The First Rescue Station: the development of a mine rescue organization on the northern district coalfield

by

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Introduction

The legislation which brought rescue stations into existence in New South Wales was judged by those politicians responsible for the implementation as a very belated reform. The Mines Rescue Act passed in the state parliament in September 1925, came over twenty years after there had been public recognition that the facilities for which the Act provided, were a necessity on the northern district coalfield. Many claimed that this legislation was progressive and, insofar as it constituted an industrial reform, this claim is substantial. However, the administrative structure responsible for making the reform operational, was a traditional one and the legislation was resorted to only when all other methods had failed.

Twenty years prior to the passing of the Act, thirty two lives had been lost as a consequence of mine gasing incidental to accidents and explosions on the northern district coalfield. Breathing apparatus designed for rescuing persons trapped in an irrespirable atmosphere were brought into New South Wales in 1897 as a result of the earliest of these disasters. Though still at an experimental stage the potential application of these apparatus to mine rescue operations could not be ignored by any persons interested in the issue of mine safety.

Every year following 1911 was one in which the establishment of rescue stations was overdue; in this year, following negotiations between officials of the New South Wales Mines Department, mine owners, managers and miners, the

2. Annual Reports, Mines Department, 1905, 1896, 1898.
3. Ibid.
general agreement was reached that rescue stations should be built soon. The South Maitland coalfield was one which contained coal prone to spontaneous combustion, and mining ventures were developing rapidly there, so it was considered by mining authorities to be the most logical area to commence such an organization. This decision to build the first station on the South Maitland field was to be reinforced by social and political developments, particularly in the area of industrial relations as they evolved after the turn of the century.

After this time the claim by colliery owners that lack of practical knowledge and development of breathing apparatus was a reason for delaying their use, seems inadequate. Information concerning the benefits to be derived from establishing rescue stations and the use of apparatus was available in England where their existence was made a legal requirement in 1910. In contrast to the situation in New South Wales, some rescue stations had been voluntarily erected by colliery proprietors in Britain in 1902, before the introduction of legislation. The law was then designed to give uniformity to their existence on all of Great Britain's coalfields.

Development of this regulative legislation in Great Britain appears to have been subject to social and political factors similar to those existing in New South Wales in the thirty years preceding the Mines Rescue Act. The British coal industry resisted legislative regulation, in the same way that the New South Wales coal industry did in a later period. In both cases reform came not as the result of internal instigation, but of public demand, judicial recommendation and union campaigning.

In New South Wales the high death toll from mine disaster aroused the social conscience of mine owners, but not to the extent where they would voluntarily provide the necessary facilities for combating the effects of disasters. Prior to the Bellbird explosion in 1923, moves had been made in this direction, but nothing more concrete than plans and promises had resulted. Following Bellebird, widespread social reactions to the disaster produced a greater public awareness of the hazards of mining. The issues of safety standards and facilities necessary to combat these hazards were then highlighted, particularly by extensive newspaper coverage of the inquest following the disaster.

Political activity in response to the disaster and on behalf of the Miners' Federation aimed at forcing the government's hand to act upon the issues of rescue stations and updating the provisions of the Coal Mines Regulation Act of 1912. But before these reforms eventuated, there had to be a form of consensus reached between the divergent interests within the coal industry. The disaster encouraged this consensus by illustrating what could be gained by all interests if rescue stations were established.

At a time when social security for widows and their dependents was virtually non-existent, ensuring the safety of miners following disasters which could eliminate many bread-winners at one time, had obvious utilitarian benefits. In this same vein, proto apparatus purchased especially for the purpose of re-opening Bellbird mine several months after the explosion, proved of great practical assistance. Use of proto for recovery purposes following mine damage due to explosion or fire helped convince mine officials and owners of the value of such equipment. In New South Wales this kind of use of rescue facilities was

8. M. Mathieson, 'The Fire and Subsequent Explosions, Sealing and Re-opening of Bellbird Colliery.' (Newcastle, 1924)
as innovative as the political principle embodied in the Act of parliament which made use of these facilities obligatory.

In 1925 it was innovative for regulation of rescue facilities to be applied successfully to a private enterprise thus ensuring an industrial reform entirely at the industry's expense. The Labor government which passed the 1925 Mines Rescue Act was greatly influenced by trade union philosophy. It was therefore not surprising that this government, embarking on a programme of social reform based on trade union policy, should institute regulative legislation for the coal industry. Industrial relations within the industry had long been characterized by increasing union demands upon employers for greater protective measures to be applied to working conditions. Unionists had for some time been urging what they considered the moral obligation as well as the economic necessity of greater safety provisions to be implemented by colliery employers to guard against what were often preventable dangers in the mines on the northern district coalfield.

The 1925 Act was effective in establishing safety provisions in the form of rescue organizations which would function for the benefit of employers and employees alike, if life and property were endangered in mines due to accidents or explosions. In the case of the South Maitland rescue organization the station's record of activities involving direct rescue operations to save life is briefer than its record of exploratory and preventative work. The station's activities have been responsible for protecting both lives and valuable coal mining property which could both have been destroyed if the station's surveillance of dangerous occurrences was not utilized. Loss of life following explosions on the South Maitland coalfield prior to the operation of the station,

had been instant in most cases, but the possibility of saving lives, reclaiming mining property and extinguishing fires is greater if breathing apparatus used by trained rescuers is made available in the shortest possible time following such incidents. The enforcement of the Act is therefore as beneficial to the State, which owns the coal property, and to the mine owners, as it is to the workforce in the mines.

Rescue stations, as intended by the legislators of 1925, do function for the protection and safety of employees in mines insofar as they are an insurance against injury or death, provided their services are called upon immediately lives are endangered. The moral and legal obligation is upon the mine management to respond to such a situation if in their judgement the expertise of trained rescuers is required.

Whatever protection this arrangement afforded the miners of the South Maitland coalfield, it was innovative and welcomed, even if overdue in 1925. But, in a political sense, the station's protective function was operational within a traditional framework of control within the coal industry. The judgement and discretion determining action was confined to the power of management at the mine in the event of a dangerous incident. A problem existed originally in the fact that there was inadequate provision in the Act to compel a manager to take a prescribed course of action to protect to an equal extent both property and life to the degree allowed by the Act.

Even though it was politically innovative for coal owners to be forced to pay for safety facilities for their mines, it was certainly far from being a radical arrangement. Workforce protection had advanced, and the coal owners were now economically responsible for this advance. Reform was counterbalanced, however, by the provision of an administrative framework made responsive to the interests of those bearing the cost of the facilities.
The political principle contained in the Act was that though the coal industry operated under a system of private enterprise, it was a function of the state to regulate the industry to the extent where those controlling the operations of coal mines were not just morally, but legally obligated to provide the facilities necessary to combat disaster and save lives. The extent to which this principle operated in real terms was regulated from within an autonomous and traditional administrative structure. Only a token concession, in terms of control, was made towards the trade union radicalism of the 1920's.
The history of coalmining in the Hunter Valley has been marred by numerous mining disasters. These disasters often claimed the lives of many men at once. The idea that the supply of adequate rescue facilities would at least reduce this death toll, became increasingly accepted as a consequence of these tragedies. Thirty years and many deaths after this idea originated, a rescue station became a reality on the northern district coalfield.

The progress of industrial reforms to reduce the risks of mining in New South Wales followed a pattern. Under the provisions of the Coal Mines Regulation Act of 1896, a coroner's inquest into the causes of fatal accidents could be conducted. The findings of these inquiries often highlighted the need for improvements to existing safety precautions and facilities at mines. Social and political reactions to the publicised results of such inquiries often led to experiments and the development of such facilities as were shown to be necessary. This pattern is well illustrated in the campaign to have artificial breathing apparatus introduced into the state's mines.

At the inquest following the Stockton mine disaster of 2 December 1896, it was said of those killed that 'these men had to die in order that others might live.' This comment illustrates the motif of inquiry and experiment. Investigations following this disaster led to an increased knowledge of mining chemistry and according to Inspector Humble of the Mines Department, 'deadly gases were the more readily detected and more ably and intelligently dealt with' following these investigations. The chief deadly gas was carbon monoxide. The death of

2. Ibid.
PLATE I  Testing of the Fleuss apparatus in Newcastle ca. 1898
eleven men in the Stockton disaster was evidence that existence in an atmosphere containing this gas required the use of artificial breathing apparatus.

Two men who were present at the Stockton disaster and who figured largely in the early development of the campaign for introducing breathing apparatus into New South Wales were Dr. W. L'Estrange Eames and Inspector Humble. Both were also present at the Dudley explosion of 1898 which resulted in another fifteen deaths from carbon monoxide poisoning.³ As a consequence of the Stockton disaster, the Mines Department purchased two pneumatophors for experimental use. This inspired Eames to make a public statement that had the pneumatophors been available, they would have been of the 'utmost importance' at Stockton colliery.⁴ At the same time Eames suggested that lifesaving brigades should be established and in 1901 he outlined a plan for a rescue organization on the northern coalfields.⁵

In 1897, prior to making this public comment, Eames had addressed the committee of the newly formed New South Wales Government Ambulance on the subject of forming life brigades at mines. In his paper he had called attention to conclusions drawn by Dr. Haldane, British Secretary of State: Haldane, reporting on causes of death resulting from mining disasters in England from 1880 to 1890, had claimed that a very small proportion of those who perished in an explosion were killed instantaneously. Haldane had further claimed that in the majority of such cases death was due to carbon monoxide poisoning, even if the men were lying in the track of an explosion.⁶

The doctor's humane concern for the safety of miners was influenced by pragmatism, as shown in his statement that by the establishment of life brigades:

5. Ibid.
The mine owner would have greater security for his property; the general public would have fewer demands on their purse for charitable purposes; and the community at large would be spared from many a disastrous calamity. Governments should not wait for a disastrous calamity to show the necessity for such equipment if it proved satisfactory.  

The doctor's statement illustrates two factors influencing the development of mine rescue services. Humane concern for the safety of miners following accidents was counterbalanced by an increasing recognition of the material benefits of rescue apparatus which could be used to salvage valuable coal. In addition, the doctor's warning was unheeded by those who had the responsibility of implementing such plans.

Four years after Eames's warning, an explosion occurred at the Stanford Merthyr colliery, killing five men and seriously injuring ten. The Maitland Mercury of 30 October 1905, the day following the explosion, reported that 'No catastrophe of such a serious nature has before occurred in the district.' This statement reflected the not uncommon tendency for people not connected with the coal industry to treat a mining disaster as an unprecedented event. Apparently only those directly connected with a disaster never forget its terrible consequences, because a similar tragedy had occurred at the Greta colliery in December 1900, when five miners were entombed following an underground fire.

For the families of those killed in a mine disaster, no other accident could be a greater tragedy. The rest of the community, whilst shocked for a time, seemed quickly to forget that unless changes were made to combat the effects of such disasters, they would keep taking lives. Lack of provision of rescue facilities between disasters indicates there was a false sense of security when disasters were not making headlines. Eames' warning, however, did have some effect.

8. Thomas, op. cit., p.5.
impact, as shown by later negotiations between concerned groups within the mining industry. But these groups and governments alike gave plans for rescue stations such low priority that a huge disaster had to occur on the South Maitland field before any real action was taken to have the plans implemented.

