to return to the normal routine as soon as possible. The structural functional assumptions that form the basis of these approaches camouflage the real causes and effects of disaster. Furthermore, by stressing the unusual character of disaster these analyses remove from the realm of possibilities the idea that certain disaster events could be rooted in the capitalist social formation itself.

To understand this criticism we must look at the way disasters have been presented in the sociological literature. Firstly,
disasters are seen as dysfunctional in society. Next they disrupt social order and routine thereby producing structural strain on the community or society. Finally, disasters either result from or result in deviant behaviour on the part of those involved. Overwhelmingly the disaster is seen as the social problem. Attention is focused on the event and what results from it. The task of the sociologist becomes one of identifying the harmful conditions of the disaster, including the conditions that caused the event and suggesting ways the problem can be handled or solved.

Blumer (1970) is openly critical of an approach that locates social problems in so called objective conditions. "Social problems are not the result of an intrinsic malfunction of a society but are the result of a process of definition in which a given condition is picked out and identified as a social problem" (Blumer, 1970: 301). Instead of the problem being an objective condition with an objective makeup it is the product of a process of "collective definition". It is this societal definition that not only decides how "the problem" is to be approached but also shapes the way this will be accomplished. To explain this process of collective definition, Blumer identifies a five step typology in which: 1) the social problem emerges; 2) the problem is legitimated; 3) action is mobilized with regard to the problem; 4) an official plan of action is formulated and; 5) the problem is reconstituted through the implementation of the official plan (Blumer, 1970: 301-305).
Workplace injury and death provide us with an interesting example for Blumer's typology. In Canada prior to the twentieth century, worker injury and death was an issue dealt with by the court system. Statutes and laws held employers responsible for injury and death on their premises. Although litigation was available to most workers, few could take advantage of it because of the costly nature of legal proceedings and rigid interpretation of who was at fault when an accident occurred on the job. As industrial activity increased, mounting worker injury and death emerged as a social problem. The problem acquired its social legitimacy when it was recognized by numerous provincial states in Canada. Action was mobilized in the form of commissions to study the problem. The official plan of action took the guise of Worker's Compensation and was implemented in the form of a Board that dispensed monetary compensation for occupationally sustained injury or death.

However, the way the "social problem" was handled by the state had some obvious implications not only in terms of the decisions that were made about occupational injury and death but also in terms of the non-decisions that were also made. First of all the state implemented a no-fault compensation insurance for workers injured or killed. "No-fault" meaning that "blame" did not have to be established for workers to collect benefits. At the same time workers forfeited their right to legal action against their employer. Officially, at least, workplace accidents no longer had a "cause" since blame did not have to be proven. The
only fact that had to be established was that the accident occurred. This focused attention on workers as the principal agents in an accident. It must be remembered this is consistent with the accident prone theory of worker carelessness that was developing at the same time (post World War I).

The decision to institute a worker's compensation scheme at the beginning of the twentieth century established the dominant values in the society and the accepted rules under which compensation would be paid. Workers felt well served by the legislation in light of the protection that was afforded them under the older court system. However, contained within this resolution of the conflict over worker injury and death there operated as well a non-decision making process. First of all the compensation system established that accidents were an inevitable part of the production process. As such they should be considered as an expense and included in the price of production the same as raw materials or labour costs. The statutes maintained all the capitalist relations of production (labour contract or the control of capital over labour) and individualized the problem of injury and death on the job by narrowing structural issues into single ones. Furthermore, the bureaucratic composition of the Compensation Board fragmented what began as class issues and deflected their political demands into social ones.

Organizing the social problems in this particular way prevented certain issues from entering the arena of political discourse and as a consequence, the state did not have to make
decisions about them. These hidden issues require some consideration before moving to the next section. Firstly this approach to the problem focuses attention on the individual worker's interaction with a machine or other physical elements in the workplace. It ignores or denies the structural reality or social character of occupational injury. Instead of looking at the fact that workers have little control over their labour and work environment, it shifts attention to placing a "guard" between the hazard and the worker. This can be a physical barrier or a management regulation. Untouched are factors like the speed of production, the hazardous nature of the products used or the methods that are used to remunerate workers (bonus system, piece work, etc.). All of these issues are the prerogative of capital and are left undisturbed when workers are compensated on an individual basis for injuries that they have little power to prevent. In fact we are saying that accidents in the workplace are an inevitable result of capitalist production. However, instead of indicating that these events are based on the unavoidable nature of human error, we are stating that the structural relationships of capitalist production remove any real chance of safer work conditions, leading to fewer injuries and deaths in the workplace. Three components have obscured the structural reality of occupational injury or death: 1) the compensation scheme itself; 2) the development of a theory of workplace accidents that identifies workers as the principal cause of injury on the job; 3) state ownership of the issue of worker health and safety that allows for state definition of the problem.
and the methods used to address it. All these components render the social problem compatible with capitalist social relations rather than being threatening to it. We will now extend our analysis to workplace disasters.

2.7 WORKPLACE DISASTER AS "NORMAL" EVENTS?

It would seem reasonable from our discussion that since workplace accidents have been acknowledged as unavoidable due to worker carelessness, that the same statement could be made about workplace disaster. We have indicated that the principal notion that separates workplace accidents and man-made disaster is one of magnitude. In other words, man-made disasters are large accidents whose effects involve more individuals. We would, however, argue that this is not the case. Three elements obfuscate the issue and maintain the unexpected character of the event. First is the fact that research promotes the sudden unexpected nature of disasters. Second is the fact that workplace disasters carry with them the potential for social conflict. The exploitative nature of capitalist relations are exposed and the situation must be redefined quickly if order is to be maintained. Conflict is defused by maintaining "...after all it is 'only a disaster' the system is all right" (Clausen et al, 1978: 64). The third reason is closely related to the others. Because knowledge is inhibited or deliberately distributed unevenly in society workplace disasters often disclose hidden dangers. These social secrets are continually being produced because not all individuals, classes or groups have equal access to knowledge and similarly do not have the "ability"
to define and remedy the situation. Only certain groups in society have the authority to perform these tasks. In capitalist society, those charged with these duties have been a small group of state officials and experts from specified fields of knowledge.

Instead of workplace disasters being acknowledged as "normal" components of the capitalist social system, which would call into question the whole work process and workers' relation to it, the disaster is defined as an unexpected break in the continuity of events (Clausen et al, 1978: 62-64). The ideology that surrounds man-made disaster is similar to the ideology that surrounds workplace accidents. The accident becomes situated at the individual level and there is a denial that it is rooted in the organization of the production process. Although capitalists are willing to accept that accidents are inevitable, the accident itself is treated as a unique event. The explanation for workplace accidents is further mystified when worked up in the so called disaster sequence.

Despite our arguments that workplace disasters are really a normal component of a capitalist social formation one feature of disasters makes them particularly useful for studying hidden features of capitalist political structures. The unplanned nature of the workplace disaster turns the occurrence into "an event" inadvertently. Information that had previously been under the control of capital now becomes public. Unsafe conditions become an embarrassment to both capitalists and state officials. Routine procedures, official statutes and various precautions that were supposed to prevent the event have failed. Social order can only
be superimposed on consequences that have already occurred. Thus when we study large scale workplace accidents we can see efforts to restore order as attempts by those in power to recapture and renegotiate hegemony in society (Molotch and Lister, 1973: 7).

Throughout our discussion we have indicated the important and central position the state has in the definition, resolution and protection of health and safety in the workplace. At this juncture, it seems appropriate to examine in greater detail the role of the state and the various ways the state negotiates and renegotiates the hegemonic order in society.
2.8 SECTION 2: The Role of the State in Capitalist Society

Mandel (1975: 474) indicates that the capitalist state\textsuperscript{11} "... arose from the growing autonomy of certain superstructural activities ... whose role was to sustain a class structure and the relations of production." This means that the state must establish conditions for the survival and improvement of the capitalist system. Block (1977: 15) points out that managers of the liberal democratic state are dependent upon the maintenance of some reasonable level of profitable economic activity if the government is going to receive the support of the public. Block also indicates that not only does a drop in economic activity result in unemployment and shortages in goods, but it also has the other effect of seriously depleting the revenue the state requires to finance itself. The principal sources of revenue to the state come from direct taxation on personal income, taxation on corporate profits or through numerous indirect tax schemes. Since the overall welfare of capitalist society is dependent upon business activities the needs of the economy become defined as national, public or common interests. Through this ideology of commonality or universality the state can act in the long term interest of capital accumulation.

However, this leaves two questions unanswered: a) how does the state establish the conditions for the survival of the capitalist system and; b) what is the relationship between the state and the accumulation process?
2.9 The Conditions Necessary for the Survival of the Capitalist System

The function of the state could be summarized as the protection and reproduction of the social structure. Under conditions of capitalism that means the protection and reproduction of the private ownership of the means of production. Since the proper functioning of the state is dependent on a healthy economy we can see that the state cannot hope to carry out its policies in an economy that is failing. State services (both social and economic) begin to disintegrate when the capitalist economy does not flourish.

In order for the economy to grow, the state must develop the infrastructure of production. Mandel (1975: 467) sees these as the preconditions for the working of the capitalist system. First, the general technical preconditions of the actual process of production must be met. These include a system to transmit and receive goods and services, including communications. Next, the provision of general-social preconditions must be assured. Under capitalism these include the maintenance of law and order and a stable currency system. Thirdly, the conditions for the reproduction of labour must be provided. A system of education, family and various welfare services are examples.

Once these goods and services have been established, the state must defend the capitalist system from internal pressures brought on by class struggle in society. The provision of state services in society is an attempt at increasing the consent for the system among all classes, thereby avoiding disruptions to
social order. This is insufficient to ensure continuous compliance by the various classes and fractions in society and a system of value generating institutions, such as the media and academia, must either be developed privately or maintained by the state. Although this system of values may appear universal and common-sensical, they are actually the values of capitalism (individualism and competitiveness) and help ensure the survival of the economic system (Navarro, 1977: 268).

Finally, in order for the capitalist system to survive, the state must have legitimate control over the use of force. This is most successfully accomplished when it appears that the state does not favour one class or group over another, but rather that the common interests of society are being served. The liberal democratic state is more likely to rely on the consent of the populous to maintain social control. Although it can and will use coercion (army, police, law, penal system) if force can be justified by arguing that the action is in the national or common interest of the society.

This leads us to the second question of how the capitalist state interacts with capital in society. Four elements that describe the relationship between the accumulation/production process and the state will be outlined.

2.10 The Relationship of the State to Capitalist Accumulation Process

Ofbe (1975) identifies three key elements that he sees as distinguishing the capitalist state. The first of these is the principle of exclusion. "The state cannot initiate production
within private enterprise that is thought to be not accumulative ... and it cannot ... stop production that is considered accumulative (profitable) ..." (Offe, 1975: 126). The state ideally should be considered as outside the production/accumulation relationship. This is made necessary by a basic prerogative of the free enterprise system in which production must be considered profitable.

The second element is the principle of maintenance. "(T)he state does not only have the authority, but also the mandate to create and sustain conditions of accumulation" (Offe, 1975: 126). It is pointed out that there are certain threats to this process and the state is obligated to respond by establishing control over these possibly destructive events. The threats include competition from other accumulating units, the working class and deviant or criminal elements that would disrupt the production/accumulation process.

The third element is the principle of dependency. "Its (the state's) power relationships, its very decision-making power depends ... upon the presence and continuity of the accumulation process" (Offe, 1975: 126). The state becomes powerless without the resources that are produced in the accumulation process. The same is true of revenue produced from taxation on wages, profits etc., without which the state could not continue with policies and services.

What we have outlined are the structural constraints the capitalist state must operate under when drafting or implementing
public policy. However, Offe is quick to point out that "... accumulation ... acts as the most powerful constraint criterion, but not necessarily as the determinant of content, of the policy making process" (1975: 126). This qualification cautions against adopting an instrumentalist view of the state acting at the behest of the capitalist class.

A fourth element is necessary in order to clarify the characteristics of the capitalist state. The element is the need for legitimacy. This characteristic is necessary if the state is to fulfill successfully the other three principles we have indicated, it is through the state's pursuit of the common, general, or national interest, thereby producing an image of response to diverse demands, that it is able to appear as a legitimate (i.e. unbiased) power in society. The state can do this through a variety of mechanisms that appear to allow for egalitarian measures. In short, a majority of citizens must feel relatively satisfied they have access to the power (and protection) of the state and that the state responds fairly to justified demands in society. "This is equivalent to saying that the state can only function as a capitalist state by appealing to symbols and sources of support that conceal its nature as a capitalist state; the existence of the capitalist state presupposes the systematic denial of its nature as a capitalist state" (Offe, 1975: 127).

In order for the state to respond to the principle of maintenance and dependency in a way that promotes legitimacy, it must be able to reply to various threats to accumulation through
concessions and/or repression. Consequently, the state must maintain its "relative autonomy" in society if it is to create conditions that will operate in the long term interests of capital. This statement implies that certain fractions of the capitalist class may be adversely affected by some state actions or policies. Additionally, certain concessions will be made to the working class in order that the state continue to legitimate itself\textsuperscript{14}.

We must take a few moments to look at the state's role in creating and maintaining the conditions necessary for the continuance and flourishing of the capitalist system. This is mainly because of the definite implications state intervention has particularly following a workplace disaster.

\textbf{2.11 State Intervention Following Workplace Disaster}\

Offe's principle of maintenance implies that the accumulation process cannot perpetuate itself but rather is susceptible to threats and disruptions (ie. crisis). The state is required to establish control over both immediate and potentially destructive events or conditions. There are three levels at which the state can function to maintain the conditions of accumulation: 1) the level of the individual enterprise; 2) industries or regions in general; 3) capital as a whole (Offe, 1975: 126). As we have already stated, threats to accumulation come from three sources: a) other accumulating units; b) the working class and; c) deviant or criminal elements.

To this list, we would like to suggest a fourth source of threat to the accumulation process; the disruption of social order
through man-made, workplace disasters. As we have seen from our previous discussion, the unanticipated nature of the workplace disaster means that the immediate cause is unknown and therefore represents an event for which the adaptive infrastructure of capitalism is unprepared. The event produces a crisis in the capitalist social formation resulting from two factors. First, in the confusion that occurs after the disruption of social order, capital becomes vulnerable and threatened due to a lack of information about the exact cause of the event. The disaster could have resulted from sabotage, a faulty production process, faulty equipment or worker carelessness to name a few competing explanations. Secondly, workers are threatened because again the actual cause may not be immediately known. Workers in the same industry or in the same workplace may be exposed to unsafe conditions of production, unsafe equipment or the the actions of saboteurs.

Since the state has both the authority and the mandate to establish control over both immediate and potentially destructive events or conditions, it is expected to act quickly to reestablish social order. We see the rationale for this action embodied in three principles that are closely tied to the state's relationship to the production/accumulation process. First, the state intervenes because the long term interests of capital must be considered. As Offe (1975) points out, the state cannot stop production that is considered profitable, but the state does have the legal and administrative authority to require the modification or regulation
of both the production process and the work environment. Secondly, the state intervenes because class relationships in the specific social formation may be threatened. The domination of capital over labour comes into question when the safety of workers is in jeopardy. The working class is in a position to demand concessions that may erode the position of capital. The state is required to reinstitute and renegotiate the class relations that exist under capitalism. Thirdly, the state is responsible for the welfare of all citizens in a capitalist society but from the point of view of capital it is particularly responsible for the reproduction of an available labour force. Under this broad definition, the state has established a role of overseeing the safety of individuals in the workplace.

So far we have outlined the principal role of the state in a capitalist system (the survival and improvement of that system). We have also discussed the functions that must be undertaken to accomplish this (supporting of healthy economy, state services, legitimate use of force). Additionally we have looked at the structural relationship that exists between the state and the accumulation/production process. In effect we have answered the question "why" the state intervenes in capitalist society. Also we have addressed the question of why the state intervenes in certain ways and not others. The task now becomes one of articulating "how" the state intervenes in society. To do this we must first outline the concept 'hegemony' or 'total social authority' which involves the exercise of a special kind of power -- the power to prevent conflict from arising in the first place.
2.12 Hegemony or Total Social Authority

At an earlier point in this chapter we mentioned that the Workmen's Compensation scheme helped resolve a conflict over worker injury and death in a way that prevented certain issues from entering the area of political discourse. We want to return to this idea that certain grievances can be effectively prevented from developing into full-fledged issues through the "... practice of limiting the scope of actual decision-making to 'safe' issues by manipulating the dominant community values, myths and political institutions and procedures" (Backrach & Baratz, 1963: 632). Thus we have the beginnings of the notion of hegemony or hegemonic cultural order in society.

Hegemony or total social authority involves more than the ability of one group to coerce or persuade a subordinate group into conforming or agreeing with their particular definition of a situation. It involves the ability to frame alternatives and contain opportunities. This is the power "... to win and shape consent, so that the granting of legitimacy to the dominant classes appears not only 'spontaneous' but natural and normal" (Clarke et al, 1976: 38). This is in fact the secret of consent; it must appear more than legitimate, it must appear normal. Therefore, hegemony means shaping the kinds of questions that are asked of a given situation and then resolving those questions or problems in ways that are considered to be reasonable and realistic. Choice and the illusion of choice becomes crucial because not only do subordinate classes have to consent to the hegemonic order but that order must be won or secured.
It is important to note that hegemony is not class rule. Rather a hegemonic bloc or an alliance of class fractions is formed that directs, but more importantly, leads, thought and action. However, hegemony can never be taken for granted but must be won, which carries with it the idea of persuasion, force and coercion. Once won, hegemony must be reproduced and sustained which implies that it is concerned with shaping consent for its domination. "The terrain on which this hegemony is won or lost is the terrain of the superstructures: the institutions of civil society and the state ..." (Clarke, et al, 1976: 38).

How then is hegemony produced and reproduced? Clarke et al (1976: 39) indicate that hegemony works through ideology. By inserting subordinate classes into the various institutions and structures that support the dominant order, these classes "live their subordination". Consequently, the institutions of civil society and the state become the site of class struggle but also represent the cultural order over which that struggle is waged. A dynamic develops in which the hegemonic order "... provides the horizon of thought and action within which conflicts are fought through, appropriated (ie. expressed), obscured (ie. concealed as a national interest which should unite all conflicting parties) or contained (ie. settled to the profit of the ruling class)" (Clarke et al, 1976: 39).

In the struggle for hegemony, and the resistance against the hegemonic order in society, the state becomes a key educative force. It mainly does this through its regulation of the lives
of the subordinate classes. In order to resist or defend their position in society, these classes will often create alternative institutions. When this occurs, the compliance of these groups can only be won by weakening, destroying, displacing or incorporating the alternative institutions they have established.

The idea of permanent class hegemony does not exist, rather we must see hegemony as a process of struggle, negotiation and resistance. To discover the character and content of the process, this hegemonic order, we must look at specific compromises that have been struck, solutions that have been adopted and most importantly, the level of class conflict at concrete historic moments. Two such historic moments will be examined in Chapters III and IV. In those chapters we will be examining three commissions of inquiries into workplace disasters. We will be arguing that through state institutions, like the commissions, specific compromises are struck and solutions are adopted that assist in winning hegemonic order. However, before we can examine these institutions we must understand something about the way hegemony is organized through the state.

2.13 Hegemony and the State

Poulantzas has indicated that "... the state should be seen ... as a relation, or more precisely as the condensate of a relation of power between struggling classes" (1976: 74). Therefore, the state is an institution that not only reproduces class divisions in society but is also the site of class struggle and class contradictions (1976: 75). This poses one of the most critical
questions for a marxist analysis of the state: How can an institution that reproduces class antagonisms, that legalizes and perpetuates oppression in a society, also appear to moderate the class struggle and create order in that same society.

To understand this contradictory role we must first acknowledge that the order which the state imposes on society is a very particular kind of order -- the order of cohesion. It depends first and foremost on force and coercion but works best when the discipline appears as spontaneous consent to a "common" or "necessary" social order. We again return to this notion of the "state as educator" in order to fully grasp the twin responsibility vested in the state. Besides the coercive role (based on punishment through the legal system) the state also assumes a role of leadership (one based on positive education). The state that embodies these properties in a comprehensive manner is the liberal democratic state. It operates "normally" through leadership and consent backed up by the "armour of consent" -- coercion (Hall et al., 1978: 203). Contained within the liberal democratic state are the essential preconditions for the exercise of hegemony: 1) a structure of representation; 2) the organization of social interests through parliament and political parties; 3) representation of economic interest in trade unions and employers' federations; 4) provision for the expression of public opinion; 5) provisions for the state to influence private associations in civil life (Hall et al., 1978: 203).
The state therefore becomes the organizer in capitalist society. Organizing on behalf of capital through its relationship to the accumulative process, the judicial system (governing exchange), the education system (ideologically), and mediates civil and social life (through the welfare state). Finally, the state organizes through politics (political parties and political representation). Two aspects of the state's organizing ability require further discussion: its organization at the level of politics and the law.

We will recall that the state reproduces class relations, however, individuals do not appear as members of a class in society, they appear as "individual citizens". They are constituted, through politics and legal institutions, as political subjects and legal subjects. Class subjects are inserted into institutions of the state (politically and legally) and reappear as subjects of the state. This process removes the economic aspects of class relations but has some far reaching implications as Hall et al (1978: 206) point out:

The political-juridical domain establishes the central points of reference for other public ideologies. The ideological concepts of this sphere predominate over others: the language of liberties, 'equality, rights, duties, the rule of law, the legal state, the nation, individuals/persons, the general will, in short all the catch words under which bourgeois class exploitation entered and ruled in history' becomes paramount.

The state becomes universal and appears above the specific struggle that operates in society. Its concerns are with the general public, the public will and the consent of the public.
This has manifested itself in two ways. First of all, through universal suffrage, the liberal democratic state has broadened its base of support to include both the bourgeoisie and the working class. This has increased both its legitimacy and its appearance of autonomy. Secondly, two features of the state have produced this independence, while at the same time maintained it as a relative autonomy. In order to understand how this is accomplished, we must link two previously mentioned features of the capitalist state; the fact that the state is the site of class struggle and that the state turns economic classes into political classes, thereby rendering the economic invisible. Poulantzas (1976: 74) states clearly that the relative autonomy of the state is founded on its ability to separate the economic and the political. Furthermore, because the state is the site of class struggle, it too is "shot through" and constituted with and by "class contradictions". "... (T)he bureaucracy ... is not a group standing above, outside, or to one side of classes ..., but one whose members also have a class situation or membership" (Poulantzas, 1976: 75). This is particularly important because it means that the state structure itself is divided along class lines. "The various organs and branches of the state ... reveal major contradictions among themselves ..." (1976: 75). Although this explains why the state can maintain autonomy from the capitalist class in society it also explains why that autonomy can only be "relative". Poulantzas continues "... each of them (state branches or organs) frequently constitutes the seat and the representative -- in short, the
crystallization of this or that fraction of the power bloc, this or that specific competing interest" (1976: 75). This is why state intervention often appears chaotic and contradictory increasing the likelihood that it will be seen as responding to 'national', 'common' or 'public' interest since no one class appears as being dominant. This universal state provides, what Hall et al (1978) call, the 'theatre' for the organization of hegemony. The state's role as organiser of consent now becomes more critical because not only must consent be won through obligation but also through obedience.

