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Report Of The Commission Of Inquiry
Into Safety And Health
In The
Mining Industry
Volume 2

Electronic Copy By

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Notes

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21 October 2003

**REPORT
OF THE COMMISSION OF INQUIRY INTO
SAFETY AND HEALTH
IN THE
MINING INDUSTRY
VOLUME 2**

RECOMMENDATIONS OF THE INTERESTED PARTIES

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INTRODUCTION

In Chapter 5 of the Volume 1 of the Commission's report the Commission puts on record the fact that during the deliberations the positions of the parties to the discussions changed. As a result the Chairman requested the Main Parties to summarise their positions, and subsequently added what were seen to be the important submissions by the parties.

In order to provide the reader of Volume 1 of the report with easy reference to the final forum of the arguments put before the Commission these are included in full in this volume. Apart from the correction of the obvious textual errors the original format has been retained throughout.

**SECTION A THE NATIONAL UNION OF MINeworkERS
CLOSING SUBMISSION ON BEHALF OF
THE NATIONAL UNION OF MINE WORKERS
(SUMMARY AND SCHEDULE OF EVIDENCE)**

I. FORMAT OF COMMISSION'S REPORT AND RECOMMENDATIONS

**1. THE COMMISSION SHOULD DIVIDE ITS RECOMMENDATIONS INTO
THREE DISTINCT SEGMENTS, NAMELY:**

- 1.1 matters which require immediate implementation;
- 1.2 matters which should be referred to tripartite fora for negotiation; and
- 1.3 matters which require further consideration and investigation.

II. STATUTORY FRAMEWORK: A NEW STATUTE AND REVISED REGULATIONS

**2. PARLIAMENT SHOULD WITHOUT DELAY ENACT A MINE HEALTH AND
SAFETY ACT**

**3. THE LEGISLATIVE FRAMEWORK SHOULD REFLECT FOUR LEVELS OF
STATUTORY COMPETENCY:**

- 3.1 the new statute itself;
- 3.2 regulations promulgated under it;
- 3.3 guidelines for codes of practices; and
- 3.4 approved codes of practice.

**4. THE NEW STATUTE SHOULD EMBODY THE PRINCIPLE OF STATE, EMPLOYER
AND EMPLOYEE INVOLVEMENT IN ALL ASPECTS OF MINE HEALTH AND
SAFETY, BY CREATING A TRIPARTITE MINE HEALTH AND SAFETY COUNCIL**

**5. THE NEW STATUTE SHOULD PROVIDE FOR ELECTED WORKPLACE HEALTH
AND SAFETY REPRESENTATIVES**

**6. THE NEW STATUTE SHOULD IN ADDITION PROVIDE FOR ONE ELECTED, FULL-
TIME, SAFETY REPRESENTATIVE FOR EVERY SHAFT OF MINE**

**7. THE NEW STATE SHOULD FURTHER PROVIDE THAT EVERY MINE SHALL HAVE
AT LEAST ONE JOINT HEALTH AND SAFETY COMMITTEE**

**8. THE NEW STATUTE MUST ESTABLISH AN EFFECTIVE RIGHT FOR EMPLOYEES
TO REFUSE TO PERFORM DANGEROUS WORK**

9. THE NEW STATUTE MUST ESTABLISH A COMPREHENSIVE RIGHT FOR EMPLOYEES TO KNOW OF THE HAZARDS AND RISKS THEY FACE AT WORK, AND TO RECEIVE INFORMATION RELATING TO THEIR HEALTH AND SAFETY
10. THE ACT SHOULD EXTEND THE OBLIGATIONS PLACED UPON THE OWNER OF A MINE SO AS TO ENSURE EFFECTIVE RESPONSIBILITY FOR THE HEALTH AND SAFETY OF PERSONS EMPLOYED IN THE MINE
11. THE NEW STATUTE SHOULD PRESCRIBE THE STANDARD OF “REASONABLE PRACTICABILITY” AS THE STANDARD OF CARE; SPECIFIC REGULATIONS MAY PRESCRIBE THE STANDARD OF PRACTICABILITY SPECIFIED CONTEXTS, OR STRICT LIABILITY WHERE APPROPRIATE
12. THE NEW STATUTE SHOULD REQUIRE EMPLOYERS TO ADOPT A PRO- ACTIVE, RISK ASSESSMENT, APPROACH TO HEALTH AND SAFETY
13. THE NEW STATUTE SHOULD REQUIRE THE MINE MANAGER TO SUPPLY ALL SAFETY EQUIPMENT, CLOTHING AND OTHER ITEMS REQUIRED IN TERMS OF THE ACT TO EMPLOYEES FREE OF CHARGE
14. THE ACT SHOULD REQUIRE THAT THE MANAGER DO ALL THINGS THAT ARE REASONABLY PRACTICABLE TO ENSURE THE HEALTH AND SAFETY OF THE PUBLIC (ie. PERSONS OTHER THAN EMPLOYEES)
15. THE NEW STATUTE SHOULD PLACE A DUTY UPON MANUFACTURERS, DESIGNERS AND SUPPLIERS OF EQUIPMENT, MACHINERY AND OTHER ITEMS USED IN MINES, TO ENSURE THAT THEIR PRODUCTS COMPLY WITH THE SPECIFICATIONS OF THE REGULATIONS
16. THE NEW STATUTE SHOULD RECOGNISE THAT CRIMINAL ENFORCEMENT OF EMPLOYEES’ PERFORMANCE OF THEIR CONTRACTUAL OBLIGATIONS IS NOT APPROPRIATE, BUT SHOULD BE REGULATED (EXCEPT IN THE CASE OF WILFUL ENDANGERMENT OF FELLOW EMPLOYEES) THROUGH THE EMPLOYER’S DISCIPLINARY POWERS
17. REGARDING THE REGULATIONS, THE COMMISSION SHOULD:
 - 17.1 identify matters presently regulated that require immediate attention by way of enactment, amendment or repeal, or in respect of which directives should be issued;
 - 17.2 recommend that establishment of a tripartite regulatory review committee; and
 - 17.3 identify the criteria this committee should use in a tripartite review of all other existing regulations.
18. AFTER TRIPARTITE CONSULTATION, THE GOVERNMENT MINING ENGINEER SHOULD ISSUE GUIDELINES FOR DEVELOPING CODES OF PRACTICE

19. THE MANAGEMENT HIERARCHY AND SUPERVISORY STRUCTURE CURRENTLY REQUIRED BY THE REGULATIONS SHOULD BE INVESTIGATED, SO THAT A STRUCTURE PROMOTING A PRO-ACTIVE MANAGEMENT APPROACH TO HEALTH AND SAFETY IS ADOPTED
20. RESEARCH INTO MINE HEALTH AND SAFETY SHOULD BE CONSIDERED AND MANDATED BY A TRIPARTITE COMMITTEE
21. THE NEW STATUTE SHOULD INCORPORATE PRESUMPTIONS:
 - 21.1 requiring an employer charged with a breach of a general duty, to prove that he did what is “reasonably practicable”; and
 - 21.2 to operate in offences where a manager is charged with an offence that consists of an act or omission by an employee.

III. NATIONAL POLICY ON, AND NATIONAL COUNCIL FOR OCCUPATIONAL HEALTH AND SAFETY

22. THE MINE HEALTH AND SAFETY INSPECTORATE SHOULD PARTICIPATE JOINTLY WITH OTHER DEPARTMENTS, INCLUDING THE DEPARTMENTS OF LABOUR AND NATIONAL HEALTH, IN A NATIONAL HEALTH AND SAFETY POLICY COUNCIL

IV. THE MINE HEALTH AND SAFETY INSPECTORATE: STRUCTURES AND RESOURCES

23. THE GOVERNMENT MINING ENGINEER’S INSPECTORATE SHOULD BE CONSTITUTED AS A SEPARATE ADMINISTRATIVE AGENCY WITHIN THE DMEA, AND ITS NAME CHANGED TO “THE MINE HEALTH AND SAFETY INSPECTORATE”
24. THE INSPECTORATE IS UNDER-FUNDED AND UNDER-RESOURCED; THERE SHOULD BE SIGNIFICANT INCREASE IN ITS FUNDING
25. CONSULTANTS SHOULD BE EMPLOYED TO ENHANCE THE EXPERTISE AVAILABLE TO THE INSPECTORATE
26. THE INSPECTORATE SHOULD INCREASE ITS RESOURCES BY RECRUITING:
 - 26.1 scientific specialists with the requisite skills; and
 - 26.2 persons employed in the mining industry with the requisite skills, but who are not qualified to be mine inspectors.
27. THE INSPECTORATE SHOULD DEVELOP A SYSTEMATIC PROGRAMME FOR TRAINING INSPECTORS AND OTHER EMPLOYEES; THE POSSIBLE ASSISTANCE OF THE ILO, AS WELL AS THE INSPECTORATES OF OTHER COUNTRIES, SHOULD BE INVESTIGATED IN THIS REGARD
28. A COMPREHENSIVE AUDIT, BY PERSONS WITH EXPERTISE IN THE REGULATION OF OCCUPATIONAL HEALTH AND SAFETY, SHOULD BE UNDERTAKEN TO DETERMINE:

- 28.1 the resources, equipment and expertise, as well as the research capacity, currently at the disposal of the inspectorate;
- 28.2 the inspectorate's needs in all these respects;
- 28.3 what goals the inspectorate can be expected to attain, and the effectiveness of its enforcement policies and strategies;
- 28.4 the efficient allocation of expertise and resources within the inspectorate; and
- 28.5 after a period of time, whether the specified goals have been attained; and, if not, what corrective action should be taken.

V. THE INSPECTORATE: INSPECTORS, INVESTIGATIONS AND INQUIRIES

- 29. ROUTINE INSPECTIONS ON MINES SHOULD BE REGULATED TO MAKE THEM MORE EFFECTIVE
- 30. ON SITE POST-ACCIDENT INSPECTIONS SHOULD BE REGULATED TO ENSURE TRIPARTITE PARTICIPATION AND INFORMATION
- 31. NOTICE OF, ACCESS TO, PROVIDING RELEVANT INFORMATION ABOUT, AND RECORDING THE PROCEEDINGS AT INQUIRIES SHOULD BE REGULATED
- 32. EXPERT CONSULTANTS SHOULD BE APPOINTED:
 - 32.1 to assist inspectors in accident investigations; and
 - 32.2 to sit in inquiries as assessors.
- 33. THE CONTENT OF INQUIRY REPORTS, AND THEIR DISSEMINATION AND PUBLICATION, SHOULD BE REGULATED
- 34. IN APPROPRIATE CIRCUMSTANCES, THE PRIVILEGE AGAINST SELF-INCRIMINATION SHOULD ATTACH TO INQUIRY PROCEEDINGS

VI. ENFORCEMENT OF HEALTH AND SAFETY PROVISIONS

- 35. A DUAL SYSTEM OF ADMINISTRATIVE PENALTIES AND CRIMINAL SANCTIONS SHOULD BE INTRODUCED FOR INFRACTIONS OF HEALTH AND SAFETY PROVISIONS

VII. REGULATION OF SPECIFIC HAZARDS

VII.1 ROCKBURSTS AND ROCKFALLS

- 36. A PROGRAMME TO REDUCE ACCIDENTS CAUSED BY ROCKBURSTS AND ROCKFALLS SHOULD BE URGENTLY CREATED AND IMPLEMENTED

37. A SYSTEMATIC AND RIGOROUS APPROACH, WITH EMPLOYMENT OF APPROPRIATE EXPERTISE, MUST BE ADOPTED IN INQUIRIES INTO ROCKBURST AND ROCKFALL INCIDENTS
38. A COMPREHENSIVE TRAINING STRATEGY REGARDING ROCKFALLS AND ROCKBURSTS SHOULD BE ADOPTED SO AS TO DEVELOP THE EXPERTISE AVAILABLE IN THE, DIFFERENT CATEGORIES OF EMPLOYMENT

VII.2 RESPIRABLE DUST

39. AN EXPERT TASK FORCE ON INDUSTRIAL HYGIENE SHOULD BE ESTABLISHED TO INVESTIGATE AND MONITOR THE RESPIRABLE DUST HAZARD IN UNDERGROUND MINING

VII.3 NOISE

40. A PRO-ACTIVE APPROACH MUST BE URGENTLY IMPLEMENTED TO ENSURE THAT ALL REASONABLY PRACTICABLE STEPS ARE TAKEN TO REDUCE NOISE LEVELS IN MINES

VII.4 TRUCK AND TRAMMING ACCIDENTS

41. A STUDY SHOULD BE COMMISSIONED TO INVESTIGATE ACCIDENTS INVOLVING TRUCKS AND TRAMMING, IN ORDER TO ASCERTAIN THE CAUSES OF THE HIGH LEVEL OF RESULTING DEATHS AND DISABLING INJURIES