The major mining disasters up to 1905 were attributable to a variety of causes. The Stockton disaster was the result of a spontaneous combustion, Dudley was caused by an explosion of firedamp, Greta by an underground fire and Stanford Merthyr by a fire and subsequent explosion. All disasters had a common factor other than their death toll. This factor was the necessity for an exploration into the danger area to examine the extent of damage to both life and property, and to rescue any survivors, if such existed. These explorations were conducted under extremely dangerous conditions. The presence of fires resulted in carbon monoxide and smoke polluting the mine atmosphere and making it irrespirable. For the exploring parties to breath in such an atmosphere air currents were often turned onto the seat of the fire to create ventilation. This would spread existing gob fires which ultimately could only be controlled by sealing the mine shaft.9

Without artificial breathing apparatus, the risk of the rescuers being overcome with noxious gases was very great, and this made the chances of bringing any survivors out of the mine alive very slim. Circumstances surrounding the attempted exploration and rescue operations at Stockton colliery in 1896 illustrate this predicament. Only two of the eleven victims were actually working in the mine at the time of the outbreak of fire. These two were found at the bottom of a ventilation shaft, overcome by poisonous gases coming from a gob fire in old workings. An exploration party consisting of the mine manager and volunteer officials went into the mine twenty four hours after the discovery of the bodies to locate the site of the fire. Of this party of nine men, four died in the mine from gasing. A further five men died from the rescue team which went

9. Thomas, op. cit., p.10; the term 'gob' referred to a waste area in a colliery from which the coal had been extracted.
to assist the overdue exploration party. The survivors of the rescue attempt told of the sacrifice of four lives in the attempt to recover just one body.\textsuperscript{10}

The problem of the lack of rescue equipment at mines was compounded by the alternative method used to carry out exploration attempts. The method of restoring ventilation which had been interfered with by fire or explosion exacerbated damage by forcing mine closure, with the result that property was lost and production had to cease until the sealed area was safe for reopening. The technical development of breathing apparatus which had been in New South Wales since 1897 would benefit the coal industry by providing a means of extinguishing fires before they could force mine closure.

Press coverage of the major disasters on the northern coalfield up to 1911, conveys the human reactions to such tragedies, yet apart from Dr. Eames' statement in 1901, the subject of rescue facilities received no further public comment for ten years. Then an article printed in October 1911 discussed a movement on the South Maitland coalfield urging the provision of properly equipped rescue corps at mines.\textsuperscript{11} The re-emergence of the issue at this time can be traced to the consequences of the Killingworth explosion in December 1910.

An inquiry into the causes and circumstances of this accident was conducted by Commissioner Watt. The owners of the mine, the Caledonian Coal Company, decided to conduct an exploration because they considered that it was possible that the Commissioner's findings were incorrect.\textsuperscript{12} It was decided that the exploration would be carried out in a 'systematic manner' and the Meco breathing apparatus, purchased by the department in 1911, was kept in readiness but not used during the explorations conducted in March 1912.\textsuperscript{13}

\textsuperscript{10} N.S. 13 Dec. 1956; Article from the file on the Stockton colliery disaster, held at Newcastle Regional Library, Local History Collection.
\textsuperscript{11} N.M.H. 17 Oct. 1911, p.4.
\textsuperscript{12} New South Mines Department Annual Report, 1911, p.129.
\textsuperscript{13} New South Wales Mines Department Annual Report, 1912, p.128.
These explorations were intended either to prove or disprove the Commissioner's contention that the explosion at Killingworth had been caused by an ignition of gas traceable to an area of the mine sealed by brick stoppings. It was also intended to 'allay the feelings of fear and distrust known to exist in the minds of the many workmen.' The explosion occurred when no workmen were in the mine. Had circumstances been different, the extent of the damage caused by the explosion indicated that its consequences might have been more terrible than any experienced thus far in the northern district. The findings of the exploration party supposedly proved the Commissioner's findings erroneous. Then the miners' fears that gas was escaping from sealed areas at Killingworth and other mines similarly situated were presumed to be unsubstantiated.

The fact that a deputation of representatives of the colliery employees of the Maitland mines and the president of Cessnock Ambulance Association, W. Williams, spoke to the newly elected Minister for Mines, Mr. Edden, indicates that in 1911 the fear of explosions re-occurring was a very real one for the miners. This deputation urging the provision of rescue facilities resulted in the initiation of a conference by Minister Edden. The conference between officials of the Mines Department, Under-Secretary Pittman, Chief Inspector Atkinson, Senior Inspector Humble, colliery proprietors Cant and Clark and employees Watson and Lewis, was held in Newcastle and resulted in the establishment of a committee. The committee had to decide upon a plan for a rescue station and to determine the most suitable equipment for it.

The practical outcome of these negotiations was the purchase and testing of Meco and Draeger life saving apparatus in Newcastle in 1912. Two of these

14. Ibid.
17. N.M.H. 4 Dec. 1911, p.5.
apparatus were obtained for keeping at the Newcastle Technical College and School of Mines. Theoretically agreement was reached between the groups concerned. According to this a rescue station would soon be built in the Maitland district, and the coal owners and the Mines Department would jointly bear the cost.18 In reality the station took another fourteen years to materialise. The delay can be attributed to social and political factors which influenced the owners' organization and successive state government officials.

The mine owners' excuse for delaying building a rescue station was the imperfect development of the necessary equipment. They apparently doubted its actual life-saving value after an accident or explosion. On the northern coalfields death following major accidents was generally thought to be immediate for those in the mine at the time. This was the case at Stanford Merthyr where the five deaths were due to injuries from the force of explosion.19 It was a more doubtful contention for the fifteen who died from gasing at Dudley Colliery in 1898.20 The attitude of many mining officials was the same as that of Inspector Atkinson in 1911: 'There are occasions no doubt when even the best equipped brigade could do little towards effecting the rescue of imprisoned miners.'21

Reservations on the use of breathing apparatus, except by highly trained and self-disciplined rescue workers, were also expressed during the period from 1912 to the early 1920s. In abstracts of a paper given by A. Littlejohn of Sydney, attention was drawn to the limitations of effective use of breathing apparatus when 'the wearers must thoroughly understand the construction and be perfectly trained in the use of the apparatus.'22 Obviously these reservations had to be overcome before a scheme would be implemented. Since there were only a few

apparatus available for experiment in New South Wales at this time, information had to be sought from England and Europe where the most knowledge of such matters was available.

Any possible inadequacy was regarded as a reason for delay. Atkinson, Chief Inspector during the 1911-1912 negotiations, was obviously frustrated with the indecision hindering the schemes implementation. He claimed that 'the response from the owners in respect to this matter being somewhat lukewarm, they stating that they prefer to wait until a perfect apparatus is devised.' This attitude fostered an 'indefinite prolongation' of the provision of a rescue station.23

By 1912, there could be no disputing the need for rescue stations. Economic and political influences now affected the scheme's chance of being implemented. The cost factor naturally concerned the coal owners. This is indicated in the press report of the closed conference which took place between owners, Chapman, Harle and Clark and Minister Edden. The Minister was urged to consider that because the majority of mines on the northern district were mined under royalty to the Crown, the government must accept some financial responsibility for establishing a station. At the time the 29,157 acres of Crown land held under mining leases on the Greta seam was worth some thirteen thousand pounds per year to the State.24

The outcome of the 1912 conference was the Minister's proposal that the government subsidise half the cost of erecting and maintaining a station that would be administered by a committee consisting of three representatives of the government and three of the owners. Acceptance of this proposal was to be subject to approval by the Colliery Proprietor's Defence Association.25

24. N.M.H. 7 Nov. 1912, p.4.; Royal Commission of Inquiry into the coal mining industry and the coal trade in the state of New South Wales, 1919, p.4.; Royal Commission of Inquiry into methods of working thick coal seams of Maitland - Cessnock. 1911, p.63.
25. N.M.H. 7 Nov. 1912, p.4.
On 1 November 1905 an article entitled 'United Coal Proprietors' appeared in the *Maitland Mercury*. This claimed that the purpose of the organization was to 'watch and protect mutual interests' and the latter was 'understood to refer chiefly to political action'. The district's organization was to retain individual entity and continue to control industrial and trade operations. This underlines the political implications of the attempt to comply with the interests of all the groups involved in mining on the South Maitland field. In 1927 Mauldon noted the political function of the Northern Collieries Association: 'Unlike owner's bodies on Southern and Western coalfields, this is not a marketing agency but a weapon of defence and offence against miners, manufacturers, State or any other force threatening the privileges of coal ownership.'

Minister Edden's original suggestion that owners alone should bear the full cost for the building of a station was based on information gained on the organization of rescue services in England. Most mines there were held privately so, under statutory regulations, owners paid the cost of rescue facilities. It was the Minister's suggestion but not a legal requirement that owners pay all costs, so it could hardly be interpreted as a threat to the privileges of coal ownership. However, it was obviously in the best interests of the owners to voluntarily build a station at this time because the government had agreed to subsidise costs. It did appear that the rescue station to be built at Kurri Kurri would proceed along the lines of the 1912 agreement. Inspector Humble had visited rescue stations in Great Britain and Germany, and was able in 1913 to submit to the state Works Department comprehensive plans which were based on the latest developments in organization and equipment used in these countries.

26. *M.M.* 1 Nov. 1905, p.3.
In 1911 the Newcastle Morning Herald reported that at an interview between the new Minister for Mines, Mr. Cann, and former Minister, Mr. Edden, Cann was urged to erect the proposed Kurri Kurri rescue station as soon as possible. There was, however, no apparent progress towards this during the following years.

World War I had social and economic repercussions on the coal industry on the South Maitland field because it depressed the local and export coal market. Miners at South Maitland suffered intermittency of work, and wartime inflation caused rising costs and subsequent demands for higher wages. Miners grievances finally culminated in a general strike for wage increases and the working condition of eight hours bank to bank in 1916. These conditions were won by the union but further industrial strife followed in 1917. Miners and owners obviously had immediate industrial problems to settle during the war, and interest in the provision of rescue stations dwindled.

The Labor government of the war period did not draft any legislation to implement rescue stations. But legislation had been contemplated in 1911 by Labor Minister Edden. He had intended to place before parliament certain legislative proposals which would have given him the executive power to direct the establishing of stations. Evidently this method would be used failing any practical results from the 1911-1912 negotiations with owners and miners.

When the war broke out the Labor party's programme of industrial legislation and reform was suspended. Regulatory legislation presented to parliament had little chance of becoming law since most bills were defeated by a Legislative Council hostile to the government. Even though the government in the 1913 election had been given a definite mandate to carry out its proposals and

31. Ibid.
32. N.M.H. 19 Dec. 1911, p.4.
'discipline' the Upper House, it did not have sufficient control to implement its mandate. Regulatory legislation was not politically expedient at this time. In 1914, although the coal owners had given the understanding that they would build a station 'at a very early date', no building was commenced and the state government was in no position to force the issue. As there had been no serious accident on the South Maitland field since the Stanford Merthyr disaster in 1905, the need for rescue stations appeared to have lost its urgency.

When the issue was raised by the miners in 1917, Minister Fitzpatrick blamed deferral of the 1912 proposal for a station on 'financial stringency'. While plans were left in abeyance the cost of building a station escalated from an estimated $10,000 in 1913 to between $12,000 to $15,000 in 1917. The failure to proceed with the rescue station is partly explained by the uneasy relationship which existed between the miners and the owners.

Miners on the northern coalfield consistently urged greater safety precautions in mining practice and they accused owners of pursuing greater profits at the expense of safety. The owners considered that the complaints of the union in relation to safety were 'sedulously engineered for electioneering purposes only.' Complaints from both sides reflected a mutual distrust that was the result of attributing a political motive to industrial action taken by either party.

In 1921 Mr. Jonas of the Northern Collieries Association claimed that mines in the district used the latest safety appliances and 'ventilation and general safety are assured.' He spoke at a time when no breathing apparatus were supplied to mines in spite of the fact that such apparatus had been in existence for some twenty seven years. This situation emphasizes Gollan's contention that

34. Ibid
35. N.M.H. 17 July, 1914, p.5.
37. Ibid.
38. Mauldon, op. cit. p.78.
39. Ibid.
miners received concessions from the coal owners only after much organized campaigning. It was clear by 1917 that rescue stations were not going to appear on the northern coalfield without organized union campaigning. The tensions which existed between owners and miners on the northern district and especially on the South Maitland field did not encourage any voluntary reform process.