2.14 The State as Superintendent

In the course of the state becoming more liberal and democratic the law also becomes progressively autonomous. While law is the site of the coercive aspects of the capitalist state (police, courts, statutes) it remains legitimate because its foundations are grounded in popular representation and 'the will of the people' as expressed through parliament (Hall et al, 1978: 206). However, the rule of law is not merely an illusion although at times it has a contradictory nature. The law, which is the voice as well as the arm of the liberal state, has provided the working class with substantial rights and protection. To do this has often meant the regulation of capital itself. This is seldom agreeable to capital but at the same time has been acceptable mainly because once again it has been presented as in the national interest. There are some obvious limits to this argument since the term 'acceptable' also carries with it the notion that certain individual capitalists
have no recourse but to submit to the authority of the law. Furthermore, in advanced capitalist formations the state must organize the unity of the bourgeoisie. This is due to the uneven development of capitalism, which is based on competition. We must recall from our discussion on hegemony that a hegemonic bloc or alliance of class fractions forms to lead and direct thought and action within the capitalist social formation. This alliance becomes known as the power bloc, and represents a contradictory unity of politically dominant classes and fractions divided along lines of function, region and nationality (ethnicity). Precisely because their unity is divided the state must become an agent to ensure that particular fractions of the bloc make concessions in the interest of the bloc as a whole. "The increasing intervention of the state in the economy must, therefore, be seen not only as the result of working class struggles but also as the consequence of conflict within the power bloc and the need to maintain the hegemony of a particular fraction of the bloc - the weighty, authoritative part" (Mahon, 1977: 169). Therefore, from time to time the state must exercise its role as 'superintendent' because a system based on competition has proven unable to perform the task itself.

Independence does not, however, guarantee impartiality since many of the judicial apparatuses of the state have performed useful tasks on behalf of the development of capital. Nevertheless these tasks must be performed within structures that comply with the principles of an autonomous state and the ideology that the
rule of law is also autonomous. This points to a complex dialectical tension to which the judicial institutions of the state must conform. One of the fundamental principles of these organizations is that all persons must appear equal before the law. The legal system must equalize things that cannot be equal, like class relations. Class subjects appear as individuals but the relations that make up a class society are enforced by the law and in so doing, class exploitation is reinforced and legitimated. "The inscription within its legal forms of the key relations of capital--private property, the contract -- is no well kept secret. If the law demarcates illegal forms of appropriation, it makes the legal forms public and visible -- the norm --"and sanctions them positively" (Hall et al, 1978: 208). But the law does not stop there. Just as the police and the courts are there to protect individuals, so the legal system is there to preserve public order. Consequently, "... under this rubric, it frequently secures, in moments of open class confrontation, just that stability and cohesion without which the steady reproduction of capital and the unfolding of capitalist relations would be a far more hazardous and unpredictable affair" (Hall et al, 1978: 208).

Class relations are not concealed within legal institutions of the state, rather they are held up as the model of social relations. Judicial logic and the judicial norms of evidence and proof come to represent all that is impartial, independent and above class interest. The law comes to stand for social order, "... the most formal representation of universal consent" (Hall et al, 1978: 208).
Until now we have concentrated our efforts on how the hegemonic order is expressed through the institutions of the state and civil society. Since hegemony must constantly be reproduced we must spend a few moments discussing what occurs when this total social authority is called into question. How does the state respond when its policies fail to gain the consent of the public or when contradictory class relations become so blatant that social order is threatened?

2.15 The Crisis of Hegemony

Many liberal democratic countries have developed along similar lines. In fact five characteristics highlight the social formations of most advanced capitalist nations: 1) the organization of a significant portion of the working class; 2) the plurality of capitalist interests; 3) the transfer of state power from parliamentary to executive branches of government; 4) the development of a bureaucratic civil service to handle these new tasks and; 5) substantial state intervention in the economy (Mahon, 1977: 166). This is the modern "welfare state" where intervention takes the form of policies and programs to regulate the level of demand, influence investment, protect employment levels and even manage wages and prices. In short, the state through its various branches tries to manage the frequent and ever deepening crisis of the capitalist system. This has had serious repercussions for the welfare state. Attempts to absorb all the economic and social tensions that epitomize class struggle have increased the visibility of the state. In many instances the failures of capitalism have
been interpreted as the inefficacy of the state. Consequently, as the state tries to negotiate compromises with the working class; as it tries to regulate and encourage capital investment; as it tries to fulfill its obligations to the capitalist system, the state fairs rather badly. The result has been the expansion of the economic class struggle into the political arena where the state attempts to balance concessions with restraints. With increasing frequency the economic and social crisis of capitalism have become a crisis in the management of the state, "a crisis of hegemony" (Hall et al, 1978: 214).

The crisis of hegemony requires that the social authority of the state be exercised if it is to once again provide the cultural and ideological leadership necessary to shape the direction of social life. As Hall et al (1978: 217) indicate, "a crisis of hegemony marks a moment of profound rupture in the political and economic life of a society, an accumulation of contradictions". It is important to remember that hegemony is always being contested, it is never "given", it is "won". Therefore, within the state there are already mechanisms, departments, and laws whose function it is to maintain the balance of class relations. When the cultural leadership and political authority of the state is challenged the coercive mechanisms of the state appear. Not simply to mend the ruptured social formation through force or legal authority, but to return society to a "normal" period where consensus is reached and conflict disappears. The crisis of hegemony presents "an 'exceptional moment' in the 'normal' form of the late capitalist state" (Hall et al, 1978: 217).
This statement has great importance for our study since these 'exceptional moments' provide a unique opportunity to see the state 'unmasked'. As state mechanisms and departmental functionaires try to repair the damaged social fabric, we observe them running through 'well rehearsed repertoires' as they provide authoritarian direction toward renewed universal consensus.

We would argue that one such 'exceptional moment' is the workplace disaster. A moment when contradictory class relations become too visible. We have already stated why the state must intervene following a large scale workplace accident. Our discussion on hegemony has pointed out the extremely important role the state must play not only in resolving conflict but preventing it from arising. When a workplace disaster occurs the state is drawn into the arena of class struggle and conflict. Through the process of renegotiating the compromises, between labour and capital, that existed prior to the disaster, the state becomes the 'terrain on which hegemony is won or lost'. This means the renegotiated compromise will reflect the state acting as superintendent over the capitalist system; imposing its legal authority on sections of capital so that the system, as a whole, will be maintained. Furthermore, it means subordinate classes will be inserted into the institutions and structures of the state; structures that support the power and social authority of the dominant order. Through these structures, they will live their subordination.
To examine and explain the hegemonic domination that is secured through the state we must look at concrete situations, concrete historical moments within a specific social formation. We have chosen as our first concrete situation a workplace disaster that occurred in Glace Bay, Nova Scotia on February 24, 1979. The accident occurred in Number 26 Colliery, owned and operated by a federal crown corporation. Two days after the explosion occurred a Commission of Inquiry was established to investigate and report on the cause or causes of the accident in the Glace Bay coal mine. The next chapter will look at the report of that inquiry to determine not only the conclusions of the report but also how the inquiry was structured. To begin our task we must situate the authority of the commission within the Inquiries Act of Canada.
Footnotes

1 The difference between "natural" and "man-made" disaster will be dealt with in more detail later in this chapter.

2 Turner (1976: 755-757) suggests that a disaster produces unwanted consequences that result from the collapse of precautions that were culturally accepted as adequate. Simply put, this means a disaster is a challenge to existing cultural assumptions. We infer from Turner's explanation that disaster is culturally defined. Later in our discussion we will point out to the reader a particular definition of disaster, within a particular type of culture. We will show that a particular definition of disaster carries with it implications of how the event will be dealt with "effectively". In a later footnote we define the concepts culture and hegemonic culture.

3 Turner was examining inquiry reports and documents to trace the sequence of events in a disaster and thereby develop a model that would take into account the "mistakes" made prior to the disaster as well as events that occurred after the disaster "moment". Because of the vague title of some of the reports it was not possible to determine if they were workplace related. Seven may in fact be a conservative estimate.

4 Stage I Notionally normal starting point; Stage II Incubation period; Stage III Precipitating event; Stage IV Onset, Stage V Rescue and salvage; Stage VI Full cultural readjustment.

5 It could also be argued that wars or terrorist bombings are man-made disasters that are deliberate and calculated but these acts are not the focus of the thesis.

6 A fourth theme is now appearing in the literature. Based on a marxist analysis of class relations in society this approach posits that injury, illness and death on the job result from the fact that workers have no control over the speed of production, the materials used or the methods of remuneration for their labour. Because it is openly critical of capitalist relations in society this approach is not popular with management nor with state officials. Accordingly, it seldom enters the realm of "official" explanations for workplace accidents.

7 Deviant behaviour in this context means actions, by individuals, that are outside of an acceptable norm. These include panic, hysteria, or actions that are dangerous to others. It can also have a criminal connotation, such as looting, but we do not primarily mean it in these terms.
"When the dominant values, the accepted rules of the game, and the instruments of force, singly or in combination, effectively prevent certain grievances from developing into full-fledged issues which call for decisions, it can be said that a nondecision-making situation exists" (Bachrach and Baratz, 1963: 641).

The notion that worker accidents were an expense to the employer appeared while researching an earlier paper. See Taylor (1983) for details.

Morgan (1981) discusses the individualization, bureaucratization and professionalization process that turns political and economic problems into social ones.

For the purposes of our analysis the term "state" will include the executive and legislative branches of government, the administrative bureaucracy, the judiciary, the army and the police. It must also be understood that the state is a relationship and as such is more than the sum of its parts.

We will develop the state's role as protector of the capitalist system in more detail in the next section.

It appears that Offe is speaking in a very broad sense here. Incidents of the state intervening and stopping production due to defective products are numerous. However, it appears the production process can only be interrupted rather than stopped altogether. The role of the state as supervisor or "superintendent" of capital will be taken up in the latter sections of this chapter.

Most state policies have the dual role of fulfilling both an accumulation and a legitimation function in society. See O'Connor (1973: 6-7) for a discussion of this point.

To understand the argument in the next few pages we must define two concepts: culture and hegemonic culture. Clarke et al (1976: 10-11) "understand the word culture to refer to that level at which social groups develop distinct patterns of life, and give expressive form to their social and material life experience. ... Culture is the practice which realises or objectivates group life in meaningful shape and form. ... A culture includes 'the maps of meaning' which make things intelligible to its members. These 'maps of meaning' are not simply carried around in the head: they are objectivated in the patterns of social organizations and relations through which the individual becomes a 'social individual'. Culture is the way the social relations of a group are structured and shaped: but it is also the way those shapes are experienced, understood and interpreted."

Because individuals are 'born into' ready made institutions, structures and configurations of meanings they are not only given access to, but also located within a culture. "Men and women are,
thus, formed and form themselves through society, cultures and history ... But this practice only takes place within the given field of possibilities and constraints" (Clarke et al, 1976: 11). However, these statements indicate that different cultures co-exist in society and just as different groups and classes are unequally ranked in relation to one another so are cultures -- standing in opposition to one another, in positions of dominance and subordination. "But when one culture gains ascendancy over the other and when the subordinate culture experiences itself in terms prescribed by the dominant culture, then the dominant culture has also become the basis of a dominant ideology" (1976: 12). Despite its position, the dominant culture is never homogeneous. "It is layered, reflecting different interests within the dominant class, ..., containing traces from the past ..., as well as emergent elements in the present" (1976: 12). From this relationship of dominance and subordination between cultures in society we can see that they are always, to some degree, in struggle with one another. Not always in open conflict but a "process of incorporation and resistance which define the cultural dialectic between them; and to the institutions which transmit and reproduce 'the culture' (i.e. the dominant culture) in its dominant or hegemonic form" (Clarke et al, 1976: 13).

16 For a discussion on the rise of democratic forms of government see Therborn (1977).

17 The arguments discussed in the following two sections come from Hall et al (1978), particularly pages 206 to 217.
CHAPTER 3

EXPLOSION AND FIRE IN

NO. 26 COLLIERY, GLACE BAY

NOVA SCOTIA
3.1 The Glace Bay Commission of Inquiry

This chapter is designed to fulfill two functions. First, it will acquaint the reader with the research techniques that will be employed to "deconstruct"* the official examination of the coal mine disaster in Glace Bay. To this end, we will discuss the function of official statements (i.e., official or state discourse) in which judicial and intellectual knowledge are transmitted into political practice. It will be argued that official discourse is but one part of the constant renewal of hegemonic domination and the reproduction of specific ideological social relations in society. When a crisis of hegemony occurs the state acts to repair the torn social fabric. The action is often swift and coercive but must also be 'natural'. One frequently used political tactic is to appoint an "impartial" inquiry to deal with the problem. Therefore, in this chapter, we will spend time explaining the authority under which these inquiries are established in Canada.

Secondly, we will examine the official report of the disaster. This will be done in a way that will expose it as a specific practice in the reproduction of hegemonic social relations. Consequently, our investigation must evaluate conclusions that are made in the document. This example of official discourse must be viewed as a confrontation with, and an appropriation of, unofficial versions of a crisis in capitalist social relations. Furthermore, we must see the inquiry as an ideological practice of the state: a practice that has the power to close off popular doubt and dissent.

*Deconstruction is a reading that re-opens and denies the claims made by the authors of official reports.
The first chapter of this thesis gave the reader an historical account of the frequency of state involvement in the lives of Cape Breton workers. It also reported on some of the organized methods coal miners have used over the years in an attempt to resist not only the control of management but also the control exercised by both the federal and provincial state. In the first section of this chapter, we would like to introduce the reader to the life and work of coal mining. We will then move into an explanation of the Public Inquiries Act of Canada. This is followed by an examination of state discourse and the chapter concludes by analyzing the Glace Bay Commission of Inquiry document.

3.2 The Underground World

Few people know much about coal mining (the author included); fewer still have ever been inside a coal mine. In reading this chapter, it will be helpful to understand what a coal miner "lives through" each day he goes to work. A lack of personal experience has made it necessary to rely on accounts written about coal miners and "their world". The following comes from Pitt (1979: 54-59)^2:

The miner has to live for over seven hours underground every working day. He must adapt himself to a totally alien environment, and abandon many of the standards of safety, comfort and hygiene which most workers have come to take for granted at their place of work. Miners say that when a man goes down the pit he leaves the 'human bit' behind on the surface.

Over the generations, miners have had to learn to make the best of the worst conditions that nature and the profit lust of men can devise. It has become so much of an ingrained habit for many men that they will not make an issue
of deplorable conditions which a little thought and investment could easily remedy. But beneath this grim outer shield of the miners' resignation to exploitation and bad conditions, there runs a continual, nagging resentment which will, quite suddenly, break out and manifest itself in long and bitter industrial struggle, when a whole period of acceptance and retreat is challenged. Such period eruptions are marked by a determination and solidarity which are a product of the unique milieu of the mine. The dirt and danger underground begets a human comradeship which miners who leave the pit never find, and continually miss, in other walks of life.

The contradiction between the terrible physical environment and the close companionship of the pit creates a near schizophrenic state of mind. The pit is always the 'bastard hole', hated by the miner with the bitter venom normally reserved for a personal enemy.

The miner develops another self which is continually learning how to survive underground. Because the coal-face is continually advancing into new ground, the miner is confronted everyday with new and unknown dangers. He is like an explorer, or deep-sea diver, who uses his past experience to understand the signs which tell him the nature of the ground he is going into. He has to employ his senses of sight, hearing, touch and smell to divine the hidden hazards of the disturbed strata.

Once it was a general rule that miners came solely from mining families, grew up and went to school with their future workmates in the same mining village. They were weaned on the still incessant talk amongst miners about mines and mining. When they went down the pit immediately on leaving school, they already knew the rudiments of the job and the peculiarities of pit terminology. Before the war, they would be trained by their fathers and work in a team composed of cousins, uncles and brothers. The pit was 'all Brother and Bob'. In later, more formal days, after nationalisation, 'green' labour was trained by special instructors, and young miners would challenge the way they were shown to turn a pan, or set a girder. 'That's
not the way my father does it!' was the final answer in an exchange of views between a trainee and his instructor.

This exclusive circle of pitmen is extremely strict on its rules of membership, and underground management is quite definitely outside its limits.

The ostracism of officials by the men stems from their function as the 'eyes' of the Board. Though the deputy's official responsibility is the safety of the working area, testing for gas, inspecting the supports, etc., they have become primarily supervisors of the men. In addition, their numbers have dramatically increased over the last few years, and the image of the 'bosses' nark' has grown in proportion. No man likes to work under the eyes of the master but, in the pit, where every man evolves his own particularly personal way of doing the job, the interference of a deputy or overman is quickly resented, especially when an official is known to have never done the job himself.

The very geography of the pit makes constant supervision impossible, and the advance of the face depends entirely on the cooperation and self discipline of the men.

The supervision of the officials is considered both insulting and irrelevant, a reminder of the hated master-and-man relationship...

Words like 'comradeship', 'solidarity' and 'companionship', may suggest that an aura of sentimental affection permeates the pit, and that miners are continually exchanging kind words and deeds. In many ways, the complete opposite is true ... Miners rarely converse underground without exchanging a series of highly imaginative epithets which often become a set routine between a pair of individuals ... A continuous stream of insults and epithets, remarkable in their ability to wound, is the common mode of address in the pit, and a swift rejoinder is the only effective defence ... This incessant exchange of caustic wit and rudeness is symptomatic of the close ties between the men.

Men underground are confined for long periods of time in a close space and in a situation of extreme danger and, of necessity, soon get to know each other extremely well. Every man has to rely on
his workmates' ability and skill to ensure that the job is kept safe, and to get him out if anything goes wrong. A man is soon discovered if he does shoddy work, or is liable to panic in moments of danger.

Though everyone makes his opinions publicly known on almost every subject under the sun, and arguments are long and fierce, once a decision is taken by the union branch, pitgate meeting or a team of men underground, there is an immense pressure for conformity. 'Unity is strength' is a lesson which the miners have had to learn through hard experience, and a dissident is rapidly brought into line with the collective will.

Having briefly outlined the daily world of miners, we can turn our attention to events in coal mining that makes it a habitually dangerous activity. In addition to the hazards of rock falls and injuries from machinery, miners must always contend with risks that are peculiar to coal mining. The most infamous of these dangers is a sudden shift in the coal strata. Commonly referred to as "a bump", a number of explanations have been provided for this phenomenon. One holds that "bumps" are caused by an upheaval of subterranean gas which forces the floor of the mine to push upwards. A second theory claims that pockets of intense pressure exist in the coal formation. The strata of coal in the mine is constantly "working" (settling and shifting) to compensate for the changes that occur as coal is removed. As the "face" approaches a pocket of pressurized coal, there is a sudden shift in the formation that pushes coal out into the roadways and open areas where mining is being done. Some coal mines are reputed to be more susceptible to this geological anomaly. (McKay 1983: 8)
The presence of methane gas (also known as fire damp or black damp) and carbon dioxide (coke damp) produce additional risks. Both these gases are produced by coal and in large concentrations are fatal to breathe. Methane also poses a further problem of being explosive when mixed with air in concentrations of from five to fifteen percent. This is of particular concern at the coal face or wall where coal is being extracted. Should an explosion or fire occur, carbon monoxide (after damp) presents yet another hazard in the immediate area but also in other sections of the mine should it be picked up and carried by the ventilation system (Cameron, 1973: 129). The explosion in the Glace Bay mine resulted from methane gas but the actual medical cause of the miners' death was from carbon monoxide poisoning. Let us turn our attention to that particular disaster and the statutes of Canada that made the investigation of it possible.

3.3 Explosion and Fire in Number 26 Colliery

In some respects our task begins where the commission of inquiry leaves off. We are concerned with more than the causes of the mine disaster in Glace Bay, therefore, we must first investigate the structure and the authority under which the inquiry was commissioned.

Two days after the explosion, federal Minister of Labour, Martin O'Connell, appointed Roy Elstrom to begin an inquiry into and concerning the explosion that had occurred at the Devco coal mine on February 24, 1979. The statute that allowed the commission's appointment was Subsection 86(1) of the Canada Labour Code (see Appendix II). However, the terms of reference of the commission
are outlined under Part I of the Inquiries Act of Canada (see Appendix III). The scope of the act itself and the power contained under it is very broad. "The Governor in Council may, whenever he deems it expedient, cause inquiry to be made into and concerning any matter connected with the good government of Canada or the conduct of any part of the public business thereof." (Canada, 1970: 4359). The commissioner, appointed under this act, can require the attendance of witnesses and compel them to give evidence under oath. The commissioner also has the authority to request documents or other pieces of evidence that are considered necessary for a full investigation by the inquiry.

At the time of his appointment, Mr. Elstrom was Director of Occupational Safety and Health for Labour Canada. In his summary of the events that occurred at the Devco mine the following observations were made:

- **About five to ten minutes after four o'clock on the morning of February 24, 1979 an explosion occurred in 12 South section of No. 26 colliery, Glace Bay, Nova Scotia, operated by the coal division of the Cape Breton Development Corporation.**

- **Most evidence points to methane produced from the coal being cut having been ignited by incendive sparking produced by the action of the shearer's steel picks which continued to cut for five seconds into a high ignition potential type of quartzitic sandstone.**

- **The persons who were injured suffered various degrees and extent of burns, but death in each case of fatal injury was due to carbon monoxide. Two of the injured later died in hospital.**

(Elstrom, 1980: v, vi)
If we were conducting a traditional sociological study of disaster, we could content ourselves with the above explanations of what occurred shortly after four o'clock on February 24, 1979. In some respects we do not even need to know what physically killed and injured the sixteen miners in Glace Bay. Our concern is with the role and function of the commission of inquiry in repairing not only the 'torn social fabric' of Glace Bay, but of every other mining town or village in Canada that will experience a disaster of greater or lesser proportion in the future. We must therefore acknowledge that the inquiry had a mandate much larger than the one explicitly stated on the first page of the report. We argue that the inquiry's 'task' was implicitly much greater; it was to renew hegemonic domination in society and reproduce specific ideological social relations. We, therefore, contend that the official report & the mine disaster has been constructed in a particular way: first, asking specific questions, which eliminate others; then answering these questions in ways that appropriate unofficial versions of this particular crisis episode. The next section of this chapter must be spent defining state discourse and explaining how it comes to produce and reproduce political and ideological hegemony.

3.4 State Discourse

Chapter II noted that with increasing frequency, the economic and social crises of capitalism have become defined as "crisis of hegemony" or a crisis in the management of the state. We suggested that following a crisis of this kind the state acts swiftly and
often coercively to re-establish order. A popular tactic used to accomplish this is the appointment of an "impartial" inquiry. This is important because not only is the state doing something about the crisis, but as physical preparations are made it is also "seen" to be doing something. This well-rehearsed and routine maneuver provides authoritative direction and is designed to assemble the facts of the problem, assign a quasi-judicial form of blame or cause, then recommend reforms that will inhibit future occurrences. As Burton and Carlen (1979: 13) suggest, "The function of official statement is primarily to allay, suspend and close off popular doubt through an ideal and discursive appropriation of a material problem." However, the appropriation of 'the problem' (health and safety in mines) is not left to any haphazard construct. Rather, the problem is reconstructed using established modes of ideological recognition such as discourses on law, epistemology, social science and common-sense. "The text achieves articulation by its activation and manipulation of subjects, objects, themes, statements, and theories already grounded in other modes of signification." (Burton and Carlen 1979: 45). But state discourse must do more than reconstruct a problem, it must do so using the language of administrative rationality, normative redeemability and consensual values that produces a specific and meaningful reading of the problem. The reading is both democratic and reproduces notions of free choosing, discriminating subjects with the state claiming to be their agency (Burton and Carlen, 1979: 46).
Within the text of the official statement, political and ideological hegemony must be 'won' and to do this the state must proclaim that it is legally and administratively rational. The report, like the state, can never be totally repressive, it must also educate and instruct by example. Therefore, hegemonic discourse must achieve two functions simultaneously: 1) It must politically incorporate the dominated classes in society and; 2) It must sustain the confidence and knowledge of the hegemonic fractions. (Burton and Carlen, 1979: 48).