VII.5 RADIATION

42. THE CNS SHOULD RETAIN REGULATORY RESPONSIBILITY FOR CONTROL OF RADIATION HAZARDS WITHIN THE MINING AND MINERAL PROCESSING INDUSTRY. NO LEGISLATIVE OR REGULATORY CHANGES SHOULD BE MADE

VII.6 COAL MINE EXPLOSIONS

43. ADDITIONAL REGULATIONS SHOULD BE INTRODUCED TO COMBAT STRINGENTLY THE HAZARDS OF METHANE AND COAL DUST THAT CAUSE AND PROPAGATE EXPLOSIONS IN COAL MINES

VII.7 INSPECTORATE'S POWER TO REGULATE HEALTH HAZARDS

44. THE MINE HEALTH AND SAFETY INSPECTORATE SHOULD BE GIVEN EXPRESS POWER TO REGULATE HEALTH HAZARDS

VII.8 ERGONOMICS

45. AN EXPRESS REQUIREMENT SHOULD BE INCLUDED TO TAKE INTO ACCOUNT ERGONOMIC PRINCIPLES IN THE CHOICE, SPECIFICATION AND DESIGN OF EQUIPMENT, AND THE DESIGN OF WORKPLACES

VII.9 VIBRATION

46. REGULATIONS SHOULD BE ADAPTED TO PROTECT MINE EMPLOYEES FROM THE ADVERSE EFFECTS OF WHOLE BODY VIBRATION

VIII. OCCUPATIONAL DISEASE: CO-ORDINATION OF NATIONAL POLICY AND PREVENTION

47. A STRATEGY SHOULD BE FORMULATED TO DEVELOP AND COORDINATE A NATIONAL POLICY ON OCCUPATIONAL DISEASES AND HEALTH

A TRIPARTITE COMMITTEE SHOULD BE ESTABLISHED TO SUPERVISE THE ACTIVITIES OF THE MBOD, INCLUDING ITS EPIDEMIOLOGICAL RESEARCH UNIT (ERU)

THE ODMWA SHOULD BE AMENDED TO INCORPORATE ALL ASPECTS OF THE COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT, 130 OF 1973 (COIDA) SO AS TO PLACE MINE WORKERS IN A COMPARABLE POSITION TO THOSE IN OTHER INDUSTRIES

50. HAZARDOUS SUBSTANCES SHOULD BE REGULATED
51. MEDICAL EXAMINATIONS OF MINE WORKERS SHOULD BE REGULATED
52. STORING MEDICAL RECORDS
53. CODES OF PRACTICE SHOULD BE DRAFTED TO DEAL WITH SPECIFIC OCCUPATIONAL HEALTH PROBLEMS IN THE INDUSTRY

URGENT RESEARCH MUST BE UNDERTAKEN INTO SPECIFIED ISSUES BEARING ON OCCUPATIONAL DISEASE

DELIVERY OF HEALTH CARE AND SERVICES: THE HEALTH CARE SYSTEM IN THE INDUSTRY MUST BE ACCOUNTABLE TO BOTH EMPLOYERS AND EMPLOYEES

IX. ACCESS TO AND PUBLICATION OF INFORMATION ON HEALTH AND SAFETY

56. MINIMUM STANDARDS FOR THE PUBLICATION OF ACCIDENT, INJURY AND FATALITY STATISTICS, AND OF HEALTH RETURNS AND STATISTICS, MUST BE PRESCRIBED

X. MIGRANT LABOUR AND THE MINE HOSTEL SYSTEM

57. THE COMMISSION SHOULD:
- record the adverse impact of the migrant labour system on occupational health;
 - record the social and economic dislocation it causes; and
 - direct the industry to address the family housing requirements of its workforce.

XI. TRAINING OF EMPLOYEES IN THE MINING INDUSTRY

XI.1 HEALTH AND SAFETY TRAINING

58. MINE EMPLOYERS SHOULD BE REQUIRED TO PROVIDE APPROPRIATE AND UNDERSTANDABLE TRAINING:

- to all grade and classes of workers;
- in order to equip each employee to work competently and safely;
- the form and broad content of which should be regulated; and
- consultation in regard to which should take place between management and employee representatives

XI.2 INDUSTRY EDUCATION AND TRAINING POLICY

59. HEALTH AND SAFETY TRAINING SHOULD FURTHER BE:

- integrated into industry-wide education and training policies;
- developed on a tripartite basis, including consultation with government and management, and with labour on an industry-wide basis, as well as at workplace level

XII. “LOSS CONTROL” AND SAFETY RATINGS SYSTEMS: PUBLIC FUNDING

61. “LOSS CONTROL” NO PUBLIC FUNDING SHOULD BE MADE AVAILABLE TO SAFETY ORGANISATIONS ADOPTING “LOSS CONTROL” APPROACHES, OR OPERATING SAFETY RATING SYSTEMS

XIII. PRODUCTION BONUSES

62. AN INVESTIGATION SHOULD BE UNDERTAKEN INTO THE RELATIONSHIP BETWEEN HEALTH AND SAFETY PERFORMANCE AND PRODUCTION BONUSES SO AS TO ENSURE THAT PRODUCTION BONUSES DO NOT UNDERMINE HEALTH AND SAFETY

NUM Selected Drafted Statutory Provisions were prepared by Mr Paul Benjamin for a proposed 1995 Act and are referred to below.

**THE MINE HEALTH, SAFETY AND ENVIRONMENTAL ACT 1995
SELECTED DRAFT STATUTORY PROVISIONS**

1 Definitions

MINE HEALTH AND SAFETY COUNCIL (MHSC)

2 Establishment and membership of Mine Health and Safety Council

3 Establishment and membership of committees of MHSC

MINE HEALTH AND SAFETY INSPECTORATE (MHSI)

4 Establishment of MHSI

5 Appointment and powers of Government Mining Engineer

6 Authorization of mining activity on grounds of health and safety

7 Powers of inspectors - entry, examination, investigation (Section 51 of Minerals Act)

8 Powers of inspectors - orders, suspensions and instructions (Section 27 of Minerals Act)

9 Permits for the use of machinery (Section 33 of Minerals Act)

10 Control of health hazards

11 Holding of inquiries

12 Codes of practice

DUTIES

13 Duties of the owner

14 General duties of the manager (in respect of risk assessment; elimination and mitigation of hazards and training)

15 Health and safety policy

16 Duties of employees at work

17 Duties of manufacturers, designers and others

18 Duty to supply safety facilities and equipment

EMPLOYEES' RIGHTS

- 19 Election of Workplace Health and Safety Representatives
- 20 Functions of Workplace Health and Safety Representatives
- 21 Election and functions of Full-time Health and Safety Representatives
- 22 Health and Safety Committees
- 23 Manager's duties to inform Health and Safety Representatives
- 24 Right to refuse dangerous work
- 25 Procedures to be utilized
- 26 Protection against victimisation
- 27 Act not affected by agreements

REHABILITATION OF SURFACE (SECTIONS 38 - 42 OF THE MINERALS ACT)

- 28 Rehabilitation of surface of land
- 29 Environmental management programme
- 30 Removal of buildings, structures and objects
- 31 Restrictions in relation to use of surface of land
- 32 Acquisition or purchase of certain land and payment of compensation under certain circumstances

CRIMINAL OFFENCES

- 33 Offences and penalties
- 34 Acts or omissions by employees or agents
- 35 Proof of what is reasonably practicable
- 36 Proof of certain facts

MISCELLANEOUS PROVISIONS

- 37 Regulations (Section 63(1) of the Minerals Act)
- 38 Incorporation of standards (Section 63(3) of the Minerals Act)
- 39 Incorporation of regulations from other statutes
- 40 Exemptions
- 41 Reporting of accidents, occupational diseases and dangerous occurrences
- 1 Definitions

MINE HEALTH AND SAFETY COUNCIL (MHSC)

2 Establishment and membership of Mine Health and Safety Council

- (1) A Mine Health and Safety Council is hereby established.
- (2) The Council shall consist of:
 - (a) 4 persons appointed by organisations representing mine employers;
 - (b) 4 persons appointed by organisations representing employees not performing managerial functions;
 - (c) no more than 4 persons appointed by the Government Mining Engineer.
- (3) The Council shall advise the Government Mining Engineer and the Minister on-
 - (a) any matter of policy concerning the development, implementation and enforcement of health and safety standards;
 - (b) any matter concerning the promotion of the health and safety of employees;
 - (c) consider any report prepared by a sub-committee.
- (4) The Council may, with a view to the performance of its functions, do such research and conduct such investigations as it may deem necessary.

3 Establishment and membership of committees of MHSC

- (1) The Council may establish specialist committees. The appointment of a committee may be indefinite, for a specified time period or to perform a specified function.
- (2) Every sub-committee shall consist of equal numbers of representatives appointed by mine employers, organisations representing employees not performing managerial functions and representatives of the Government Mining Engineer. Other persons may be invited to participate on a sub-committee on account of their particular expertise but shall not be entitled to vote.
- (3) The following permanent sub-committees shall be established:
 - (a) the Mine Regulations Review Committee;
 - (b) the Safety in Mines Research Advisory Committee;
 - (c) a Code of Practice Committee.
- (4) Each committee shall regularly submit reports to the Council for consideration.

MINE HEALTH AND SAFETY INSPECTORATE (MHSI)

4 Establishment of MHSI

- (1) The Mine Health and Safety Inspectorate is hereby established.
- (2) The Inspectorate shall be headed by the Government Mining Engineer and shall be a national health and safety inspectorate for mines and works.

5 Appointment and powers of Government Mining Engineer

- (1) The Government Mining Engineer shall be responsible for the administration and direction of the Inspectorate and shall:
 - (a) appoint competent inspectors and other officials;
 - (b) obtain, utilise, analyze and disseminate information relating to health and safety conditions and the causes of accidents and ill health in the mining industry;
 - (c) develop, implement and enforce appropriate health and safety standards through regulations, the development of guidelines for codes of practice and the issue of directives;
 - (d) ensure that all mines are inspected at appropriate intervals. Where reasonably practicable, such inspections shall take place unannounced;
 - (e) take any other action and implement any policy which he considers appropriate to promote the health and safety of employees.
- (2) The Government Mining Engineer may delegate his powers, as specified in the schedule, to officials employed in the Mine Health and Safety Inspectorate.

6 Authorization of mining activity on grounds of health and safety

- (1) No person may engage in mining activity without an authorization issued by the Government Mining Engineer.
- (2) No mining authorization shall be issued in terms of sub-section (1), unless the Government Mining Engineer is satisfied after due investigation and consideration that the applicant intends to and can make the necessary provision to -
 - (a) conduct mining activities with due regard to the health and safety of persons employed in such activities or who may be directly affected by it;
 - (b) rehabilitate disturbances of the surface which may be caused by the mining operations.

7 Powers of Inspectors - entry, examination, investigation
(SECTION 51 OF MINERALS ACT)

8 Powers of Inspectors - orders, suspensions and instructions
(SECTION 27 OF THE MINERALS ACT)

9 Permits for the use of machinery (SECTION 33
OF MINERALS ACT)

10 Control of health hazards

- (1) The Minister may by notice declare any work performed or any substance to be a scheduled health hazard. The notice may specify the conditions or circumstances under which the work or substance shall constitute a health hazard.
- (2) Any manager whose employees either perform work declared to be a health hazard or are liable to be exposed to the hazards emanating from such work or substance shall, after consultation with the health and safety representatives, and having regard to the nature of risk associated with such work and the level of exposure of such employees to the hazards, implement an appropriate occupational hygiene programme and make available to such employees medical surveillance.
- (3) These provisions shall not apply in respect of any hazard regulated by the Occupational Diseases in Mines and Works Act. and 12
(MODIFICATION OF 11 AND 12 OF OHSA).

11 Holding of Inquiries

- (1) (a) The Government Mining Engineer shall direct an inspector or other officer or independent person to conduct an inquiry into the cause of any accident or other occurrence at a mine or works, causing the death of or serious bodily harm to any person.
 - (b) The Government Mining Engineer may designate an inspector or other official or any other independent person to conduct an inquiry into any accident other than one referred to in paragraph (a), any contravention or suspected contravention of or any failure or suspected failure to comply with any provision of this Act or any occurrence in connection with safety or health conditions at any mine or works.
 - (c) **Notwithstanding the provisions of paragraphs (a) and (b) above, the Government Mining Engineer may direct an inspector or other officer or independent person to conduct an inquiry into any related accidents or occurrences in connection with safety or health conditions or any class of accidents or occurrences in connection with health and safety conditions occurring either at a mine or works or several mines or works.**
- (2) (a) If any trade union or personnel association, members of which are employed at a specific mine or works, submits a reasonable request in writing to the Government Mining Engineer in which shall be set out the reasons for an inquiry to be held into any occurrence or condition at such mine or works or any number of mines or works affecting or likely to affect the safety or health of persons, the Government Mining Engineer -
 - (i) shall cause such occurrence or condition to be investigated; and
 - (ii) may, if he deems it desirable, after consideration of the result of the investigation referred to in sub-paragraph (i), cause such occurrence or condition to be inquired into and designate an inspector or officer or other person to preside at such inquiry.