Then in 1921, in response to the Queensland disaster at Mt. Mulligan, the established pattern again became apparent: disaster produced inquiry and this was followed by social and political representation to produce reform. This disaster which occurred on 19 September 1921 resulted in eighty deaths. Representations were made to the Minesiter, Cann, by delegates from the Health Department, the St. John Ambulance Association, colliery employers and employees. The events of 1911 to 1914 were re-enacted. A committee was formed with representatives of the same groups within the industry as had taken part in negotiations before the war. C. McDonald of the proprietors' association gave an assurance that as the employers were 'desirous at all times to promote the safety of the men' and provided the scheme contained 'no undue expense', it was fully supported by the northern proprietors.41 J.M. Baddeley, who figures prominently in the remainder of the scheme because of his increasing political influence, was union spokesman. He proposed that any scheme introduced should be jointly financed by the government and the employers. This was a more moderate proposal than that put forward by St. John Ambulanceman, Dr. Dick, who thought that the total cost of rescue stations should be a charge against the coal industry.42

The conference of December 1921 concluded with an assurance from Mr. Cann to the Secretary of the Miners Federation, A. Willis, that, 'Whether I remain

41. N.M.H. 13 Dec. 1921, p.4.
42. Ibid.
Minister for Mines or not, the object you have in view will receive every assistance from the department. Owners supported, the union urged and the government agreed to the establishing of rescue stations, but still nothing concrete was done.

It seemed that a stronger regulation of the mining industry was required. For this to occur, a social reaction to mine disaster and consensus upon the need for industrial reform, had to produce a political response. Early disasters on the northern coalfield had given considerable momentum to these processes, but completion of the pattern was dependent on further disaster. Twenty one deaths on the South Maitland coalfield served this purpose.

43. Ibid.
2. THE BELLBIRD DISASTER AND ITS POLITICAL AND SOCIAL AFTERMATH

The twenty-three years preceding the Bellbird mine explosion saw a significant rise in both the productivity and development of the South Maitland coalfield, and in its importance to the New South Wales coal industry.\(^1\) The district remained an important coal producing one after the first World War because, although the coal industry generally suffered recession then, the South Maitland field was gradually increasing its share of the state's total production from forty two percent in 1914, to sixty nine percent in 1927.\(^2\) The area maintained a fair degree of prosperity and the population of the Cessnock area had almost doubled since 1911 to reach over nine thousand in 1921.\(^3\) Over-capacity was affecting the industry generally, but, as a result of increasing production on the South Maitland field, miners there did not suffer the same intermittency of employment suffered in other districts.

This general growth and prosperity on the South Maitland field provides a backdrop of relative social harmony against which the trauma surrounding the Bellbird disaster appears in stark contrast. The social effects of this tragedy must be understood to appreciate the impetus given the movement to establish a mines rescue station in this district.

Before Bellbird in 1923 the most recent disaster on the field had been the Stanford Merthyr explosion in 1905. In eighteen years a generation had grown up without actual experience of a mine disaster. One miner on the field told the Reverend Alan Walker during his social survey of Cessnock: 'We had thought there was no danger on this field'.\(^4\) But mining in the years before Bellbird was a dangerous occupation. The decade from 1913 to 1923 saw the death of one hundred and forty three miners in the Hunter Valley's mines and the occurrence

of more than seven hundred and fifty five non-fatal accidents. In every year during this period there were no less than seven fatalities. The majority of these accidents occurred in the underground mines and were due to falls of coal. These statistics show that mining families in the Cessnock area, like mining families everywhere, lived with the constant threat of this hazardous occupation claiming either the life or the livelihood, through disability, of their men in the mines. Fatal accidents were deplored because of the frequency with which they occurred. The occasional fatality was not unexpected, yet accidents and occasional fatalities were no preparation for the impact of mass death from a sudden explosion.

There are records of a varied spectrum of social reactions to the Bellbird disaster and accounts of its consequences. The factual and objective report of the Chief Inspector of Coal Mines, Hindmarsh, tells of a fire and subsequent explosion which 'resulted in the death of twenty one persons'. Evidence of the more subjective, political response to the disaster is found in the wording of the Common Cause article entitled, 'Another Preventable Disaster, Tragic Fire and Explosion at Bellbird'. In between this range of the objective official response and political statement on the disaster, are many press articles conveying sympathetic responses from many sectors of the Australian population.

The social impact of the disaster can be gauged by the numerous literary records which have attempted to recreate the drama. A press article, forty two years after the event, retells the story following the recovery of the last body, that of victim Malcolm Bailey. This article attempts to reconstruct the 'horror, heroism and mystery' which surrounded the explosion and describes the town of

5. Mauldon, op. cit. p.188.
6. Ibid.
PLATE II  Funeral procession for the victims of the Bellbird explosion
Bellbird at the time as one in which 'stark grief walked unchecked behind closed doors and drawn blinds.'

This rather emotive description of the town is given some credence by material contained in a commemorative pamphlet printed just after the disaster. It describes the funeral of the fourteen miners, attended by an estimated twenty-five thousand people, when 'Cessnock and Bellbird buried their dead miners amid such scenes of grief as are rarely witnessed in Australia.'

General impressions of the impact of this funeral were the subject of poems contained in the pamphlet. It is not surprising to find that the disaster earned a legendary position in the area's history.

Extensive press coverage of the disaster and the following coroner's inquest, brought the perils of mining under public scrutiny and highlighted the issue of inadequate safety precautions and facilities within the district's mines. The story unfolded in the press as the testimonies of forty-two witnesses at the inquest were reported verbatim. Twenty of the twenty-one victims, were all miners who had entered the mine on the afternoon shift of Saturday of 1 September. These men were in the mine less than an hour when smoke was seen coming from the ventilator fan, which meant the mine was on fire. James Mathieson, the mine manager, and three other miners entered the mine to investigate. These men were joined in a courageous but unorganized exploration by volunteer rescuers. Fire was followed by explosion and, after travelling some distance into the mine and discovering nine dead men, rescuers assumed that all twenty workers were dead.

Fifteen bodies were recovered from the mine, then it was sealed because of the risk of further explosions taking the lives of more rescuers. John Brown, manager of Aberdare Colliery had suffered this fate after being overcome with

carbon monoxide in the mine. The remaining five bodies were sealed in the mine until it was re-opened for recovery in May, 1924.12

The jury's verdict was that 'the death of the deceased was caused through carbon monoxide poisoning caused through a fire or explosion...but there is no evidence to show how such fire or explosion was caused.'13 Three recommendations were contained in the jury riders. Firstly, due to the fact that the cause of the disaster could not be proved, a royal commission of enquiry was to be implemented and should consist of men with mining experience. The jury believed that similar accidents were likely to recur in any of the South Maitland collieries, and since accidents were increasing, a 'central rescue station with trained staff, be forthwith established, equipped with the most modern appliances known for the saving of life in such disasters.' It was also thought that the Coal Mines Regulation Act of 1901 was obsolete in that it did not 'enforce sufficient precautionary measures for protection of underground employees.'14

The editor of Common Cause had predicted that the verdict on the disaster would be one of 'accidental death'. Such a verdict following disasters on the northern coalfield was not unusual due to the inconclusive nature of the evidence. However, as far as the union was concerned such accidents were preventable. The use of naked lights throughout the mine, except for inspections carried out under General Rule 4 of the Coal Mines Regulation Act, was considered to have been the cause of the fire.15 Many mining men at the inquest thought that in the interests of safety naked lights should be replaced with safety lamps. Another safety issue discussed at length was the compulsory use of stone dusting in all dry and dusty mines.16

12. C.E. May 1924.
14. Ibid.
16. Ibid.
Of all the issues brought to public attention during the inquest, none seems to have caused greater division of opinion than evidence given on the use of breathing apparatus and rescue operations generally. In the Legislative Assembly the week before the disaster J.M. Baddeley, member for Newcastle since 1922, raised the issue of safety conditions in coal mines. He drew the Assembly's attention to the fact that: 'If there were an explosion in some mines, there are not half a dozen respirators that could be handed out to the men to enable them to save life.'

Controversy centred around the real value of artificial breathing apparatus following explosion or fire in a mine. Some mining men such as one of the inquest witnesses, Jeffries, believed that 'the existence of a central rescue station would not have proved of any assistance in the case of the Bellbird disaster.' This opinion was based on the knowledge that fifteen of the twenty miners killed were dead upon discovery, and it was believed that the other five could not have survived the poisonous atmosphere created by the fire and subsequent explosions. Time was the crucial factor determining the probability of survival. When the causes of mine disasters had become the subject of intensive enquiry in Britain, mining expert, Dr. Haldane, had formed the opinion that persons could survive in a poisonous atmosphere for up to one hour. Thus survival often depended on the amount of time taken to perform an effective rescue. Rescuers, to get right to the seat of a fire or explosion safely needed some form of artificial breathing apparatus. Miners believed that lives at Bellbird might have been saved if an organized rescue attempt had been made sooner after the explosion. They also believed that with respirators rescuers would have been able to advance further into the mine, reaching the five miners

who had been presumed dead. However, in contrast with the mine worker, some mine officials, according to Chief Inspector Hindmarsh, 'doubted that respirators would be as effectual in saving life as the general public anticipated.'

This division of opinion and doubts of the life saving value of respirators provides some explanation of the belatedness of their use. The mine managers who gave evidence at the inquest stated that during the rescue they 'preferred to take fresh air in with them rather than use the apparatus'. Had respirators been available, they probably would not have been used, in spite of the fact that, in 1912 mining officials had agreed that the method of creating ventilation by taking fresh air into a mine to perform an exploration usually only exacerbated existing problems.

In contrast to the reservations of many of the mining officials on the use of respirators, union comments upon their absence at the disaster reflected bitterness over what was seen as a case of 'criminal neglect by past governments and employers.' The union's charge of negligence was the result of union commitment to the policy of extending government control over the coal industry particularly to regulation for safety. Comments from a Common Cause editorial following the disaster illustrate an ideological commitment which, as far as the Miners Federation was concerned, was well supported by the events at Bellbird. The miners' deaths were claimed as 'another case of men being murdered for profits, due to the insatiable greed of the mineowners and the indifference to the lives of the workers shown by successive governments.' This was typical of the form of attack on the capitalist system prevalent in the 1920s.

22. Ibid.; Thomas, op. cit., p.10.
24. Ibid.
The Miners' Federation advocated extending government regulation of the coal industry and this resulted in campaigning for extensive amendments to the existing Coal Mines Regulation Act to ensure a stricter control of existing hazards. This campaign was largely the result of the emphasis placed on the issue of safety precautions during the inquest. The need for a rescue station became inseparable from wider safety issues such as the need for control of dangerous coal dust in the Maitland mines. According to the check inspector for the district, J. Barnett, 'fifty percent of the mines on the field were dry and dusty' and 'there is not one mine trying to deal with coal dust from a danger point of view'. Barnett suggested that if a Royal Commission were not established to deal with the claims, greater disasters than Bellbird were likely to occur in the near future.26

This union theme of urging government to assume greater responsibility for the regulation of social and economic matters had been gaining precedence since the turn of the century. With the passing of the 1862 Coal Mines Regulation Act, a precedent was set by the union claim that this bill, which provided for 'the inspection and better regulation of mines in New South Wales', left inadequacies in the system of safety regulations.27 Coal owners responded politically to what they considered threatening principles embodied in suggested amendments to the coal mine acts. In 1894 the Coal Mines Regulation Act was up for amendment and proprietors, who were heavily represented in the Legislative Council, were able drastically to water down the amendments with large majorities. The Council obstructed critical points in relation to clauses relating to ventilation and methods of weighing coal.28

28. Ibid., p.103.
This exercise of political influence in 1894, by coal owners to protect their industry from what they considered were unreasonable infringements upon it, appears to some extent to have been duplicated in 1923. In November of this year, during a debate in the Lower House, J. Baddeley protested about the government's refusal to follow the jury's recommendation to appoint a Royal Commission into the causes of the Bellbird explosion. In his opinion colliery proprietors had used political influence to ensure that a commission was not granted. This claim was supported by his colleague, J. Connell, who suggested that owners feared a close investigation of the industry. The opinions of these union politicians illustrated a feature of one of the problems facing the industry, which had a bearing on the progress of industrial reform. The industrial relationship between owners and miners featured discrepancy. Miners attributed secrecy and dishonesty to the transactions of the owners. Owners interpreted miners' claims as being the cause of the industry's ills. The owners considered that stoppages, strikes and absenteeism were responsible for inflating production costs and causing loss of oversea and interstate trade. In 1929 Royal Commissioner Davidson saw this internal problem of the industry as one resulting from the increasing complexity of the industrial system and subsequent loss of empathy between employers, management and employees. He claimed that in the few decades prior to the enquiry, the 'aggregation of huge organisations of capital' was juxtaposed with 'massing of huge unwieldy organisations of employees' and that consequently the industry's difficulties had increased.