Burton and Carlen's (1979) discussion delineates three tasks for official commissions of inquiry. First, the problem (i.e. crisis) under investigation must be designated as a temporary failure and therefore can be repaired or eliminated (i.e. mine disasters can be prevented). The crisis can also be designated as no failure at all by inviting the audience to see it as a case of human fallibility or of mistaken allegation. Secondly, the state, vis à vis the inquiry, must re-establish an image of legal coherency and administrative rationality. This image must be projected to the reader of the report in intelligible forms that celebrate dominant normative principles such as self-autonomy, judicial authority and common sense or natural reason. It must also embody democratic principles such as the universal state, the general will of citizens and the exhaustive investigation of facts. Finally, the inquiry must produce a discourse of unity and cohesion among the various parties, elites and state functionaries represented on the inquiry. The official document, which is the product of the inquiry, can
be seen to represent a system of intellectual collusion (at a structural level) whereby intelligentsia (lawyers, experts) transmit forms of knowledge into political practices. "The effect of this process is to replenish official arguments with both established and novel modes of knowing and forms of reasoning" (Burton and Carlen 1979: 7).

The audience of the inquiry, however, is not the masses but is rather the representatives of the masses (i.e. lawyers, union officials, state functionaries). The inquiry must first and foremost gain the consent of these representatives and participation itself is a tacit first step in the consent process. This is achieved through expert testimony, objective or scientific information and by explanations of events that are received but are not reflexive. In true liberal democratic form the representatives must then interpret and disseminate the report to the interested members of the groups for whom they are advocates. This fact gives legitimacy to the report since the delegated authority of the group now articulates in a particular way those 'facts' of the report that are of particular interest in their constituents. The inquiry becomes a point of mediation (the theatre) in the reproduction of hegemony. The state's ability to organize consent in society delineates alternative explanations for the problem, and, therefore, excludes from knowledge production all but the few experts included in the inquiry. Consensus is arrived at and reproduced through the representatives of the various groups involved in the inquiry. Having judiciously reconstructed the disaster event, the commissioner, being fully cognizant of the facts, can now adjudicate on the designated crisis/problem.
The majority of the population, the working class, is inserted through their representatives, into the key institutions (inquiries) and structures (rule of law) which support the power and social authority of the dominant order. In these structures and relations a subordinate class lives its subordination (exploitation and domination). Often, this subordination is secured only because the dominant order succeeds in weakening (through expert opinion), destroying (through judicial investigation), displacing (through scientific explanation) or incorporating (through unions and lawyers) alternative institutions of defense and resistance thrown up by the subordinate class.6

Hegemonic domination, in this instance, is arrived at through the consent of the representatives of the capitalist and working class.7 This means that official explanations of events, like workplace disasters, are interpreted through representatives (top down knowledge production). Furthermore, unofficial explanations for events, which originate in the general population, may be taken up, reified and reconstituted in the language of official discourse by the representatives of the working class (bottom up knowledge production). Regardless of the origin of knowledge, the state remains in control of the final process of producing and reproducing specific ideological social relations: relations that place, fix and orient subjects to desired positions where subordinate classes can live their subordination and where the power bloc can cement and unify its dominant position.8
We must now discuss the "deconstruction" of the official document itself. How can it be reopened, re-examined and exposed as a specific practice in the reproduction of hegemonic order? In the next section we will be presenting three concepts that will be addressed to the overall report. Then specific questions will be posed and answered directly from the text. We will reveal a particular structure in the report: a structure of knowledge production and reproduction that allays, suspends and closes off popular doubt through an appropriation of the crisis/problem.

3.5 The Elfstrom Report

In the previous section we stated that the official inquiry had to accomplish three tasks: 1) the designation of the crisis/problem as a temporary failure, a case of human fallibility or a case of mistaken allegation; 2) the re-establishment of an image of the state that embodies legal coherency and administrative rationality; 3) the production of a discourse of unity and cohesion among the representatives on the inquiry. In other words it must manufacture the consent of the representatives to the official explanations contained in the text of the report and thereby reproduce hegemonic order.

To demonstrate that these three tasks have been achieved we must designate them as higher order concepts that the report must address. We will then examine the overall report for evidence that in fact these concepts are expressed in the discourse. The higher order conceptual levels will be:
Temporary failure, human fallibility, mistaken allegation (Level 1).

Legal coherency and/or administrative rationality (Level 2).

Manufacturing the consent of representatives, thereby reproducing hegemonic order (Level 3).

Under each broad level specific questions will be raised or asked of the text. In each case the question will come from our reading of Burton and Carlen's discussion on the form and function of official discourse. The answers will be generated from the dialogue of the report itself, followed by an explanation or interpretation.

3.5 A The Elfstrom Report - Conceptual Level 1: Temporary Failure, Human Fallibility, Mistaken Allegation

We begin the analysis of the report by arriving at an understanding of the three concepts temporary failure, human fallibility and mistaken allegation. The first two terms are closely linked but require independent explanations. We must initially acknowledge that the crisis event is in fact a failure. It has been suggested by Turner (1979) that a disaster represents a deficiency in the accepted norms, statutes and laws to maintain order in the society and assure the safety of citizens. If the repercussions of the disaster are to be lessened or dispersed then the event must be defined as an exception rather than the rule. In other words, the event is a temporary failure in an otherwise normal situation.

It is here that one of the great maxims of commonsense finds its place. All worldly endeavors are destined to fail (at least temporarily) because humans are fallible. The rules that govern
society are broken because men and women are, after all, mortal. Subsequently, human error becomes the material reason for the occurrence of the event.

The notion of mistaken allegation requires that we further analyze the text. Following a crisis unofficial interpretations of the events can lead to accusations that can threaten the state's legitimacy or the "official" interpretation of the incident. Rather than ignore these allegations the report must try to neutralize the assertions and in the process, appropriate the inconsistencies that arise between the "official" and "unofficial" explanations for the crisis episode. One technique "places allegations in a context which invites the reader to understand how such complaints arise but also how they are mistaken" (Burton and Carlen, 1977: 401). The authors of the report, being fully cognizant of all the factors in the case, have access to privileged information. Therefore, they are in a position of authority to reconstruct the states of mind, opinions, and meanings of individuals and thereby infer the "real" motives, plans or tactics of the actors involved in the crisis moment. In short they can apply subjective meaning to objective information. In addition the report invites the reader to arrive at a logical, natural and commonsensical understanding of the events through the selective composition of testimony (Burton and Carlen, 1977: 400-402).

The three key concepts of temporary failure, human fallibility and mistaken allegation are contained primarily in Operations Prior to the Explosion and Inquiry Findings (Sections 2 and 5 of the report). Within section 2 the reader is assured on numerous occasions that
the days and hours and in fact up to a few seconds prior to the explosion that work was proceeding in a normal and acceptable manner. Operations were considered routine and no dangerous conditions or abnormalities were reported. The mechanical and electrical systems were all operational.

The report must construct for its readers a "disaster sequence" in which events can be put together as a totality. In keeping with a notion of judicial epistemology a post-factum reconstruction is begun which requires an exhaustive probe of the facts. In this context, section two commands an important and central position of informing the reader that the explosion was an exceptional moment in an otherwise normal routine operation. What happened did not occur because people were doing anything unusual. Later in the report the routines that were followed in No. 26 Colliery are questioned but at the time of the explosion management and workers thought they were operating properly.

Section five (Inquiry Findings) introduces us to a different line of argument, one in which we are reassured that there are sufficient federal regulations and statutory requirements that, if followed in a conscientious fashion, would ensure the extraction of coal with minimum risk. There is a condemnation inherent in these statements for shortly after we are told there were inadequacies in the inspection, maintenance and operating procedures used in the mines. Furthermore, there was a lack of familiarity with the safety regulations of Labour Canada. It was also noted that the chief
inspector was aware of misleading information from methane tests and air samples but took no action to correct it.

Six and a half pages of the report are devoted to a discussion of the continuous recording methane monitor (Seiger BMI). The reader is exposed to a detailed description of the monitor, the problems that had been encountered with it such as improper location, its malfunctions, the deliberate obstruction of the sensing head and incidences when the monitor was disconnected. Also reported were occasions when coal was extracted when methane levels were at or above the maximum allowable concentrations. Included in these pages is a discussion on the failure of mine personnel to use the information available from these monitors to improve and regulate the ventilation system.

Within section five the reader is informed that "sweeping allegations" that the production bonus agreement was a major cause of the explosion were not substantiated in the investigation. The reader is invited to see that the bonus paid under this plan "could not rationally be considered as sufficient incentive for anyone to risk an explosion" (Elfstrom, 1980: 33).

Finally, the situation at No. 26 Colliery had not been a harmonious one. "The failure of management and union to understand each others view points and concerns ..." had led to thoughtless or malicious damage to equipment (Elfstrom, 1980: 36). In fact this "breakdown in interpersonal relationships on the job can result in criminally irresponsible actions" (Elfstrom, 1980: 36). The criminals are easy to identify, however, as we learn from the
report. During the inquiry an incident occurred in which "an employee telephoned the Inquiry office requesting the Commission to inspect an emergency runaway track switch in the archdeep. When investigated by the Commission and the mine manager it was found to be 'spiked' making it inoperative." (Elfstrom, 1980: 36 emphasis added).

In order to continue explicating and deconstructing the report we ask the following question: What is the official cause of the explosion? Most evidence points to methane produced from the coal being cut having been ignited by incendive sparking produced by the action of the shearer's steel picks which continued to cut for five seconds into a high ignition potential type of quartzitic sandstone.

(Elfstrom, 1980: v)

Elsewhere we learn:

The primary cause of the explosion was the inadequacy of the wall face ventilation that did not prevent the ignition from propagating into an explosion.

(Elfstrom, 1980: vii)

Finally, we are told:

A major cause of the conditions and practices that led to the explosion was that the employer, employees and the regulatory authority did not recognize that technical knowledge (i.e., knowledge of mining methods, ventilation, instrumentation, special management techniques etc.,) is required as well as experience, to safely use the highly mechanized machinery and equipment that is necessary to reach the corporation's production goals.

(Elfstrom, 1980: xi)
We, therefore, draw the following conclusions from our analysis. To avoid repetition we will summarize our findings under the appropriate headings.

Temporary Failure          Human Fallibility          Mistaken Allegation
1. The mine was operating routinely at the time of the explosion. However, the routine was questionable. 1. Routine adherence to inspection maintenance and operational procedures that were inadequate. 1. The production bonus system was not the cause of the explosion.
2. There were sufficient regulations to prevent explosions. 2. Lack of familiarity with safety regulations. 3. Deliberate obstruction of methane monitors.
3. The extraction of coal when methane was at or above maximum concentration levels. 4. Monitor information was not used to improve ventilation system.
4. An inadequate ventilation system that can be improved upon. 5. Poor labour-management relations.
5. Technical knowledge that needs to be improved. 6. Irresponsible workers.

We argue that the report emphasizes the transitory nature of the disaster when in fact previous inquiries found similar problems. The report also assumes a paternalistic attitude toward the workers. First by denying that they could have "knowledge" about the dangers of their workplace and second by trivializing their concerns that the production bonus system was producing unsafe practices and unsafe conditions in the mine. This particular explanation of the crisis shifts the problem from a structural level (eg. the problems result from the constant need to accumulate more capital) to an individual level (the problem results from humans not doing their job properly). We must now move on to the second higher order concept and repeat the procedure that has been employed.
3.5 B The Elfstrom Report - Conceptual Level 2: Legal Coherency, Administrative Rationality

The concept legal coherency is defined broadly to mean following a procedure that embodies the aspirations of judicial epistemology. This includes attempts to recreate the totality of the explosion event though comparative analysis, research, objective and/or independent evidence. This allows the commission to arrive at conclusions based on factual knowledge and expert opinion.

If legal coherency is the desired image the commission wishes to project, then administrative rationality is the inquiry's modus operandi. This is accomplished through an adherence to bureaucratic procedures, recommending changes using proper channels of hierarchy and the establishment of an institutional form of liberal democracy and the tripartite committee. The rationality of the inquiry is further expressed by appropriate notification of other government bodies and a public disclosure of information. Having arrived at legal coherency, through administratively rational methods, the Commission can be celebrated as being "knowledgeable" of the sequence of events that led to the explosion. Subsequently, the Commissioner becomes a site of judicial authority and is entitled to adjudicate on the matter at hand. We must turn now to the report to substantiate our claims.

The first indication of the legal and rational conduct of the inquiry is contained in the "Forward" of the report. The reader is informed that the Inquiry was "carried out under full public knowledge and scrutiny" (Elfstrom, 1980: iii). In the next paragraph we learn that the public hearings were held in the County Court House and the Civic Center in Sydney, N.S. Representatives from
the three labour unions, Devco and Labour Canada "were invited to fully participate in the examination of witnesses". Those who gave testimony under oath did so under the protection of the Canada Evidence Act. Furthermore, transcript of all testimony were available for public scrutiny.

In the "Principle Conclusions" we find evidence of administrative rationality. Conclusions ten and eleven indicate that the inspectorate of the coal mine did not fully appreciate the dangers inherent in the procedures being used in No. 26 Colliery. In order to prevent a second explosion immediate action was required at the highest levels of government. Because many of the conditions and practices that led to the explosion were of long standing, and had been mentioned in previous inquiries in 1974, 1975, the recommendations made were limited to those within the powers of Labour Canada to enforce. 10

There were a total of seven recommendations made by the commission. Five of these (numbers 3, 4, 5, 6, 7) are seen as embodying the concepts of administrative rationality and legal coherency. The first recommendations called for the establishment of a tripartite task force (Union safety committee, Labour Canada, senior corporate official) to report to the Minister of Labour on the implementation of measures to reduce the risk of fire and explosions. Secondly a code of safe coal mining practices was to be drafted to replace the present safety regulations. Thirdly, a reorganization of the safety inspection services of Labour Canada was suggested, including an upgrading of qualified staff. Fourth the commissioner recommended the establishment of a coal mining research facility in Nova Scotia. This request would be channeled through the Department of Energy, Mines and Resources. The facility would be used for education and training purposes. A
fifth request was channeled through the Department of Regional Economic Expansion whose mandate included the operation of Devco. It was suggested that one director of the Cape Breton Development Corporation be responsible for maintaining and recording the corporation's progress in preventing fires and explosions in Devco mines.

Section six of the report describes the various investigations undertaken during the period of inquiry. The gathering of accurate information from independent sources is vital to the assemblance of judicial evidence. This is reinforced in the opening paragraph where the reader is informed of the inquiry's procedures:

Separate investigations were initiated and conducted by the mine manager, the corporation's consultant and the chief inspector, respectively. Additional special investigations were requested by the Commission which were made directly, or indirectly through the corporation or Labour Canada. Findings from each of those investigations ... have been incorporated into this report.

(Elstrom, 1980: 85)

In the last paragraph of the section, the reader is again reassured that the tests and investigations conducted were of crucial importance in determining the cause of the explosion on February 24, 1979:

This survey and research work provided vital information that would not otherwise have been available to the Commission and provided scientific evidence on which to identify the type of ignition and explosion.

(Elstrom, 1980: 87)

As the ultimate act of administrative rationality, the commission provides a fraternal critique of the operations of Labour Canada, the very branch of the state that is making the investigation possible.
The Corporation failed to fulfill its safety responsibility by putting employees to work underground who had completed a course of training at the College or passed the provincial Department of Mines examinations for certificates, before ensuring that they had received adequate basic education in the special requirements of present day coal mining technology, conditions and practices, as has been done elsewhere where similar mining methods are used. Labour Canada shares the responsibility in this regard, by permitting the corporation to continue to assign persons who were unqualified for the tasks to which they were assigned.

(Elfstream, 1980: 84, emphasis added)

To illustrate the legal coherency and administrative rationality of the inquiry we will present questions and then answer them from the report. Specific references will be made to the final section of the report (Operations of the Inquiry) which contains particular examples of these two concepts.

What was the composition of the Inquiry? What groups were represented?

Commissioner - Roy Elfstream - Director, Occupational Safety and Health Branch, Labour Canada

Principal Representatives - Mr. R. Pugsley, Q.C. - Devco

- J. Burke, United Mine Workers of America (UMWA)

- A. Ross - Canadian Brotherhood of Railway, Transport and General Workers (CBRT & GW)

- G. O'Neil - Canadian Union of Public Employees (CUPE)

- B. Bowers - Labour Canada

Legal Counsel - R. Pugsley Q.C. - Devco

- C. McCormick - Devco
How was the accident investigated? What kind of evidence did the Commission investigate? Who provided the information?

The first operational action taken by the Commission following the appointment on February 28, 1979 of a professional mining engineer as principal technical advisor and Commission secretary, was the initialling and photocopying of a variety of records, plans and report books important to the Inquiry, for the purpose of preserving their integrity.

During the ensuing week it became obvious that to retain objectivity in the highly emotional atmosphere in which information, mostly highly critical of the mining methods and practices, was being offered to the Commission, that it was essential to get background information first hand and to arrange for technical inspections and advice from independent specialists in Canada and elsewhere.

This action was further required because the chief inspector had deferred his investigation until the corporation's team of investigation specialists had completed its work. During this period, employees on-duty and large groups on inspection "tours" of 12 South section created the probability that significant evidence would have been removed, disturbed or destroyed. In order to compensate for this, the Commission had to rely on direct evidence in many cases in order to piece together the events on the explosion shift...

In order to establish comparisons with operations in No. 26 Colliery, arrangements were made through the corporation's vice-president, coal division with the director general of mining for the National Coal Board, London, England to visit comparable mining
operations in the United Kingdom and meet the NCB's senior engineering and research personnel.

The investigation reports prepared by Interim Consultants Ltd. (ICL) were discussed with the director general of mining for the NCB, his senior staff and the representative of ICL who had presented the report at the public hearings and who subsequently accompanied the Commission during the visit to the mines.

Consultations were arranged on several occasions with research scientists of the Canmet Explosives Atmospheres Laboratories to discuss tests to determine the explosibility of coal dust from No. 26 colliery operational tests on the Seiger BMM monitor that was involved in the explosion and an evaluation of the ventilation in 12 South section.

To establish the extent of research facilities in Canada and review the regulatory methods practices (sic) by other mining inspection agencies for comparative purposes, a visit was made in January 1980 to each of the inspection agencies in the coal producing provinces of British Columbia, Alberta and Nova Scotia. During a visit to the University of Alberta information was obtained on the unique desorption characteristics of coal from the Habour seam.

(Elfstrom, 1980: 93, 95, 96, 97)

We will again use a point form summary of our findings:

<table>
<thead>
<tr>
<th>Legal Coherency</th>
<th>Administrative Rationality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inquiry conducted under public scrutiny</td>
<td>1. The need for immediate action to prevent a second explosion.</td>
</tr>
<tr>
<td>2. Location of hearings synonymous with justice or public buildings</td>
<td>2. Tripartite task force to report to the Minister of Labour.</td>
</tr>
<tr>
<td>3. Witnesses under oath and protected by evidence act.</td>
<td>3. The drafting of a code of safe mining procedures.</td>
</tr>
<tr>
<td>4. Testimony available to the public.</td>
<td>4. Request to Energy, Mines and Resources to provide a research facility.</td>
</tr>
<tr>
<td>5. The assemblance of judicial evidence.</td>
<td>5. Request to DREE to make Devco responsible for fire and explosion prevention</td>
</tr>
</tbody>
</table>
6. Legal counsel for commission and representatives.
7. Preserving the integrity of evidence.
8. The need for indirect evidence.

In summary, the legal and bureaucratic rationality of the state is expressed in the format of the inquiry, the kinds of information requested and the methods used to institute the recommendation for improvement and change. We will now examine the third higher order concept and repeat the procedure we previously employed.

3.5 C The Elfstrom Report - Conceptual Level 3:
Manufacturing the Consent of Representatives Thereby Reproducing Hegemonic Order

The previous section pointed out that representatives from labour, management and the state formed part of the commission of inquiry. The goal of the inquiry, and its report, was to win and then retain the intellectual confidence of all parties involved in the investigation. The discourse of the report was required to display a unity and cohesion that would restore hegemonic order. This was primarily done through the incorporation of representatives into the structures, organizations or committees established by the state. All groups are afforded membership in these structures. However, representatives are advocates of the class they represent, because the power they hold, the knowledge they command and their ability to effect change is contingent on the class location of their constituents. Not all members can participate equally in these structures. When the consensus of the representatives is gained, the consent of the majority is won by first having the
representatives interpret the report to their respective groups and second by directing any dissent through the democratic channels of committees, task forces or other bureaucratic institutions. Therefore, when Clarke et al (1976: 39) state that subordinate classes live their subordination by being inserted into the structures and institutions of the state and civil society, we see this taking the material form of their representatives being incorporated into organizations, committees and commissions of inquiry, particularly the one we are examining. Incorporation allows class relations to be renegotiated and reinstated. This is accomplished by supervising both labour and capital. The supervision will not be totally repressive but will also educate by example. Consequently, we again see instances of fraternal critique as the state adjusts its own internal branches.

Consent, however, can never be achieved through a direct process. It must be produced and reproduced constantly through the institutions and organs of the state. Therefore, each integral part of the commission plays an important role in manufacturing consent. The parts are of necessity interlocking. It becomes difficult to separate individual components from the totality. Consequently, the concepts of legal coherency, administrative rationality, temporary failure, human fallibility and mistaken allegation all play a role in manufacturing consent. However, identifiable attempts at consensus appear in the report and we will address them first as broad concepts and then pose specific questions to be answered from the text.
The most important structural consideration when manufacturing or "winning" consent is to ensure that all groups have "a voice" in the debate. The commission of inquiry accomplished this by allowing the three labour unions, the corporation (Devco) and Labour Canada to have representatives in attendance at the hearings and to question witnesses. Additionally, on the final day of the public hearings summations and briefs were presented by the following persons or groups:

1. R. Pugsley - representing Devco
2. A. Ross - representing the CBRT & GW
3. B.A. Bowers - representing Labour Canada
4. A. Foley - representing the UMWA
5. J. Burke - representing the UMWA
6. Reverend A. Hogan - Member of Parliament
7. Dr. O.R. McManus - Director of Continuing Education, College of Cape Breton
8. Canadian Union of Public Employers presented a verbal summation

To ensure consensus it is not enough to have various groups 'heard' in an open public form, it must also be acknowledged that they have some effect in the decision making process. Therefore, on page 89 of the report we find:

Summations invited on the final day of the public hearings were received from the corporation ... and the Canadian Brotherhood of Railway Transport and General Workers ..., who represented the examiners and shot firers. Both documents were given careful consideration by the Commission. All of the points raised in them are believed to
have been included in this (Inquiry) report except where information from all sources does not support certain conclusions.

The United Mine Workers of America who represent the bulk of employees, other than shot firers, examiners and supervisors, who work underground presented a list of recommendations rather than a summation.

As in the case of the summations, the subjects covered by the recommendations have been thoroughly examined in this report. The Commission agrees with the recommendations in general ...

Finally, on page 91 the reader is reassured that:

During the course of the public hearings, requests were received from the president of Local 4520 (i.e., No. 26 Colliery local) of the United Mine Workers of America (UMWA), the International board member of District 26 of the UMWA and a member of the No. 26 Colliery safety committee, to appear before the commission.

Each of these persons appeared before the Commission and their concerns and recommendations have been considered in the writing of this report.

In order to provide the authority that is needed in a crisis, the Commission, as a branch of the state, takes charge of the situation. It directs, schedules and performs the organizational tasks that will transform an abstract concept (the commission) into a material event (the investigation). The inquiry must be legitimated, consented to and complied with by the parties involved. Consequently, on March 1, 1979, the Commission met first with the President and Vice-President of Devco. The same day meetings were held with senior area officials of Labour Canada, the United Mine Workers of America, the Canadian Brotherhood of Railway, Transport and General Workers and the Canadian Union of Public Employees.
The representatives, however, must do more than comply with state directives, they must embrace the sovereignty of the state, transforming it into an authority that is "natural" and ultimately will serve their best interest. Consequently, at meetings on March 1st, the reader is informed that:

All of those with whom we met pledged their own and their respective organization's cooperation in obtaining full and complete disclosure of information bearing on the explosion.