- (b) If the Government Mining Engineer declines to cause an inquiry referred to in paragraph (a)(ii) to be held, he shall make the result of the investigation referred to in paragraph (a)(i) available to the trade union or personnel association referred to in paragraph (a).
- (3) The Government Mining Engineer may, either before the commencement or at any stage of an inquiry held in terms of sub-section (1), (2) or (5), designate one or more other regional mining engineers or officers to assist in the holding of such inquiry and he may designate a regional mining engineer or officer to preside at such inquiry.
- (4) **The purpose of an inquiry shall be:**
 - (a) to investigate the direct and indirect causes of the accident or occurrence;
 - (b) to determine culpability for the accident or the occurrence with a view to making a recommendation in regard to the institution of a prosecution or otherwise;**
 - (c) to make any further finding which might serve to prevent similar or related accidents or occurrences.**
- (5) The following persons may participate in an inquiry and may either personally or through a representative put questions to witnesses and inspect any books, documents or item presented at the inquiry;
 - (a) any person who was injured or suffered damage as a result of the accident or occurrence forming the subject of the inquiry;
 - (b) the manager and any subordinate manager or official responsible for the area in which the accident occurred;
 - (c) any person who in the opinion of the presiding official could be held responsible for the accident or incident;
 - (d) any trade union having members in the workplace where the accident or incident occurred;
 - (e) the health and safety representative for the workplace where the accident or occurrence happened;
 - (f) any person who either designed or manufactured or supplied articles or substances involved in the accident or occurrence;
 - (g) any other person, who has an interest in the inquiry.
- (6) The evidence given at any inquiry shall be recorded and a dossier of all documents submitted shall be compiled.
- (7) At the conclusion of an inquiry under this section, the presiding officer shall compile a written report on it.

12 Codes of practice

- (1) The Government Mining Engineer may require managers or the manager of any specific section or class of mine to prepare codes of practice in respect of any matter regarding safety and health.
- (2) The Government Mining Engineer shall publish guidelines setting out the matters to be incorporated into a code of practice on any matter.
- (3) A mine manager shall consult with the employee representatives on the health and safety committee at the mine on the preparation or revision of any code of practice.
- (4) The Government Mining Engineer shall not approve a code of practice unless satisfied that it requires the manager to take all steps that are reasonably practicable in respect of matters covered by the code of practice to ensure the health and safety of his employees.
- (5) A mine manager may submit a code of practice on any matter relating to health and safety to the Government Mining Engineer for approval. The Government Mining Engineer shall not approve such a code of practice unless he is satisfied that the requirements of sub-sections (3) and (4) are met.
- (6) The Government Mining Engineer may withdraw his approval of any code of practice or any part of a code of practice and may require the amendment of a code of practice.
- (7) No person shall breach the provisions of a code of practice.
- (8) A code of practice may not derogate from any provision in the Act or regulations.

DUTIES

13 Duties of the owner

The owner of every mine shall:

- (a) appoint a competent and qualified person as manager of the mine;
- (b) supply such manager with sufficient means in order to enable him to properly fulfil his responsibilities in terms of the Act and regulations;
- (c) take all reasonable steps to ensure that the manager complies with his responsibilities in terms of the Act and regulations;
- (d) consider at a meeting each year the safety and health statistics the mine is required to compile in terms of the Act or any other legislation and, where the owner is a corporation having shareholders, disseminate such information to all shareholders.

14 General duties of the manager (in respect of risk assessment; elimination and mitigation of hazards and training)

Every manager shall:

- (a) provide and maintain as far as is reasonably practicable a working environment that is safe and without risk to the health of his employees and other persons who may be affected thereby;
- (b) appoint such persons as may be necessary to assist him in enforcing compliance with the regulations or with any lawful order given by an inspector in the interests of safety or health;
- (c) make a suitable and sufficient assessment of -
 - (i) the risks to the health and safety of employees to which they are exposed while they are at work; and
 - (ii) the risk to the health and safety of persons not in his employment arising out of or in connection with the conduct by him of his undertaking;
- (d) ensure that the significant findings of the assessments referred to in sub-paragraph (c) are suitably recorded and available for inspection by employees;
- (e) eliminate the hazards causing the risks identified by means including their removal, substitution or changing the organisation of work;
- (f) if it is not reasonably practicable to eliminate the hazards, do all that is reasonably practicable to minimise the hazards or reduce the risks. In complying with this provision, an employer shall, in the order of priority stated -
 - (i) minimise the effects of the hazard at source;
 - (ii) reduce the effects of the hazard that are transmitted to employees;
 - (iii) reduce the levels and duration of exposure of employees to the hazard by the arrangement and organisation of work;
- (g) in complying with sub-section (f), require employees to use personal protective equipment only if it is not reasonably practicable to reduce the risks by other means, or as a temporary practicable to reduce the risks by other means, or as a temporary measure while other steps are being taken to eliminate the hazard or reduce the risk to employees;
- (h) ensure that ergonomic principles are implemented in the design of any workplace and in the specifications for any equipment or machinery used at the mine;
- (i) ensure that his employees are provided with such health surveillance and monitoring as is appropriate, having regard to the risks to their health and safety which are identified by the assessment referred to in regulation 2.9.3(a);
- (j) provide his employees with comprehensible and relevant information on -
 - (i) the risk to their health and safety identified by the assessment;
 - (ii) the preventive and protective measures; and
 - (iii) the procedures to be followed in the event of a danger to persons at work;

- (k) ensure that all employees are provided with adequate health and safety training -
 - (i) at their recruitment; and
 - (ii) on their being exposed to new or increased risks;
- (l) ensure that the training referred to in regulation, (j) shall -
 - (i) be repeated periodically where appropriate;
 - (ii) be adapted to take account of new or changed risks to the health and safety of the employees;
 - (iii) take place during normal working hours.
- (m) ensure that in entrusting tasks to employees, their training and capabilities as regards safety and health are taken into account;
- (n) take all necessary measures to ensure that the requirements of this Act are complied with by every person in his employment or on premises under his control where plant or machinery is used;
- (o) enforce such measures as may be necessary in the interest of health and safety;
- (p) ensure that work is performed and that plant or machinery is used under the general supervision of a person trained to understand the hazards associated with it and who have the authority to ensure that precautionary measures taken by the employer are implemented.

15 Health and safety policy

- (1) Every manager shall prepare a written policy concerning the protection of the health and safety of his employees at work, including a description of his organisation and the arrangements for carrying out and reviewing that policy.
- (2) The manager shall prominently display a copy of the policy at places where his employees normally report for service.
(BASED ON s7 OF OHSA).

16 Duties of employees at work

Every employee shall at work -

- (a) take reasonable care for the health and safety of himself and of other persons who may be affected by his acts or omissions;
- (b) as regards any duty or requirement imposed on his manager or any other person by this Act, co-operate with such employer or person to enable that duty or requirement to be performed or complied with;

17 Duties of manufacturers, designers and others

- (1) Every person who designs, manufactures, imports or supplies any article for use at work or designs any building where work is to be performed shall:

- (a) ensure that the article or building complies with all prescribed requirements;
 - (b) ensure, so far as is reasonably practicable, that the article or building is designed and constructed so as to be safe and without risks to health when used in a reasonable manner; and
 - (c) take such steps as are necessary to ensure that adequate information is available with regard to the use of the article or building and the precautions necessary to ensure that its use is safe and without risks to health;
 - (d) ensure that any assembly, erection or installation that is required can be undertaken safely and without risk to health when used in accordance with the manufacturer's instruction;
 - (e) supply an operator's manual dealing with the assembly, installation, use and maintenance of the article in a language that is comprehensible to persons who may work with the article.
- (2) Every person who erects or installs any article for use at work on, any premises where the article is to be used by persons shall ensure, so far as is reasonably practicable, that it is erected or installed in such a manner that it is safe and without risk to safety or health when used in accordance with the manufacturer's specifications.
- (MODIFICATION OF s10 OF OHSA)
- (3) Every person who manufactures, imports or supplies any substance for use at work shall:
- (a) ensure, as far as is reasonably practicable, that the substance is safe and without risks to safety or health when used, handled, processed, stored or transported by a person at work in a reasonable manner; and
 - (b) take such steps as may be necessary to ensure that a safety data sheet providing adequate information is available about -
 - (i) the use of the substance at work;
 - (ii) the risks to health or safety associated with the substance;
 - (iii) any restrictions or controls upon the use and storage of the substance including but not limited to exposure limits;
 - (iv) the safety precautions necessary to ensure that the substance is safe and without risks to health;
 - (v) procedures to be followed in the case of an accident involving or excessive exposure to or other emergency involving the substance;
 - (vi) the disposal of waste and used containers in which the substance has been stored.

18 Duty to supply safety facilities and equipment

- (1) All safety facilities and equipment, including personal protective equipment and clothing, that an employer is required to provide in terms of any provision of the Act or regulations shall be:
 - (a) supplied free of charge;
 - (b) maintained in a good and clean condition;
 - (c) available at each workplace in sufficient quantities to ensure that every worker who is required to wear personal protective equipment is able to do so.
- (2) All employees who are required to wear personal protective equipment shall be instructed in the proper use, maintenance and limitations of personal protective equipment.
- (3) All personal protective equipment shall be retained on the employer's premises and shall be removed only where necessary for the purposes of cleaning, repairing, maintenance and modification.
- (4) An employer shall not require or permit any employee to work unless the employee uses any safety equipment or facility required in terms of the Act or regulations.
(MODIFICATION OF s23 OF OHSA AND GENERAL SAFETY REGULATION 2)

EMPLOYEES' RIGHTS

19 Election of Workplace Health and Safety Representatives

- (1) Every manager shall cause his employees to elect a health and safety representative in each designated workplace for each shift worked.
- (2) For the purposes of sections 20-23 the word "employee" means employees not performing managerial functions.
- (3) There shall be at least one workplace health and safety representative elected for every 100 employees (or part of 100) within a workplace. Two or more workplaces may be grouped together as a designated workplace provided the total number of persons employed in the workplaces so grouped does not exceed 50.
- (4) An employer and the recognised representatives of his employees, or where there are no representatives the employees, shall consult in good faith regarding the designation of workplaces, the arrangements and procedures for the election of workplace health and safety representatives, their period of office and any other matter incidental to their election. Any unresolved matter shall be referred to expedited arbitration which shall be final and binding.
- (5) Only those employees employed in a full-time capacity in a designated workplace and who are acquainted with conditions and activities at that workplace shall be eligible for election as health and safety representatives for that workplace.

- (6) All activities in connection with the election, functions and training of workplace health and safety representatives shall be performed during ordinary working hours, and any time reasonably spent by any employee in this regard shall for all purposes be deemed to be time spent by him in the carrying out of his duties as an employee.
(MODIFICATION OF s17 OF OHSA).

20 Functions of Workplace Health and Safety Representatives

- (1) In order to protect and promote the health and safety of employees within his designated workplace, a workplace health and safety representative shall be entitled to:
- (a) Represent employees on all aspects of health and safety;
 - (b) Review the effectiveness of health and safety measures;
 - (c) Identify potential hazards to the health and safety of the employees;
 - (d) Make representations to the employer or to a health and safety committee;
 - (e) Inspect the workplace at such intervals as may be agreed upon with the employer. The workplace health and safety representative shall give reasonable notice of his intention to carry out such an inspection to the employer, who may be present during the inspection;
 - (f) Participate in any inspection of the workplace by the manager;
 - (g) Participate in consultations with inspectors at the workplace and accompany inspectors on any inspection of the workplace;
 - (h) Receive relevant information from the inspector;
 - (i) Attend any meeting of a health and safety committee of which he is a member or at which a recommendation that he has made will be considered;
 - (j) Visit the site of any accident or dangerous occurrence and attend any post-accident inspection;
 - (k) Attend any inquiry held in terms of the Act;
 - (l) Inspect any relevant document which the employer is required to keep in terms of the Act;
 - (m) Participate in any internal health or safety audit;
 - (n) With the approval of the employer, which approval shall not be unreasonably withheld, be assisted by a technical advisor when performing any of these functions.