Repercussions of the disaster aggravated antagonisms within the industry, particularly on the South Maitland field where both owners' and employees' organisations were strong. Past negotiations had failed to produce positive

29. C.E. 20 Nov. 1923.
30. Ibid.
32. Ibid.
results, so the miners determined to force political recognition of the issue of rescue stations, hoping this would produce legislation. In September 1923 representatives of the miners' lodges in the Maitland district passed resolutions demanding (through their executives and members of Parliament) that the government be requested to legislate to force coal companies to build rescue stations and supply life saving equipment to all collieries. Miners resolved that failure of the government to take such action would result in cessation of coal production from 1 January 1924.33

The Minister for Mines in the Nationalist government, C.J. Fitzpatrick, received a similar representation from the President of the Newcastle branch of the New South Wales Ambulance Transport Service, Alderman Kilgour, who reminded him of the scheme put forward in September 1921 for rescue stations to be organised in conjunction with the Ambulance Association. In the Alderman's opinion, had the previous Labor government stayed in power, the scheme would have been implemented then.34

As a result of further representations from the union to Minister Fitzpatrick, Chief Inspector Hindmarsh was sent to inspect the South Maitland mines and to do anything necessary to 'allay any anxiety in the minds of the men'.35 The problems of inadequate testing for inflammable gases and inadequate precautions against the danger of coal dust explosion were to receive particular attention. Industrial action was again threatened failing the appointment of a royal commission.36

The South Maitland field had experienced industrial action prior to the Bellbird explosion, in what has become known as the 'Major Crane' strike.37

33. C.E. 11 Sept. 1923.
34. N.M.H. 18 Sept. 1923, p.4.
35. N.S. 31 Jan. 1924.
36. Ibid.
This strike extended from April to August 1923 and had originated in the owners' refusal to give employment in South Maitland mines to miners who had been thrown out of work in their Newcastle mines. Miners returned to work on the proprietors' terms, which were 'the cessation of pit top meetings except with the concurrence of the management and the recognition that the colliery managers had the legal right to dismiss employees. The dispute left the owners in a stronger position and the Federation weakened financially.

This industrial situation could account for the miners' failure to act upon their threat to strike in January 1924, unless a royal commission was appointed and breathing apparatus introduced into the mines. Demands would have been more likely to be met, if made from a position of strength. Miners had been paying very high levies to finance the 1923 strike and the Federation's survival at this time had been dependent on the men returning to work. Whilst the owners were in such a strong position industrially it seems unlikely that rescue stations would have been built as a result of industrial action.

C. McDonald, President of the Northern Collieries Association in 1924, made a press statement which suggests that owners considered the Bellbird disaster as unavoidable and the issue of rescue facilities a mute one at this time. After a six month visit to Britain and the continent McDonald said: 'In the matter of safety appliances, they have nothing in England more up to date or more efficient than the appliances installed in our mines. The disaster at Bellbird was looked upon in England as the sort of disaster that might occur in any mine.' In September, 1923, there were only six Proto apparatus in the state, and only two sets at mines on the South Maitland field, one at Hebburn Colliery at Weston and the other at an Aberdare Colliery. These sets had been purchased by the

38. Reynolds, op. cit., p.77.
40. Ibid.
41. C.E. 18 March, 1924.
42. C.E. 11 Sept, 1923.
Mines Department after favourable reports had been received in 1920 upon the use of the Proto in tunnelling operations on the Western front during World War I. Oversea, however, rescue stations had been established in Great Britain and the continent for at least fourteen years by 1924.

Stations did become a more imminent reality in New South Wales when a bill was presented to the Legislative Assembly on 13 November 1924 which provided for the establishing of rescue stations, the training of men in the use of breathing apparatus and the provision of such apparatus at the mines. This bill had been under consideration by Fitzpatrick, Nationalist Minister for Mines, since July 1924. Opposition members Connell and Murray prompted the Minister to have the bill passed before the end of the parliamentary session. However, when the Minister learnt that the Opposition intended to propose certain amendments to the bill, it was put into abeyance and remained there until the change of government in June 1925.

Baddeley had the opportunity to make amendments to the original bill when he became Secretary for Mines and Minister for Labour and Industry in the Lang government after 1925. Although described as a 'militant socialist', Baddeley's industrial objectives at this time appear to have been progressive, but not militant. His political actions in the Lang ministry corresponded closely to mining union policy generally and he was supposedly closely in touch with the industrial aspirations of his mining electorate. The trade union movement had another 'direct line to the fount of power' in this government with the appointment of Miners' Federation leader, A.C. Willis to the Vice-Presidency of the Executive Council in the Upper house.

43. C.E. 11 Sept. 1923.
44. New South Parliamentary Debates, 13 Nov. 1924, p.3678; 30 July 1924, p.656; 25 March 1925, p.64.
Alterations were made to the Mines Rescue Bill which were closely aligned with trade union policy. An alteration was made to the bill's provision for raising finance for the proposed rescue stations in New South Wales. Instead of dividing the cost three ways between the government, the miners and the owners, as the Nationalist bill proposed, the new arrangement was for the owners to bear total financial responsibility. When this alteration was being discussed in the Upper House, Willis claimed that although he considered the coal owners were agreeable to the bill only because they had been subjected to constant pressure to implement these provisions voluntarily, he felt they were making no serious objection to carrying the whole cost because they now recognised the necessity for the facilities.47

Another alteration made to the bill, which can be regarded more as a token concession than a real implementation of trade union policy, was the inclusion of a miners representative on the administrative committee for rescue stations. This alteration caused concern to former Minister Fitzpatrick. He claimed that because this inclusion was made without prior consultation with the colliery owners and was not the result of compromise between the department and the owners, he feared that the new Minister was introducing a 'disturbing element' into the bill.48

In view of the political bent of both Baddeley and Willis, who were described as being leftist in Baddeley's case and 'no better than a Communist' in Willis's case, this provision of a miners' representative within the administrative structure seems a moderate move.49 In terms of administrative control and policy implementation, one miner amid four owners' representatives could not influence the decision-making process to any great extent. Baddeley and Willis

were representatives of a trade union movement which was becoming increasingly radical and influenced by class struggle ideology.\textsuperscript{50} However, their influence upon the legislation can be interpreted as directed more toward implementing a necessary reform than to altering control structures within the industry.

In the months preceding the presentation of the bill by Baddeley, the colliery owners contemplated the inevitability of legislation which would make it compulsory for them either to provide and maintain rescue brigades with each colliery or to establish a central station. A committee of the Association's members, Harle, Kelsick, Johnstone and Gibsen, had been appointed to formulate detailed proposals for finance, control and management of two rescue stations, one initially proposed for Neath or Abermain.\textsuperscript{51}

Prior to the appointment of this committee, at least one coal owner, John Brown of J & A Brown, had not wanted to be a party to any scheme consisting of a collectivity of owners contributing to a central rescue station. Brown's collieries of Pelaw Main, Richmond Main, Minmi and Duckenfield had a combined output of more than one eighth of the total for the northern district and his contribution would obviously have been a considerable one. Brown requested a separate district with self-contained rescue facilities for his mines. His employees were in agreement with his proposal that his own rescue facilities at the mines be connected by an electric van, making rescue operations quicker than relying on a central station.\textsuperscript{52} Former Premier, Sir G. Fuller, apparently had approved of Brown's scheme and promised him an exemption from any general contribution and 'he would be allowed to conduct his own affairs apart from the Association'.\textsuperscript{53} However, Brown was advised by Baddeley that he could not be made

\textsuperscript{50. Ibid., p.100-1.}
\textsuperscript{51. Mines Department SF 183, 19/2542, Mines Rescue Stations 1925-7, minute paper, 22 June 1925. State Archives.}
\textsuperscript{52. Mines Department SF 183, 19/2542, Mines Rescue Stations 1925-7. Letter from J. Brown to Under Secretary Mance, 12 June 1925. State Archives.}
\textsuperscript{53. Mines Department SF 183, 19/2542, Mines Rescue Stations 1925-7, Letter from J. Baddeley to Sir G. Fuller, 2 July 1925. State Archives.}
Back Row: S. McKensey (Superintendent, Hebburn Collieries), J.P. Hindmarsh (Chief Inspector of Coal Mines), W. Hutton (Inspector of Coal Mines).


Front Row: C. Cook (Engineer, Commonwealth Oxygen & Accessories Ltd.), Bob Arnott, Milton Mathieson, Bob Eke, Jim Tennant, Walter Self, George Emery (Inspector of Coal Mines, South Coast), V. Collins (Inspector of Coal Mines).
exempt from the central scheme, because it would throw a bigger burden on the small collieries connected with a central station. He could, if he wished, still provide his own mines with rescue facilities but would still have to contribute to a central fund.54

By the time legislation had been prepared, owners had fully accepted the feasibility of rescue stations. This acceptance was largely the result of the successful use of the Proto apparatus to reclaim Bellbird Colliery, from May 1924. The prior lack of confidence in the technical development and reliability of artificial breathing apparatus was mostly dispelled by the recovery operation. Proto suitability for recovery purposes was proven, but doubts of its ability to save lives still remained. Mining officials and mine managers were satisfied with the work done, but considered that the Proto had 'serious limitations, and will be of more use in calm deliberate recovery work, with fresh air bases near at hand, than actual rescue work under stress and excitement.'55 These doubts were outweighed by the conclusion of all concerned in the recovery, that 'the mine could not have been recovered by the usual method of allowing air to freely circulate in the mine, hence the value of the apparatus lay in its provision of access to danger areas normally inaccessible without the use of Proto suits.56

Before the Mines Rescue Act was assented to in September 1925, colliery owners had agreed in July of the same year to proceed with the erection of two stations, one at Neath, the other at Cockle Creek. Prior to the presentation of the bill to parliament in late 1925, owners' representatives had consistently urged the new government to provide both a land grant and financial assistance for the building of the stations. The request for a land grant was agreed to, financial assistance was not. Owners considered rescue stations should be

54. Ibid., Minute 6512 MD, 24 June 1925.
55. M. Mathieson, 'The Fire and Subsequent Explosions, Sealing and Reopening of Bellbird Colliery', (Ca 1924) Local History Collection Cessnock Library.
56. Mathieson, op. cit., p.23.
PLATE IV Members of Stanford Merthyr lodge carrying a banner in the 1924 May Day procession at Kurri Kurri
established on the same basis as fire stations which were erected by the govern­ment, but the government considered mines were analogous to ships, which had safety provisions supplied by owners.57

Even though the Mines Rescue Act was intended to encompass the four mining districts of New South Wales, only the owners of the northern district had negotiated with the Minister and Mines Department officials over the detail for funding, control and finance of stations. The Western Coal Association had wanted to wait until the evidence was heard from the 1925-6 Royal Commission established by the new government, before they made any decision on rescue stations. No discussions were entered into with the Southern Association.58

Events of 1923 and 1924 made the issue of rescue stations one deserving immediate attention from the northern district's miners and owners alike. Following the disaster at Bellbird, union campaigning increased. The huge banner carried by miners of the Stanford Merthyr lodge in the 1924 Kurri Kurri May Day procession is evidence of this renewed vigour. These miners wearing the Proto suits which had a proven utility after the 1924 Bellbird recovery, apparently began their campaign for rescue stations following the 1905 disaster.59 Miners considered their claim to the supply of this equipment a legitimate one, but the final decision did not rest with them. Such a scheme had to be financed. Financial stringency and inadequate proof of technological reliance had contributed to making owners reluctant to implement the scheme. By 1925 political influences helped encourage a consensus between the dichotomy of interests in the mining industry in the northern district. This consensus was the more readily achieved due to the scheme's proven practicality.