(Elfstrom, 1980: 93, emphasis added)

Having incorporated the representatives of the parties involved in the explosion, the Commission turned its attention to the general public:

An office was opened on March 5, 1979 to facilitate the Inquiry and located in the federal building in Glace Bay, Nova Scotia for the convenience of persons who worked in the mine and lived in the community who wished to read transcripts, examine evidence, provide information, or otherwise communicate with the Commission. To encourage the participation of as many persons as possible, advertisements were placed in the Sydney and Halifax newspapers, the latter being widely read in the local coal mining community ..., inviting anyone with information about the explosion or the events leading up to it, to provide it to the Commission in confidence if they so desire, at the office. The identities of those who did so were not revealed by the Commission.

A press conference was held with the media during which the public nature of the Inquiry was stressed.

(Elfstrom, 1980: 93)

The reader of the report is further informed of the unbiased methods used to report on the hearings:
The public was kept well informed throughout the hearings by comprehensive reporting of testimony by the news media. (Elfstrom, 1980: 95, emphasis added)

We see from the dialogue of the report the commission was able to insert representatives into the investigation at various levels:

On March 7, 1979 a visit was made by the Commission to No. 26 colliery to view the explosion site in 12 South section, accompanied by the mine manager, production manager and representatives of two unions (i.e., UMWA and CHINT).

The form of the public hearings was designed to obtain the active participation of all of the parties who share the responsibility for the safety of employees.

Each of the representatives from the five principle participating groups who were invited to assist in questioning the witnesses did so with much thoroughness which ensured that facts and issues important to the prevention of fires and explosions were identified. The names of several persons who were called as witnesses were provided by the participating groups who might otherwise not been called, but it was primarily from the persons who volunteered information before the hearings started, that most witnesses were identified who reported a number of unsafe practices and procedures and from whom public allegations were confirmed or refuted. (Elfstrom, 1980: 94-95, emphasis added)

In the closing pages of the report any remaining doubt of the validity or democratic nature of the Commission is denegated by the fact that the President of Devco, four labour officials (three of which held senior positions) and the chief inspector were invited to the final day of hearings. "Each stated that they were satisfied that all evidence known to their organizations had been presented and that all of the questions their organizations wished to pose, had been asked" (Elfstrom, 1980: 96).
The Commission now becomes the agency for the production and reproduction of hegemonic order in society. This will be accomplished by supervising capital and labour. Additionally, class relations will be renegotiated and reinstated in the workplace. Finally, an attempt will be made to prevent the crisis from reoccurring through closer supervision by the state. Consequently, we interpret the Commission's critique of Labour Canada as an effort to improve the state's role as superintendent in society. In order to reveal how the Commission has accomplished these tasks, questions will be presented to the report and answered from the text.

HOW IS CAPITAL SUPERVISED?

The Inquiry Findings (section five) are primarily concerned with presenting a factual account of the investigations. The reader of the report is invited, through the logic of commonsense, to arrive at similar conclusions. However, the Commission periodically provides a subjective interpretation of the facts. This departure from the objective nature of the inquiry is permitted because of its privileged position as adjudicator. Consequently, in section five the audience learns that Part IV of the Canada Labour Code (see Appendix II) places primary responsibility for the safety of employees on the employer. Additionally, the reader is informed that there are adequate powers and standards to ensure that both employer and employees comply with these regulations. Furthermore, if the Canada Coal Mines Safety Regulations are applied "knowledgeably and conscientiously" coal can be extracted with minimum risk
(Elfstrom, 1980: 17). In the paragraph that followed the Commission was critical of both the employer and employees for not being fully aware of the safety regulations, although it was admitted that they were outdated.

Section five informs the reader that the standards set down in the labour codes are sufficient to protect workers provided these statutes are complied with. Consequently, capital is already adequately supervised vis à vis these codes and standards. However, there has been some deficiency in updating the regulations to keep pace with changes in technology. Lack of enforcement has also been a problem. To rectify these situations two suggestions are made to improve the supervision of capital. Recommendations four and seven state:

(4) That a Code of Safe Coal Mining Practices incorporating reference to all of the regulations and standards applicable to coal mining be drafted in consultation with the task force, to replace the present Canada Coal Mines (CBDC) Safety Regulations.

(7) Labour Canada should request the Department of Regional Economic Expansion to ensure that one director of the Cape Breton Development Corporation be tasked with a responsibility for maintaining an ongoing appraisal of the corporation's progress in the prevention of fires and explosions and that the status be recorded in the corporation's annual report.

(Elfstrom, 1980: xii, xiv)

HOW IS LABOUR SUPERVISED?

In addition to the responsibility placed on the employer under Part IV of the Canada Labour Code, the employee must take all reasonable and necessary precautions to ensure his own safety and
the safety of his fellow employees (Appendix II section 82). The principal conclusions of the report note that explosives were haphazardly handled in the mine and that instances of detonation taking place close to areas where coal was being simultaneously cut were reported (Elfstrom, 1980: viiii). In a similar way, the Commission is critical of the "task" or labour agreement that allows certain workers to leave an area when a specified amount of work had been completed. The report indicated that some of the general safety problems in the mining operation had been created by the "task" agreement, particularly at or near the "face" where coal dust accumulated. In instances like this it was suggested that safety should be maintained at all times. To do so the Commission recommended that the labour agreement be discontinued to ensure that satisfactory standards of safety were maintained. No other proposals were made for improving the situation (Elfstrom, 1980: 34). In an attempt to improve this situation recommendation two suggested the following:

That a safety committee be formed by mandate if necessary under the terms of Section 84.1 of the Canada Labour Code, that includes representation from all of the employees who work under ground in the mines operated by the corporation.

(Elfstrom, 1980: xiii).

We would argue that the safety committee further controls workers by incorporating them into structures and relationships that reinforce their inferior position in the workplace.
HOW ARE CLASS RELATIONS RENEGOTIATED AND REINSTATED IN THE WORKPLACE?

We have stated that a workplace disaster does call into question the relationships that exist between labour and capital. The commission has a duty to reinstate the dominance of the capitalist class over the working class in the production process. In other words, the ability of capital to regulate and control workers while they are on the job must be acknowledged, but the state can institute novel ways of reinforcing this principle. Conclusion eight provides an interesting example of the state performing these two functions:

A major cause of the conditions and practices that led to the explosion was that the employer, employees and the regulatory authority did not recognize that technical knowledge (i.e. knowledge of mining methods, ventilation, instrumentation, special management techniques, etc.,) is required as well as experience, to safely use the highly mechanized machinery and equipment that is necessary to reach the corporation's production goals.

(Elfrstrom, 1980: xi)

The reader is again invited to adopt a commonsense approach to the problem of mine explosions. By improving the body of knowledge on coal mining, everyone involved will be safer and production will improve. What is silent in the statement is the fact that training and education (i.e. knowledge) will conform to the class relations that/embodied in a capitalist social formation. Training is primarily designed to increase productivity while safety, if considered, is of secondary concern. Furthermore, the conclusion establishes in the mind of the reader that the production goals of the corporation are realistic given the present degree of technological innovation.
Recommendation three incorporates representatives from management, labour and the state into a structure that will reinforce the inferior position of the subordinate classes. Once again the state has given equal privileges to groups that can never be equal in a society based on class relations. The audience is informed:

That a tripartite task force not exceeding five in number be created to report directly to the Minister on the progress of implementation of measures necessary to reduce the risk of fires and explosions. This group should be chaired by a representative of Labour Canada who is not responsible for field safety inspections and include a union representative of the safety committee formed under Section 84.1 of the Act plus a senior official of the corporation. The team should maintain close liaison with the College of Cape Breton and the Department of Energy, Mines and Resources respecting the upgrading of education of employees and research into fires and explosions. The task force should continue to exist at the pleasure of the Minister.

(Elfstrom, 1980: xiii)

HOW IS THE STATE'S ROLE AS SUPERINTENDENT IMPROVED?

The improvement of the various state branches is achieved through a critique of their performance prior to and during the present crisis. However, in order to reassure the reader that the system is satisfactory, instances where regulations had been breached or not enforced are equated to individual and not structural flaws. Subsequently, the Commission concluded (number seven) that the chief inspector for the mine had a sufficient number of support staff to enforce the mining regulations (which were also adequate). Their failure to do so resulted from a lack of knowledge of safe mining practices or because they were not vigilant enough in their
investigation and enforcement procedures. The Commission also found that neither Devco nor Labour Canada had taken advantage of research facilities where some of the problems involved in Cape Breton mining could have been evaluated. It was acknowledged that the available facilities were both geographically remote and limited in number (Elfstrom, 1980: xi).

Methods for preventing these situations from reoccurring were embodied in recommendations five and six.

(5) That the safety inspection services of Labour Canada directly associated with coal mining be reorganized and staffed with professional mining engineers or equivalent, plus technical support staff comparable to that in international and provincial jurisdictions. In addition, the senior professional and technical support personnel should be so stationed that they can maintain close ongoing liaison with educational and research organizations, as well as enforce the Act and Regulations in a firm, consistent and objective manner, free from the effects of former loyalties, personal associations and other social pressures brought about by residing in the coal mining community.

(6) Labour Canada should request the Department of Energy Mines and Resources to establish a coal mining research facility located in Nova Scotia primarily for the purpose of investigating methane and coal dust explosions, methane emissions and coal mine ventilation. These facilities ideally should include an experimental gallery and insofar as is practical, incorporate a simulated longwall face, headings and other mine workings, which could also be used for educational and training purposes.

(Elfstrom, 1980: xiii)

3.6 Summary

The theoretical concepts, that were outlined in

Chapter Two, must now be matched with information that has been
obtained about the Commission of Inquiry in Glace Bay. One principle permeates every action or duty the Commission performs; the inquiry is an investigation of an "exceptional moment" in the otherwise "normal" social formation. This is the tenet that also shapes the various conclusions and recommendations that are included in the report. It is never enough for the state to provide the cultural and ideological leadership necessary to repair the damaged social fabric. The social authority of the state must be visible in a material event that will shape thought and action, moving social life in a direction where conflicts are appropriated, obscured, concealed or contained. The Commission of Inquiry at Glace Bay becomes that material event. Within this public "theatre", hegemonic order can be restored by shaping the questions that will be asked and then resolving them in ways that are "reasonable" and "realistic". We are reminded that the secret of hegemonic domination is that consensus appears more than legitimate, that it also appears normal.

The disaster or exceptional moment has been "created" by the accumulation of contradictions in the capitalist social formation. The largest contradiction was the fact that the bonus system was supposed to increase production not lead to injuries and death. State regulations had been legislated to ensure that coal could be mined safely. Something had failed, and consequently statutes and agencies required re-evaluation. Furthermore, community facilities proved inadequate to deal with the crisis which extended the problem into other areas of state control. To effectively
repair the crisis a compromise must be struck between the domi-
nant and subordinate classes. However, before this can be
arrived at, an official explanation of the disaster must be
produced. At first we see the commission becoming a site of
class struggle in society. In order to present it as an impar-
tial and independent body, the inquiry occurs within certain
conventions. Judicial logic and norms of evidence and proof
provide the state with the power to overcome resistance to hege-
monic order. Instances of administrative rationality assist
the commission in reproducing an image of the state that is
impartial, neutral and above class interests.

In the process of collecting and presenting evidence, the
Commission is also able to produce a cohesion between the various
groups involved in the disaster. To do this resistance from the
working class had to be displaced. This was done by calling upon
workers to submit evidence to the commission (in confidence if
they so desired). This evidence was weakened and destroyed by
the opinions of experts and by the judicial assemblance of facts.
However, the workers never appear before commission to defend or
present their explanations. They are always "represented" by
lawyers, by union officials, by the state and even by Devco.
When all evidence has been presented the Commission members become
the actors most "knowledgeable" about the disaster. The miners
who must daily work underground are dismissed as being mistaken
about the actual cause of the accident. The commission is essen-
tially not concerned with the specifics of this disaster but
rather with all disaster. They are consequently concerned with general, abstract and scientific knowledge that can be applied to all cases. The workers must remain outside this construction even though they must deal with the situation each day they go to work.

The representatives for labour, management and the state are incorporated into the judicial process not by force (although there is an element of coercion) but by "spontaneous consent" to restore social order, an order that is considered to be in the common interest of all citizens. Although the agents of various classes are presented as equal partners, the relationship can never be equal. Through the ideological structures that are a part of, but also formed by, the Commission of Inquiry, the subordinate classes live their subordination. Resistance by the working class is incorporated into the Commission by the inclusion of their representatives in the inquiry process. Resistance from all classes and class fractions is further weakened and destroyed by the explanations and evidence of experts.

The Conclusions and Recommendations of the Commission embody the coercive and educative roles of the state. By acting as superintendent the Commission is able to reproduce class relations in society. Restating the legal authority the state has over capital not only supervises this particular fraction of the capitalist class but reinforces the notion that the capitalist system, as a whole, is adequately controlled by the state. The working class is also supervised by the Commission. First, the labour codes
point out that all workers have an obligation to maintain their own and fellow workers' safety on the job. Failure to do so becomes an individual, rather than a structural problem. To overcome this lack of responsibility on the part of workers, the Commission suggests inserting worker representatives into established or newly formed safety committees. This channels conflict through bureaucratic mechanisms that reproduce structural inequalities.

The workplace disaster is one of the social crises of capitalism that is played out on the terrain of the state and which can produce a crisis of hegemony. The social authority of the state must be exercised even if it means critiquing its own internal branches and organs. If the crisis is to be inhibited or prevented from reoccurring then a course of action must be articulated throughout the inquiry report. This official plan will be expressed in the conclusions and recommendations of the Commission. However, if the evidence has pointed to a problem within a particular state branch, it is often defined as an individual (i.e. personal) failure by state functionaries. Consequently, the inadequacy is not perceived as a lack of control by the state but rather, an instance of human fallibility. In short, the statutes and those agencies that administer them, are satisfactory but personal compliance and objectivity does not always prevail. Consequently, individual members of the agency must be evaluated if the state is to improve its role of superintendent in society.

3.7 A Second Look at the Problem: Marine Disasters

In order to provide a comparative case from which to evaluate our method of analyzing Commissions of Inquiry we
will now look at the circumstances of a marine disaster that occurred on February 15, 1982 off the East Coast of Canada. In this instance the mobile offshore drilling unit Ocean Ranger was operating in Canadian waters but was registered in the United States of America. Consequently, following the capsizing and sinking of the Ocean Ranger two federal agencies of the United States jointly investigated this marine accident.

Certain unique features of the Ocean Ranger inquiry allow us to make a comparison with the Glace Bay Commission based on a "most different systems" design approach to comparative research. Although the inquiries report on events that we have identified as apparent workplace disasters, the similarities begin and end there. The Glace Bay inquiry was commissioned by the Canadian federal Minister of Labour, while the Ocean Ranger inquiry was conducted by the National Transportation Safety Board and the United States Coast Guard both of Washington D.C. The disaster at Glace Bay occurred in a coal mine with the death and injury of 16 employees. The Ocean Ranger disaster occurred at sea while exploring for oil and resulted in the loss of 84 lives. The coal mine, at Glace Bay, was owned and operated by the Cape Breton Development Corporation, a crown corporation of the federal government of Canada. The Ocean Ranger was owned by Ocean Drilling and Exploration Company (ODECO) of New Orleans, Louisiana and was being leased to Mobil Oil Canada, Ltd.

In spite of the many differences between the two disasters we expect to find similarities between the two commissions that will
serve not only to strengthen our theoretical framework, but will also help to refine our method of analyzing Commissions of Inquiry established to investigate workplace accidents. In Chapter Four, we begin our analysis of the Marine Board of Investigation appointed to report on the capsizing and sinking of the Ocean Ranger.
Burton and Carlen (1979: 49-50), following from the work of Althusser, tell us that "ideology is not a consciousness false or otherwise of reality but an imaginary representation of men's (women's) lived relation to their condition of existence. This is so because 'reality' does not present itself to subjects or subject-classes at all, it is not given off in experience. Rather the subject and his (her) intelligibility is an effect of the social totality whose structures include the 'ideological' as one instance. Neither 'knowledge' or (sic) 'ideology' come from the experience of subjects. Ideology is the imaginary mode in which men (women) live their reality. It is the subjectivity constituted for them and within which they live their relations to their conditions of existence. Ideology is the structural formation of subjects in the imaginary through which the genetic fallacy of self-autonomy is achieved."

Pitt's account is chosen because it is both contemporary and is written by a former coal miner. The particular paragraphs are chosen to illustrate the following specific features of present day mining and miner's consciousness: (a) The miners' adaptation to danger. (b) Instances of negotiation, struggle and resistance that occur within the workplace. (c) The contradiction of personal pride in a job well done and having to work under deplorable physical conditions. (d) Changes in technology that bring the "old ways" into conflict with the "new ways" of mining coal. We would expect that this conflict is also expressed between "young" and "old" miners. (e) The general mistrust of management and any official connected with "the bosses". (f) The inability of management to closely supervise workers in the mine. This has led to indirect methods of control such as "the bonus system". (g) The tremendous pressure exerted on workers to conform to group behaviour or collective opinion on union or other matters. We speculate that this conformity manifests itself through pressure to bend or break rules that will increase production and ensure that the shift makes its bonus.

Unofficial versions of the episode include more than gossip or rumors. Disasters do not occur in a vacuum, consequently, shock waves ripple out into the community and expose other crises or inadequacies in a system that was previously thought to have satisfactory precautions or facilities. This was the case in Glace Bay where other events extended the impact of the disaster beyond the mine explosion. First, not all men died at the scene. Six miners had to be transported to a Halifax hospital because there were no facilities on Cape Breton Island for patients with burns. Second, transportation had to be arranged by ambulance because fog and a snow storm prevented aircraft from taking off. The media followed the recovery of these men for a short time. When two later died in hospital, local residents and union officials began to demand a hospital "burn unit" for Glace Bay in the event of another explosion.
Part of "the job" of the Commission of Inquiry is to separate the explosion from the other circumstances that arise as a result of it. Events like the transportation of the injured to Halifax or the lack of medical facilities in Cape Breton do not appear in the Commission's report because they are not part of the investigations. In this way the total impact of the explosion is limited to a specific number of official problems. Consequently, the total impact of the disaster is destroyed. Small segments are dealt with, while other problems remain unaddressed.

4 The arguments contained in this section come from Burton and Carlen (1977, 1979).

5 These modes of signification or modes of ideological recognition include commonsense ideas about occupational risk, cultural definitions of disaster, social scientific explanations of worker carelessness, legal assignment of "fault" or "blame", and the legal and epistemological notions of the gathering and presentation of evidence.

6 The original statement is from Clarke et al (1976: 39).

7 Representatives of the working class include more than trade unions and the lawyers they hire. The federal and provincial departments of labour can also be representatives of the working class within the state. Poulantzas (1976: 75) notes that various organs and branches within the state represent specific and competing interests in society. This often results in chaotic and contradictory interventions, on the part of the state, as it tries to reproduce the overall capitalist system. Mahon (1979: 170-71) recognizes that not all representatives are equal. Those organs and branches that constitute the seat of the power bloc are in a better position to negotiate concessions that will maintain the power bloc as a leader in economic and social spheres. The representatives of subordinate groups or classes frequently have their mandate limited to extracting concessions in the area of consumption rather than in production.

8 I would like to thank J.A. Mannette for her valuable help in discussing these arguments on consent and knowledge production.

9 The reader's attention is drawn to the fact that we have used the word explosion and not disaster. We found only one instance of the word disaster used in the report. This is seen as significant because it confines the Commission's report to accounting for a specific scientific fact (i.e. explosion). We also suggest that this method allows the Commission to report findings without directly implicating, as causes, other practices that had become routine in the mine. This effectively eliminates any allegations of negligence that could be raised regarding the explosion. As an example, under principal conclusions we find the following
statement. "Procedures and practices commonly existed that
didn't contribute to the explosion but constituted an equally
dangerous potential for fires or explosion" (Elfstrom 1980: VII, emphasis added). This is followed by eight unacceptable
conditions that existed in No. 26 Colliery at the time of the
explosion. We are reminded that the report can never be totally
repressive but must also educate and instruct by example. We
see this as one instance of this fact.

10 Although conclusions ten and eleven suggest that hazards, which
are of long standing, still exist in No. 26 Colliery it also
claims that these dangerous conditions can be eliminated through
legislative and administrative action. The reader of the report
is again assured that although the situation at No. 26 Colliery
has developed over a number of years, it can be rectified and
is therefore temporary.

11 The Commission of Inquiry is a temporary or transient organiza-
tion that must establish permanent structures or committees
that can perpetually incorporate representatives. This helps
defuse conflicts as they arise and maintains control over future
events.

12 This is an instance of two state branches fulfilling contradic-
tory roles and functions in society. Devco was established as
a corporation to provide employment and we presume (rightly or
wrongly) that it was expected to break even or eventually to
turn a profit. The Commission of Inquiry has been established,
at one level, to supervise capital when the profit motive
jeopardizes the health and safety of workers. Therefore, we
have uncovered an example of the rational and autonomous state
supervising itself, with Devco and the Commission representing
different organs of the same institution.

13 It is seen as significant that the Commission first met with
Devco officials, then Labour Canada, and finally with the
various unions. Although we cannot confirm that this was the
actual sequence of meetings, it is equally significant that the
Commissioner, who wrote the report, remembers the sequence in
this manner.

14 Commissioner Elfstrom's explanation of the explosion is very
much in keeping with the industrial relations approach to work-
place accidents in which labour, management and government must
work together to prevent hazards in the workplace. Sass (1979)
explains this approach in detail. See Explanations for Workplace
Injury and Death (Section D, Chapter II) for an overview of this
approach.

15 Przeworski and Teune (1970: 39) suggest that "The most different
systems designs eliminate factors differentiating social systems
by formulating statements that are valid regardless of the
systems within which observations are made". This method is used to test the theoretical statements we made about the way the state handles a crisis of hegemony. Applying this method to our two cases we expect to find that the three higher order concepts that were shown to be embodied in the Glace Bay Report will also be contained in the reports on the Ocean Ranger sinking. We expect to see this regardless of the fact that there are differences in the origin of the investigating bodies, the number of employees killed, the nature of the work engaged in and the differences in the owners and operators of the coal mine and the drilling platform.
CHAPTER 4

THE CAPSIZING AND SINKING
OF THE OCEAN RANGER
The mobile offshore drilling unit Ocean Ranger capsized and sank 166 nautical miles east of St. John's Newfoundland, on February 15, 1982. Before we actually begin the analysis of the two reports that have resulted from this marine casualty it is necessary to give the reader a brief account of the working conditions that prevail on most offshore drilling platforms. Section two of this chapter will explain the conditions under which the joint Marine Board of Investigation was established. Participants on the investigation board came from the United States Coast Guard and the National Transportation Safety Board. We will examine the United States Code of Federal Regulations to determine the powers of these two agencies when they are conducting an official inquiry. Finally the chapter will look at the reports that have been issued by the National Transportation Safety Board on February 15, 1983 and the United States Coast Guard on May 20, 1983. Our analysis of these two reports will repeat the method we employed to examine the Glace Bay Report in Chapter Three.

4.1 "Offshore" Labour

Drilling rigs off the East Coast of Canada usually carry a complement of 75 to 90 workers. This workforce is subdivided into two groups: persons who perform physically undemanding tasks like geological testing, weather watches, laundry, meal preparation and other technical or service jobs connected with the running of the rig. The other workers have "outside" jobs where they are exposed to the cold, dirty and particularly dangerous conditions of exploring for oil and gas in the North Atlantic.
The "drill floor" is the focus of attention on board and in many ways becomes the raison d'être of the drill rig.

On board the offshore rig ... the drilling floor echoes with incessant noise and motion. The rotary table, a spinning disk at the centre of the drill floor, grabs the flanged "kelly,*", transmitting its motion to a string of drillpipe that extends, through 32 m of water and a further 60 m of sediment, to the bit itself. The racket is compounded of din from the kelly drive, the rumble of the rotary table, the squeal of the winches, the slam of steel drillpipe dropping into a rack.