- (2) The manager shall provide a health and safety representative with such facilities and assistance and enable him to undergo such training as may be reasonably required;
- (3) The manager shall arrange for the workplace health and safety representatives to be released from their duties on full pay for a period of at least 5 days annually to undergo training.
(MODIFICATION OF s18 OF OHSA)

21 Election and functions of Full-time Health and Safety Representatives

- (1) Every manager shall cause his employees to elect a full-time health and safety representative. Where the mine consists of more than one shaft, one full-time health and safety representative shall be elected for each shaft.
- (2) This provision shall not apply to mines on which fewer than 300 persons are employed.
- (3) The full-time health and safety representative shall be entitled to exercise any of the functions of the workplace health and safety representatives in respect of the mine or shaft for which he is elected and shall, in addition,
 - (a) co-ordinate the activities of the workplace health and safety representatives in his area of jurisdiction;
 - (b) chair the employee representatives on the joint health and safety committee;
 - (c) participate in the training of the workplace health and safety representative.
- (4) The full-time health and safety representative shall be entitled to receive the full rate of remuneration that he would have received had he continued in his previous employment or the remuneration that a safety officer with equivalent experience would receive, whichever is the more favourable. On completion of his term of office he shall be entitled to resume his previous employment.

22 Health and Safety Committees

- (1) The manager of every mine shall consult regularly and in good time with the representatives of the employees with a view to initiating, developing, promoting, maintaining and reviewing measures to ensure the health and safety of the employees at the workplace.
- (2) The consultations shall take place on a joint health and safety committee and shall include, but are not limited to -
 - (a) the introduction of any measures at the workplace which may substantially affect the health and safety of employees;
 - (b) the appointment of safety officers and mine medical personnel;
 - (c) accident and health statistics and any other health and safety information that the employer is required to maintain or provide to the employees;

- (d) the planning and organisation of health and safety training that the employer provides to employees or safety representatives;
 - (e) the health and safety consequences of any change in method of production in the workplace;
 - (f) the preparation or variation of any code of practice;
 - (g) any application for an exemption to the regulations.
- (3) The manager shall, in consultation with the workplace health and safety representatives, determine:
- (a) the number of joint health and safety committees to be established at the mine;
 - (b) the maximum number of the employer and employee representatives on the committee which shall be the same. Where the number of health and safety representatives exceeds this number, the representatives shall select their representatives from amongst their own number.
- (4) The committee shall determine its own rules and procedures.
- (5) Persons other than employee or employer representatives may be invited to participate on the committee but shall not be entitled to vote.

23 Manager's duties to inform Health and Safety Representatives

Every manager shall notify the health and safety representatives concerned:

- (a) in good time of inspections, investigations or inquiries of which he has been notified by an inspector;
- (b) as soon as practicable of the occurrence of any accident or other dangerous occurrence;
- (c) in good time of any application for exemption from the application of the Act or regulations.

Notice shall be given to the full-time health and safety representative and any other representative concerned.

(BASED ON s13 OF OHSA)

24 Right to refuse dangerous work

- (1) An employee shall have the right to remove himself from any place where he is employed when he has reasonable cause to believe that his safety or health will be endangered at such place until effective measures have been taken to ensure his safety; provided that the employee notifies his supervisor in terms of s26(1).
- (2) A health and safety representative shall have the right to direct an employee within his designated workplace to remove himself from any place where the employee is employed when he has reasonable cause to believe that the employee's health and safety will be

endangered at such place until effective measures have been taken to ensure the employee's safety; provided that the health and safety representative notifies a supervisor in terms of s26(1).

(BASED ON s98(2) OF THE LABOUR ACT, 6 OF 1992 OF NAMIBIA).

25 Procedures to be utilised

In the event of any stoppage or withdrawal referred to in s24(a) or (b) above;

- (a) the employee or his workplace health and safety representative shall forthwith notify a supervisor having responsibility for the working area;
- (b) the supervisor shall examine or cause to be examined the workplace and shall in consultation with the employee and his representative endeavour to determine the measures to be taken to make the workplace safe and healthy;
- (c) should this not resolve the matter, the matter shall be referred to the supervisor's superior for further consideration in consultation with the employee and his representative;
- (d) should this not resolve the matter, it shall be referred to the manager and the fulltime health and safety representative for consideration;
- (e) should this not resolve the matter, it shall be referred to an inspector or other person mutually agreed upon to make a determination as to the safety of the workplace or the steps required to make it safe;
- (f) the manager, or any other official involved in the matter and the health and safety representative shall all make an entry into the health and safety logbook concerning the condition of the workplace and the measures taken to make it safe.

26 Protection against victimisation

- (1) No employer shall dismiss an employee, or reduce the rate of his remuneration, or alter the terms or conditions of his employment to terms or conditions less favourable to him, or alter his position relative to other employees employed by that employer to his disadvantage, by reason of the fact, or because he suspects or believes, whether or not the suspicion or belief is justified or correct, that that employee has given information to the Minister or to any other person charged with the administration of a provision of this Act which in terms of this Act he is required to give or which relates to the terms, conditions or circumstances of his employment or to those of any other employee of his employer, or has complied with a lawful prohibition, requirement, request or direction of an inspector, or has given evidence before court of law or the industrial court, or has done anything which he may or is required to do in terms of this Act or has refused to do anything which he is prohibited from doing in terms of this Act.
- (2) No employer shall unfairly dismiss an employee, or reduce the rate of his remuneration, or alter the terms and conditions of his employment to terms or conditions less favourable to him, or alter his position relative to other employees employed by that employer to his disadvantage, by reason of the information that the employer has obtained regarding the results contemplated in medical surveillance.

(BASED ON s26 OF OHSA).

- (3) Whenever any person is charged under sub-section (1) with having dismissed any person employed by him, or reduced the rate of his remuneration, or altered the terms or conditions of his employment to terms or conditions less favourable to him, or altered his position relative to other employees to his disadvantage, by reason of any fact referred to in that sub-section and stated in the charge, or by reason of his suspicion or belief in the existence of any such fact stated in the charge, and it is proved that the accused dismissed that person, or reduced the rate of his remuneration or altered the terms or conditions of his employment to terms or conditions less favourable to him, or altered his position relative to other employees to his disadvantage, the accused shall be presumed, until the contrary is proved, to have done so by reason of the fact or suspicion or belief, as the case may be stated in the charge.
(BASED ON s74(13) OF THE LABOUR RELATIONS ACT).

27 Act not affected by agreements

REHABILITATION OF SURFACE

28 Rehabilitation of surface of land

29 Environmental management programme

30 Removal of buildings, structures and objects

31 Restrictions in relation to use of surface of land

32 Acquisition or purchase of certain land and payment of compensation under certain circumstances

CRIMINAL OFFENCES

33 Offences and penalties

34 Act or omissions by employees or agents

- (1) Whenever an employee does or omits to do any act which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, unless it is proved that -
- (a) in doing or omitting to do that act the employee was acting without the connivance or permission of the employer or any such user;
 - (b) it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged; and
 - (c) all reasonable steps were taken by the employer or any such user to prevent any act or omission of the kind in question,

the employer or any such user himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect thereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, in itself,

be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.

(BASED ON s37(1) OF OHSA).

35 Proof of what is reasonably practicable

In any criminal proceedings under the Act in which the accused is charged with a failure to comply with a duty or requirement to do what is reasonably practicable it shall be for the accused to prove that it was not reasonably practicable to do more than was in fact done to satisfy the duty or requirement.

(BASED ON s40 OF UK HEALTH AND SAFETY AT WORK ACT).

36 Proof of certain facts

MISCELLANEOUS PROVISIONS

37 Regulations (63(1))

38 Incorporation of standards (63(3))

39 Incorporation of regulations from other statutes

40 Exemptions

41 Reporting of accidents, occupational diseases and dangerous occurrences.

SECTION B OTHER TRADE UNIONS

THE COUNCIL OF MINEWORKERS AND THE MINEWORKERS UNION

Mr Cronjé raised the following concerns:

- (a) The exposure to workers, for up to eight hours per day to high concentrations of diesel fumes in trackless mining sections.
- (b) The exposure of mineworkers to high concentrations of dust.
- (c) The high concentration of methane gas in coal mines which caused severe disasters. There is not enough control over the ventilation conditions in mines and strict regulations are required.
- (d) The concentration of acid fumes and dust in certain reduction and other plants on mines was unacceptable. Regulations and control were not adequate and workers were not protected.
- (e) Mine workers are exposed to very high noise levels, with inadequate protection.
- (f) On some mines workers were exposed to radiation as was the case when scrap metal from mines was found to be radioactive.
- (g) The location and control of slimes dams and waste dumps must be addressed by the Regulations.
- (h) Workers must be more involved in safety management.
- (i) There was a lack of discipline on the mines.
- (j) The cause of the high incidence of tuberculosis on the mines must be investigated.
- (k) Legislation must compel mine managers to involve representation of all workers in discussions on mining practices which concern their safety.

THE CHEMICAL WORKERS UNION

Mr Spoor represented this union and stated that he could identify three areas of critical concern to his clients, namely:-

- i) In the South African mining industry lessons are not learnt, and when they are learnt far too slow. By way of example he cited a major catastrophe involving methane and coal dust which occurred in 1985 and which was repeated in 1993;
- ii) The enforcement of the Act and the Regulations was poor;
- iii) Although the Act provided for a general duty of care, unsafe conditions continued to be encountered and unsafe systems continued to operate;
- iv) The Inspectorate did not seem able to carry out its responsibility to enforce health and safety systems in the mining industry;

- v) With regard to training workers, they are unable to recognise danger when they see it or properly to evaluate the nature and extent of the danger or how to react to it. This was due to inadequate training, insufficient communication and insufficient information.

Mr Spoor also contended that at management levels there was a considerable degree of ignorance regarding health and safety matters. The approach was too mechanical. Information gained from research should be available to everyone. He urged the Commission to consider a Code of Practice which would ensure that mine owners and managers would comply with the general duty of care. Attention should be focused on training, sufficient enforcement, communication and monitoring. There should be better training both of workers and managers. There should be an independent and skilled inspectorate. The Act and the Regulations would have to play a key role.

Finally it was urged by Mr Spoor that the rights of workers and their representatives to be informed and to participate fully in decision making procedures affecting their health and safety should be entrenched.

SECTION C THE CHAMBER OF MINES

The written summary of the Chamber of Mines reads:

SUMMARY OF RECOMMENDATIONS BY THE CHAMBER OF MINES TO THE COMMISSION OF INQUIRY INTO HEALTH AND SAFETY ON MINES

Introduction

1. The Chamber has attempted in this document to include general recommendations on each issue and, where appropriate, specific recommendations, sometimes in the form of proposed draft legislation.
2. This commission should not formulate the detail of the legislative amendments it recommends.
3. Such proposed legislation should be considered by a mining regulation and advisory committee and then finalized by the state law adviser in conjunction with the DMEA.
4. The approach of the commission ought to be flexible. In general its recommendations ought to identify the objectives to be achieved by new or amended legislation. Where the nature of the issue in question makes it appropriate, the proposed legislation may be formulated in some detail.
5. It is in principle desirable to restrict the content of the Minerals Act to a framework of legislation in which the guiding principles and objectives are set out, rather than to burden the Act with detailed obligations which may have to be changed as circumstances change.
6. Obligations which have industry wide application should be imposed by regulation, whereas obligations and standards which are mine specific should be included in codes of practice.

THE REGULATION OF THE MINING INDUSTRY The regulatory framework

7. The most desirable legislative and regulatory framework would be one in which the principal health and safety objectives and performance criteria associated therewith are set out in the Act whilst the generally accepted means of achieving such objectives or meeting the performance criteria which have industry wide application should be set out in regulations.

MINING REGULATION ADVISORY COMMITTEE

8. A Mining Regulation and Advisory committee ("MRAC") should be established to advise the Minister of Mineral and Energy Affairs in respect of legislation and other matters affecting health and safety on the mines.
9. Such a body should include amongst its members representatives from the Department of Mineral and Energy Affairs ("DMEA"), employee organizations and the industry.

MRAC will form the heart of the consultative process whereby the mining industry's regulatory framework will be formulated, monitored and reviewed from time to time.

10. The relevant regulations should be formulated within and monitored by MRAC so as to ensure that they represent, insofar as is possible, a consensus between the relevant interested parties.
11. Approved guidelines should be formulated within MRAC which will represent a model from which codes of practice may be formulated by the individual mines to suit the circumstances and conditions peculiar to such mines.
12. Where a mine fails to formulate an appropriate code of conduct in any particular area the GME should have the right to require such mine to adopt a code of practice consistent with the approved guidelines, particularly in respect of smaller mines.
13. The Chamber recommends a legislative framework whereby the State, in consultation with the industry, its employees and their representatives establishes through legislation objectives or performance criteria which are reasonably achievable by the mines. It should then generally be up to the manager of each mine to discharge his obligations to meet those objectives or performance criteria in a manner best suited to the environment prevailing at the particular mine. The methods by which those goals are attained by the manager should be devised by the manager, where appropriate in consultation with other relevant parties.
14. Only where the manager fails to achieve the objectives set by legislation should there be intervention by the State in the mechanisms adopted by the manager.
15. The State has both the duty and the right to ensure that each manager achieves the relevant goals and implements the relevant procedures and practices required to achieve such goals.
16. MRAC should be required to consider a more flexible performance orientated approach to health and safety legislation on the mines. The key elements of such an approach should be:
 - 16.1 the mine manager remains accountable for the health and safety performance of the mine;
 - 16.2 employees have a duty to assist in the achievement of safety and health objectives insofar as it lies within their power to do so;
 - 16.3 the regulatory process is sufficiently flexible to enable the mine manager to take the most appropriate measures;
 - 16.4 the safety performance of the mine is monitored on an ongoing basis;
 - 16.5 critical safety issues are identified;
 - 16.6 safety goals are set taking into consideration the specific circumstances of the mine;
 - 16.7 a process of intervention by the mines inspectorate is initiated if the safety goals are not achieved;

16.8 mine specific codes of practice are reviewed in the light of the safety performance of the mine;

16.9 detailed investigations and audits are carried out in identified areas of concern where appropriate.