58. Ibid., Minute of Deputation from Northern Collieries Association to Under Secretary Mance, 22 May 1925.
The state government changed to Labor, and prominent members of this government had a political affinity to the miners' union. This was a crucial factor in implementing the reform. Realizing the inevitability of legislation, owners co-operated with the government and as a result, the plans for the first rescue station were approaching finalization before the Act became effective on 31 December 1925. A rescue team consisting of men who had worked on the Bellbird recovery, was temporarily stationed at the mine until the station at Abermain became officially operational on 20 March 1926.
3. THE BRITISH MODEL

Rescue stations as they existed in Britain in 1912 formed both the practical and theoretical models from which features were drawn to formulate plans for the first rescue station in New South Wales. The formation of the South Maitland station and the three stations which succeeded it, was a tangible result of the influence of the British heritage upon the mining industry in New South Wales. A cultural affinity was also present in the relationship between social and political factors which influenced the process of industrial reform, because in both places rescue stations evolved as end products of the same pattern of development.

Disasters which occurred in British coalfields derived from the same variety of causes as disasters in New South Wales. There was, however, a quantitative difference in the British disasters. They occurred with greater frequency and killed a greater number of men, women and children than any disaster experienced in New South Wales. This was a result of both historical and demographic differences between the two industries. A history of coal mining in Great Britain can be traced from the thirteenth century, but the industry did not really count as a national asset until the seventeenth century. Disasters in Britain's mines therefore had a much longer history than did those in Australia. Mining techniques in Britain before the nineteenth century were totally ineffective as a defence against the subterranean dangers which faced those men working in the pits. Miners in New South Wales faced the same dangers, but to a lesser extent because the mines were not as old.

The greatest killer in the British mines was the many varieties of damp, described by miners as 'a vapour or exhalation which comes out of the mineral', and up until the nineteenth century no technical development had been undertaken

2. Ibid., p.169.
to combat the effects of these poisonous gases. This was mostly attributable to the British coal masters' lack of concern for eliminating any of the dangers encountered in the pits. 3 Disasters continued unchecked and because the industry expanded in the early nineteenth century, far greater hazards were faced by an increasing percentage of the population. 4 Some idea of the death toll produced during this period can be gained from the fact that between 1853 and 1862, seventy one million tons of coal were produced in Great Britain and this cost one thousand and twelve lives. 5 Such a high death rate is comprehensible in the light of the 1812 disaster at Felling Colliery, Durham, which resulted in ninety two deaths; such disasters occurred every few years, and sometimes in consecutive years. Each of these disasters sent waves of shock through British society in a way that regular small scale loss of life did not. 6 Social reformers in 1835 agitated for the appointment of a select committee of inquiry 'into the nature, cause and extent of these lamentable catastrophes... with a view to ascertaining and suggesting the means of preventing the recurrence of similar fatal accidents.' When this committee was formed, its members weighed 'the undoubted rights of property' against 'the interests of humanity' but were unable to make any specific recommendations. 7 The doctrine of laissez-faire, which was greatly weakened by the end of the nineteenth century, was prevalent enough at this time to ensure that the government's role in social issues arising from conditions of employment in private industry, remained merely an advisory one. 8 But social disorders such as the problems related to health and safety in coal mines, which had always existed but had become more pronounced with the

7. Ibid.
expansion of industry, contributed to British society's changing conception of the function of the state as a regulator of working conditions.\(^9\)

Each time the public conscience was roused by a mine disaster both voluntary and statutory committees were established to investigate and to contribute towards the progress of safety in mines. Several of these bodies in the nineteenth century made recommendations based on the collection of vast information of mining procedures and working conditions from numerous witnesses and sources of scientific inquiry.\(^\) These recommendations would have been of little purpose had there not been an increasing tendency for the government to legislate upon matters affecting the conditions of work within private industries such as factories and mines. The reports of these various committees created public awareness of the everyday hazards and hardships endured by the mining population, and contributed towards the change in social attitudes and values in the mid-nineteenth century. This gave rise to a movement away from the principles of laissez-faire, towards a political humanitarianism.\(^1\)

This movement towards state regulation of industry was influenced by the formation and growth of trade unions following the repeal of the Combination Act in 1829. In addition, Commissioners appointed to mining and factory districts under the provisions of the Factory Act of 1833, brought to public and parliamentary attention the plight of the coal miners. For example, one of these Commissioners said: 'The hardest labour in the worst room in the worst conducted factory is less hard, less cruel and less demoralizing than the best of coal mines.'\(^\)

Changing social attitudes towards the plight of the disadvantaged sections of

\(^9\) Ibid.
\(^\) Bryan, op. cit., p.27-9.
\(^11\) Ibid., p.30.
\(^12\) Bryan, op. cit., p.29.
the population and towards greater political organization of groups within these sectors for a redress of their grievances, provided the background for the progress of industrial reform. Rescue stations in Britain evolved from the progress of the pattern of investigation, recommendation and legislation, which was triggered by disaster. As in New South Wales, the urgent need for rescue facilities was evident in Britain's coalfields long before the social and political trends of the nineteenth and early twentieth centuries became responsive to reform. Technological advances in the development of the necessary equipment were triggered by a succession of terrible disasters which appeared to be an inevitable pre-condition for the progress toward legislative standardization of safety provisions in mines. But, in the nineteenth century, much of the legislation designed to cover supervision, instruction and inspection procedures relating to safety, was permissive rather than obligatory.13

This permissiveness toward the coal owners is illustrated by the fact that recommendations for the use of breathing apparatus and the erecting of rescue stations were made more than twenty years before legislation made them obligatory.14 A Royal Commission established in 1881 to investigate the incidence of accidents in mines, recommended that 'arrangements should be made for the establishment of centres in mining districts, where additional appliances for succour and relief and also special appliances for exploring purposes should be maintained in an efficient condition so as to be ready for use at the shortest notice.'15 This advice followed the use of the Fleuss apparatus in 1880 at an explosion at Seaham Colliery, Durham which took one hundred and sixty four lives. The apparatus was again used in 1882 at the Killingworth disaster and its performance was found so satisfactory that the Commissioners recommended its use.16

15. Ibid.
16. Ibid.
Little was done in Britain over the next twenty years in relation to breathing apparatus, even though during this period there were no less than twenty two major disasters resulting in the loss of eighteen hundred lives. The development of effective legislation was apparently hindered by the same scepticism towards the life saving value of breathing apparatus, as was shown by some mine managers and owners in New South Wales. Reservations were based on the contention that the apparatus was still at an experimental stage, therefore if used incorrectly or unwisely, it could be dangerous. This reason for delay seems less valid in Britain than it was in New South Wales many years later. Due to the efforts of men such as Mr. Garforth of Pope and Pearson's Atlofts Collieries, Henry Fleuss, the original designer of the apparatus and Sir Robert Davis, Managing Director of Siebe Gorman and Co. a great deal of experimentation and development took place from 1900 onwards.

The Commissioners appointed in 1906 to report on 'whether any special provision should be made to facilitate the work of rescue in the event of an accident', recommended the apparatus be used, with the reservation that its use be accompanied by a systematic approach to training performed in experimental galleries. The Commissioners had the examples of French and Austrian mine rescue legislation to draw from, but they still concluded that 'Exaggerated expectations of their utility in saving life in mines have arisen in some quarters.'

Some British colliery owners did, however, believe in the utility of breathing apparatus and chose to build rescue stations before legislation was introduced in 1910. The coal associations of South Yorkshire, Lancashire and Fife and Clackmannan, recommended plans for establishing rescue stations to the Commissioners.

21. Ibid. p.10.
Stations had been established and maintained at Tankersley and Altofts by the enterprise of the collieries there since 1902 and other stations followed at Lancashire, Howe Bridge and Atherton.\textsuperscript{22} There was, however, no uniform movement amongst mine owners to establish stations, and the Commissioners concluded in 1907 that the best arrangement would be for trained rescue brigades to consist of miners at each mine and obviously a systematic programme was needed to cover the safety of all mines.\textsuperscript{23}

Government intervention was triggered in Britain at this point, as it had been in New South Wales, by a disaster. At Whitehaven Colliery in Cumberland a disaster occurred on 11 May 1910 and one hundred and thirty miners were killed.\textsuperscript{24} This gave rise to industrial conditions similar to those existing on South Maitland coalfield following Bellbird. Since 1908 the British Miners' Federation had adopted a socialist platform, their political goal was defined as 'the complete emancipation of labour from the domination of capitalism and landlordism with the establishment of social and economic equality...'.\textsuperscript{25} When the Whitehaven disaster occurred a more highly organized and politically oriented trade union movement existed to pursue improved industrial conditions through their parliamentary representatives.

The miners' case, as argued by parliamentary representative, Edwards, in the House of Commons bears an uncanny similarity to that put forward by miners' representatives in the New South Wales Parliament in 1924. Edwards argued that immunity from disasters such as Whitehaven could only be gained by inspectors' visits being frequent and longer and rescue apparatus should be kept where it was instantly obtainable when required.\textsuperscript{26} The case for the compulsory provision of

\textsuperscript{23} Ibid.
\textsuperscript{24} Duckham, \textit{op. cit.}, p.207.
\textsuperscript{25} Raynes, \textit{op. cit.}, p.107.
\textsuperscript{26} British Parliamentary Debates, House of Commons, 16 June 1910, pp.1478-9.
rescue facilities was concluded with the extolling of the principle that 'the highest function of any government is to see that the men toiling and labouring for the welfare of the country shall have the best security and protection in their dangerous occupation.'

Parliamentary debate on the subject revealed that covering the three and a half thousand pits in Britain, there were a mere forty government inspectors whose impossible task was to ensure that safety regulations were adhered to. Miners' representatives called for a more vigorous enforcement of the Mines Act as a means to preventing disasters such as Whitehaven. When the issue of rescue stations and apparatus was under discussion, one member noted the number of seats vacant during the debate and commented that if Land Taxes had been the subject, a great deal more interest would have been shown by a full house. Some resistance was shown towards making rescue facilities a statutory requirement. It was agreed that equipment should be made available but not by 'any hard and fast rules'. Following debate, a bill was presented to parliament which, in Churchill's words, was framed so as 'to secure it from being in any degree controversial.' This bill which was passed without controversy enabled the Home Secretary to make Orders in relation to rescue work. Parliamentarians regarded the statute as one for which 'opinion was ripe'.

This legislation had been given impetus by deputations to the Home Secretary, Churchill, from the Miners' Association following the Whitehaven disaster. The next three years, however, proved the inadequacy of the statute which had been intended to ease the colliery owners into regulation. It was found that in many regions no attention had been paid to the Home Secretary's Order to establish rescue stations and brigades at mines. The member for the mining constituency in

27. Ibid.
29. Ibid.
30. Ibid., p.1488.
31. Ibid., pp.1516, 1510.
West Scotland complained in parliament that 'there had been practically nothing done to carry out the provisions of the Act in Lancashire and the Western Coalfields' where over the preceding year, out of a mining population of 138,000 there had been 16,700 injuries and one hundred and ninety four deaths.32

Another irate member from Scotland pointed out that 'the provisions of the Mines Rescue Act were extremely moderate and made no undue demand upon owners of pits', he considered that the owners in Scotland were well able to bear the moderate expense which the vitally necessary reform placed upon them.33 Some pressure was then put on the coal owners to comply with all the regulations made under the Coal Mines Act of 1911, since many had only partly complied by supplying only smoke helmets and not complete sets of breathing apparatus.34

Compliance with the statutory orders and regulations issued between 1911 and 1914, took some time, so more stringent and extensive regulations were passed in 1914. Coal owners were, under these regulations, permitted to adopt either one of two alternative schemes A and B. Under Scheme B, they could maintain brigades of employees at the mines proportionate to the size of their workforce, and keep their equipment either at the mine or at a central station with a permanent staff to train their brigades. Alternately, they could under Scheme A, provide a central rescue station to train a number of men from their mine, less than the number required for scheme B. Each mine under scheme A had to supply two breathing apparatus at the mine. It was this scheme A which was adopted for use in New South Wales.35 In Britain, research led to further developments after the 1914 regulations and the whole structure was revised in 1920, and again in 1928 until an elaborate code of operations existed, which remained in operation unchanged for twenty-five years.36

32. Ibid., Vol. 50, 18 March 1913, p.969.
34. Ibid., Vol. 55, 23 July 1913, p.2119.
36. Ibid.
In 1913 when Inspector Humble of New South Wales visited Britain to study mine rescue stations, the network of operations was incomplete, but it was his opinion that the plan for a central rescue station such as that at Porth should be copied for a station on the South Maitland field. Humble's reasons for choosing this scheme as opposed to the one existing in Germany, which he also visited, are not stated. But it is known that a central rescue station involves less expenditure than the system of providing permanent brigades at mines, due to the requirement of a large number of breathing apparatus. The committee selected by colliery owners in 1925 in New South Wales considered scheme A the best one for rescue stations and cost was an influential factor in this decision.