(Wood, 1983: 16)

Fear, mixed with respect, typified this rig worker's account of drill floor work:

There are 400- to 600-lb wrenches that we use on piping. These things are just swinging on a small piece of rope. If that chafes, or if there's a lurch or something -- (which might) bust the rope off -- you got a broken back or a broken arm or a broken leg. That's one thing on the "drill floor."

As well, we have a lot of holes in the floor where we have to put pipes for stand-bys or other tools that we store as well down through holes. So when they're not being used they have to be covered, 'cause the floor gets really busy when you're working hard there, and the covers that are on the holes aren't adequate. They're just flat metal and they lay on the holes. There are no bottoms on them to keep them down in.

So if you're moving around the drill floor with pipes that weigh tons, and you're trying to manoeuvre them down the hole and screw them together, and the covers get slipped off, and you get a foot- or maybe a two-foot hole sitting on the floor, and when you're

*"Kelly"—a shaped section at the top of a series of joined pipes with the drilling bit at the bottom. This section fits into the bushings on the rotary table, enabling it to rotate.
working around watchings tongs (wrenches) 
flaying around, blocks coming up and down, 
the elevator, chains, cables ... then you 
tend to get a bit flustered and you could 
end up going down through one (hole), or 
breaking your leg, or something like this.

(in O'Neill, 1984: 1,2)

Everyone on the rig, from senior managers down to galley 
help, works a 12 hour day, seven days a week. In theory, the day 
is broken by a lunch and a couple of coffee breaks. However, some 
days the drill crew works "straight out for 12 hours" (Wood, 1983: 
17). The offshore "hitch" system involves a two, three and in some 
cases a four week shift, followed by an equal length of time , 
ashore, which one worker described as making him "a little bit 
schizophrenic" (in Wood, 1983: 17). The prospect of earning 
$50,000 for six months work must be balanced against the strain 
of being away from home for half the year. The physical and 
emotional stress is most acute for young families:

   Its like being in prison, except in prison
   you can't drown ... I try not to think
   about time too much when I'm out there.

   (in Wood, 1983: 17)

Spouses left at home, experience the separation in similar 
ways:

   Its a terrible feeling knowing he's out there
   and no matter how badly I need him, that's it,
   I'm on my own ... and I find it really hard
   with the baby. The days are ... really long
   and there's just no relief.


Compounding the physical and psychological stress of separation 
and fatigue, many rig, workers are under extreme pressure to produce:
The inexperienced worker, unaccustomed to long shifts, may well be at special risk offshore. But everyone's vulnerability is increased if, on top of protracted hours of work and long tours of duty, he has to work under intense pressure. Here we move closer to the traditional image of the oil industry as one which imposes just such pressure. Drillers*, it was said, frequently cause accidents by their 'impatience in trying to better previous shift times' and will 'put safety by the board, if it means getting the job done quicker'. Toolpushers* were similarly described by one safety officer as having a kind of inbuilt desire to maintain drilling progress at all costs, and, as a roughneck* explained, are not themselves immune from pressure:

You get the odd one who is genuinely concerned about the men's welfare, but they are few and far between. They are obviously under a lot of pressure from the company they are employed by, looking for figures. I mean it costs a lot of money to operate an oil or production platform, so there is pressure all the way down the line.

(Carson, 1982: 74)

Very few offshore rig workers have a contract to protect them and collective bargaining is almost unknown in the East Coast "oil patch". Due to this workers become very vulnerable to intimidation and the threat of being fired.

*Driller--the employee in charge of the drilling crew on the drill floor.

*Toolpusher--the immediate supervisor of the driller, and the drilling contractor's chief employee on a drilling rig. Also responsible for keeping drilling crews and equipment available for work.

Roughneck--an employee who works on the drill floor.
"That's why I left my last rig, ... because I was getting that feeling of being a second-class citizen with no charter of rights to protect you." For many less-experienced workers, ... "it's take it or leave it. This is the way it is, if you don't like it pack your bags. I've heard the phrase, 'Just open another can of roughnecks and we'll have a new crew'."

(in Wood, 1983: 21)

The oil companies' attitude toward offshore safety can best be described as a cost-benefit trade off. L.B. Curtis, Vice-President of Engineering for CONOCO, Inc. of Houston Texas, expressed this sentiment two weeks after the sinking of the Ocean Ranger:

Our philosophy is to make exploration activity as risk free as possible but no one is pretending there is not some risk associated with offshore drilling activity. Neither the oil company nor the consumer at the gas pumps can afford a zero risk system of petroleum exploration. All methods of operation have some risk, just like crossing the street or boarding an aircraft.

(Mail Star, February 28, 1982).

Carl Nehring, former Captain of the Ocean Ranger, saw the oil companies' attitude in a different light:

The most important thing for an oil company is to keep that bit turning. Keep that drill turning. Never mind the safety of the people. Never mind if they get injured. Keep it turning.

(in O'Neill, 1984: 15)

The rig workers have their own way of handling safety standards. One Newfoundland roughneck described it this way:

There are safe ones (rigs) and the unsafe ones. You do know them after a while. You can pick safe companies, too. Some have
good names, good reputations in the oil patch. So you avoid the companies that don't have good names and go to the companies that do—if you know what you're doing.

The best way to be safe on a rig that you know has a bad name, a bad reputation, and on which people behave badly, is to quit. A person in my position, that of roughneck, can't accomplish very much. You can't really sway the opinions of the bosses very much, I've found.

(in O'Neill, 1984: 12, 20)

The awesome size of the drilling platforms often give workers and company officials a false sense of protection and security, although the record of disasters presents a counter argument. Between 1955 and 1974 there had been a total of 65 major rig disasters around the world with a loss of 100 lives (Arnold, 1978: 23). From 1957 to 1970 twenty-four rigs were lost in hurricanes, blow-outs, while under tow or by collapsing while on location. Stormy weather was the common factor in all cases (Callow, 1973: 135). Included in this number was the collapsing and sinking of the Sea Gem in the North Sea in 1965 with the loss of 13 lives. The breaking up of the Ocean Prince during a storm in the North Sea in March 1969. The following year the Constellation drilling platform capsized and sank while under tow.

In January 1974 the Transocean 3 capsized in North Sea waters. A well head blow-out on the Ekofisk Bravo in April 1977 sent 3,000 tons of oil a day gushing into the North Sea. Fortunately the 112 men on board escaped and no fire ensued. The workers on the Alexander Kielland were not so lucky. Only 89 of 212 persons
on board the hotel-type accommodation platform were rescued when it sank on March 22, 1980 off the coast of Norway.

The Ocean Ranger, however, listed as the largest semi-submersible drilling rig in the world and valued at $125 million, was considered the "Cadillac" of the drilling platforms. The attitude that the Ocean Ranger was invincible may have led employees and management to take safety and abandon-ship drills as something less than crucial.

One worker with 18 months' experience on the Ocean Ranger said that in his time on the rig there was never a comprehensive drill for orderly evacuation. There was a drill every Sunday, but the lifeboards were lowered empty, so the crew never got any real opportunity to feel what it was like to be in a real emergency. Another former crew member of the Ocean Ranger commented:

People would just sort of mill around at the Sunday drill. And you know something? Not once did we ever get into the boats while they were being lowered to see what it was like. They said we didn't have to worry about it. The Ranger couldn't sink, eh.

(O'Neill, 1984: 14)

Like a line of a mariner's yarn, Captain B.J. Perkins of the College of Fisheries in St. John's sums up why it is critical to have workers fully aware of the procedures necessary to evacuate at sea:

Trouble at sea always happens in the middle of the night in the middle of a storm, and that's when things start to go wrong.

(in O'Neill, 1984: 29)

In fact in the early morning hours of February 15, 1982 "things" on board the Ocean Ranger did go wrong--so wrong that it cost 84
men their lives. The remainder of this chapter will deal with the Marine Board of Investigation established to determine the cause of the sinking of the Ocean Ranger. We will begin by looking at the Code of Federal Regulation of the United States particularly those sections which allowed the Marine Board of Investigation to be established.

4.2 The Establishment of the Joint Marine Board of Investigation

Following the capsizing and sinking of the Ocean Ranger it became clear that the price of bringing oil and gas ashore in Newfoundland was going to be paid in more than dollars and cents. Politicians in Ottawa and St. John's were embroiled in the bitter jurisdictional dispute over ownership of mineral resources contained under the sea. When news of the Ocean Ranger tragedy broke, federal Energy Minster Marc LaLonde announced the establishment of a Royal Commission to investigate the incident. Brian Peckford, Premier of Newfoundland, countered by stating that the province would establish its own commission of inquiry. The outcome was a joint Royal Commission that began conducting hearings in St. John's in October 1982. Its findings are not expected until late in 1984, although a report on the studies carried out is scheduled for August 1984.

As the facts about the Ocean Ranger disaster emerged it was revealed that the drilling rig was certified and registered in the United States and therefore fell under the regulations of the United States Coast Guard which was responsible for licensing and vessel inspection. The requirement that all drill rigs, operating
in the Canadian offshore have Canadian certification did not come into effect until January 1983. While Ottawa and St. John's were busy trying to figure out who should have been responsible for safety on board the Ocean Ranger, Washington was establishing a Marine Board of Investigation. The United States registration placed the Ocean Ranger under the regulations of the American Bureau of Shipping on whose behalf the Coast Guard carried out major inspections of drill rigs every two years. Under the auspices of the Canadian Department of Energy, Mines and Resources, inspections of rigs off the East Coast had been ongoing for some time. However, the principal concern of this agency was the prevention of oil and gas well blow-outs that would severely damage the marine environment. Of secondary concern was the sea-worthiness of the vessel or life saving equipment available on board (O'Neill, 1984: 9-10).

The provisions of the United States Code of Federal Regulations indicate that when a major marine casualty occurs in which both the Coast Guard and the National Transportation Safety Board have jurisdiction the investigation and the proceedings are conducted independently but as to avoid duplication as much as possible. Immediately after the casualty a Marine Board of Investigation was convened. Two Coast Guard marine inspectors and two investigators, one from the National Transportation Safety Board and one from the Coast Guard, were sent to St. John's, Newfoundland. They collected statements and conducted tape recorded interviews with personnel
who had information about the Ocean Ranger, both prior to and during the marine casualty.

The registration of the Ocean Ranger in the United States meant that the statutes and regulations of that country were considered to have sovereignty over others. Canadian statutes and regulations were considered, by the United States, to be a supplement to these, regardless of the fact that the rig was operating off Newfoundland at the time of the sinking. Conducting the inquiry in Canada presented problems for the Marine Board since its normal powers and authority could not be exercised outside the United States. Permission to take testimony under oath, in Canada, was not received until June 1982. Lacking this permission the Board held hearings in Boston Mass. between April 22 and April 29, 1982. Further hearings were held in New Orleans, Louisiana from June 7 to June 10, 1982. During these hearings, testimony was received from witnesses and technical evidence was gathered. Sworn testimony was not taken in Canada.

The United States Code of Federal Regulations (46CFR4.40) prescribes the joint regulations for conducting an investigation into a major marine casualty. First, the Coast Guard conducts the preliminary investigation of the marine accident. The Commandant of the Coast Guard determines if the casualty is a major one and notifies the National Transportation Safety Board. Any major marine casualty may be investigated by the Safety Board or the Safety Board may request the Coast Guard to carry out the investigation and submit the evidence to them. A third option involves having a
Marine Board of Investigation with the two bodies submitting independent reports. The latter occurred in the case of the Ocean Ranger.

The joint Marine Board of Investigation is conducted by the Coast Guard. The Safety Board may designate a person or persons to participate in every phase of the investigation. While the Coast Guard has responsibility to direct the course of the investigation, the Safety Board may make recommendations about its scope, may call and examine witnesses and can submit or request additional evidence. A record of the proceedings of the Coast Guard investigations is provided to the Safety Board. The Coast Guard/Safety Board hearing on the Ocean Ranger was open to the public and records from the investigation are available to the public.

When investigations are conducted the United States Coast Guard has the following mandate:

The investigation of marine casualties and accidents and the determinations made are for the purpose of taking appropriate measures for promoting safety of life and property at sea, and are not intended to fix civil or criminal responsibility.

(46CFR407-1(b))

If the marine casualty is considered major then all information obtained in the preliminary inquiry becomes part of the Marine Board of Investigation. The powers of the Marine Board of Investigation are:

Any Marine Board of Investigation so designated shall have the power to administer oaths, summon witnesses, require persons having knowledge of the subject matter of the investigation to answer questionnaires, and to require the production of
relevant books, papers, documents or any other evidence. Attendance of witnesses or the production of books, papers, documents or any other evidence shall be compelled by a similar process as in the United States District Court. The chairman shall administer all necessary oaths to any witnesses summoned before said Board.

(46CFR4.09-5)

The National Transportation Safety Board consists of five members, appointed by the President of the United States with the advise and consent of the Senate. From the five a chairperson and vice-chairperson are specified. The Board is designated as an independent agency of the United States with eight principal units. One of these units, the Bureau of Accident Investigation, conducts all transportation accident investigations within the jurisdiction of the Safety Board. Its duties include recommending a public hearing to determine the facts, conditions and circumstances of air, rail, highway, pipeline and major marine accidents. In addition to determining the probable cause of the accident, the Safety Board initiates safety recommendations to prevent future transportation accidents. These recommendations are submitted to Federal, State and local agencies as well as interested individuals or organizations. There appears to be no method of enforcing these recommendations and it is assumed they are complied with on a voluntary basis.

The Marine Board of Investigation represents an impartial commission of inquiry whose mandate includes determining the cause or probable cause of marine accidents. A written report is submitted to the Commandant of the Coast Guard containing the findings,
conclusions and recommendations of the investigation. The Commandant then determines what recommendations will be put into effect to improve safety of life and property at sea (46CFR4.09-30).

A joint Marine Board of investigation is composed of two state agencies, the United States Coast Guard and the National Transportation Safety Board. The Coast Guard directs the public hearings but the Safety Board has supplementary authority to participate, investigate and produce an independent report. While the Coast Guard report goes to the Commandant of that agency, the report from the Safety Board is directed to both state and civilian interests. From this we conclude that the Coast Guard members on this joint Marine Board of Investigation represent the interests of the state. Their function is to see that the regulations of the state, as they apply to shipping, are adhered to and enforced. The members of the National Transportation Safety Board who sit on the Marine Board of Investigation constitute a dual interest. First, they represent the interests of the state. Their role is to determine if the regulations of the United States, as they apply to transportation, have been adhered to and followed. Second, they represent the interests of the general public. Their designation as an independent agency allows the Safety Board to make recommendations (regarding safety) to various state agencies and private companies. This also provides the Safety Board with autonomy or the appearance of autonomy as an agency outside the boundaries of the state.
Joint Marine Board of Investigation

Board of Inquiry to determine cause of major marine casualty. Hearings open to public

Chairperson - Officer of United States Coast Guard. Has authority to conduct investigation

National Transportation Safety Board. Supplementary authority. Inspectors, Investigators.

United States Coast Guard. Coast Guard officers, inspectors.

Representative of State for regulation of transportation.

Representative of state for regulation of shipping.

Representative of public, public interest, public safety.


Public report. Recommendations to state, industry, associations. Compliance is voluntary.

4.3 Reports of the Capsizing and Sinking of the Ocean Ranger

In the previous chapter we designated three higher order concepts that were embodied in the report of the Commission of Inquiry at Glace Bay. We will now apply the concepts to the Marine Board of Investigation to see if the reports issued from this inquiry contain the same principles. The conceptual levels are:

Temporary failure, human fallibility, mistaken allegation (Level 1)

Legal coherency and/or administrative rationality (Level 2)

Manufacturing the consent of representatives, thereby reproducing hegemonic order (Level 3).
The text of the reports will be examined for evidence of these three concepts. Instances in both reports will be cited as examples of the conceptual levels. If evidence is lacking in one or both of the reports, this will be noted to the reader. Under each concept a question or series of questions will be asked. The answer will be generated from the text of the report using actual dialogue. We begin by examining the first conceptual level.

4.3 A The Marine Board of Investigation - Conceptual Level 1: Temporary Failure, Human Fallibility, Mistaken Allegation

The National Transportation Board Report and the United States Coast Guard Report provide the reader with the same technical information about the Ocean Ranger and agree on the cause of the accident. As well they concur on the probable sequence of events leading up to the capsizing and sinking on February 15, 1982. According to both reports the Ocean Ranger was considered structurally sound at the time of the accident. In October 1981, a Coast Guard marine inspector with five years experience conducted an informal evaluation of the Ocean Ranger in anticipation of a December 1981 recertification inspection.

The (informal) inspection lasted 4 to 5 days and included every accessible space. The inspector testified that he did not find any structural problems and that "the overall condition was well above average as far as the housekeeping and maintenance".

(NTSB, 1983: 19)

Technical data was also produced to show that since the Ocean Ranger came into service in 1976, it had experienced fifty significant storms; six of these were of similar intensity to the storm
of February 14-15, 1982. However, it was determined that the combination of wind and waves on the night of February 14-15 was probably the most severe storm (NTSB: 60, USCG: 22-25). In spite of this fact, the reader is assured that the Ocean Ranger was a very stable drilling platform in heavy seas—so stable in fact that drilling could continue in adverse weather and sea conditions (USCG: 8).

One of the responsibilities of the Master on board the Ocean Ranger was to maintain ballast control. The Master should have been the person most knowledgeable of the ballast system and its capabilities. The authors of the Safety Board and the Coast Guard reports tell the reader the opposite was true. On February 6, 1982 while the Master, Captain Hauss, was operating the ballast control system the Ocean Ranger developed a 5 to 5½ degree list. This was corrected by the senior ballast control room operator. Following the incident the Toolpusher informed Captain Hauss that he was not to touch the control switches unless he knew what he was doing or was with a ballast control room operator. Captain Hauss replied:

I think the best thing to do here is for me not to operate the console ...

The Toolpusher replied:

Yes, I think so.

(NTSB, 1983: 17; USCB, 1983: 46)

Through a detailed presentation of evidence and testimony, the audience of the reports is invited to see that one incident
produced a sequence of events that ultimately led to the capsizing and sinking of the Ocean Ranger.

About 1900, MOBIL's senior drilling foreman aboard the OCEAN RANGER called the MOBIL drilling foreman on the SEDCO 706 and informed them that a portlight had been broken in the OCEAN RANGER's control room but that there were no problems. Between 1930 and 1945, the SEDCO 706 barge engineer and control room operator overheard broken radio transmissions from the OCEAN RANGER to the effect that there was water and glass on the control room floor, that all valves were opening on the portside, that the public address system was inoperative, and that crewmembers were getting electrical shocks.

(NTSB, 1983: 53)

By 2200 hours on February 14, 1984 the Ocean Ranger's senior drilling foreman for Mobil Oil had called his superior, Mobil's superintendent, in St. John's to inform him that there were no problems as a result of the broken portlight and that all equipment was functioning properly.

The only radio transmission from the Ocean Ranger between 2200 hours on February 14 and 0052 hours, February 15, 1982 was a weather report that contained no additional information. The Safety Board and the Coast Guard reports speculated that during this time period either the control room operators made an error in attempting to operate the ballast control system manually or the electrical malfunction of the ballast control panel caused several valves to open. Subsequently, the rig developed a substantial forward (10° to 15° port bow) list that led to a flooding of the forward chain locker. The heavy seas continued to
flood the chain lockers because no alarms existed in these areas. Additionally, had the crew known of the flooding there were no pumps available to dewater the compartments (NTSB, 1983: 57-60; USCG, 1983: 128-30).

The reader is told that although the ballast control system on board the Ocean Ranger had limitations, the 10 to 15 degree list could have been stabilized by "properly trained and knowledgeable personnel" (NTSB, 1983: 58). The reader is further informed that a particular problem existed on the Ocean Ranger. The ballast control operator felt that the best way to ensure the stability of the rig was to maintain the central ballast tanks full and flood or dewater the bow and stern tanks as needed. This was contrary to what was recommended in the ODECO operating manual and would allow a bow or stern list to develop quickly (NTSB, 1983: 59-60). In short, the reports noted that the ballast control room operators were able to handle the day-to-day routine but were not trained for emergency situations.

The Radio Operator of the Ocean Ranger began transmitting a distress call for assistance at 0052 hours, February 15, 1982 indicating that the rig was experiencing a severe list. At 0130 hours the crew went to the lifeboat stations and abandoned the rig shortly after. The rig, however, remained afloat until approximately 0310 hours, February 15, 1982 when it capsized and sank (NTSB, 1983: 52; USCG, 1983: 133).

The Safety Board Report and the Coast Guard Report both indicated that all crewmen most likely died of hypothermia (loss of
body heat to the surrounding water. There was evidence, however, that some bodies were sighted floating face-down in the water. The Coast Guard Report concluded that the performance of the life jackets did not contribute to the men's death. However, both reports recommend a review of the design and certification system of USCG approved life jackets (USCG, 1983: 135; NTSB, 1983: 78).

In both reports a post-factum reconstruction of the events occurs. This is required by the fact that none of the 84 crew members of the Ocean Ranger survived to testify. Through an exhaustive probe of the facts or bits of information, gathered from workers employed on nearby rigs, the inquiry pieced together a sequence of events that may have occurred on the Ocean Ranger. The audience is invited to participate in this logical method of investigation by suggesting possible scenarios of events when information is lacking. In this way the readers can construct, in their own mind, a meaningful and commonsensical disaster sequence.

What is the Official cause of the capsizing and sinking of the Ocean Ranger?

The National Transportation Safety Board determines that the probable cause of the capsizing and sinking of the U.S. mobile offshore drilling unit OCEAN RANGER was the flooding of the anchor chain lockers in the forward columns when it took on a 10° to 15° list in the direction of the severe wind and wave action. The list was a result of the transfer of liquids from other tanks or otherwise filling empty or partially empty forward ballast tanks in the OCEAN RANGER's lower hull after its ballast control console suffered an electrical malfunction from seawater entering through broken portlight(s)
and the crew's inability thereafter to manually control the operation of the ballast control system's valves to correct the list. Contributing to the capsizing and sinking was the failure of the management of ODECO to have an effective program to provide sufficient training and familiarization in the operation of the ballasting system to pertinent personnel in the OCEAN RANGER and the failure of the portlight(s) for undetermined reasons.

(NTSB, 1983: 76)(emphasis added)

Based on all available evidence, the Board finds that the initial event that led to the loss of the OCEAN RANGER was the failure of the portlight(s) in the ballast control room. The exact cause of failure is unknown, but may subsequently be determined by future laboratory testing contemplated by the Canadian Royal Commission. Regardless of the cause, the failure of the portlight(s) initiated an unbroken chain of events which concluded with the capsizing and sinking of the rig. This chain of events was not an inevitable progression and could have been broken by competent human intervention. The exact time of the portlight failure(s) is unknown but most probably occurred prior to 1945 on 14 February.

(USCG, 1983: 127-28)(emphasis added)

We will provide a point form summary of our findings

<table>
<thead>
<tr>
<th>Temporary Failure</th>
<th>Human Fallibility</th>
<th>Mistaken Allegation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Ocean Ranger had experienced similar storms without difficulty.</td>
<td>1. The master of the Ocean Ranger, who was in control of ballast control, had little knowledge of the system's operation or its capabilities.</td>
<td>1. The sinking of the Ocean Ranger was not due to structural problems.</td>
</tr>
<tr>
<td>2. The Ocean Ranger was a very stable drilling platform.</td>
<td>2. When the ballast control panel malfunctioned the control room operators did not have sufficient training to operate the system manually. Properly trained personnel could have corrected the list.</td>
<td>2. All crew died from hypothermia and not from drowning.</td>
</tr>
<tr>
<td>3. The breaking of a portlight in the ballast control room produced a sequence of events that led to the sinking of the Ocean Ranger.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. The chain lockers had no alarm system or pumps to dewater the compartments. The crew abandoned the rig one and a half hours prior to its sinking.