The supervisory structure of the mines

17. The Chamber recommends an approach similar to that prevailing in British Columbia, where the relevant provisions of the Mines Act, 1989, concerning management structures are as follows:

17.1 An owner or agent shall:

- (a) before work commences, appoint a manager and ensure that there is a person acting in that capacity at all times;
- (b) immediately after each appointment, notify the District Inspector in writing, of the name of the manager, and
- (c) provide the manager or his designate with every facility for conducting the operation of the mine in accordance with the requirements of this Act, the regulations and the code.

18. Each manager and designate shall possess qualifications established by the regulations or the code, and the manager or his designate shall attend daily at an operating mine.

19. Each manager shall appoint a qualified person to be responsible during his absence to ensure compliance with this Act, the regulations and the code.

20. The owner, agent, or manager shall take all reasonable measures to ensure compliance with this Act, orders issued under it, the regulation and the code, and every supervisor and employee shall take all reasonable measures to ensure that the requirements of this Act, the regulations, the code, and orders applicable to the work they perform or over which they have supervision are followed.

21. It is recommended that as the manager is burdened with the responsibility for taking all reasonable measures to ensure the health and safety of the employees of the mine, it should generally be left to him to devise a supervisory structure which would best enable him to discharge his duties. Where the manager is unsuccessful in doing so, State intervention may be appropriate.

RISK ASSESSMENT

22. An appropriate risk assessment programme is essential. It is proposed that MRAC be charged with the duty of formulating industry guidelines to assist mine managers in drafting codes of conduct relating to risk, assessment and management.

23. Such guidelines should address the duty of a manager to:

23.1 Develop, in consultation with joint health and safety committees, a risk assessment approach to ensure the systematic:

- 23.1.1 assessment of mine specific health and safety hazards;
- 23.1.2 prevention or minimisation of exposure to these hazards;
- 23.1.3 introduction of an occupational hygiene programme and biological monitoring;
- 23.1.4 monitoring of the implementation and maintenance of safety and health prevention programmes;
- 23.1.5 recording of the information relevant to the above.

23.2 Inform employees of:

- 23.2.1 the risks attached to their work;
- 23.2.2 health and safety inspections, investigations and inquiries;

23.3 Train employees to recognise and deal with the hazards to which they may be exposed.

DRAFT REGULATIONS - RISK ASSESSMENT

24. MRAC should consider the following proposals in regard to risk assessment by its members, in order to reach, if possible, consensus on the regulation thereof in the mining industry:

1. Definitions

- (i) **“Hazard”** means a source or an exposure to danger;
- (ii) **“Risk”** means the probability that injury or damage will occur;
- (iii) **“Safe”** means free from any hazard.

2. General Health and Safety Duties of Managers to their Employees

- (i) Every manager shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health and safety of his employees;
- (ii) Without derogating from the generality of a manager’s duties under regulation 2(i), the matters to which those duties refer include in particular and as far as is reasonably practicable -
 - (a) the provision, maintenance and monitoring of systems of work, plant and machinery that are safe and without risks to health;
 - (b) taking such steps as may be required to eliminate or mitigate any hazard or potential hazard to the safety and health of persons, before resorting to personal protective equipment;
 - (c) establishing which hazards, to the health and safety of persons, are attached to any work which is performed, an article which is produced, processed, used, handled, stored or transported and any plant or machine which is to be used.

3. Policy

Every manager shall formulate a comprehensive policy document which shall set out:

- (i) the duty of the manager to identify the hazards, evaluate the risks and potential consequences associated with work in connection with the operation of a mine or a works;
 - (ii) The steps that need to be taken to comply with the provisions of the Act and these regulations, and in particular to:
 - (a) prevent the exposure of employees to the hazards concerned or, where prevention is not reasonably practicable, minimise such exposure;
 - (b) as far as is reasonably practicable cause every employee to be made conversant with and adequately trained to deal with:
 - 1. the risk to his health and safety identified by the assessment which is attached to any work which he has to perform;
 - 2. preventive and or protective measures that have to be taken;
 - 3. the procedures to be followed to carry out his work;
 - 4. emergency procedures that may have to be followed in the event of any serious incident or disaster which may result;
 - 5. provide for periodic internal audits and external audits.
 - (c) ensure that the action contemplated in (b) above be provided to employees-
 - 1. subsequent to initial appointment;
 - 2. periodically where appropriate;
 - 3. whenever changes to procedures, mining layouts, mining methods, plant or equipment and material are introduced; and
 - 4. whenever changes occur to the occupation of an employee or the nature of his work.
 - (d) ensure that the significant findings of the process referred to above are suitably recorded and accessible to employees or their representatives.
24. MRAC should consider the adoption of a macro as opposed to a micro approach to safety standards such as a system whereby mines which exceed specified accident criteria are subject, at the discretion of the Director-General, to an audit in that particular area of activity.

25. The audit would be conducted under the aegis of the GME, using outside experts where required.
26. The constitution of the audit team and the scope of the audit should furthermore be determined by the GME in consultation with the employee and employer representatives, and should be financed by the mine concerned.

HEALTH AND SAFETY REPRESENTATIVES AND COMMITTEES

27. The following draft regulations should be considered by MRAC with a view to formulating regulations concerning

27.1 HEALTH AND SAFETY REPRESENTATIVES

27.2 RIGHT OF EMPLOYEE TO STOP WORK OR WITHDRAW FROM AN AREA WHICH POSES A SERIOUS DANGER

27.3 DUTIES OF THE MANAGER

27.4 HEALTH AND SAFETY COMMITTEES

1. Definitions

- 1.1 **“Manager”** means the manager as defined in the Minerals Act or his designate.
- 1.2 **“Regional Director”** means the regional director as defined in the Minerals Act or his designate.
- 1.3 **“Work place”** shall mean the work place designated by the manager in terms of paragraph 2.5 below.
- 1.4 **“Incident”** shall mean an accident as described in regulations 25.1.1 or 25.6.

2. Eligibility, Nomination or Election of Health and Safety Representatives

- 2.1 An employer and his employees or their representatives shall consult in good faith regarding the arrangements and procedures for the election and period of office of health and safety representatives: provided that if such consultation fails, either party may refer the matter to arbitration by a mutually agreed arbitrator, and failing agreement either party may require the regional director to appoint an arbitrator. Such an arbitrator's decision shall be final and binding and not subject to appeal.
- 2.2 In the event of the employees failing to elect safety representatives within a reasonable time, the manager may appoint such safety representatives as he deems necessary to comply with the provisions of this chapter and whose appointment shall endure until such time as safety representatives are elected.
- 2.3 Arbitration in terms of paragraph 2.1 above shall not be subject to the provisions of the Arbitration Act, 1965 (No 42 of 1965), and a failure of the consultation contemplated in that sub-section shall not be deemed to be a dispute in terms of the Labour Relations Act, 1956 (No 28 of 1956).

- 2.4 Only those employees employed at a specific work place on a full-time basis, who have appropriate experience and who are acquainted with conditions and activities at that work place shall be eligible as health and safety representatives for that work place.
- 2.5 The number of health and safety representatives for election or appointment for a work place shall be at least one health and safety representative for every 100 employees or part thereof.
- 2.6 The work places referred to in paragraph 2.4 above shall be designated by the manager.
- 2.7 Work places may be grouped together for the purposes of paragraphs 2.6 only when the number of persons employed in or at a group of work places does not exceed 50.
- 2.8 All activities in connection with the functions and training of health and safety representatives shall be performed during ordinary working hours, and any time reasonably spent by any employee in this regard shall for all purposes be deemed to be time spent by him in the carrying out of his duties as an employee.
- 2.9 No employer shall dismiss a safety representative, or reduce the rate of his remuneration, or alter the terms or conditions of his employment to terms or conditions less favorable to him, or alter his position relative to other employees employed by that employer to his disadvantage, by reason of the fact that such safety representative has reasonably performed any act in the course of carrying out the proper performance of his duties as a safety representative.

3. **Functions of Health and Safety Representatives**

A health and safety representative shall have the following powers in respect of that work place for which he has been elected or appointed, namely to:

- (a) represent employees on all aspects of safety and health;
- (b) participate in health and safety inspections carried out by the regional director and the manager;
- (c) report incidents and hazards to his immediate supervisor or failing him, to a person of higher authority;
- (d) make recommendations to the joint health and safety committee on improvements to health and safety measures;
- (e) inspect the work place, including any article, substance, plant, machinery or health and safety equipment at that work place, with a view to the health and safety of employees, at such intervals as may be recommended by the joint health and safety committee: provided that the health and safety representative shall give reasonable notice of his intention to carry out such inspection and the reasons therefore to the manager, who may be present during the inspection;

- (f) where he has been chosen as a member of a joint health and safety committee, attend meetings of such committee;
- (g) with the approval of the manager, which approval shall not be unreasonably withheld, be accompanied by a technical advisor on any inspection by the regional director;
- (h) participate in internal health and safety audits;
- (i) in conjunction with the manager, examine causes of incidents at the work place;
- (j) perform such other health and safety functions as may be agreed upon between the manager and the joint health and safety committee or committees where more than one has been established.

4. Right of employee to stop work or withdraw from an area which poses a serious danger

When an employee on reasonable grounds believes that a serious danger to himself has arisen he shall have the right to stop work and remove himself from any area where such danger has arisen: provided that he shall forthwith notify his immediately available supervisor and relevant health and safety representative and provided further that the procedure in terms of paragraph 6 below shall, mutatis mutandis, be complied with.

5. The right of a health and safety representative to stop work or withdraw employees

A health and safety representative may in respect of his designated work place stop work or withdraw an employee if there is reasonable justification of serious danger to the health and safety of such employee: provided that such health and safety representative shall forthwith report the circumstances to the immediately available supervisor of the designated work place. Thereafter the procedures in terms of paragraph 6 shall apply.

6. Procedure following the circumstances referred to in paragraphs 4 and 5 above

Where work has been stopped or a withdrawal effected as referred to in paragraphs 4 and 5 above, the following procedures shall apply:

- 6.1 The health and safety representative shall, where this has not yet been done, forthwith report the danger to the immediately available supervisor having responsibility for the affected area.
- 6.2 The said supervisor shall examine the affected work place or cause it to be examined, whereafter he shall decide what steps, if any, should be taken to make the affected work place safe and whether or not it is safe to resume work, having due regard to any such steps which have been taken.
- 6.3 Should the health and safety representative concerned fail to accept the decision of the aforesaid supervisor, the matter shall forthwith be referred to the latter's immediately available superior for reconsideration.

- 6.4 Should the health and safety representative concerned fail to accept the decision in terms of sub-paragraph 6.3 above, the matter shall finally be referred to the manager for a decision as to whether or not it is in all the circumstances safe to resume work in the affected work place and, in the event of the latter deciding that it is safe to resume work in the affected work place, he may instruct the health and safety representative and the employee concerned to do so.
- 6.5 The health and safety representative and the affected employee shall be entitled to be present during any and all of the above examinations or steps taken to render the working place safe.
- 6.6 The said stoppage, resumption of work and the reason therefore shall at the end of the shift be recorded in the safety logbook by the health and safety representative, or the supervisor concerned, and the person who gave the final instructions for the resumption of work.

7. The right of a health and safety representative to have access to facilities and information and to receive training

A health and safety representative shall:

- 7.1 be provided with such facilities, assistance and training as may be reasonably required for the carrying out of his functions in terms of paragraph 3 above;
- 7.2 be allowed access to such reports, plans and records as shall be reasonably necessary for the performance of his duties and functions.

8. Duties of the manager

Every manager shall:

- 8.1 as far as is reasonably practicable, cause every employee to be made conversant with the hazards to his health and safety attached to any work which he has to perform, any article or substance which he has to produce, process, use, handle, store or transport and any plant or machinery which he is required or permitted to use, as well as with the precautionary measures which should be taken and observed with respect of those hazards;
- 8.2 where reasonably practicable, give due notice to the health and safety representative concerned of inspections, investigations or formal inquiries;
- 8.3 give due notice to the joint health and safety committee of any application for exemption from the application of the regulations;
- 8.4 as soon as is reasonably practicable, inform the health and safety representative concerned of the occurrence of an incident in his designated work place.