British mine rescue authorities, Jenkin and Waltham, considered the ideal method of maintaining an efficient and adequate rescue service capable of coping with a sustained disaster operation over many days, to be a combination of schemes A and B. A central rescue station is able to have men more highly skilled in rescue operations because more experienced, and equipment is kept in a better condition because it is constantly maintained. But in the event of a major disaster, requiring rescue operations over several days, many brigades are needed, so a combination of central stations and brigades at mines is considered desirable.

When the time came to devise a scheme for mine rescue stations in New South Wales, colliery proprietors had before them the precedents of British mine rescue organisations which had been operational for some fourteen years.

39. *Mines Department*, SP 183, 19/2542 1925-7, Letter from Rescue Station Committee to Chairman, Northern Collieries Association No. 5484.
They also could refer to developments in continental rescue organization and technology. The scientific achievements of the United States, which were the first to introduce the use of gas mining masks during World War I, were also available for their reference. Then by 1925 the scientific advancement resulting from the experiments produced by the demands of warfare had resulted in highly developed equipment. On the western front in 1915 enemy activity of mining under allied positions introduced a new aspect of tunnelling operations into warfare. This made it necessary for the British army to develop a mine rescue service and a large number of highly trained Proto men to deal with the effects of noxious gases given off by large quantities of explosives. Australia supplied two of these tunnelling companies in the Second Army which served in trench mine rescue stations in France. This meant that, following the war, there were several hundred men in Australia who had been trained in Britain for mine rescue. Thus developments in technology and theory of mine rescue were well advanced following World War I, and there were many men already trained, who could be recruited for such work in mines in New South Wales.

The colliery owners chose the Proto to equip a central rescue station because it was most favoured in Britain. The structural design of this station was closely modelled on the British station at Porth. The legal code adopted for the operation of the station was based on British legislation and the organizational scheme A, as used in Britain, was adopted. There was one appreciable difference between the Australian scheme and the British: the geographic feature of stations in British mining districts having a normal radius of fifteen miles between them. In comparison the Abermain station, in the centre of the South


42. Ibid., pp.4-5.
Maitland field, was seventy one miles from its furthest collieries in Muswellbrook.43

Apart from the geographic distinctions, there was very little difference between the character of the Abermain station and the stations existing in Britain in 1912. Not only were the end-products of the social and political pattern leading to reform the same, but the development of legislation in both cases featured the same sort of reactions from the groups within the mining industry. The British influence therefore was not confined to the duplication in New South Wales of methods and technology used to combat mining hazards. Just as in New South Wales, there existed in Britain, an uneasy relationship between the coal owners and their employees. This discord was manifested by one side advocating government regulation of the industry, while the other resisted. Thus, failure by owners, to voluntarily supply the facilities, made legislation for their provision inevitable. In both Britain and New South Wales public opinion and union agitation led to the intervention of the state to ensure that rescue facilities became available in a systematic manner.

43. New South Wales Mines Department, Annual Report, 1936, p.74. In 1937 the boundary of South Maitland District was extended to include the Upper Hunter collieries. Rescue equipment was then kept at Muswellbrook colliery.
When it was known in 1925 that a rescue station would be established at Abermain, the following statement was made in the 8 May issue of the *Labor Daily*:

With this...Mines Rescue Service always ready, miners will undoubtedly feel a greater sense of security in their daily occupation. But the scheme will have its shortcomings which, however undoubtedly will be remedied in time. For their initiative, whatever the underlying reason, the proprietors will earn applause, and will, unless the whole box of tricks by a sudden volte face is jettisoned, be going a long way to bring about peace in the industry.

The building of the station, was thus accompanied not only with high hopes for the contribution to safety its services would make, but also some reservations on the adequacy of the scheme under which it would operate. So the services of the South Maitland station from 1926 to the present can be described within this context of an evaluation of its contribution to the coal industry in general and safety in particular, on the South Maitland field.

When the station officially commenced operation on 20 March 1926, it was intended to perform two primary functions in the mining district. Rescue operations at mines were to be carried out with sufficient trainees to deal with any emergency. Proper training of enough volunteers from the mines in the district to meet this requirement was also the station's task. The equipment to perform any rescue operation was to be kept constantly ready and the station was responsible for keeping a regular maintenance check on the breathing apparatus at the mines.

Central to the total concept of mine rescue was the use of the Proto to enter mines where the atmosphere was dangerous to human life, and save life or property. A literal interpretation of the Mines Rescue Act, does not exclude the use of the station's facilities for rescue operations which do not require
the use of breathing apparatus. Even though the care and use of this equipment is the basis of training in underground mine rescue, miners can require rescue from a variety of accidents involving either falls of coal or mishaps with machinery. The legislation had its origins in major disasters, but the humane principle embodied in its provisions is one applicable to the saving of life in mines wherever possible with the station's facilities and manpower.

On the South Maitland coalfield, the mine accident which has claimed the most lives, right up to the 1960s is falls of roof and sides.1 The Royal Commission in 1939 reported that these accidents contributed more than any other to the high fatality rate of mining in New South Wales.2 Because of the thickness of the seams in the Greta measures on the South Maitland field, the potential risk of falls of roof, sides and working face, was greater than in other mining districts.3 In 1962 this problem was still a cause for concern on the field; out of a total of sixteen fatalities in New South Wales which resulted from seven different causes, falls of roof and side were responsible for nine deaths.4

South Maitland station, however, appears to have received few calls for assistance in accidents related to this cause. Other complications arising from falls of ground can create ventilation and drainage difficulties, requiring procedures which rescue personnel are trained to deal with.5 Apparently, a discrepancy exists between the life and property saving services a rescue station is able to provide, and those it is called upon to provide. The judgement as to what constitutes a threat of the type the station is best equipped to deal with is largely the responsibility of mine management.

1. Reynolds, op. cit., p.141.
5. Jenkins and Waltham, op. cit., p.25.
Until 1962, the provisions of the Mine Rescue Act in relation to a managers and owners responsibilities, although designed to ensure a certain course of action in the event of an accident, were inadequate in some respects. Prior to the amendment of the Act in 1962 if a manager failed to comply with its provisions he was immune from any penalty until he had received notification in writing, that he must rectify the situation. Time was on a manager's side if he chose to ignore or circumvent his prescribed responsibilities. Consequently, amendments were made to the Act in 1962 to allow for immediate prosecution for any breach of obligation. Such a prosecution could be initiated, but not proceeded with by the District Inspector, without the written consent of the Minister. The Inspector could serve a notice of intention immediately, and it was hoped that this would tighten up the former loophole in the Act.6

Since the Act had been designed to provide the facilities to meet emergencies, it was essential that its provisions were adhered to precisely, lives could depend on this. According to Mr. Simpson, Minister for Mines in 1962, some owners had 'flagrantly disregarded' the provision, particularly in relation to the rescue and first aid room required at all mines to which the Act applied. In the event of an accident or explosion these rooms, properly equipped, were vital to the treatment of any injured men. At some mines these rooms were of very poor standard and poorly equipped. An amendment provided for construction or alteration of these rooms to conform to plans specified and approved in writing.7

A prescribed course of action was designed to eliminate as far as possible errors of judgement when an emergency prevailed. Incidents at mines had indicated that stricter penalties were required to encourage conformity to all the Act's provisions. In 1955 a fire occurred at Bellbird colliery. Events

following this fire illustrated, to some degree, the necessity for constant upgrading of legal requirements.

According to the regulations regarding manager's responsibilities, as soon as notice was received of an occurrence likely to need the services of a rescue corp or brigade, the manager was firstly to ring the station and inform the Superintendent of the incident and whether or not assistance would be needed from other brigades of trainees. He had then to summon these trainees if required, and communicate for medical assistance and notify union officials and if necessary, the police. In this instance, George Randall, the Superintendent, after arriving at the colliery and during the operation, found it necessary to leave to get the services of more trainees. A. Donne, acting committee chairman at this time, found this situation unsatisfactory and stated that 'colliery managers in future would have to carry out the Act to a greater degree than they have done in the past'. Other committee members agreed that it was unsatisfactory for a Superintendent to have to leave his teams in the midst of an operation. The station committee's dissatisfaction with the inadequacy in the system contributed to the movement to have the Act amended in 1962.

Other amendments which took place in November 1955 provided for a 'comprehensive method of ensuring that rescue operations are not handicapped by insufficient means to co-ordinate the activities of the men required to undertake them'. These amendments involved changes to the conditions of employment of the permanent corps and the staffing of the stations. According to Gollan, Minister for Mines, the new provisions, which gave the staff less restrictive working conditions, were the result of consultation between the Colliery Proprietors' Association, the Miners' Federation and representatives of the rescue corps. The

amendments, which involved a forty hour week for the corpsmen, were the result of agreement with the Miners' Federation and both Newcastle and South Maitland committees, that this would not mean any relaxation of the efficiency of the station's services.¹²

These services provided by the station fall into three categories. As required by the Act groups of trainees, volunteers from the district's mines, are taken through a training programme consisting of fourteen sessions over a period of approximately seven months. They commence in fresh air and graduate to hot, irrespirable conditions wearing breathing apparatus. A Certificate of Competency in mine rescue is awarded to trainees who have been successful in the course which tests knowledge of explosions and mine fires, mine gases, rescue procedures, plan reading and requirements of the Mines Rescue Act. There is special emphasis on the use and care of breathing apparatus, which was the Proto until 1963, then this was exchanged for the Drager BG174 compressed oxygen apparatus. Once qualified, to remain a trainee attached to the station, men are required to attend for six trainings each year, three of these in irrespirable atmospheres.

The other two categories of operation are responding to emergency calls, and to pre-arranged calls from mine managers. Emergency calls are usually received for assistance in dealing with spontaneous combustion fires which cannot be dealt with without breathing apparatus because of the presence of smoke and carbon monoxide gas. Seals often have to be erected near to the seat of heatings to establish fresh air conditions for further work in the area. Also, in the past, mine flooding has had to be dealt with by the station staff. During more than fifty seven years of operation the station has dealt with over one hundred and eleven emergency calls.¹³ Pre-arranged calls are for the purpose of

¹³. This figure compiled from Committee Meeting Minutes and Mines Department Annual Reports.
inspection and exploration of sealed areas where problems have developed and the condition of the area has to be determined. Such work can consist of checking the condition of roadways and equipment, the presence of falls, the site of heating, and taking samples of mine atmosphere. Calls of this sort constitute the larger part of the station's activities, with over one hundred and forty operations recorded to date.\textsuperscript{14}

Pre-arranged operations which incorporate practice sessions for trainees, cannot be defined as rescue operations, because they do not involve the rescue of miners, but they do keep a check on dangerous underground activity, which if unattended or undetected, can lead to fire or explosion. Station teams often break seals, entering an area to determine if it can be reopened for working. Using breathing apparatus to do this not only eliminates the risks involved, it also provides a means of salvaging coal which might otherwise be inaccessible. Therefore these operations are beneficial both in maintaining a surveillance of potential hazards and in salvaging property. Since very few rescue operations have been performed, the station's record of actual rescue operations to save life can be interpreted as a reflection of the effectiveness of surveillance services. The first of these in 1948 involved the revival of a man overcome with gas at Aberdare colliery in April, and in August the same year, a man, who had been lost at Jeffries colliery at Abermain was found and recovered.\textsuperscript{15} In the following year the bodies of two gased mine officials were recovered from Millfield colliery.\textsuperscript{16} More recently in 1966 a young girl's life was saved when she and her father were both removed from a twenty foot hole at Aberdare Extended. The girl was revived, but her father died before the rescue operation undertaken by John Tapp, present Superintendent.\textsuperscript{17}

\textsuperscript{14} This figure was compiled from Committee Meeting Minutes and Mines Department Annual Reports.