Again the transitory nature of the disaster is emphasized while down-playing working conditions that caused serious hazards. Attention shifts from the structural level and focuses on individual failure as a causal factor. We now move on to the second higher order conceptual level and repeat the procedure employed in Chapter Three.

4.3 B Marine Board of Investigation - Conceptual Level 2: Legal Coherency and/or Administrative Rationality

The Safety Board Report and the Coast Guard Report contain few details of how the Boston and New Orleans hearings were actually conducted. However, the United States Code of Federal Regulations provides a detailed account of the powers of the investigating officer involved in the inquiry of a marine casualty or accident.

Such investigating officer shall have the power to administer oaths, subpoena witnesses, require persons having knowledge of the subject matter of the investigation to answer questionnaires and require the production of relevant books, papers, documents and other records.

Attendance of witnesses or the production of books, papers, documents or any other evidence shall be compelled by a similar process as in the United States District Court.

(46CFR.4.07-5(b)(c))

In addition to these stipulations all sessions of a Marine Board of Investigation, for the purposes of obtaining evidence, are normally open to the public. Exceptions occur when evidence of a classified nature or affecting national security is being
presented. The testimony of all witnesses is transcribed and a complete record of the proceedings is kept (46CFR 4.09-17, 20). The regulations also indicate procedures for conducting investigations and hearings.

4.07-30 Testimony of witnesses under oath.

(a) Witnesses to marine casualties or accidents appearing before an investigating officer may be placed under oath and their testimony may be reduced to writing.

4.09-15 Time and place of investigation, notice of; rights of witnesses, etc.

Reasonable notice of the time and place of the investigation shall be given to any person whose conduct is or may be under investigation and to any other party in interest 15. All parties in interest shall be allowed to be represented by counsel, to cross-examine witnesses, and to call witnesses in their own behalf.

4.19-5 Adherence to rules of evidence.

As hearings under this part are administrative in character, strict adherence to the formal rules of evidence is not imperative. However, in the interest of orderly presentation of the facts of a case, the rules of evidence should be observed as closely as possible.

(46CFR 4.07-30(a); 4.09-15; 4.19-5)

We are reminded that regulations also exist for a joint National Transportation Safety Board/Coast Guard investigation of a major marine casualty. The regulations state that the Safety Board may designate a person or persons to participate in every phase of the investigation conducted by the Marine Board of Investigation. Furthermore, persons designated by the Safety Board may make
recommendations about the scope of the investigation. They may call
and examine witnesses, and may also submit or request additional
information (46CFR4.40; 49CFR850.30).

In the Coast Guard Report the reader is informed that immedi-
ately after the Ocean Ranger sank, two Marine Inspectors were sent
to St. John's Newfoundland. They were joined by one Coast Guard
investigator and one National Transportation Safety Board Investi-
gator. The two investigators later became part of the Marine Board.
The reader is told how the selection of witnesses was conducted:

In conjunction with Canadian Federal and
Provincial officials, unsworn statements were
taken from all personnel having information
about the OCEAN RANGER prior to and during
the casualty. Tape recordings of the inter-
views were made, and rough transcripts pro-
vided to the Board. Based on these interviews,
 witnesses were selected to give sworn testimony
before the Board. When the (Canadian) Royal
Commission was convened, a productive liaison
was established which contributed to the fact
finding efforts of the Board.

(USCG, 1983: ii)

The Safety Board Report and the Coast Guard Report provide
detailed, technical information about the Ocean Ranger or the condi-
tions that prevailed on February 14 & 15, 1982. In many instances
actual testimony from witnesses is recorded verbatim in the report.
This testimony is used to establish the exact (approximate) time
the Ocean Ranger stopped drilling and the failure or breaking of
the ballast control room portlights. In the Coast Guard Report,
snippets of testimony are followed by the author's assessment of
the testimony. The following is an example.
Mr. King was a sincere, straightforward witness. His testimony on the above point was not self-contradictory, nor was he discredited during cross-examination or redirect questioning. However, in analyzing his testimony it is readily apparent that Mr. King is unsure of the exact time of this conversation he had overheard. It is also readily apparent that he was an unconcerned witness to this conversation and had merely overheard it. Therefore, Mr. King's account of the content of this conversation must be viewed with some reservation.

(U.S.C.G., 1983: 77)

Their involvement with the total investigation procedure allows members of the Marine Board of Investigation to become "knowledgeable" of the totality of the accident. They hold a position that no other individual can lay claim to—they become a site of judicial authority. The Marine Board members are able to exercise their authority and adjudicate on the reliability of the testimony presented. Furthermore, the members of the Marine Board become an authorized interpreter of scientific information. In this capacity, the Marine Board members are able to mediate between the scientist and the lay person by offering possible scenarios for unexplained events on board the Ocean Ranger.

The Board offers for consideration the following scenarios based on the conviction that the initial list was caused entirely by ballast control panel malfunction (electrical), entirely by personnel error, or by some combination thereof.

(U.S.C.G., 1983: 97)

...the Safety Board does not believe that the broken portlight(s) could have caused the ballast pumps to become inoperative since the ballast pumps could have been operated from the pumproom if the controls in the control...
room had become wet. Because the manual actuating rods were found inserted in the solenoid valves in the ballast control console, the control panel was probably deenergized before the capsizing. The Safety Board believes that the actuating rods may have been inserted before the 0052 distress call and that the severe list reported at 0052 may have been a result of the crew's attempt to deballast, using the manual control method. Since it is probable that no one aboard the OCEAN RANGER had ever used the manual system it may have taken some time to insert the rods.

(NTSB, 1983: 58)

To continue this line of interpretation, the Safety Board Report draws a comparison between the sinking of the Ocean Ranger and the capsizing of the Alexander Kielland in the North Sea in March 1980. The point of comparison is the difficulties in launching lifeboats, in heavy seas, from drilling platforms and the benefits of survival suits.17 (NTSB, 1983: 50-52)

The recommendations of the Coast Guard Report are channelled directly to the Commandant of the United States Coast Guard. The intent of most of the recommendations is directed toward improvement of Coast Guard regulations. Other recommendations acknowledge that certain standards must be improved. This is particularly evident in the recommendations on the improvement of lifeboat launching mechanisms for drilling rigs. The report suggests a joint industry and government effort to address this problem. The Safety Board makes recommendations to the Ocean Drilling and Exploration Company, the International Association of Drilling Contractors, Mobil Oil of Canada, the American Bureau of Shipping and the United States Coast Guard.18
To illustrate the legal coherency and administrative rationality of the Marine Board of Investigation we will present the following questions.

What was the composition of the inquiry?

What groups were represented?

Chairman (Marine Board of Investigation) -- Rear Admiral Henry Bell

Principal Representatives -- Captain P.J. Cronk, United States Coast Guard.

-- Captain H.T. Blomquist, United States Coast Guard.

-- Ralph Johnson, Naval Architect, National Transportation Safety Board.

-- Paul Esbenson, Investigator, National Transportation Safety Board.

Legal Counsel -- P.D. Hunter, Mobil Oil of Canada

-- G.A. Frilot, ODECO

How was the accident investigated? What kind of evidence did the Marine Board investigate? Who provided the information?

This accident was investigated jointly by the National Transportation Safety Board and the U.S. Coast Guard. Public hearings were held in Boston, Massachusetts, from April 20 to April 29, 1982, and in New Orleans, Louisiana, from June 7 to June 10, 1982. This report is based on the actual information developed by that investigation. The Safety Board has considered all facts pertinent to the Safety Board's statutory responsibility to determine the cause or probable cause of the accident and to make recommendations.

The Safety Board's analysis and recommendations are made independently of the Coast Guard.
To insure that the public is aware of all Safety Board recommendations and responses, all such recommendations and responses are published in the Federal Register.

(NTSB, 1983: 1)

Immediately after the casualty, the Board sent two Coast Guard Marine Inspectors to St. John's, joined soon after by one Coast Guard Investigator and one National Transportation Safety Board Investigator who were members of the Marine Board.

In conjunction with Canadian Federal and Provincial officials, unsworn statements were taken from all personnel having information about the OCEAN RANGER prior to and during the casualty. Tape recordings of the interviews were made, and rough transcripts provided to the Board. Based on these interviews, witnesses were selected to give sworn testimony before the Board.

(USCB, 1983: ii)

Four specific studies were conducted to evaluate and analyze the characteristics of the Ocean Ranger and some of its equipment. The following passages are from the Coast Guard Report but information obtained from these studies was also used by the National Transportation Safety Board.

Stability Study

This study was conducted by the U.S. Coast Guard Merchant Marine Technical Office in New Orleans. It's purpose was to determine the effect on the rig's attitude in calm water of shifting and/or adding various weights.

Seakeeping Studies

Two studies of the OCEAN RANGER's seakeeping ability were conducted to evaluate the effects of the seaway on the rig. One of those studies was performed by the U.S. Coast Guard Marine
Technical and Hazardous Materials Division in Washington DC, while the second was performed by the U.S. Navy David W. Taylor Naval Ship Research and Development Center.

Ballast System Studies

Two studies were conducted of the OCEAN RANGER’s ballast pumping capabilities and limitations, given certain attitudes of list. One of these studies was performed by the U.S. Coast Guard Marine Technical and Hazardous Materials Division in Washington DC, while the second was performed by the U.S. Navy David W. Taylor Naval Ship Research and Development Center.

Lifesaving Equipment Performance Study

This study was conducted by the U.S. Coast Guard Headquarters in Washington DC to evaluate the performance of the OCEAN RANGER’s lifesaving equipment and determine, if possible, how and why it sustained damage.

(USCG, 1983: 71-72)

We will again use a point form summary of our findings.

Legal Coherency

1. Evidence taken under oath. Rules of evidence observed as closely as possible.

2. Parties allowed to be represented by counsel.

3. Hearings open to the public. Testimony recorded and retained.

4. Reconstruction of events using witness testimony.

5. Adjudication of witness testimony to determine factual evidence.

Administrative Rationality

1. Joint investigation, but separate reports issued.

2. Possible scenarios arrived at by scientific investigation.

3. The comparison of similar events.

4. Recommendations directed through bureaucratic channels.

We will now examine the third higher order conceptual level and repeat the procedure employed in Chapter Three.
4.5 C Marine Board of Investigation - Conceptual Level 3:

Manufacturing the Consent of Representatives to the Official Explanation for the Disaster, Thereby Reproducing Hegemonic Order

The primary objective of a commission of inquiry into a workplace accident is to reproduce hegemony. The process whereby the state "wins" the consensus of the general population is not a direct one. As we noted in Chapter Three, the state retains the confidence of various groups and classes in society by incorporating or inserting their representatives into various organizations and committees. The principles of liberal democracy allow groups in society to elect or employ representatives that enter into structures established by the state. Unorganized groups often have an agency assigned to represent their interests. These advocates sometimes represent specific interests, frequently they are defined as representing the interests of the general public. The composition of these organizations reflect equality of membership. However, the class location of the various representatives maintain their dominant or subordinate position in a capitalist social formation. The Marine Board of Investigation is one such organization we will examine in detail.

Three groups are incorporated into the Marine Board of Investigation—the State, the general public and private industry. The United States Coast Guard represents the interests of the state by carrying out the regulatory and enforcement aspects of marine safety. This includes the inspection and certification of foreign and domestic vessels. The Coast Guard also issues certificates of
approval of the design and materials used in construction as well as the certification of qualified construction personnel. The Coast Guard must also license all Merchant Marine Officers and seamen. Additionally, the Coast Guard is responsible for the investigation of marine casualties or accidents.

The general public is represented on the Marine Board by the National Transportation Safety Board. The primary function of this independent agency is the promotion of safety in transportation. This is accomplished through four principal units of the Safety Board:

1. The Office of Public Affairs, which supplies the public, the news media, and the transportation industry with current, accurate information concerning the work, programs, and objectives of the Board.

2. The Bureau of Accident Investigation which conducts all transportation accident investigations within the Board's jurisdiction... prepares a public report on such accidents for submission to the Board...initiates safety recommendations to prevent future transportation accidents...

3. The Bureau of Technology, which provides technical advice and services, conducts research, and carries out analytical studies and tests on any aspect of the Board's accident investigation, accident prevention, or safety promotion activities, including safety recommendations, special studies, and special safety investigations.

4. The Bureau of Plans and Programs, which develops accident prevention and safety promotion plans and programs, prepares periodic transportation safety reports... plans safety communication, liaison, and coordination programs; prepares transportation safety policy proposals;...coordinates safety program evaluations.

(49CFR800.2(b)(e)(f)(g))
Although the Safety Board's principal function in the case of the Ocean Ranger sinking was fulfilled by the Bureau of Accident Investigation, the agency has a mandate to protect and ensure the safe transportation of the general public.

Private industry is represented on the Marine Board of Investigation through their legal counsel. Mobil Oil Canada and ODECO were permitted to have lawyers present at the public hearings in Boston and New Orleans. This right is guaranteed under the Code of Federal Regulations:

All parties in interest* shall be allowed to be represented by counsel, to examine and cross-examine witnesses and to call witnesses in their own behalf.

Witnesses who are not parties in interest may be assisted by counsel for the purpose of advising such witnesses concerning their rights; however, such counsel will not be permitted to examine or cross-examine other witnesses or otherwise participate in the investigation.

(46CFR4.10-35)

Unlike the Glace Bay Inquiry, labour does not have a formally designated representative in the investigation. We cite two reasons for this apparent lack of representation. First, because the Marine Board of Investigation is convened under the Authority of the Commandant, United States Coast Guard, its primary concern is with a violation of federal regulations. Therefore, the investigation of a marine accident will determine as closely as possible the following:

*See footnote 15 for definition.
1. The cause of the accident;

2. Whether there is evidence that any failure of material (either physical or design) was involved or contributed to the casualty, so that proper recommendations for the prevention of the recurrence of similar casualties may be made;

3. Whether there is evidence that any act of misconduct, inattention to duty, negligence or willful violation of the law on the part of any licensed or certificated man contributed to the casualty, so that appropriate proceedings against the license or certificate of such person may be recommended and taken;

4. Whether there is evidence that any Coast Guard personnel or any representative or employee of any other government agency or any other person caused or contributed to the cause of the casualty;

(46CFR4.07-1(c))

Secondly, the Coast Guard's definition of "party in interest" provides another indication of the primary concern of the Marine Board.

The term "party in interest" shall mean any person whom the Marine Board of Investigation or the investigating officer shall find to have a direct interest in the investigation conducted by it and shall include an owner, a charterer, or the agent of such owner or charterer of the vessel or vessels involved in the marine casualty or accident, and all licensed or certificated personnel whose conduct, whether or not involved in a marine casualty or accident is under investigation by the Board or investigating officer.

(46CFR4.03-10)

We conclude from these statements that the concern of the Marine Board of Investigation is to attach a physical or material cause to the accident and is only tangentially concerned with the death of the eighty-four crewmen. The workers do not constitute
death of the eighty-four crewmen. The workers do not constitute
a recognized group or interest to be included in the Marine Board
of Investigation. However, these men are not neglected, rather the
"interest" of the working class is residually subsumed under the interests
of the "general public". Representation is taken up by the National
Transportation Safety Board which we are reminded has a secondary
role in the joint investigation. Also its recommendations are
adopted on a voluntary basis.

The United States Coast Guard, the National Transportation
Safety Board, the lawyers for Mobile Oil and ODECO are incorporated
into the investigation procedure. The findings of the Marine Board
of Investigation must resolve the "mystery" of the sinking of the
Ocean Ranger and arrive at a normative conclusion. It is not sur-
prising that both the Safety Board Report and the Coast Guard
Report arrive at the same probable cause of the marine casualty.
The format of the investigation, the testimony presented and the
technical studies conducted provided the evidence needed to arrive
at a "factual" judgement. The inquiry reports however, are needed
to transfer this testimony and technical information (i.e. selected
knowledge) into the conclusions and recommendations (i.e. political
practices) of the Safety Board and the Coast Guard. Again we see
the state, vis à vis the Marine Board of Investigation, defining
the cause of the workplace disaster in a way that confronts the
crisis in capitalist social relations and appropriates unofficial
versions of the incident. Consequently, the state takes a leading
role in restoring hegemonic order in society. This is accomplished
by renegotiating and reinstating class relations in the workplace. An attempt will be made to prevent the reoccurrence of the disaster by supervising capital and labour. The state will also provide a critique of its own agencies in an effort to improve their supervisory role.

We must present some questions to the text to reveal how the Safety Board and the Coast Guard accomplish these tasks.

How is Capital Supervised?

The supervision of capital is contained in the conclusions and recommendations of both the Safety Board Report and the Coast Guard Report. However, the method of supervision is quite different. In the conclusions capital is supervised by pointing out management deficiencies that existed on board the Ocean Ranger.

We must remember that the report can never be totally repressive but must instruct by example.

The master of the OCEAN RANGER was not provided a sufficient indoctrination period with the alternate master when he reported for duty on January 26, 1982.

The OCEAN RANGER's Operating Manual did not contain adequate information or provide guidance to the master and control room operator of emergency procedures to be followed in the event of an electrical malfunction in the ballast control console.

(NTSB, 1983: 74)

The lack of detailed instructions regarding the use of, and training in the operation of, the OCEAN RANGER's ballast system significantly contributed to this casualty.
The OCEAN RANGER's Booklet of Operating Conditions was not a readily usable document for onboard personnel.

(USCG, 1983: 131, 137)

It is in the Recommendations of the two reports that the process of supervision is articulated and formalized.

to the Ocean Drilling and Exploration Company

Provide all your mobile offshore drilling units that operate in waters where hypothermia can greatly reduce an individual's survival time with exposure suits for each person on board...

Install a permanent pumping system to dewater the chain lockers on all new and existing mobile offshore drilling units.

Include in the operating manuals on semi-submersible mobile offshore drilling units detailed operating instructions for emergency operation of the ballast system in the event that the primary control system fails.

(NTSB, 1983: 78, 81)

In the Recommendations of the Coast Guard Report we find the following examples of the supervision of capital.

The U.S. Coast Guard initiate a regulatory project to require owners and/or operators of MODU's to provide a standby vessel.

The U.S. Coast Guard initiate a regulatory project to require that all normally unmanned spaces onboard MODU's that are vulnerable to substantial undetected flooding be equipped with flooding alarms, or suitable alternative means of accomplishing the intent of this recommendation.

The U.S. Coast Guard require by regulation that descriptive manuals and instructions be provided for use by the crew on each MODU describing the major vessel systems and their design capabilities in respect to normal operations,
operations not encountered during day to day operations, and operations during emergencies or casualties including alternative means of operations.

The U.S. Coast Guard require regulation that, prior to assignment to a MODU, the owner shall certify in writing to the U.S. Coast Guard that an Unlimited Master, hired to satisfy the requirements of the Certificate of Inspection has received sufficient additional training to familiarize him with those aspects of MODU's that are unique and beyond the knowledge and skills one would normally possess by virtue of the license he holds. These regulations should also require that the owner shall specify, in the Booklet of Operating Conditions, that the Master make initial and periodic reviews of the rig specific descriptive manuals and information.

(USCG, 1983: 141-145)

It is noted that the recommendations are made to the Coast Guard (the state) but supervisory action is directed toward the owners and operators of offshore drilling rigs (capital). However we would argue that implicit in the language used is a fraternal critique of the Coast Guard for not having made these regulations previously.

How is Labour Supervised? How are Class Relations Renegotiated and Reinstated in the Workplace?

There are qualitative differences between the Glace Bay explosion and the sinking of the Ocean Ranger. We will offer an analysis of the specificity of the Ocean Ranger disaster and the way it was investigated. Thus, we will show that in contrast to the situation in Glace Bay the reports of the Ocean Ranger sinking reinstated class relations and supervised labour in very broad terms.
The crew of the Ocean Ranger was composed mainly of Canadian citizens.\textsuperscript{20} The owner of the rig (ODECO Drilling of Canada) and the operator (Mobil Oil of Canada) were subsidiaries of United States based firms\textsuperscript{21}. The regulation of drilling on the east coast come under Canada Oil and Gas Lands Administration. As part of its mandate this agency administers the Canada Oil and Gas Drilling Regulations which require specific safety equipment to be available on drilling units. The Newfoundland Petroleum Directorate also claim jurisdiction over drilling off its coast.

Like most rig workers on the east coast, the crew of the Ocean Ranger was not unionized. Their unorganized status as workers placed them on an individual basis, directly under the control of their employer. This situation was compounded when it came to the health and safety of workers because of the jurisdictional dispute between Ottawa and St. John's.

There are clear indications that certain Ocean Ranger employees were "on trial" at the Marine Board hearings. However, there is a distinct futility in applying disciplinary action since all crewmembers died in the accident. Also, the judicial logic under which the hearings were conducted made it difficult to pass judgement on individuals who were unable to defend or explain their actions. Furthermore, the hearings were convened to establish the cause of the accident and were "not intended to fix civil or criminal responsibility" (46CFR4.07-1(b)).

The specific conditions of the Ocean Ranger accident and its subsequent investigations did not mean that labour was not supervised or that class relations were not reinstated. What it did
mean, however, was that these tasks were expressed in very broad terms in the reports by the Safety Board and the Coast Guard. In the conclusions of the Coast Guard Report we find instances in which it is not only suggested that management maintain control over workers but that more effective control is needed and would be to the advantage of all workers

Had a training program and detailed instructions on the use of the ballast system been available it is quite likely that the chain of events leading to the loss of the OCEAN RANGER could have been broken at any time from the malfunction of the ballast control console to the point where substantial flooding of the chain locker(s) had occurred.

(USCG, 1983: 131)

...the ballast control room operators and masters should have received specific formal instruction and training in the use of the Operations Manual.

(USCG, 1983: 137)

In the Safety Board Report we find similar recommendations for closer control of labour.

There is also a need for ODECO to prescribe the duties and responsibilities of the person-in-charge and the master.

(NTSB, 1983: 69)

ODECO should prescribe the duties and responsibilities of ballast control room operators on its drilling rigs so that minimum training requirements can be established for those persons who are to become control room operators. Each prospective operator should be required to attend ODECO's stability school in New Orleans (or a similar school) before assuming the duties of ballast control room operator.

(NTSB, 1983: 72)
How is the State's Role as Superintendent Improved?

When a workplace disaster occurs, the performance and procedures of various state agencies will often come under scrutiny. The ability of the agency to enforce the regulations, laws and standards the state has established will be examined. Lapses of enforcement or inadequacies in the procedures will be pointed out by the investigating body and specific improvements will be recommended. Consequently, in conclusion twenty seven of the Coast Guard Report the audience is told

While unrelated to this casualty, the Board notes that the current experience and training prerequisites for the U.S. Coast Guard issued Industrial Master's License are inadequate. Specifically the existing experience and training prerequisites for stability are insufficient to insure that an individual receiving a license as an Industrial Master is possessed of a suitable level of understanding and experience in stability in order for him to successfully discharge his responsibilities for stability on board a drilling rig such as the OCEAN RANGER.

(USCG, 1983: 138)

The Safety Board is more direct in its critique of the United States Coast Guard and the American Bureau of Shipping.

The U.S. Coast Guard, the American Bureau of Shipping, and the International Maritime Organization MODU standards do not take into consideration the effects of accidental flooding of lower hull tanks and compartments on semi-submersible MODU's.

(NTSB, 1983: 74)

The U.S. Coast Guard does not have an established procedure for notifying vessel owners when their U.S. Coast Guard Certificates of Inspection are about to expire.
There is a need for the U.S. Coast Guard to establish a consistent policy for the interim reinspection of all U.S. flag MODU's worldwide.

The establishment by the U.S. Coast Guard of minimum qualification standards for masters, persons-in-charge, and ballast control room operators and manning standards for MODU's is long overdue.