9. Joint health and safety committees

- 9.1 The manager shall at every mine or works establish at least one joint health and safety committee: provided that the number of such committees as well as committee members shall reflect the needs and requirements of safety and health at the mine.

9.2 Every such joint health and safety committee shall be composed of:

- (a) representatives of management; and
- (b) representatives chosen by the health and safety representatives from amongst their ranks, provided that every such committee shall be broadly representative of all skills, categories and occupations on the mine.

9.3 The number of committees and committee members shall be agreed upon between the employer and his employees or their representatives; in the event of a failure to reach agreement, the provisions of paragraph 2.1 and 2.3 shall, mutatis mutandis, apply.

9.4 Except where otherwise agreed every such committee shall have two co-chairpersons, one an employee representative and the other a management representative, and they may alternate chairing the meetings.

9.5 Time spent by committee members in the performance of their functions shall be considered time worked.

9.6 The manager shall co-operate with the joint health and safety committee by:

9.6.1 providing it with reasonable facilities for performing its functions; and

9.6.2 allowing it access to such reports, plans and records reasonably necessary for the performance of the duties and functions of the committee.

9.7 A health and safety committee:

9.7.1 may make recommendations to the manager regarding any matter pertaining to the health and safety of employees at the work place for which such committee has been established;

9.7.2 may discuss any incident at the work place in which or in consequence of which any person was injured, became ill or died, and may in writing report on the incident to the manager;

9.7.3 shall perform such other functions as may be agreed to from time to time.

The DMEA and the inspectorate

28. The mining inspectorate should continue to play a role in the ongoing effort to improve health and safety on the mines by performing the various functions of enforcement or legislation, accident investigation, the provision of advice and guidance in the formulation of codes of practice and the provision of statistical data.

29. The inspectorate should be optimally structured and its resources directed to those areas where they would be most effectively employed.

The structure of the DMEA

30. The structure of the DMEA should specifically allow for:
 - 30.1 the administration of health and safety legislation in the mining industry to be accomplished under the aegis of the DMEA; and
 - 30.2 environmental legislation contained in the Minerals Act to be administered at national level by the same department.
31. The Commission should generally recommend that:
 - 31.1 health, safety and environmental legislation should be integrated in a holistic preventative strategy;
 - 31.2 mining related health, safety and environmental issues should not be divorced from one another as this could lead to duplication;
 - 31.3 the resources available to the State should be utilized optimally;
 - 31.4 a mining background is essential to an understanding of the problems which are unique to the industry;
 - 31.5 a transference of the mining inspectorate or the duties presently performed by the inspectorate to another department would inevitably lead to the dispersal of the value skills and experience presently contained within the inspectorate.
32. **The Commission should recommend that the regional mining engineers fall directly under the control of the GME and be required to comply with instructions from the GME concerning health and safety.**
33. A mechanism should be established to ensure co-operation between the various departments responsible for different aspects of the activities of the mining industry and the consequences of those activities. (The departments concerned are the DMEA, the Department of Manpower, the Department of National Health as well as the Medical Bureau for Occupational Diseases (“MBOD”) and the National Centre for Occupational Health (“NCOH”).)
34. The co-ordinating committee should have two broad objectives:
 - 34.1 to ensure that health, safety and environmental legislation applicable to the various industries does not become too divergent;
 - 34.2 to enable inspectors to obtain expert assistance from other departments should conditions or circumstances at a particular mine warrant this.
 - 34.3 The GME should have the power to consult with outside experts in particular fields related to the discharge of his duties where such expertise does not lie within the DMEA.

Staffing of the DMEA

35. The Chamber recommends that:

- 35.1 superfluous administrative tasks be dispensed with by rationalizing the Act and the regulations (for example to avoid the recurring need for exemptions such as from the prohibition against Sunday labour);
- 35.2 the regulating of issues such as hours of work and other contractual provisions be left to the parties most obviously equipped to deal with such issues, namely the employers and the employee representatives;
- 35.3 use should be made of independent experts or experts from other government departments;
- 35.4 routine procedures should be automated where possible;
- 35.5 instrumentation should be provided to inspectors to enable environmental health monitoring tasks to be performed concurrently with inspections;
- 35.6 accident inquiries should be streamlined.

Qualifications

- 36. In general members of the inspectorate require a mining background and ought ideally to hold appropriate degrees or higher national diplomas.
- 37. Provision should be made for the appointment of sub-inspectors or para-inspectors to assist full inspectors in the performance of the more routine aspects of their work.

Funding of the DMEA

- 38. The DMEA should be funded from State revenue in the same way that other departments of State are.

THE CAPTURING, ANALYSIS AND REPORTING OF DATA

- 39. Generally the existing systems of capturing, analysing, presenting and retaining data must be analyzed to identify the various criticisms of those systems and then attempt to meet such criticisms as far as is possible by adopting practicable solutions.

Recommendations

- 40. Accidents involving four or more days lost from work are already reportable and should be reported in the same format as the 14 or more days reportable accidents.
- 41. As part of the Mine Safety Committee structure of the DMEA, a specialist tripartite committee should be established to deal with data issues.
- 42. The responsibilities of such a committee should include:
 - 42.1 defining data elements needed for monitoring, investigation and analyses;
 - 42.2 recommending formats of data to facilitate both meaningful analyses of data and integration with regulated data sets;

- 42.3 evaluating methods of collecting and processing data to ensure efficient data flows and accuracy of data;
 - 42.4 re-establishing conditions of access to data by outside parties.
43. An amendment should be recommended to Section 63 of the Act to permit the Minister to make regulations relevant to (1), (2), (3) and (4) above as currently the mines safety committee has advisory functions only. Such regulations should not specifically prescribe the submission of certain specified statistical data, but should determine that it should comprise such data as the Director-General may, in consultation with employers and employees, require.

SAFETY IN MINES RESEARCH ADVISORY COMMITTEE - SIMRAC
Recommendations

44. The Minerals Act should be amended to provide for the establishment of a Safety in Mines Research Advisory Committee to advise the Director-General on Mine Safety Research.
45. The composition of SIMRAC should be as follows:
- 45.1 Ten persons nominated by a body or bodies which, in the opinion of the Minister is or are representative of the owners of mines.
 - 45.2 Five persons nominated by a body or bodies which, in the opinion of the Minister is or are representative of employees employed at mines.
 - 45.3 Five persons who are officers in the service of the Department of Mineral and Energy Affairs. Included within this number shall be the Government Mining Engineer and an official designated to deputize for him in his absence.
 - 45.4 The chairman of the Advisory Committee should be the Government Mining Engineer.
46. The composition of SIMRAC sub-committees should be as follows:
- 46.1 Not more than eight persons nominated by a body or bodies which, in the opinion of the Minister is or are representative of the owners of mines.
 - 46.2 Not more than five persons nominated by a body or bodies which, in the opinion of the Minister is or are representative of employees employed at mines.
 - 46.3 Not more than two persons who are in the service of the Department of Mineral and Energy Affairs.
 - 46.4 The chairman of the sub-committee should be appointed by the Director-General, in consultation with SIMRAC, from the membership of the committee.
47. The composition and terms of reference of specialist advisory groups considered necessary by SIMRAC or its sub-committees should be approved by SIMRAC before they are established.

48. In all cases, to be eligible for membership of SIMRAC, and its sub-committees and specialist advisory groups, the nominated person must possess knowledge and experience in research and have adequate knowledge and experience in the area of activity of the committee in question. Adequacy in regard to the eligibility for membership should be decided by the Minister, in respect of SIMRAC membership, to SIMRAC in respect of sub-committee membership, and to the relevant sub-committee in respect of specialist advisory group membership.
49. Funding of SIMRAC safety research programme should be provided 50 percent by the State from the viscus, and 50 percent by mines through the imposition of a levy based on the safety risk of mines as determined by the Director-General.
50. In the event of the Director-General disregarding recommendations formulated by SIMRAC, the committee may require that the matter be referred to the Minister for reconsideration.
51. Apart from the provisions outlined above, the existing SIMRAC structure, and terms of reference for SIMRAC and its sub-committees, should be preserved. (Attached to the Chamber of Mines written submissions in argument as enclosure 4 is a copy of the SIMRAC current terms of reference).

THE REGULATION OF OCCUPATIONAL HEALTH SERVICES IN CONTROLLED MINES AND WORKS

52. Generally the health strategy within the mining industry should fall under and complement an overall national health strategy and there should be enabling national legislation to allow for this.
53. Mining, health and safety and environmental rehabilitation and the mining inspectorate should be retained under the Minerals Act due to the uniqueness of mining demands requiring specialized personnel.
54. Alternatively, there could be a separate statute for health and safety in mining which is administered through the DMEA.
55. The mining inspectorate should not be placed in the Department of Health, nor under any compensation board which is responsible for occupational health and safety in all industries other than mines.

SPECIFIC RECOMMENDATIONS

56. Recommendations should be made for the regulation of occupational health services and medical intervention on the mines to fit into the structure outlined below.
57. The Director of the Medical Bureau of Occupational Diseases (“MBOD”) should, based on the latest available scientific information and in consultation with the occupational health experts of a particular mine or group of mines, determine the procedural aspects and standards to be applied to the routine pre-employment, periodic and exit examinations of all employees and potential employees who require a certificate of fitness in terms of the Occupational Diseases in Mines and Works Act (“ODMWA”). Occupational health issues that fall outside the ambit of ODMWA (noise induced hearing loss etc) should be incorporated into these examinations after consultation with appropriate occupational health experts at the NCOH.

58. With due regard to local circumstances the following should be prescribed in regulations:
- 58.1 the extent of the physical examination and special investigations (X-ray chest, lung functions, hearing tests, etc) to be carried out and at what intervals these should be done;
 - 58.2 criteria to be applied to the issuing, renewal and withdrawal of a certificate of fitness. This will include general medical conditions as well as issues such as when and whether an employee with an early occupational disease can return to work; and
 - 58.3 how the details of the examinations should be recorded and how the records should be kept.
59. All routine medical examinations will then be carried out at mine medical facilities by mine medical personnel in accordance with the predetermined standards. The cost of such examinations should be borne by the employer.
60. On a regular basis (possibly 6 monthly), the mine medical facility should furnish the Director of MBOD with a summary report, in a standardized format, on the examinations that were carried out during the preceding period.
61. The MBOD should conduct an initial inspection of a mine medical facility (or other arrangement) before such a facility is authorised to conduct the medical examinations and issue or renew certificates of fitness in terms of the ODMWA. The MBOD should also conduct regular inspections of the authorised facilities to ensure that the predetermined standards are being adhered to.
62. Employees who are dissatisfied with the decisions reached at a mine medical facility regarding the renewal, withdrawal or restriction of a certificate of fitness, should have the right to appeal to the Director of the MBOD, whose decision will be regarded as final.
63. When an employee leaves the employment of a particular mine, or is no longer involved in risk work, his occupational health records, including the details of his exit examinations, should be returned to the MBOD for auditing and storage.
64. The MBOD should supply a mine medical facility with a copy of an ex-employee's previous occupational health records if he subsequently applies for a position requiring a certificate of fitness in terms of the ODMWA.
65. If, during a medical examination at a mine medical facility, a person is found to be suffering from an occupational disease in terms of ODMWA, he will be referred to the MBOD. The Director will determine under which circumstances the individual's existing occupational health records are sufficient for certification purposes and under which circumstances he should undergo a further medical (benefit) examination to be carried out by the MBOD itself. The cost of all benefit examinations should be borne by the MBOD.

Compensation under ODMWA

66. If an employee is found to be suffering from an occupational disease (or injury) compensable under the Compensation for Occupational Injuries and Diseases Act, he should be referred to the

Workmen's Compensation Commissioner or Rand Mutual Assurance Company Ltd for certification and compensation.

67. Ex-employees should have free access to the MBOD for possible benefit examinations and possible certification and compensation for an occupational disease. Ex-mine employees who were employed by existing mining companies can claim compensation through the normal channels. In the case of ex-mine employees who were employed by companies which no longer exist, compensation becomes a State liability.

RADIOLOGICAL PROTECTION IN MINES

68. Generally the implementation of radiological protection in mines should be undertaken by, and be the responsibility of the Mines inspectorate.
69. The serious defect in the current arrangement whereby neither the manner in which nor the criteria by which the CNS is to wield the extensive powers conferred upon it under section 51 of the Nuclear Energy Act should be remedied.