\textsuperscript{15} New South Wales Mines Department Annual Report, 1948.

\textsuperscript{16} Ibid, 1949, p.22.

\textsuperscript{17} Report, J. Tapp to J. Sneddon, 12 April 1966.
Rescue stations have a clearly defined responsibility to respond to any call for assistance involving endangered property and life. This responsibility has never been questioned by the controlling committee, but ambiguity has existed when the station's services have been requested by a mine manager to restore damaged property. A strict legal interpretation of the Act precluded the use of the station's facilities for the purpose of re-opening a mine which had been closed for some time. This at least was the opinion of the Crown Solicitor consulted by the Committee on the issue in 1945.18 The Committee's decision to assist the Caledonian Coliery Company with the re-opening of Aberdare Central mine was based on a desire to extend the underground experiences of trainees in sealing and later unsealing dangerous areas where fire had been present.19

Reclamation of Aberdare Central mine extended over a four year period from 1944 to 1949. This recovery operation was described by chemist H. Donegan as 'a challenge to investment of a considerable amount of money, but more particularly, to moral courage in decision, and physical courage, fitness and endurance'.20 The duration and difficulty of this arduous work done under Proto conditions in a hot irrespirable atmosphere, was a source of learning for the rescue staff. George Emery, Superintendent at this time, believed that the 'Proto apparatus fully justified itself'.21 The re-opening and reclamation of the mine must have gone far in justifying to the colliery owners the cost of maintaining the station. However, there was conflicting opinion regarding financial responsibility for this operation. Mr. Clark of Caledonian Collieries considered that the station existed for this kind of work and objected to receiving an account from the Committee. Then after being informed of legal opinion the account, was paid.

19. Ibid.
Such a large scale reclamation was unprecedented, and caused the issue of a rescue station's proper sphere of activity to come under close scrutiny. Station committeemen considered mine recovery a legitimate activity in the interests of training and thought it significant for rescue work in general. But because reclamation was not a legally prescribed station activity, the costs incurred were to be considered extraneous to the central fund to which the colliery owners contributed.\(^\text{22}\)

The station assisted with two smaller recovery operations after Aberdare Central which were based on procedures evolved then. Following a fire at Bellbird colliery in December 1963 the mine was sealed, and a recovery operation lasting three months was undertaken with equipment rented from the station and seventeen volunteers especially trained for the task. Whilst the Committee realized that the station had no obligation or responsibility to conduct a reclamation operation, every assistance was given to ensure that the work was done successfully, and without disrupting the station's preparedness for an emergency. To ensure that the station was not understaffed at any time, permanent corpsmen were only permitted to participate in their own time.\(^\text{23}\) Costs were to be covered by the colliery company.

The Committee's responsibility for reclamation was re-iterated last in 1971. Chairman at this time, S.B. McKensey, confirmed that the station, in making equipment available and allowing corpsmen to participate in their own time with the reclamation of Liddell State Mine, was co-operating as far as the Act permitted.\(^\text{24}\) In 1962 a new section was added to the Act to allow station facilities to be used for purposes other than mine rescue, provided that the cost was not a charge against the fund, and the station's efficiency was not

\(^{22}\) Committee Meeting Minutes No 154, 22 Jan. 1945.
\(^{24}\) Committee Meeting Minute No 456, 14 Dec. 1977.
Rescue teams had been responsible for sealing off the fire area at Liddell State by working through air locks. The recovery of the mine over a two week period was affirmation of the capability of station trainees, and of the efficiency of procedures learnt from Aberdare Central. It was also a salvage operation of considerable benefit to the State Mines Control Authority which owned the mine.

In 1972 when the Act was again presented to the state parliament for amendment, the issue of the value of the station's services to the proprietors came under discussion. The proposed amendment provided for the replacement of the financial autonomy of the district committees by a central corporate body called the Mines Rescue Board. This Board was to consist of six members plus the Chief Inspector of collieries as automatic chairman. The breakdown in representation was: two persons from the New South Wales Combined Colliery Proprietors Association, one person from the Colliery Proprietors Staff Association and one from the Electricity Commission of New South Wales and State Mines Control Authority. This control structure was weighted in favour of the colliery owners in the same proportion as the district committee membership.

Labor members of the parliamentary opposition at the time voiced a dissatisfaction with this membership structure, insisting that employees within the mining industry should be given more equitable representation on the Board.25 The reason underlying the government's decision to leave the balance of control unaltered was that the new centralized scheme for funding rescue stations left full financial responsibility with the owners. It came to the members' attention that the system of applying a levy to tonnage, which had been the practice since 1925 but had been called a voluntary contribution, was an illegal exercise of

the power of the state government. What was in real terms, an excise on coal, was the prerogative of the federal government. A rate calculated on the unimproved capital value of colliery holdings in production, was to come into operation as from April 1972. According to Minister for Mines, W. Fife, this unimproved capital value, as reached under the Local Government Act, was in the majority of cases based on tonnage, so this was simply a different means to the same end.

Attempts by the opposition to have the provision removed, for parliament to vote funds to the new Board as necessary, were defeated. Fife claimed that this provision was necessary in the event of a large sum of money being needed urgently, but he hoped its use would not be necessary, since the government had no intention of relieving the owners of their financial responsibility. An amendment to have funds raised on a per capita basis was also defeated. According to miners' representatives, this would have been a more equitable means of raising funds than the assessment based on local government rates whereby, they claimed, it would be possible for some large colliery holdings to escape large contributions.26

The government's motivation for establishing a centralised funding scheme was a desire to ensure an equitable distribution of funds amongst the four mining districts. In the past a district, with smaller mines greatly dispersed in distance and with a lower tonnage rate than more intensively developed districts, was liable to end up with an ill-equipped rescue service due to financial stringency. This situation had arisen in the Western district and had been subsequently relieved by a Joint Coal Board grant and loan as temporary measures, prior to the introduction of the new scheme for funding.27

Proposals for the alteration or abolition of the separate control of district committees over their station's affairs, arose in 1938 when it was suggested to Inspector Jack of the Mines Department that control of rescue stations become subject to separate public service conditions. Inspector Jack disagreed with this proposal but drew attention to the fact that if a Superintendent or committee did not comply with the Act, there was no provision for legal action to be taken against them. This meant that the control over the administration of rescue stations by the representatives of coal owners had to a degree been a legacy of trust from the government of 1925. However, in 1965 the Act was amended to cover the legal liability of committee members in the event of contravention of its provisions.

Around the same time that possible inadequacies in the control structure of stations was under consideration, general complaints were being voiced by Miners' Federation representatives. Some Check Inspectors were of the opinion that some rescue organizations provided inadequate training, insufficient practices and no incentives for enlisting new recruits. Considering that a rescue station's strength lies with its ability to summon a sufficient number of qualified trainees to act with the permanent corps in the event of an emergency, these charges had serious implications. During this period, the union's claim that dangers facing miners were increasing daily was supported by a fatality rate which had increased between 1930 and 1932.

South Maitland station's enrolment of trainees had at various intervals been a cause of concern for both committee members and Superintendents. When the station first opened, it was anticipated that after one year there would

29. Ibid.
30. C.C. 28 April 1934.
31. Ibid.
have been eighty men in the northern district qualified to act with the station corps. At the time the station served forty mines which would have been required to send at least two volunteers for training. It is only in the last few years that the station has reached what the Superintendent and committee have considered a desirable quota of trainees from the district.

The lack of trainees over the years was sometimes attributed by the union, to lack of economic incentive. Mines Department inspectors blamed intermittency of employment at the mines. In 1928 the issue was raised by the Under-Secretary for Mines, who suggested that the station might continue to train men who had been cavilled out. The committee agreed at this time to finish the training of men who had nearly completed their course. But two years later J. Mathieson successfully recommended that men cavilled out or unemployed could not be trained by the station. Trainee numbers for this year, 1930, and the preceeding year were low, forty eight and forty six respectively. These numbers are not surprising considering the industrial troubles of 1929 which caused ten thousand miners to be unemployed for sixteen months while most mines on the field were closed. For the duration of the lockout, Chairman R. Harle did recommend that men from closed mines attend the station for training as he considered this was an insurance against something dangerous occurring at a colliery. Actually, from the number of trainees enrolled during the dispute, only a proportion continued with the station.

Collieries within the district were frequently short of their required number of trainees. The wage received by these men for attending a practice had been set by the committee at a proportional amount above a first class shiftman's wage.

32. NMH, 22 March 1926.
33. Committee Meeting Minute No 30, July 1928.
34. Ibid, No 44, Nov. 1930.
35. Gollan, op.cit., p.188.
36. Committee Meeting Minute No 31, Sept. 1928.
Internal tension in the station's early years sometimes surfaced between the union representative and other committee members. Conflicting attitudes that existed within the industry generally were manifested in the working relationship of the committee mainly when industrial conditions were under discussion. Union check inspectors considered it their function on the committee to pursue the claims of station employees, but other members considered this erroneous. It was felt that this position, like any other, was for surveillance and supervision of the station's operation, and not for the pursuit of union claims on behalf of station employees.

What Fitzpatrick in 1925 had predicted would be a 'disturbing element' in the administrative committee, had by the 1960s been neutralized to a large extent by the development of a more comprehensive arbitration system. Disputes over industrial conditions were transferred to the arbitration courts with union officials appearing for the station employees and an industrial officer of the Colliery Proprietors Association, usually the committee secretary and another officer, for the committee. Subject to the arbitration system, employee working conditions have become more strictly and comprehensively defined by a system of industrial awards specifically for rescue station employees.

Because the controlling committee consists of a miner and owner's representatives, its internal structure has features synonymous with industrial relationships within the coal industry generally. In view of this, the fact that the South Maitland coalfield has been the scene of the worst industrial conflicts in the history of Australia's coal industry up to World War II, the continuous operation of the station over fifty six years is an achievement. The fact that industrial relations on the field have been better since the 1960s than they ever were before, is obviously significant.

43. Ibid.
South Maitland station can claim other distinctions apart from its continuous operation since 1926. It can claim three developments which have been innovations for mine rescue services in New South Wales. Very soon after the station began operating it was realised that the system whereby two Proto suits were kept at collieries and periodically checked was an unsatisfactory one. It was recognized that satisfactory use of this equipment was dependent on it receiving regular intensive maintenance, so in 1927 both South Maitland and Newcastle committees recommended to the Mines Department that the Proto suits be voluntarily withdrawn from the mines to be kept at the station. The issue was periodically raised by Superintendent George Emery with no result until in 1941 the owners were asked to move the suits from their mines to the station, which they did. Suits were left at Muswellbrook sub-station to cater for the emergency needs of the Upper Hunter collieries. This system has been in operation since the Ministerial dispensation permitting it in 1941. A high priority is placed on the use and care of these suits to ensure that they are constantly ready for an emergency.

Since the use of the Proto and the BG174 in irrespirable atmospheres forms the basis of rescue training, the value of experiences under these conditions cannot be overstated. The station has been the only one in Australia since 1928 to conduct their training in a mine under irrespirable conditions. This practice was commenced at the suggestion of the first Superintendent, George Emery. In 1961, committee member W. Seaward proposed that a section of Abermain No I be used for this purpose. The mine was used intermittently until in 1969 Coal and Allied made available an area of Aberdare North which had an irrespirable atmosphere of approximately two percent oxygen. Trainees perform tasks such as

44. Committee Meeting Minute No 17, 8 Aug. 1927.
45. Information supplied by Superintendent, John Tapp.
re-timbering roadways, clearing falls and erecting seals under sealed air conditions. It is claimed that these trainings are of immense value to trainees, helping them to realize their limitations under stress, and to recognize their role in synchronized team work.46

Trainee proficiency is tested annually when station teams compete in Inter-District and Inter-State rescue competitions, which they have been doing since 1964. Since then station teams have won three competitions. Ten years before the station began taking part J. Barrett, a committee Check Inspector, asked the committee to consider his suggestion that competitions be commenced. He had information concerning such competitions held in England.47 Although not given serious consideration then, the value of these competitions in stimulating interest in mine rescue generally, and providing an incentive for developing trainee and teamwork skills, is now widely recognized.