(NTSB, 1983: 75)

4.6 Summary

We have argued that a crisis of hegemony requires that the state exercise its authority to shape and direct social life. We have also argued that one such crisis of hegemony is the workplace disaster. In order to regain hegemonic domination the state must repair this rupture in the social fabric. In this chapter we have seen the state leading society back to a normal period (where consensus is reached and conflict disappears).

The conclusions of the investigating bodies become the official (state) explanation for the sinking of the Ocean Ranger. Alternative explanations are left unexplored, and as a consequence, become unofficial, unscientific or simply false. The commission could have exposed the fact that when safety drills were conducted half the crew was likely trying to obtain some much needed rest. They could also have mentioned that a structural flaw in the "tour of duty" led to employees assuming responsibilities they could not fulfill. Instead "blame" was placed on the individual for not knowing proper procedures. Finally, the investigators could have addressed the fact that reducing the skill required
to perform a job had directly contributed to the ballast control operators knowing only the basics of their task. Rather, they suggested more company based training and left the underlying problem untouched.

The exclusion of other accounts of the disaster allows the state the opportunity to shape and determine the direction of thought and action. Structuring the inquiry in a particular way has meant that the cause of the sinking will be sought using selected information that has been obtained by specific methods. The overarching concern of the investigation is to determine the physical cause. In addition there is a concern that federal regulations may have been violated. If so then the person or persons must be disciplined. However, punishment is not the only concern of the investigation for in order to lead and direct the state must instruct by example. We have noted that while the recommendations of the investigating bodies suggest enforcement or regulation, the conclusions instruct by pointing out unacceptable conditions and practices.

Just as the conclusions must be based on factual information, the recommendations for change must also have legitimate authority. This is assured by following the principles of legal epistemology and using bureaucratic methods. Furthermore, the public is offered a choice or an illusion of choice by being presented with two reports from independent sources.

The representatives of various groups in society are included in the Board of Investigation. However, the working class is not represented directly. They are included under a broader category
CHAPTER 5

SUMMARY AND CONCLUSIONS
interpretations of disaster and the various perspectives that have emerged to explain worker injury and death. We must call upon our discussion of the role of the state in society. Finally we will apply the arguments we have developed about the part the state plays in the production and reproduction of hegemonic order.
Footnotes

The contract between Ocean Drilling and Exploration Company (ODECO) and Mobil Oil of Canada (MOBIL) stipulated that ODECO would provide the Ocean Ranger with 38 drilling personnel, including the toolpusher, the master, 2 control room operators and 2 radio operators. ODECO also provided all hotel services, including food catering (8 persons). Mobil provided all other support services, equipment, supplies and personnel including all marine and air transportation to and from the drilling unit, a standby vessel, and weather forecasting and diving services (NTSB, 1983: 11).

Each person aboard the Ocean Ranger, except the toolpusher and the master, worked a 21-day "tour", which included 12 hours on duty and 12 hours off duty, and then each was off duty for 21 days. The toolpusher and the master were on call continuously.

The Ocean Ranger was 398 feet long, 262 feet wide, and 151 feet high excluding the derrick.

In 1982 this responsibility was transferred to the Canadian Oil and Gas Lands Administration (COGLA).

A major marine casualty is defined as one that causes serious damage to material and results in loss of life or serious injury to crew and/or passengers. When a marine accident is defined in such a way the Commandant of the United States Coast Guard convenes a Marine Board of Investigation.

The procedure for convening a Marine Board of Investigation will be described later in this section.

To avoid confusion the Marine Accident Report submitted by the National Transportation Safety Board will be designated as the Safety Board Report. The Marine Casualty Report submitted by the Marine Board of Investigation to the Commandant of the United States Coast Guard will be designated as the Coast Guard Report.

The concept temporary failure, human fallibility, mistaken allegation is identical to the concept used in Chapter Three. To avoid repetition we will briefly review the definition. The crisis/disaster is seen as an exceptional moment rather than the rule—a temporary failure in a normal situation. All humans make mistakes, therefore, human fallibility is a material reason for the disaster event occurring. In order to negate contradictory or unofficial explanations of the incident, allegations are shown to be mistaken. This is done by inviting the reader or audience of the report to arrive at a logical and commonsensical understanding of the events.
The United States Coast Guard requires a renewal of a vessel's Certificate of Inspection every two years. The Ocean Ranger was due for reassessment on December 27, 1981. Ocean Drilling and Exploration Company (ODECO) did not apply for a new certificate until January 27, 1982. A team of Coast Guard inspectors was leaving for St. John's on February 15, 1982 when they learned of the accident. Therefore, at the time of the sinking, the Certificate of Inspection had expired and ODECO was in violation of Coast Guard regulations. Under these circumstances it became important to show that the vessel was seaworthy at the time of its capsizing.

Captain Hauss had been Master of the Ocean Ranger only 20 days prior to its sinking and had received no "break in period" from the previous Master before he assumed his duties. The Captain or Master on board a semi-submersible rig, like the Ocean Ranger, is in an ambivalent position of authority. When the oil rig moves under its own power it is considered a ship. The Ocean Ranger's Booklet of Operating Conditions specified that at these times the Master was in charge of the rig. While anchored on location for the purposes of drilling the Toolpusher assumed the senior position over all others on board, including the Master. This conflicting situation was made possible by the Coast Guard regulation 46CFR109.107 which states, "The owner of a unit or his agent shall designate an individual to be the master or person-in-charge of the unit." Although the Master of the Ocean Ranger had to have specific experience and knowledge, as required by the U.S. Coast Guard, the person-in-charge of the Ocean Ranger (i.e. Toolpusher) did not require a marine license of any kind.

See Appendix V, figures 1 and 2, for details on the location of the Ballast Control Room and position of the broken portlights.

It was determined during the inquiry that sea water splashed over the control panel and caused a short circuit of the system. The ballast control panel had a back-up system that could be controlled manually by inserting metal rods into the control console thereby activating valves.

See Appendix V, figure 1.

Legal coherence is defined as a procedure that embodies the aspiration of judicial epistemology. A recreation of the totality of events is accomplished through comparative analysis, research and objective and/or independent evidence. This allows conclusions to be made from factual knowledge and expert opinion.

Administrative rationality is defined as an adherence to established procedures. Recommended changes are made through proper channels. Committees are established using democratic principles. There is a public disclosure of information. Often there is a fraternal critique of other state agencies. This final point is perceived to be an expression of the ultimate rationality and impartiality of an investigating commission.
In short legal coherency is the image the commission wishes to project. Administrative rationality is the method used to accomplish this image.

15 Party in interest is defined in the Code of Federal Regulations as:

The term "party in interest" shall mean any person whom the Marine Board of Investigation or the investigating officer shall find to have a direct interest in the investigation conducted by it and shall include an owner, a charterer, or the agent of such owner or charterer of the vessel or vessels involved in the marine casualty or accident, and all licensed or certificated personnel whose conduct, whether or not involved in a marine casualty or accident is under investigation by the Board or investigation officer.

(46CFR4.03-10)

16 Some examples of this descriptive and technical information are: rig description, prior deployment history, background of key personnel, events of 14 February, rescue operations, medical and pathological information.

17 Waterproof survival or exposure suits protect their wearers from the effects of hypothermia thereby greatly increasing the possibility of rescue. It was estimated that the crew of the Ocean Ranger only survived a matter of minutes in the frigid waters of the North Atlantic.

18 We speculate that this list also constitutes part of the "audience" of the Safety Board Report. An implicit member of the audience is the general public.

19 We provide the following as an example of assigned representation. A provincially run Human Rights Commission is organized to represent the interest of the general public. However, the nature of the work requires that it be concerned with minority groups in the population. Nevertheless, the services of the commission; which include legal powers, are available to all individuals. Persons wishing to use these legal services must do so by inserting themselves into the human rights agency.

20 Canadian citizens 68; U.S. citizens 15; British citizens 1.

21 At the time of the casualty the Ocean Ranger was owned by ODECO International Inc., a subsidiary of ODECO, Inc. of New Orleans, Louisiana. However, the Ocean Ranger was under charter from ODECO International, Inc. to ODECO Drilling of Canada, Ltd., also a subsidiary of ODECO Inc. ODECO Drilling in turn leased the Ocean Ranger to Mobil Oil of Canada, Ltd., a subsidiary of Mobil Oil Corporation with headquarters in New York.
CHAPTER 5

SUMMARY AND CONCLUSIONS
5.1 Overview

The contribution of this thesis has been in its ability to draw together three seemingly dispersed topics: 1) the role of the state in advanced capitalist society, 2) the disasters that occur in the workplace and 3) the commissions or boards of inquiry that are established to resolve these socially disruptive events. In the main body of the thesis we have presented these three topics in an attempt to show the reader that within a capitalist social formation many situations, constraints, cultural definitions, and cultural solutions interconnect to determine the outcome of events. We can conclude that the patterns and structures that shape, limit and contain alternative solutions to social problems are frequently not apparent to those people directly involved in the "crisis moment".

In this final section we will attempt to provide the reader with a better understanding of the structures, and constraints that influence the health and safety of workers. Our conclusions will draw on material from all parts of the thesis in order to show that a discussion on theories of the state, explanations for disasters and an examination of commissions of inquiry can inform our understanding of worker injury and death on the job.

5.2 State Involvement in the Workplace

In Chapter One we looked at the continuous production of energy in Canada. We found that, historically, many structural conditions in society have dictated where workers will be employed, how they will be employed and the occupational risks they will encounter.
We also established that "attempts by the welfare state" to compensate for some of the destructive effects of uneven capitalist development, at the local and national level, has required that state agencies play a significant role in defining where workers will be employed both geographically and by sector of the economy.

One of the overarching concerns of the capitalist state is the maintenance of class relations and the relations of production. In order to allow the accumulation process to continue the state must maintain a certain level of social cohesion and social harmony (eg. social order). This can be defined in broad terms as establishing control over possible destructive events. Offe (1975) indicated that these threats included competition from other accumulating units, the working class and criminal elements that could be disruptive to the production/accumulation process.

In the Cape Breton coal mining industry threats to the accumulation process, from the working class, initially drew a military response. This was replaced by legislation to establish management-labour relations. When the coal industry was threatened by cheap sources of oil and rapidly expanding technology, the resources were socialized and this unproductive sphere of the local economy came under state control. Our examination of the involvement of the Canadian state in the "oil crisis" showed similar attempts at re-establishing social order. Since 1973 capitalist investment in petroleum and natural gas exploration has been "encouraged" in Canada by state policy and incentives. Additionally, the state has
invested in this exploration, through its crown oil company, in regionally specific areas of the country.

In the discussion on Cape Breton mining we found that the Nova Scotia state had a long history of investigating coal mine disasters. We speculated that the workplace disaster presented a threat to the accumulation process—one the state was obliged to regulate. However, before we could pursue our investigation of the role of the state in resolving workplace disasters, we had to come to a better understanding of how "disaster" was defined. More importantly, we had to understand the specifics of a workplace disaster.

5.3 Culturally Defined Disaster

We found that research has tended to describe a disaster as an unpredictable event, considered socially dysfunctional and requiring the quick restoration of order. Turner (1976) had a slightly different view of disaster. He indicated that as events (like disasters in the workplace) accumulate over time, they challenge the existing cultural assumptions (norms and beliefs) about how the world works and the acceptable hazards of daily life. If the state is going to maintain control, then adjustments must be made in the laws, statutes, specific beliefs and assumptions about safety on the job and the hazards associated with certain types of work. Rapidly changing beliefs and practices become threatening to dominant ideas and the groups in society that control knowledge production. Turner (1976) indicated that a period
of cultural readjustment occurred after a disaster. In order to contain and limit the changes that are produced by a disaster a public inquiry provides an acceptable forum in which the event can be examined and considered. Consequently, we concluded from this that a disaster was culturally defined and that a particular definition of disaster would carry with it implications of how the event could be prevented.

We would argue that the explosion in No. 26 colliery presented a challenge to the existing beliefs that most of the hazards of coal mining had been eliminated or controlled. In a similar way the sinking of the Ocean Ranger called into question the safety of exploring for oil and gas off the East Coast. Also challenged were federal and provincial policies that championed the social benefits of offshore exploration and the economic benefits of oil and gas revenues.

The public inquiries that followed these two disasters provided the cultural adjustment period during which the event could be redefined in a particular fashion, one that closed off or contained unofficial versions of the incident. The inquiry became the principal "theater" in which the "mystery" of the disaster was solved. However, workers are removed from this process and replaced by "experts" who use science and technology to arrive at the "cause" of the disaster. Inquiry board members, operating as a site of judicial authority, interpret the findings and articulate a formal plan that will prevent the disaster from re-occurring.
5.4 Dominant Explanations for Worker Injury

In our analysis we identified three approaches to the problems of workplace injury. They offered the following explanations for worker accidents: 1) the individual was at fault, 2) the accident was caused by an interplay of work environment and worker behaviour and 3) the conflicting and contradictory priorities between and within labour, government and management groups make it difficult to eliminate hazards in the workplace. The solutions to workplace accidents, according to these approaches, involves better education, regulation and technological innovation. In these ways workers can "learn" to work more safely and be adequately protected. Additionally, through negotiation, cooperation and preventative research many of the hazards of the workplace can be removed. We noted in our discussion that it is often expected that workers will injure themselves on the job. Payments to compensation schemes and other insurance premiums are considered one of the costs of production. However, while we argued that workplace disasters were large workplace accidents three factors maintain the notion that a disaster is an unpredictable occurrence. First, both natural and social scientific research has promoted the unexpected nature of disasters. Secondly, because a workplace disaster represents a threat to capitalist relations the event is redefined quickly as only a momentary failure of the system. Thirdly, unequal access to knowledge has meant that small groups of state officials and experts are the only persons with the authority to define and resolve a disaster. Nevertheless we did
learn that the unplanned nature of the workplace disaster turned it into an "event" inadvertently because unsafe conditions are exposed and become an embarrassment to capitalists and state officials. The failure of routine procedures and official statutes means that social order becomes problematic and must be re-imposed and recreated. Those in power must try to recapture and renegotiate social authority in light of what has already occurred.

When the reports from the Glace Bay explosion and the Ocean Ranger sinking are examined we can locate the interpretations these commissions have placed on the disaster events within the dominant approaches for dealing with occupational health and safety. First, in the Elfstrom Report instances of poor labour-management relations were identified. Also noted were situations when the combined work environment and worker behaviour could have contributed to a workplace accident (e.g. cutting coal when methane levels were above established safety limits). The primary emphasis of the report was on prevention rather than on blaming specific groups or individuals. However, the concept prevention involves better training for workers and closer cooperation between labour, management and the state. We have indicated that these "solutions" to the problem place the working class at a distinct disadvantage because the organization of knowledge is supportive of the position of the dominant classes. Furthermore, when representatives are inserted into official committees the class relations that operate in a capitalist society prevent equal participation by the working class or their representatives. This effectively reduces the ability of workers to enact any "real" or
lasting changes in the organization of the work process. At best they can only hope to pressure management or the state into placing a physical or legislative "guard" between workers and workplace hazards. The tragic irony of this situation is that the workers themselves know more about the hazards of the workplace, yet they are required to rely on others to protect them.

The Elfstrom report effectively shifts attention away from the responsibility Devco had to maintain a safe work environment. Instead the proposed solution is focused at the level of joint cooperation where Devco is ultimately in control of the situation and in charge of changes that may occur in the workplace. Furthermore, the report displaces the obligations of capital by making recommendations through bureaucratic channels where the state takes on the regulatory functions itself. When future disasters occur the state becomes a principal focus of investigation to determine if its branches were performing properly. Again this further reduces the accountability of capital for its actions.

The Safety Board Report identified poor training and the inattention of management as contributing factors in the disaster. The interaction of worker behaviour (inability to operate the ballast control system) and the work environment (violent storm) were underlying assumptions expressed in the Ocean Ranger report. In order to prevent a similar accident the oil companies were encouraged to train their workers more thoroughly. This, however, would strengthen not weaken the class position of the corporations. What started as a criticism of management is expressed as a control of labour.
Regulation by the Coast Guard (the state) was also considered an acceptable solution to the problem. Again we see the state accepting the task of regulation which shifts accountability for future disasters from the practices of capital to the efficient functioning of state branches. Also when an individual is licensed by the state (a form of regulation) they become responsible for actions they perform in the name of capital (eg. the captain of the Ocean Ranger). In the case of an accident the actions of the licensed individual become suspect. The actions of capital, such as the constant need to accumulate, which dictate how the person will act, do not come under scrutiny. The delegation of authority relieves capital of some of its obligation to ensure that employees have a safe environment in which to work.

Finally, not only was the idea that workers be given more control over their workplace not recommended by the Safety Board Report but in fact closer regulation by the state and by management was acclaimed to be a more acceptable preventative measure. In effect the report suggests that by enforcing class control the situation can be normalized.

The Coast Guard Report also saw poor training and natural elements as contributing to the Ocean Ranger disaster. However, in the course of their investigations the attention of the members of the inquiry was concentrated in two areas. First, they were concerned about gathering evidence about the physical or structural failure of the Ocean Ranger. Secondly, they were concerned with gathering evidence to prove or disprove that the misconduct, inattention or negligence of any licensed person had contributed
to the accident. The mandate, explicitly stated in the Code of Federal Regulations, defined the focus of the hearings and the evidence to be gathered. This had the effect of focusing attention on what could be broadly interpreted as "management concerns" (ie. the seaworthiness of the vessel) and the ability of workers to perform their duties. Once it was "proven" that the Ocean Ranger did not sink because of structural failure the inquiry began to investigate worker competence and look for human error. Structuring the investigations in this way emphasizes individual worker incompetence (of dead workers). It also closes off debate around issues like worker control (by living workers) of the labour process and the lack of worker involvement in defining the speed of production. It also completely ignores the issues workers face when it comes to protecting their own health and safety in the workplace. Instead the proposed solutions to the disaster called for increased state control, regulation and licensing, all of which shifted accountability for future disasters from capital to various branches of the state.

5.5 Restoring Cultural Hegemony

While arriving at an understanding of disaster and the dominant approaches to occupational health and safety were an important part of the thesis, the analysis could not have been complete without an explanation of the role of the state in capitalist society. The discussion revealed that the state plays an important role in the "winning" of hegemony or total social authority in society. The essential character of hegemony involves the ability to frame
alternatives and contain opportunities. However, it also includes the power to win and shape consent. The result being that the legitimacy of the dominant classes appears spontaneous, natural and normal. The fact that hegemony is described in terms of "power" and "ability" is deceptive because permanent class hegemony does not exist. Therefore, the state must be a key organizing force in society. It was the state's ability to organize at the level of politics and the law that became of particular concern to our analysis.

Hall et al (1978) emphasizes a fundamental feature of the state which allows for the reproduction of class relations in society. The definition of individuals in society, in terms of their relationship to the state, transforms them from members of a class into "individual citizens". In other words, by inserting members of a class in society into the political and legal institutions of the state they are constituted as political subjects and legal subjects. The definitional "removal" of the economic aspects of class relations allows class subjects to reappear as subjects of the state.

Our analysis pointed out that, in addition to regulating the lives of the subordinate classes, the state must (periodically) intervene in the economy to "instruct" capital but not seriously blame capital for its actions, many of which are considered "natural". The state seems particularly reluctant to focus blame on capital's control of the workplace or its constant need to produce a profit. This is in sharp contrast to the evidence we have pointed out
which shows these being major factors in both the disasters.

In spite of the fact that the state has legitimate control over the use of force in a liberal democracy it must operate within specific structures—structures that comply with the principles of an "autonomous state" and the ideology that the "rule of law" is also autonomous. Fulfilling these requirements means having persons appear equal before the law or, as was stated above, individuals must appear before the legal system (ideally) divorced from their economic location and free from their class position. However, the relations that constitute a class society are also enforced by the law. In a similar fashion they reinforce and legitimate class exploitation. The law makes the key relations of capital (private property and the contract) the public and desirable norms of society.

The uneven development of capital has required the state, through its various branches, to manage the frequent and ever deepening crisis of the capitalist system. This has increased the visibility of the modern welfare state and the economic and social crises are often interpreted as deficiencies in the management of the state. These events appear as exceptional moments in the normal form of the late capitalist state. To restore social order and once again provide cultural and ideological leadership, the state can use its mechanisms, departments and laws to provide authoritarian direction toward a renewed universal consensus in which the production/accumulation process can continue. In our analysis we have uncovered evidence that leads us to conclude
that certain functions of the state (like maintaining social order) transcend national and provincial boundaries and can be performed by any capitalist state (Canadian federal, United States federal or provincial). The implications of this being that capital can often choose which state will be responsible for its regulation (eg. by registering the Ocean Ranger in the United States).

When we applied these concepts to the commissions of inquiry we discovered slightly different ways the state is able to shape consent and renew hegemony following a workplace disaster. The essential feature of each inquiry was its ability to structure the questions asked about the disaster and then resolve those questions or problems in reasonable, realistic and "normal" ways. That is not to say that the "formula" for solving a disaster is a rigid one, in fact the opposite is true. The Ocean Ranger sinking provides a particular example. Neither the Safety Board's solution nor the Coast Guard's solution to the disaster violate the fundamental relations of capitalism. They are only slight variations within well established boundaries. However, the basic structure of the commissions does assist in designating alternatives. First the inquiries include various representatives who may express differing views. They may also have different reasons for being involved in the investigation and a variety of explanations or solutions to the problem may be suggested. This presentation of alternatives is a crucial factor in winning consent and reproducing hegemony. Choice or the illusion of choice is an intrical part of the process. What must be acknowledged, however, is that once alternative opportunities or options are designated the range of
possibilities is immediately and selectively contained. After hearing alternative views and testimony all three reports define the options for effectively dealing with the disaster/problem. Although the reports present real choices, these options have the power to shape the boundaries within which the working class will be controlled and capital will be instructed. In this way the commissions fulfill the functions of hegemonic cultural order. First, they politically incorporate the dominated classes by allowing or assigning them representation on the boards of inquiry. Secondly, the commissions sustain the confidence of the hegemonic fraction in society by using and referring to dominant methods of knowledge production. This is further reinforced by relying on established rules of evidence presentation and allowing for legal representation. The Elfstrom Report provides a lengthy and comprehensive account of the legal, bureaucratic and administrative practices employed by the commission. Additionally, the various representatives are recorded in the report. In contrast the Marine Board of Inquiry has its powers, procedures and the rights of participants formally stated in the Code of Federal Regulations.

The two inquiries provide examples of state branches or mechanisms operating within the specific structures of "liberal democracy"--structures that uphold the principles of autonomy to act in the interest of the general public--and the ideology that the rule of law grants equality to all persons regardless of their "position" in society. Members of the working class and the
capitalist class appear before these quasi-judicial commissions as fictionally equal citizens. In the Glace Bay inquiry the working class is inserted into the commission vis a vis their union officials and lawyers. On the Marine Board of Investigation the National Transportation Safety Board provided the avenue through which the working class entered into the investigation process and reappeared (stripped of their economic position) as the general public. The corporations, Devco, Odeco and Mobil are inserted into the inquiries vis a vis their lawyers where their class location disappears and they stand as "equals" beside the workers. The commissions adherence to legal epistemology allows them to reinforce and legitimate class relations in capitalist society. In the three reports the rights of capital to control labour is not only upheld but strengthened. The exclusion of other possibilities and alternative solutions makes capitalist class relations the normative standard that will ensure that future disasters will occur.
APPENDIX I

CANADA LANDS
CHAPTER I-13

An Act respecting public and departmental inquiries

SHORT TITLE

1. This Act may be cited as the Inquiries Act. R.S., c. 154, s. 1.

PART I

PUBLIC INQUIRIES

2. The Governor in Council may, whenever he deems it expedient, cause inquiry to be made into and concerning any matter connected with the good government of Canada or the conduct of any part of the public business thereof. R.S., c. 154, s. 2.