Recommendations

70. The Minerals Act should be amended to include provisions requiring the Government Mining Engineer to take the necessary steps to ensure that the radiation safety criteria specified by the Nuclear Energy Act are not exceeded on mines falling under the Minerals Act.
71. The above amendment should also require, in all instances where radioactivity levels of substances or environments on the mine exceed exemption/action levels specified in regulations under the Nuclear Energy Act, that mines operate according to approved codes of practice. Such codes of practice should be prepared in accordance with guidelines approved by the Mining Regulation Advisory Committee.
72. In addition to amending the Minerals Act, as envisaged under the above two recommendations, the Department of Mineral and Energy Affairs should consult with the Council for Nuclear Safety and with representatives of employers and employees in the preparation of departmentally approved guidelines for use in the preparation of mine specific codes of practice for radiological protection.
73. Regulatory requirements in respect of radiological protection in mines should be formulated through tripartite consultations, which should be extended to involve the CNS as necessary.

RECOMMENDATIONS REGARDING DUST AND NOISE

74. The following recommendations should be made regarding dust and noise. It is recommended that no change be made in the Minerals Act.
75. Two levels of legislative control should be recommended:
 - 75.1 Regulations promulgated in terms of the Minerals Act.
 - 75.2 Codes of practice in terms of clause 34(1) of the Minerals Act.
76. It is recommended that the regulations regarding dust and noise should:-

- 76.1 specify the maximum allowable level of dust and noise that employees may be exposed to at work.
- 76.2 require mine-specific codes of practice (in terms of clause 34(1) of the Minerals Act) dealing with dust and noise.
- 77. The regulations should be applicable to all mines.
- 78. The codes of practice should be mine specific and should specify in detail the measures to be used on that mine to achieve effective control.
- 79. To assist mines in drawing up their codes of practice it is recommended that guidelines should be prepared. These guidelines should not specify details, but should list the elements which should be considered when drawing up a code of practice.
- 80. The GME's department should have sufficient trained and qualified staff (particularly at regional level) to enable it to:
 - 80.1 confirm that mines are complying with the regulations and their codes of practice;
 - 80.2 perform regular analyses of data submitted by mines, so as to establish trends and identify problem areas.
- 81. It is recommended that the present gravimetric dust sampling programme, and the present risk-based differential levy collection system be re-examined.
- 82. It is recommended that a tripartite committee or committees should be set up to debate the issues of standards and to formulate the guidelines.

TRAINING AND EDUCATION

- 83. It is recommended that whilst mines which have introduced a form of adult basic education should receive every encouragement and assistance from the State, the form and extent of such education should be determined by the mines themselves in consultation with the affected employees and their representatives.
- 84. Any recommendations regarding training and education which the commission may make should, like the United Kingdom Regulations and EEC directive set out in the Chamber's written argument, be phrased in broad terms which specify objectives or overall performance criteria, and should not specify the content of work place training.

ACCIDENT INQUIRIES

- 85. It is recommended that if the primary objective of an accident inquiry is regarded by the Commission as being to establish the cause or causes of the accident and not to fix liability, then consideration should be given to rendering evidence led at such inquiries privileged from disclosure or use in any subsequent criminal or civil proceedings.

Such provisions could read:

- “(a) The law regarding privilege as applicable to a witness summoned to give evidence in a criminal case in a magistrate's court shall apply in relation to the questioning of a person in an accident inquiry: provided that such a person shall not be entitled to refuse

to answer any question upon the ground that the answer would tend to expose him to a criminal charge.

- (b) No evidence regarding any questions and answers contemplated in paragraph (a) shall be admissible in any criminal proceedings, except in criminal proceedings where the person concerned stands trial on a charge of statutory perjury.”

- 86. The Commission should recommend a more flexible approach to and the streamlining of accident investigations, and provision should be made for a less formal procedure where the interested parties are agreed that a full inquiry is unnecessary.

PRESUMPTIONS AFFECTING THE ONUS OF PROOF

- 87. The Commission should recommend that there is no compelling need in the mining health and safety situation for any statutory reversal of onus. It should be recommended that the present position remain unaltered whereby the State bears the onus to prove that an accused person failed to take all reasonable measures to comply with and enforce the regulations of any lawful order from an inspector.

SECTION D

DEPARTMENT OF MINERAL AND ENERGY AFFAIRS

The written summary of the Department of Mineral and Energy Affairs prepared by Mr Raath is Annexure A to the Heads of Argument.

This is in the following terms:

THE RECOMMENDATIONS OF THE DMEA AND PROPOSED CHANGES TO LEGISLATION

1. SIMRAC AND RESEARCH

- 1.1 Participation of employee organisations in the SIMRAC process
(Exhibit C1 par 2.14, 10.8)
(Record Vol 19, page 1911 line 17 - 20)
- 1.2 Research priorities in the field of safety and health should be determined in consultation with industry and unions. Mechanisms to achieve this, should be worked out.
(Exhibit C2 page 3 Research (6))(NUM)
(Record Vol 19, page 1993 line 17 - 20)
(Record Vol 19, page 1993 line 18)
- 1.3 A Mine Safety Research Bureau should be placed under SIMRAC with no ties to the industry. Legislate.
(Exhibit C1 page 18, par 10.7)
- 1.4 Final decision on project proposals should be with the Department and with the DG.
(Record Vol 20, page 2072, line 20 - 24)
- 1.5 SIMRAC to be directly responsible to the Mine Safety Committee. Legislate.
(Exhibit C1, page 19, par 10.8)
(Record Vol 19, page 1934, line 9 - 15)
- 1.6 SIMRAC Researchers not only develop technology, should also assist with implementation.
(Record Vol 19, page 1985, line 11 - 12)
- 1.7 G P Badenhorst Facility should not be part of the Department.
(Record Vol 20, page 2067, line 12 - 13)

2. THE ROLE OF THE GOVERNMENT MINING ENGINEER (GME) AND THE DIRECTOR GENERAL (DG)

- 2.1 It is recommended that the wording of the Act and regulations be rectified, without changing the character of the Act, by substituting GME for DG where it concerns safety and health.
(Exhibit C1 paragraph 3)
(Record Vol 18 page 1856, line 26)
(Record Vol 2, page 167, line 20)
(Record Vol 2, page 172, line 5 - 10)

- 2.2 The new Act has effectively reduced the GME's control over regional officers. This is not beneficial for the future.
(Record Vol 19, page 1979, line 21 - 25)

3. SAFETY OFFICERS AND SAFETY REPS

- 3.1 Regional Mining Engineers to be accompanied by safety officers and safety representatives during inspections. Regulations to be drafted in this regard. (Exhibit C1, page 9, para 5.8)
- 3.2 DMEA recommends a more open dialogue on mine level between management, workers and the state in tripartite discussions and publication of inspection reports after the completion of inspections.
(Exhibit C2, page 9, para 4)(COM)
- 3.3 The worker must have a statutory right to participate in the selection of safety officers and safety representatives.
(Exhibit C1, page 9, para 5.9)
(Record Vol 19, page 1972, line 11 - 12)
- 3.4 Safety officers, safety representatives should meet more frequently and meet with management at least once a month.
(Exhibit C1, page 13, par 7.10)
(Record Vol 19, page 1905, line 28 - 30)
- 3.5 Safety Representatives must accompany managers to the scene of the accident. This is to avoid tampering at the scene as it is customary for managers to visit the scene before the RME arrives. Safety Representatives to guard the scene to avoid tampering.
(Exhibit C1, page 13, para 8.2)
- 3.6 Worker representatives should be regarded as a separate entity from safety representatives.
(Exhibit C1, page 13, para 7.11)

4. EXEMPTIONS

- 4.1 Safety officers and safety representatives to be involved in the granting of exemptions.
(Exhibit C1, page 9, para 5.10)
- 4.2 Exemption from any regulation and the conditions under which the exemption may be given should be subjected to tripartite consultation.
(Exhibit C2, page 16, para 2)(COM)

5. CODES OF PRACTICE, SECTION 34 OF THE MINERALS ACT

- 5.1 Section 34 of the Act to be amended to provide for mine management to submit codes of practice on their own initiative and to eliminate the vagueness with respect to the involvement of workers organisations in the approval procedure.
(Exhibit C1, page 10, para 6.2)
(Record Vol 18, page 1874, line 6)

- 5.2 Guidelines for codes of practice called for in Section 34 of the Act are forwarded to Regional Directors in the form of a Directive from the GME instructing them to call for specific codes of practice. This provision may be “ultra vires”, and if so the Act should be amended accordingly.
(Exhibit C1, page 10, para 6.3)
- 5.3 If additional staff could be obtained the finite life of codes of practice can be shorter.
(Record Vol 19, page 1988, line 23 - 25)

6. **POLICY STATEMENT**

- 6.1 A Statutory obligation should be placed on mine management to prepare a written policy statement concerning the protection of safety and health of the workers on the mine. This should include a description of the organization and the arrangements to achieve the policy.
(Exhibit C1, page 10, para 7.2)
(Record Vol 19, page 1903, line 11)
- 6.2 Policy statement should incorporate the so-called “permit to work system”.
(Exhibit C1, page 12, para 7.7)

7. **RISK**

Draft Regulations concerning risk identification, assessment and management to be introduced have already been drawn up. The proposed regulations recognise the right of the workers to be kept informed in a comprehensible and relevant way on:

- a) the risk to their health and safety identified by the assessment.
- b) the preventative and protective measures, and
- c) procedures to be followed in the event of serious and imminent danger to persons at work.
(Exhibit C1, page 11, para 7.3)
(Exhibit C2, page 6, 2nd paragraph under par 5)(NUM)
(Record Volume 18, page 1861, line 20)
(Record Volume 19, page 1881, line 29)
(Record Volume 19, page 1882, line 1)
(Record Volume 19, page 1882, line 14)
(Record Volume 2, page 173, line 16)

8. **TRAINING**

- 8.1 Draft Regulations on risk mentioned in paragraph 7 above also provide for the manager to ensure that each worker receives adequate safety and health training in particular in the form of instructions specific to his work station or job, and that workers should participate in the development and implementing procedures for training.
 - a) on recruitment;
 - b) in the event of the introduction of new work, equipment or change in equipment; and

- c) in the event of the introduction of any new technology.
(Exhibit C1, page 11, paragraph 7.4)
(Record Vol 19, page 1983, line 23 - 24)
- 8.2 The right to training is a fundamental right. ILO conventions concerning training will certainly be adopted in safety and health regulations.
(Exhibit C2, page 7, paragraph 5) (NUM)
(Exhibit C2, page 8, paragraph 1)(NUM)
(Record Vol 2, page 173, line 19, line 13 - 16)
- 8.3 Safety Reps to be properly trained. (Record Vol 19, page 1973, line 3 - 4)

9. **WORKERS RIGHTS**

- 9.1 The right of the worker to refuse to do work if he considers the working place to be unsafe should be incorporated into mining legislation. A proviso should however be included that workers who are required to make dangerous areas safe must perform their duties according to approved standards or codes of practice.
(Exhibit C1, page 12, paragraph 7.6)
(Exhibit C2, page 8, paragraph 3)(NUM)
- 9.2 The workers right to information must be entrenched in legislation. Section 27 of the Act.
(Record Vol 18, page 1870, line 17 - 18)
(Record Vol 19, page 1983, line 18 - 19)

10. **MINE DESIGN**

Mine design and modification to the design has a major influence on mine safety. Size of mine, extent of operations, inherent dangers such as mine-induced seismicity, rock bursts and mine plans, should be scrutinized by suitably qualified, independent experts annually and an approval system introduced. Legislate.
(Exhibit C1, page 12, paragraph 7.8)

11. **ACCIDENT INVESTIGATION**

- 11.1 A committee system, chaired by a manager or his representative with safety officers and safety representatives should be introduced, to investigate accidents and to develop safe working procedures.
(Exhibit C1, page 13, paragraph 7.9)
- 11.2 Legislation to place onus on manager to inform unions about accidents and to allow shaft steward to accompany RME on in-loco.
(Exhibit C1, page 13, paragraph 8.1)

12. **INQUIRIES**

- 12.1 Inquiries should be streamlined by using mechanical recordings.
(Exhibit C1, page 13, paragraph 8.3)
- 12.2 Reference must be made to orders issued i.t.o. Section 27 when inquiries are held.

(Exhibit C1, page 14, paragraph 8.4)

- 12.3 Outside experts to assist with the holding of inquiries. Section 28 of the Act to be reviewed and the Tender Board Regulations reviewed.
(Record Vol 18, pages 1851 and 1852, line 10-30, 1 - 18)
(Record Vol 18, page 1871, line 7, line 15, etc)
(Record Vol 19, page 1897, line 4-5)
(Record Vol 19, page 1937, line 24)
(Record Vol 20, page 2066, line 10 - 13)
- 12.4 Arrangements for enquiries - may be a recommendation from the commission, Dept is of the opinion that Mining Regulations Committee should look into this.
(Record Vol 19, page 1900, line 4-6) - cross-reference - paragraph 16.3)
- 12.5 Directive D1 to be revised, Also look at Section 28 of the Act as far as the distribution of the report of the inquiry is concerned. See paragraph 16.12 of this document.
(Record Vol 19, page 1937, line 9 - 10)
(Record Vol 20, page 2037, line 27 - 29)
(Record Vol 20, page 2081, line 2 - 5)

13. SPECIAL MINING COURT

The institution of a special mining court, manned by knowledgeable personnel is recommended.