South Maitland can claim an innovation in this area with its hosting of an inaugural open-cut rescue competition at Saxonvale mine in August 1982. In response to the changing rescue requirements of the South Maitland district, which from 1937 included the Muswellbrook-Singleton area, the station committee decided in 1981 to incorporate an open-cut rescue service and training scheme into their operations. The issue of the safety requirements of the rapidly expanding Upper Hunter mining area had been under committee consideration since 1970. It was realized then that the requirements of this area were not adequately catered for by the existence of the Muswellbrook sub-station because, although there was rescue equipment at the colliery, there was no means of conveyance to other collieries. From then on, the emergency requirements of this area came under close scrutiny.48 After Muswellbrook colliery was closed, the Liddell State

47. Committee Meeting Minute No 251 25 Feb. 1954.
48. Committee Meeting Minute No 438, 1 July 1970.
Mine, as recommended by J. Tapp, became the new sub-station from August 1971. Collieries just outside the district and open-cut mines were given access to the facilities.

The opening of a new station in Singleton Heights in late 1983, is an indication of the changes occurring within the South Maitland district in the last ten years and of the responding changes in the nature and diversity of services provided by the station. Re-location of the station and provision of an open-cut rescue service are indicative of a broader interpretation of the function of a mine rescue service in response to the changing nature of mining operations. This change corresponds with the principle underlying the provisions of the Mines Rescue Act. This was framed in such a way that it could be as widely interpreted as necessary to combat the effects of the many different dangers which might threaten life and property in mines. By 1982 the station had overcome the early misgivings of both owners and miners and was fulfilling an essential function in the mining community it served.
Conclusion

Procedures that modern society expects to follow a coal mining tragedy today, had their genesis in the mining disasters of the late nineteenth and early twentieth centuries. A coroner's inquest into the causes of mining deaths became obligatory in the late nineteenth century, and newspaper coverage of inquiries followed naturally. What did not follow closely in the sequel to disasters, was the necessary industrial reforms not only to prevent their occurrence but to combat the effects of what could not be technologically prevented. Long periods of inertia intervened between disaster, inquiry, experimental development, and the final legislation for the necessary reforms.

A newspaper editorial following a recent mining tragedy illustrates the one unchanging element in this pattern:

In no other industry are the hazards to life so continuously present as they are in the mining industry. In no other communities are the feelings of loss so vividly transmitted as they are in mining communities. The common danger and the common tragedy touch all who work, or rely on those who work underground.

*Newcastle Morning Herald,* 1 Aug. 1972.

The record of events following mine disasters has shown very clearly that coordination between the responsible groups connected with the mining industry falls short of the need for reform. It is now widely recognised that the state steps in to produce action as a consequence of judicial recommendation, departmental advice and public demand. But many disasters had to occur over a long period before such an extension of the role of the state was sanctioned. Both the slow progress of necessary amendments to the provisions of the Coal Mines Regulation Act, and the evolution of the Mines Rescue Act illustrate the validity of this claim.

Once established, the South Maitland Mines Rescue Station represented a valuable contribution to the safety requirements of the district's mines. It provided a complementary service to the provisions of the Coal Mines Regulation Act since, in theory, its rescue facilities would only be required in the event of accidents due to unpreventable circumstances or failure to comply strictly with the provisions of that Act.

In reality the station has been called upon to perform very few rescue operations. This fact can be interpreted in two ways. In the first place, the station can be complemented on the efficiency of all the services it performs in the district's mines. Services such as testing for the presence of gas, detecting or sealing an area of spontaneous combustion, fighting fires which cannot be dealt with in fresh air conditions, have all contributed to safety in mining. There has been no major disaster in the district since 1923 and these operations must have contributed to that fact.

On the other hand it is questionable whether the station's contribution to safety is as comprehensive as the general provisions of the Mines Rescue Act imply that it can be. In January 1969 the Coalmines Safety Advisory Committee was formed. Reasons given for its formation were: the failure to maintain the steady fall in the accident rate...the continuing high percentage of serious accidents attributable to falls of roof and sides and to haulage, the increase in the number of reportable accidents attributable to the use of electricity.\(^2\) The prevention of such accidents is encompassed within the provisions of the Coal Mines Regulation Act. If these regulations do not keep pace with the safety requirements of fast and profitable production techniques, then there is a network of bodies, such as the Coalmines Safety Advisory Committee, which has the responsibility of making the necessary recommendations. But since fatal

accidents in mines do keep occurring, and in 1969 most of the state's fatal accidents occurred at the mine face in the northern district's mines,³ then it seems incongruous that the station receives so few emergency calls for mine accidents.

In 1921, when a conference took place to discuss the question of establishing rescue stations in mining centres, union delegate A.C. Willis thought that 'Any scheme which did not provide for miners to do the work (of rescue) on the spot would be at least a partial failure.'⁴ The last disaster in the district to illustrate the need for a rescue station, was one which had also indicated the need for rescue teams to be present immediately it was known that an explosion had or might occur. The Bellbird disaster had illustrated the necessity for organised rescue to take place within the first hour following explosion or fire which had produced irrespirable air.

When the station was first established, in the approximate centre of the South Maitland district, it was anticipated that all large mines could be quickly reached in the event of an emergency, due to the concentration of mines in the Cessnock area. The last decade has seen a relocation of mining emphasis to the Upper Hunter region. Consequently in order to provide a centralized mine rescue system which would cater adequately for fast, efficient rescue services to the area of greatest need, it was decided to relocate the station at Singleton Heights. This decision to build a new station and incorporate an open-cut rescue service and training programme into its activities was indicative of a more expansive approach to the concept of mine rescue organization.

Before planning for the new station was finalized, station Superintendent J. Tapp was sent to central Europe to investigate what he considered were the

most modern and sophisticated rescue organizations in the world. Information
of structural organization and technological advances in rescue equipment and
services in Czechoslovakia, Poland, Hungary, Germany, France and Belgium, was
provided for the committee's consideration as a source of ideas for the new
station.5

Findings of the overseas investigation revealed the concept of mine
rescue stations providing a total function within the mining industry for which
they were established. The overseas trend was for a rescue organization to
consist of a network of interconnected colliery, regional and central stations
which between them provided a diversity of services.6 It was apparent that
overseas rescue organizations had developed in response to liberal inter­
pretations of the meaning of mine rescue. It is significant that recent develop­
ments within the South Maitland Mines Rescue district are correspondingly
progressive.

Because the South Maitland station had evolved from the cumulative effects
of mine disasters which had illustrated the particular need for the supply of
artificial breathing apparatus, its services were defined by this close
association with its origins. A tradition developed whereby the station's
services were interpreted as functional only when artificial breathing
apparatus was being used in an irrespirable mine atmosphere. Therefore, the
extent to which the station could contribute generally to safety in mining became
hampered by tradition.

It is true that the station's origins are inseparable from the development
and use of breathing apparatus. Combating hazards incidental to mine fire and

6. Ibid.
explosion was intended to be the specialty of the rescue station. It is also true that the disasters which so dramatically drew attention to the need for this equipment, also contributed to the progress of legislative regulation which was intended overall to reduce the incidence of death and injury in mines. Politicians had anticipated in 1926 that the station's contribution to safety in mining on the South Maitland coalfield would be far-reaching. The station has moved into an era whereby its extended services represent an even greater realization of this ideal.
APPENDIX I
South Maitland Mines Rescue Station Committee members and Chairmen

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position and Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>R.A. Harle</td>
<td>Chairman from January 1926 to February 1932</td>
</tr>
<tr>
<td>2.</td>
<td>R. Kelsick</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>J. Mathieson</td>
<td>Chairman from May 1932 to July 1941</td>
</tr>
<tr>
<td>4.</td>
<td>J. Johnstone</td>
<td>Chairman from July 1941 to January 1947</td>
</tr>
<tr>
<td>5.</td>
<td>M.E. Clark</td>
<td>Chairman from January 1947 to January 1953</td>
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<tr>
<td>6.</td>
<td>A. Donne</td>
<td>Chairman from January 1953 to January 1959</td>
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<tr>
<td>7.</td>
<td>J. Connell</td>
<td>Miners Check Inspector</td>
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<tr>
<td>8.</td>
<td>S.B. McKensey</td>
<td>Chairman from January 1959 to January 1977</td>
</tr>
<tr>
<td>9.</td>
<td>W.H. May</td>
<td>Miners Check Inspector</td>
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<tr>
<td>10.</td>
<td>W. Colvin</td>
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<tr>
<td>11.</td>
<td>H.S. Rowe</td>
<td></td>
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<tr>
<td>12.</td>
<td>J.B. Barrett</td>
<td>Miners Check Inspector</td>
</tr>
<tr>
<td>13.</td>
<td>W. Player</td>
<td></td>
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<tr>
<td>14.</td>
<td>J.D. Bowdler</td>
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<td>15.</td>
<td>D. Haldane</td>
<td></td>
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<tr>
<td>16.</td>
<td>D. Brown</td>
<td>Miners Check Inspector</td>
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<tr>
<td>17.</td>
<td>M.J. Harris</td>
<td></td>
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<tr>
<td>18.</td>
<td>W.J. Seaward</td>
<td>Chairman from January 1977 to January 1980</td>
</tr>
<tr>
<td>19.</td>
<td>J. O'Shea</td>
<td>Miners Check Inspector</td>
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<tr>
<td>20.</td>
<td>G. Lennard</td>
<td>Miners Check Inspector</td>
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<tr>
<td>21.</td>
<td>I. Duncan</td>
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<tr>
<td>22.</td>
<td>A.A. Smith</td>
<td>Miners Check Inspector</td>
</tr>
<tr>
<td>23.</td>
<td>R.J. Stothard</td>
<td>Miners Check Inspector</td>
</tr>
<tr>
<td>24.</td>
<td>S. Coffey</td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>C. Harrison</td>
<td>Chairman from January 1980 to date</td>
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<tr>
<td>26.</td>
<td>S. Johnson</td>
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</table>

Station Superintendents

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<tr>
<th>No.</th>
<th>Name</th>
<th>Term</th>
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<tbody>
<tr>
<td>1.</td>
<td>George Emery</td>
<td>1926 to 1946</td>
</tr>
<tr>
<td>2.</td>
<td>Robert Thompson</td>
<td>1946 to 1949</td>
</tr>
<tr>
<td>3.</td>
<td>George Randall</td>
<td>1950 to 1961</td>
</tr>
<tr>
<td>4.</td>
<td>John Tapp</td>
<td>1961 to date</td>
</tr>
</tbody>
</table>
Committee Secretaries

1. Sid Cleaves 1926 to 1962
2. J Sneddon 1962 to 1977
4. John Tapp 1980 to date
Primary Sources

1) From administrative records of South Maitland Mines Rescue Station:

2. Emery, G., 'Resume on the re-opening of Aberdare Central Colliery.' (ca. 1948)
4. Minutes of Meetings of South Maitland Mines Rescue Station Committee. 1926-82.

2) New South Wales Mines Department Special Files. 1851-1965

1. Mines Rescue Stations - 1925-7
   SF183, 19/2542 - State Archives, Sydney
   SF332, 19/2573, State Archives, Sydney

3) Newcastle University Archives

Official Publications


British Official Publications


Newspapers


4. Maitland Mercury 1905

Periodical

Dictionaries

Monographs
12. Llewellyn, K., Disaster at Tynemwd, (Cardiff Wales, 1975).

**Articles**


**Thesis**

The following people were contacted by telephone:

    Jim Comerford
    Ivan Balks.

Persons interviewed were:

    John Tapp
    Wilson Barrett
    John Shoebridge
    Trio Mowitt.