3. Where an inquiry as described in section 2 is not regulated by any special law, the Governor in Council may, by a commission in the case, appoint persons as commissioners by whom the inquiry shall be conducted. R.S., c. 154, s. 3.

4. The commissioners have the power of summoning before them any witnesses, and of requiring them to give evidence on oath, or on solemn affirmation if they are persons entitled to affirm in civil matters, and orally or in writing, and to produce such documents and things as the commissioners deem requisite to the full investigation of the matters into which they are appointed to examine. R.S., c. 154, s. 4.

5. The commissioners have the same power to enforce the attendance of witnesses and to compel them to give evidence as is vested in

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CHAPITRE I-13

Loi concernant les enquêtes relatives aux affaires publiques et aux départements

TITRE ABRÉGÉ

1. La présente loi peut être citée sous le titre : Loi sur les enquêtes. S.R., c. 154, art. 1.

PARTIE I

ENQUÊTES SUR LES AFFAIRES PUBLIQUES

2. Le gouverneur en conseil peut, chaque fois qu'il le juge à propos, faire instituer une enquête sur toute question touchant le bon gouvernement du Canada, ou la gestion de quelque partie des affaires publiques. S.R., c. 154, art. 2.

3. Si une enquête visée à l'article 2 n'est régie par aucune loi spéciale, le gouverneur en conseil peut, par commission ad hoc, nommer, à titre de commissaires, des personnes qui doivent poursuivre l'enquête. S.R., c. 154, art. 3.

4. Les commissaires ont le pouvoir d'assigner devant eux tous témoins, et de leur enjoindre de rendre témoignage sous serment, ou par affirmation solennelle si ces personnes ont le droit d'affirmer en matière civile, oralement ou par écrit, et de produire les documents et choses qu'ils jugent nécessaires en vue d'une complète investigation des questions qu'ils sont chargés d'examiner. S.R., c. 154, art. 4.

5. Les commissaires ont, pour contraindre les témoins à comparaître et à rendre témoignage, les mêmes pouvoirs que ceux
deferring the operation of Division I in respect of any federal work, undertaking or business or class of employees therein as were pending on that day; and the operation of Division I is, in respect of the federal work, undertaking or business or class of employees therein to which a submission referred to in such list relates, deferred pending the rejection of the submission or the making of an order under section 77.

(2) Where the Minister subsequently rejects a submission mentioned in subsection (1), Division I operates in respect of the federal work, undertaking or business or class of employees therein to which the submission relates, on and after the date of rejection by the Minister of the submission.

(3) Where a submission is rejected as mentioned in subsection (2), the Minister shall, as soon as may be thereafter, cause a notice of such rejection to be published in the Canada Gazette. 1964-65, c. 56, s. 35.

l'article 77, l'application de la Division I à l'égard de quelque entreprise fédérale ou d'une catégorie d'employés y occupés, qui étaient pendantes à cette date. L'application de la Division I est, en ce qui concerne l'entreprise fédérale ou la catégorie d'employés y occupés que vise une demande mentionnée dans cette liste, ajournée en attendant le rejet de la demande ou l'établissement d'un ordre en vertu de l'article 77.

(2) Lorsque le Ministre subseqüemment rejette une demande mentionnée au paragraphe (1), la Division I s'applique, à l'égard de l'entreprise fédérale ou de la catégorie d'employés y occupés que vise la demande, à compter de la date du rejet de la demande par le Ministre.

(3) Lorsqu'une demande est rejetée conformément au paragraphe (2), le Ministre doit, aussitôt que possible par la suite, faire publier un avis du rejet dans la Gazette du Canada. 1964-65, c. 56, s. 53.

PART IV
SAFETY OF EMPLOYEES

Interpretation

79. In this Part

"employer" means a person operating or carrying on a federal work, undertaking or business;

"employment injury" means personal injury, including disablement, caused by an industrial accident, occupational disease or employment hazard;

"safety officer" means a safety officer designated pursuant to this Part and includes any regional safety officer. 1966-67, c. 62, s. 2.

Champ d'application

80. (1) Subject to any other Act of the Parliament of Canada and any regulations thereunder, this Part applies

(a) to and in respect of employment upon or in connection with the operation of any federal work, undertaking or business other than a work, undertaking or business of a local or private nature in the Yukon Territory or Northwest Territories; and

(b) to and in respect of employment by a public company or corporation established under the laws of a province in the operation of a federal work, undertaking or business other than a work, undertaking or business of a local or private nature in the Yukon Territory or Northwest Territories.

Champ d'application

80. (1) Sous réserve de toute autre loi du Parlement du Canada et des règlements établis sous son régime, la présente Partie s'applique

a) à l'emploi relatif à une entreprise fédérale, à l'exception d'une entreprise d'un caractère local ou privé dans le territoire du Yukon ou les territoires du Nord-Ouest; et

b) à l'emploi par une corporation établie pour remplir une fonction ou une attribution.
corporation established to perform any function or duty on behalf of the Government of Canada other than a corporation that is a department under the Financial Administration Act.

Exception

(2) Notwithstanding subsection (1), and except as the Governor in Council may by order otherwise provide, nothing in this Part applies to or in respect of employment upon or in connection with the operation of ships, trains or aircraft. 1966-67, c. 62, s. 3.

Employment Safety

Sécurité professionnelle

81. (1) Every person operating or carrying on a federal work, undertaking or business shall do so in a manner that will not endanger the safety or health of any person employed thereon or in connection therewith.

(2) Every person operating or carrying on a federal work, undertaking or business shall adopt and carry out reasonable procedures and techniques designed or intended to prevent or reduce the risk of employment injury in the operation or carrying on of the federal work, undertaking or business. 1966-67, c. 62, s. 4.

Duty of employer

Dépôt de l'employeur

81. (1) Quiconque dirige une entreprise fédérale doit le faire de manière à ne pas mettre en danger la sécurité ou la santé de toute personne employée dans le cadre d'une telle entreprise.

(2) Quiconque dirige une entreprise fédérale doit adopter et suivre des méthodes et techniques raisonnables destinées à prévenir ou diminuer le risque de lésion professionnelle dans l'exploitation de cette entreprise. 1966-67, c. 62, art. 4.

Duty of employee

Droit de l'employé

82. Every person employed upon or in connection with the operation of any federal work, undertaking or business shall, in the course of his employment,

(a) take all reasonable and necessary precautions to ensure his own safety and the safety of his fellow employees; and

(b) at all appropriate times use such devices and wear such articles of clothing or equipment as are intended for his protection and furnished to him by his employer, or required pursuant to this Part to be used or worn by him. 1966-67, c. 62, s. 5.

Saving

83. (1) The fact that an employer or employee has complied with or failed to comply with any of the provisions of this Part or the regulations shall not be construed to affect any right of an employee to compensation under any statute relating to compensation for employment injury, or to affect any liability or obligation of any employer or employee under any such statute.

Idem

(2) Nothing in section 82 relieves an

Rien à l'article 82 n'exonère un
employer from any duty imposed upon him
by section 81. 1966-67, c. 62, s. 6.

Regulations

84. (1) Subject to any other Act of the
Parliament of Canada and any regulations
thereunder, the Governor in Council may
make regulations for the safety and health of
persons employed upon or in connection with
the operation of any federal work, undertaking
or business and for the provision therefor of
safety measures in the operation or use of
plants, machinery, equipment, vehicles,
materials, buildings, structures and premises
used or to be used in connection with the
operation of any federal work, undertaking
or business and in particular, but without
restricting the generality of the foregoing,
may make regulations

(a) respecting the structural design and the
maintenance of any building or other
structure;
(b) respecting the use, operation and
maintenance of
(i) boilers and pressure vessels,
(ii) escalators, elevators and other devices
for moving passengers or freight,
(iii) equipment for the generation, distribu-
tion or use of electricity, and
(iv) gas or oil burning equipment or other
heat generating equipment;
(c) respecting the ventilation, lighting and
temperature of places of employment and
prescribing the minimum amount of space
for employees;
(d) respecting the provision and mainte-
nance of potable water supplies and of
sanitary and other facilities for the well-
being of employees;
(e) respecting the guarding and fencing of
machinery, equipment and places;
(f) respecting the handling, transportation,
storage, use and disposal of substances or
devices dangerous to the safety or health of
employees;
(g) prescribing the standards for protective
clothing and equipment to be used by
employees and the use of, and the responsi-

bility for providing, such clothing and
equipment;
(h) prescribing the age, the health and
physical requirements and the qualifications

employer d'une obligation que lui impose
l'article 81. 1966-67, c. 62, art. 6.

Règlements

84. (1) Sous réserve de toute autre loi du
Parlement du Canada et des règlements
établis sous son régime, le gouverneur en
conseil peut établir des règlements concernant
la sécurité et la santé des personnes employées
dans le cadre d'une entreprise fédérale, et
prévoyant à cette fin des mesures de sécurité
relatives au fonctionnement ou à l'utilisation
des usines, machines, équipements, véhicules,
matériaux, bâtiments, structures et lieux
utilisés ou devant être utilisés relativement à
une entreprise fédérale. Sans restreindre la
généralité de ce qui précède, il peut établir
des règlements:
a) concernant le plan de la charpente d'un
bâtiment ou autre structure et l'entretien
d'un bâtiment ou autre structure;
b) concernant l'utilisation, la mise en service
et l'entretien
(i) des chaudières et récipients soumis à
une pression interne,
(ii) des escaliers mécaniques, ascenseurs
et autres dispositifs destinés au transport
des personnes ou du matériel;
(iii) de l'outillage servant à la production,
la distribution ou à l'utilisation de
l'électricité, et
(iv) de brûleurs à gaz ou à pétrole ou
d'autres appareils générateurs de chaleur;
c) concernant l'éclairage et la
température des lieux de travail, et préservant
l'espace minimum exigé pour les
employés;
d) concernant l'installation et l'entretien
d'approvisionnements d'eau potable et
d'installations sanitaires et autres pour le
bien-être des employés;
e) concernant la surveillance et le clôture
des appareils, de l'outillage et des lieux;
f) concernant la manipulation, le transport,
l'entreposage et l'utilisation et la manière
de disposer de substances ou engins com-
promettant la sécurité ou la santé des
employés;
g) prescrivant les normes applicables aux
vêtements et accessoires protecteurs que
doivent porter les employés, régissant leur
utilisation et précisant qui doit les fournir;

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of persons who may be employed in particular occupations;
(i) respecting the protection of employees from fire and explosion;
(j) prescribing mechanical standards for vehicles and equipment;
(k) respecting the furnishing of information to the Minister or a safety officer as to the location of the work, undertaking or business and the nature of the operations carried on or to be carried on therein, and the nature and amount of the materials used or to be used in the operations;
(l) respecting the reporting and investigation of accidents and dangerous occurrences;
(m) respecting the charges that may be made for any inspection and other services provided under this Part;
(n) respecting the adoption and implementation of appropriate safety codes;
(o) prescribing first-aid facilities and the provision of first-aid training and the services of first-aid attendants;
(p) governing the maintenance, production and inspection of records; and
(q) generally for such other matters or things as may be necessary for carrying out the purposes of this Part.

(2) Any regulation made pursuant to subsection (1) may be made applicable generally to all federal works, undertakings or businesses, or particularly to one or more such works, undertakings or businesses or such classes thereof as may be specified in the regulations. 1966-67, c. 62, s. 7.

Administration

85. The Minister may establish consultative and advisory committees on which employers and employees are represented to advise the Minister on any matters arising in relation to the administration of this Part, to assist in the establishment of reasonable standards of safety and to recommend regulations respecting safe employment practices, procedures and techniques. 1966-67, c. 62, s. 8.
Part IV

Labour Code, Canada

86. (1) The Minister may, for any of the purposes of this Part, cause an inquiry to be made into and concerning occupational safety in any federal work, undertaking or business and may appoint one or more persons to hold the inquiry.

(2) A person appointed pursuant to subsection (1) has and may exercise all of the powers of a person appointed as a commissioner under Part I of the Inquiries Act, 1966-67, c. 62, s. 9.

87. The Minister may designate any person as a safety officer under this Part and may designate regional safety officers for the purposes of this Part. 1966-67, c. 62, s. 10.

88. The Minister may with the approval of the Governor in Council, enter into an agreement with any province or any provincial body specifying the terms and conditions under which a person employed by that province or provincial body may act as a safety officer for the purposes of this Part. 1966-67, c. 62, s. 11.

89. (1) The Minister may undertake research into the cause of and the means of preventing employment injury and may, where he deems it appropriate, undertake such research in cooperation with any department or agency of the Government of Canada or with any or all provinces or with any organization undertaking similar research.

(2) The Minister may publish the results of any research undertaken pursuant to this section and compile, prepare and disseminate data or information bearing upon safety or health of employees obtained from such research or otherwise. 1966-67, c. 62, s. 12.

90. The Minister may undertake programs to reduce or prevent employment injury and may, where he deems it appropriate, undertake such programs in cooperation with any department or agency of the Government of Canada or with any or all provinces or any organization undertaking similar programs. 1966-67, c. 62, s. 13.
APPENDIX III
Inquiries Act
Part I
Public Inquiries
CHAPTER I-13
An Act respecting public and departmental inquiries

SHORT TITLE
1. This Act may be cited as the Inquiries Act. R.S., c. 154, s. 1.

PART I
PUBLIC INQUIRIES

2. The Governor in Council may, whenever he deems it expedient, cause inquiry to be made into and concerning any matter connected with the good government of Canada or the conduct of any part of the public business thereof. R.S., c. 154, s. 2.

3. Where an inquiry as described in section 2 is not regulated by any special law, the Governor in Council may, by a commission in the case, appoint persons as commissioners by whom the inquiry shall be conducted. R.S., c. 154, s. 3.

4. The commissioners have the power of summoning before them any witnesses, and of requiring them to give evidence on oath, or on solemn affirmation if they are persons entitled to affirm in civil matters, and orally or in writing, and to produce such documents and things as the commissioners deem requisite to the full investigation of the matters into which they are appointed to examine. R.S., c. 154, s. 4.

5. The commissioners have the same power to enforce the attendance of witnesses and to compel them to give evidence as is vested in

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CHAPITRE I-13
Loi concernant les enquêtes relatives aux affaires publiques et aux départements

TITRE ABRÉGÉ
1. La présente loi peut être citée sous le titre abrégé : Loi sur les enquêtes. S.R., c. 154, art. 1.

PARTIE I
ENQUÊTES SUR LES AFFAIRES PUBLIQUES

2. Le gouverneur en conseil peut, chaque fois qu'il le juge à propos, faire instituer une enquête sur toute question touchant le bon gouvernement du Canada, ou la gestion de quelque partie des affaires publiques. S.R., c. 154, art. 2.

3. Si une enquête visée à l'article 2 n'est pas régie par aucune loi spéciale, le gouverneur en conseil peut, par commission ad hoc, nommer, à titre de commissaires, des personnes qui doivent poursuivre l'enquête. S.R., c. 154, art. 3.

4. Les commissaires ont le pouvoir d'assigner devant eux tous témoins, et de leur enjoindre de rendre témoignage sous serment, ou par affirmation solennelle si ces personnes ont le droit d'affirmer en matière civile, oralement ou par écrit, et de produire les documents et choses qu'ils jugent nécessaires en vue d'une complète investigation des questions qu'ils sont chargés d'examiner. S.R., c. 154, art. 4.

5. Les commissaires ont, pour contraindre les témoins à comparaître et à rendre témoignage, les mêmes pouvoirs que ceux
 PART II

DEPARTMENTAL INVESTIGATIONS

6. The minister presiding over any department of the Public Service may appoint at any time, under the authority of the Governor in Council, a commissioner or commissioners to investigate and report upon the state and management of the business, or any part of the business, of such department, either in the inside or outside service thereof, and the conduct of any person in such service, so far as the same relates to his official duties. R.S., c. 154, s. 6.

7. The commissioner or commissioners may, for the purposes of the investigation, enter into and remain within any public office or institution, and shall have access to every part thereof, and may examine all papers, documents, vouchers, records and books of every kind belonging thereto, and may summon before him or them any person and require him to give evidence on oath, orally or in writing, or on solemn affirmation if he is entitled to affirm in civil matters; and any such commissioner may administer such oath or affirmation. R.S., c. 154, s. 7.

8. (1) The commissioner or commissioners may, under his or her hand or hands, issue a subpoena or other request or summons, requiring and commanding any person therein named to appear at the time and place mentioned therein, and then and there to testify to all matters within his knowledge relative to the subject-matter of such investigation, and to bring with him and produce any document, book, or paper that he has in his possession or under his control relative to any such matter as aforesaid; and any such person may be summoned from any part of Canada by virtue of the subpoena, request or summons.

(2) Reasonable travelling expenses shall be paid to any person so summoned at the time of service of the subpoena, request or summons.

PARTIE II

ENQUÊTES CONCERNANT LES DÉPARTEMENTS

6. Le ministre qui préside à un ministère ou département de la Fonction publique peut nommer, en tout temps, sur l’autorisation du gouverneur en conseil, un ou plusieurs commissaires pour faire enquête et rapport sur l’état et l’administration des affaires totales ou partielles de ce département, dans son service interne ou externe, et sur la conduite, en ce qui a trait à ses fonctions officielles, de quiconque y est employé S.R., c. 154, art. 6.

7. Les commissaires peuvent, pour les fins de l’enquête, pénétrer et demeurer dans tout bureau public ou dans toute institution publique et ont accès à toutes ses parties, et peuvent examiner tous papiers, documents, pièces justificatives, archives et registres de toute sorte qui appartiennent à ce bureau ou à cette institution; et ils peuvent assigner toute personne devant eux et la contraindre à rendre témoignage sous serment, oralement ou par écrit, ou sur affirmation solennelle si elle a le droit d’affirmer en matière civile; et chacun de ces commissaires peut faire prêter ce serment ou recevoir cette affirmation. S.R., c. 154, art. 7.

8. (1) Les commissaires peuvent émettre, sous leurs seings, un bref d’assignation ou autre mise en demeure ou sommation, enjoignant et commandant à toute personne y désignée de comparaître au temps et au lieu y mentionnés, et là et alors de déposer de tout ce qui est à sa connaissance concernant les faits qui font le sujet de l’enquête, et d’apporter et de produire tous documents, livres ou pièces qu’elle a en sa possession ou sous son contrôle et se rattachant au sujet de l’enquête, comme il est susdit; et toute personne peut être ainsi assignée d’une partie quelconque du Canada, en vertu de ce bref d’assignation, cette mise en demeure ou cette sommation.

(2) Des frais de route raisonnables sont payés à toute personne ainsi assignée, lors de la signification du bref d’assignation, de la
The following men died on February 24, 1979

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Survived by</th>
</tr>
</thead>
<tbody>
<tr>
<td>James Anderson</td>
<td>32</td>
<td>Irene Anderson (spouse) 2 children</td>
</tr>
<tr>
<td>William Cook</td>
<td>33</td>
<td>Theresa Cook (spouse) 2 children</td>
</tr>
<tr>
<td>Reg MacNeil</td>
<td>30</td>
<td>Delores MacNeil (spouse) 2 children</td>
</tr>
<tr>
<td>Frederick Matheson</td>
<td>44</td>
<td>Lorraine Matheson (spouse) 1 child</td>
</tr>
<tr>
<td>Wayne Mills</td>
<td>40</td>
<td>Patricia Mills (spouse) 3 children</td>
</tr>
<tr>
<td>Paul Purcell</td>
<td>25</td>
<td>Brenda Purcell (spouse) 1 child</td>
</tr>
<tr>
<td>Michael Roberts</td>
<td>24</td>
<td>Brenda Roberts (spouse) 2 children</td>
</tr>
<tr>
<td>Clifford Sharp</td>
<td>28</td>
<td>Esther Sharp (spouse) 2 children</td>
</tr>
<tr>
<td>Fabian Ward</td>
<td>32</td>
<td>Monica Ward (spouse) 1 child</td>
</tr>
<tr>
<td>Michael Young</td>
<td>47</td>
<td>Theresa Young (spouse) 8 children</td>
</tr>
</tbody>
</table>

The following men died in the Victoria General Hospital on March 8 and March 22, 1979

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<th>Name</th>
<th>Age</th>
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</tr>
</thead>
<tbody>
<tr>
<td>John MacNeil</td>
<td>24</td>
<td>Deborah MacNeil (spouse) 1 child</td>
</tr>
<tr>
<td>Albert Hall</td>
<td></td>
<td>Frances Hall (spouse) 6 children</td>
</tr>
</tbody>
</table>
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<tr>
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<th>Age</th>
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<tbody>
<tr>
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<td>32</td>
<td>Irene Anderson (spouse) 2 children</td>
</tr>
<tr>
<td>William Cook</td>
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<tr>
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</tr>
<tr>
<td>Clifford Sharp</td>
<td>28</td>
<td>Esther Sharp (spouse) 2 children</td>
</tr>
<tr>
<td>Fabian Ward</td>
<td>32</td>
<td>Monica Ward (spouse) 1 child</td>
</tr>
<tr>
<td>Michael Young</td>
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<td>Theresa Young (spouse) 8 children</td>
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The following men died in the Victoria General Hospital on March 8 and March 22, 1979

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<th>Name</th>
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<tr>
<td>John MacNeil</td>
<td>24</td>
<td>Deborah MacNeil (spouse) 1 child</td>
</tr>
<tr>
<td>Albert Hall</td>
<td></td>
<td>Frances Hall (spouse) 6 children</td>
</tr>
</tbody>
</table>
APPENDIX V

Oceân Ranger

Figure 1: Ballast Control Room
Figure 2: Starboard Profile
BALLAST CONTROL ROOM ARRANGEMENT

OCEAN RANGER

figure 1
Figure 2 -- OCEAN RANGER starboard profile.
<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Age</th>
<th>Address</th>
<th>Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>DONLON</td>
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<td>1000 W Sherwood Dr, Sunter, SC, USA</td>
<td>Wife</td>
</tr>
<tr>
<td>12</td>
<td>DRAKE</td>
<td>35</td>
<td>92 Old Petty Hr Rd, Killbride, NF</td>
<td>Father</td>
</tr>
<tr>
<td>13</td>
<td>DUGAS</td>
<td>56</td>
<td>1109 Oak St, Abbeville, LA, USA</td>
<td>Wife</td>
</tr>
<tr>
<td>14</td>
<td>DYZER</td>
<td>46</td>
<td>P O Box 1052, 20 London Rd, Carboner, NF</td>
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</tr>
<tr>
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<td>DYKE</td>
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<td>Wife</td>
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<tr>
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<td>FOGG</td>
<td>24</td>
<td>14 Jubilee Place, Mt Pearl, NF</td>
<td>Mother</td>
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<td>20</td>
<td>FRY</td>
<td>26</td>
<td>18 Raleigh Street, St John's, NF</td>
<td>Mother</td>
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<tr>
<td>21</td>
<td>GANDY</td>
<td>56</td>
<td>Rt 1 Box 25, Logansport, LA, USA</td>
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<td>34</td>
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<tr>
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RECORD OF DEAD AND MISSING

The following dead crew members were recovered by searching vessels between 15 February 1982 and 24 February 1982.

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<td>33</td>
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<tr>
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<td>35</td>
<td>35 Second St Plainfield CT USA</td>
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<td>148 Watson St St John's NF</td>
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<td>812 Christopher Circle Albertville AL USA</td>
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The following crew members remain missing and are presumed dead:

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<td>Donald G</td>
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<td>47</td>
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<td>John R</td>
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<td>POWELL</td>
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<tr>
<td>No.</td>
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<td>Age</td>
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</table>
61 WINSOR  23  Box 4 Site 10 RR 1  Father
   Robert P
   Paradise NF

62 WINSOR  19  Box 4 Site 10 RR 1  Father
   Stephen C
   Paradise NF
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