(Exhibit C1, page 15, paragraph 8.9)
(Exhibit C2, page 12, paragraph 3)(COM)
(Record Vol 18, page 1810, lines 1 - 25)
(Record Vol 18, page 1814, lines 13 - 22)
(Record Vol 2, page 178, lines 15 - 22)

14. STATISTICS

- 14.1 More use should be made of accident statistics to identify critical areas in the mines on which to focus.
(Exhibit C1, page 19, paragraph 11.4)
- 14.2 A Committee consisting of state, employers and employees be established to determine the format and detail of published statistics.
(Exhibit C2, page 2, paragraph 3)(NUM)

15. I.L.O. CONVENTIONS

- 15.1 Agrees with NUM with proposed I.L.O conventions on safety and health in the mining industry.
(Exhibit C2, page 1, paragraph 1)(NUM)
(Record Vol 18, page 1856, line 17)
- 15.2 Employment of females in section 38 of the Act is in line with I.L.O conventions. So is the employment of juveniles. The act could be in conflict with the constitution and this should be followed up.
(Record Vol 18, page 1873, lines 6 - 23)

15.3 Cross-reference to 16.1 of this document.

15.4 Cross-reference to 8.2 of this document.

16. LEGISLATION AND REGULATORY FRAMEWORK

16.1 OHS Act should be examined and where applicable, could be incorporated in the Minerals Act. ILO convention should prevail ie. the mining industry should be subjected to its own safety and health legislation.
(Exhibit C2, page 4, paragraph 1)(NUM)
(Record Vol 19, page 2001, lines 5 - 6)

16.2 DMEA welcomes the establishment of appropriate structures and institutions which can participate in the drafting of regulations/legislation and the establishment of a representative review committee to review regulations/legislation on an ongoing basis.
(Exhibit C2, page 6, paragraph 1)(NUM)
(Record Vol 2, page 167, lines 27 - 30)
(Record Vol 2, page 172, line 18)
(Record Vol 18, page 1857, line 16)
(Record Vol 18, page 1863, line 4 - 12)
(Record Vol 18, page 1872, 1873, line 26 - 27, line 3) Section 31
(Record Vol 18, page 1874, line 29 - 30) Section 34
(Record Vol 18, page 1877, line 17 - 26)
(Record Vol 19, page 1900, line 4 - 6) - cross-reference - paragraph 12.4

16.3 The DMEA proposes that the proposed Mining Regulations Advisory Committee considers Legislation to re-introduce the terms of Section 13 of the repealed Mines and Works Act on making the status of special rules mandatory.
(Exhibit C2, page 14, paragraph 4)(COM)

16.4 Contracts for underground work should be removed from safety and health legislation.
(Exhibit C2, page 17, paragraphs 3)(COM)
(Record Vol 18, page 1877, lines 10 - 13)

16.5 It is recommended that more stringent obligations should be placed on manufacturers to comply with safety standards in the design, manufacturing, and alterations of equipment, articles and substances.
(Exhibit C2, page 7, paragraph 3)(NUM)
(Record Vol 18, page 1875, line 10 - 12)

16.6 DMEA recommends that all mines should automatically fall under the jurisdiction of the Occupational Diseases in Mines and Works Act.
(Exhibit C2, page 5 and 6, paragraph 5 and 1)(COM)

16.7 The Minerals Act should not be part of the OHS Act or a general umbrella Act.
(Record Vol 18, page 1864, line 17)

16.8 Sunday Labour should be abolished from safety legislation.
(Exhibit C2, page 10, paragraph 3)(COM)

- 16.9 Self regulation cannot be left to the mine.
(Record Vol 19, page 1986, line 17)
- 16.10 Radiological aspects in mines should be regulatory power of the DMEA, ie all occupational safety and health enforcement should be under one body or Department.
(Exhibit C2, page 10, paragraph 4)(COM)
(Vol 19, page 1929, 1930, lines 29 - 30, 1 - 3)
(Vol 19, page 1995, lines 7 - 9)
- 16.11 Material Interest to be defined in the Act.
(Record Vol 18, page 1872, line 8)
(Record Vol 19, page 1871, line 9)
- 16.12 Section 28 of the Act is to be amended to cater for the wide distribution of the inquiry report.
(Record Vol 20, page 2038, line 2, line 12, line 18 - 19)
(Record Vol 20, page 2081, line 2 - 5)
- 16.13 Dust Levels, TLV's, to be put in Regulation.
(Record Vol 19, page 1989, line 21 - 22)

17. MINE SAFETY COMMITTEE

- 17.1 The powers and scope of the mine safety committee should be increased so that the mine safety committee itself could appoint sub-committees. Legislate the above as well as the proposed change in membership of the committee. SIMRAC to be a sub-committee.
(Record Vol 18, page 1869, line 8 - 10, line 19 - 22)
(Record Vol 19, page 1934, line 9 - 15)
(Record Vol 2, page 172, line 11 - 13)
 - 17.1.1 Same as above, add: replace Mine Safety Committee with Mine Safety and Health Committee.
(Exhibit C2, page 10, paragraph 2)(COM)
(Record Vol 2, page 172, line 19 - 20)
- 17.2 DMEA would like to see through recognised organisations like the mine safety committee that proven technology that enhances safety is implemented in an objective manner without the interference of subjective factors.
(Resistance to change).
(Exhibit C2, page 8, paragraph 2)(COM)

18. HEALTH

- 18.1 Noise reduction should be engineered and not relied upon by personal protective measures.
(Exhibit C2, page 6, paragraph 4)
- 18.2 Cross-reference to Radiological aspects in paragraph 16.10 of this document.
- 18.3 Occupational diseases are not covered by the Minerals Act. No necessity for this.
(Record Vol 19, page 1892, line 9, 16 - 19)

- 18.4 Legislation is in place for dust levels. Is possibly not properly enforced. (Record Vol 19, page 1947, line 14 - 16)
- 18.5 Mines with high dust levels - information to be published. (Record Vol 19, page 1949, line 13 - 15)
- 18.6 Dust Levels. TLV's should be in regulation. (Record Vol 20, page 1989, line 21 - 22)

19. DEPARTMENTAL OFFICIALS

- 19.1 If 3-14 day accidents become reportable and they have to be investigated by the Dept., then additional staff will be required. (Record Vol 19, page 1896, line 19 - 21)
- 19.2 Investigate whether administrative penalties should be used by officials. (Record Vol 19, page 1974, line 2 - 8)
- 19.3 RME's to be provided with all the necessary equipment enumerated by Prof A Davies ie instrumentation, lap top computers, modems, dust instruments, etc. (Record Vol 20, page 2040, line 18-30, line 2 - 4)
(Record Vol 20, page 2062, line 14 - 16)
- 19.4 RME's are the front line officials and are required to stand up to managers. Managers are powerful and well qualified, RME to be on an equal footing when he requires remedies to be made.
(Record Vol 20, page 2043, line 23 - 27)
(Record Vol 20, page 2045, line 8 - 9)
(Record Vol 20, page 2045, line 22 - 23)
- 19.5 As far as mine property is concerned the regional director from the Department of Mineral and Energy Affairs is the responsible state official and on the mine the manager. There would be a conflict if other Departments also entered the mine and gave instructions.
(Record Vol 20, page 2052, line 27)
(Record Vol 20, page 2053, line 1 - 2)
- 19.6 Quality of the RME required to inspect. Quarries need not be as high as RME to inspect a mine.
(Record Vol 20, page 2057, line 24 - 27)
(Record Vol 20, page 2058, line 16 - 18)
- 19.7 Introduce dust inspectors, laboratories in the E-Tvl and Natal ie. Stonedust analysis. (Record Vol 20, page 2061, line 12 - 18)
- 19.8 The Regional Director should be a mining man. (Record Vol 20, page 2064, line 4 - 5)
- 19.9 The Regional Director should report to the GME.
(Record Vol 20, page 2064, line 23 - 30)
(Record Vol 20, page 2065, line 1 - 6)

- 19.10 RME's should be empowered in law to prosecute.
(Record Vol 20, page 2068, line 8 - 10)
(Record Vol 20, page 2068, line 18 - 19)
- 19.11 Attorneys with necessary mining background could be employed full-time until the position with regards to accidents change.
(Record Vol 20, page 2070, line 2 - 6)
- 19.12 Ventilation observers to be employed can be used effectively.
(Record Vol 20, page 2082, line 20 - 21)

20. MINING QUALIFICATIONS FORUM (MQF)

- 20.1 With shortage of RME's, workload on officers administrating examinations, led to formation of Mining Qualification Forum. Dept it is not an educational Department.
(Record Vol 19, page 1880, line 2)
(Record Vol 19, page 1882, line 23)
(Record Vol 19, page 1882, line 4)
- 20.2 It is recommended that the COM make recommendations to the MQF with respect to statutory requirements on management systems.
(Exhibit C2, page 11, paragraph 1)(COM)
- 20.3 It is recommended that the need for various existing certificates of competency be evaluated and that a process of restructuring of working arrangements and skills requirements be considered.
(Record Vol 19, page 1885, line 2 - 6)
- 20.4 It is recommended, that in identifying the need for certificates that all certificates, necessary for workplace reform and actual mining industry requirements be considered.
(Record Vol 19, page 1885, line 28 - 30)
(Record Vol 19, page 1886, line 1)
- 20.5 It is recommended that not all of the certificates so identified should be required by legislation but that they should be used to assist management in complying with its statutory duty.
(Record Vol 19, page 1886, line 2 - 4)
- 20.6 Existing legislation will be retained if issuing of certificates is removed from the Department and results in deterioration of safety. Dept cannot ignore obligation to safety and health.
(Record Vol 19, page 1887, line 1 - 2)
(Record Vol 19, page 1887, line 12 - 14)

21. REPORTS

- 21.1 Of the opinion that an annual report should be published as a separate report in the same format as what it used to be years ago. Commission to make a recommendation.
(Record Vol 19, page 1893, line 14, 28 - 29)

SECTION E SASOL

The final submissions made by Mr Viljoen, on behalf of SASOL, may be summarized briefly as follows:

- a) The Commission should identify deficiencies in the law and recommend their rectification not in detail but in principle.
- b) A tripartite body could lead to filibustering and, to avoid this, it was suggested that the Chairman met once a month with all the parties to ensure that orderly progress was made.
- c) Health was of prime importance and SASOL had in place the medical inspection intervention facilities recommended by Dr White.
- d) Education and training were interdependent. Basic education was the responsibility of the State and if the State was not interested to undertake this task it should make the cost of education tax deductible. With regard to non-South African employees their respective governments could be asked to assist with finance for education.
- e) Training should prepare the employee for what he has to do, why he has to do it, it should identify the hazards and should be an ongoing process. It should be repetitive so that consistent compliance with health and safety rules and procedures could be established and maintained. A process of education had to be established as a matter of priority.
- f) Discipline was critical. An appropriate legal framework was required such as section 24 of the British Columbia Mines Act and section 8 and 14 of the OHSA.
- g) Risk management should assess the risk and danger, and if reasonably practicable engineer the hazard away; if not, mitigate it by engineering or other means. Personal protective material should only be used as a last resort.
- h) The inspectorate:-
 - i) The position and authority of the inspectorate must be clear.
 - ii) It must consist, by and large, of specialists who should be treated as such.
 - iii) It should have appropriate authority and be free of departmental politics.
 - iv) It should be staffed, equipped, funded and remunerated in such a way as to discharge all its functions properly.
- i) The law. The British Columbia Act with its regulations and code could be used as a precedent. It is attractive because it is comprehensive without being too detailed; it is written in simple and clear language; it is systematic and logical and is a model of economy of language.
- j) Accident Inquiries:-

- i) The main function of these should be to ascertain the true cause of accidents.
 - ii) Inquiries should be conducted properly, scientifically and comprehensively.
 - iii) Factual findings should be published as they become available and to the industry as a whole.
 - iv) Management should notify the Unions of inspections in loco and the place, time and date of inquiries.
 - v) If necessary the Unions shall select a domicilium to which notices, preferably by telefax, could be addressed.
 - vi) Inquiries should be in public and, if necessary, on neutral ground,
 - vii) Management should be given reasonable notice and a reasonable opportunity to furnish documents or information.
 - viii) Administration fines, for employers and employees, could be considered subject to the right of appeal and review being retained.
- k) SASOL favours a Mining Court but in any event all mining prosecutions should be conducted at regional court level where better experience will be obtained.

SECTION F OTHER PARTIES

Advocate R J Chinner presented the case for all those parties who were not represented at the hearing including some of those who did not give evidence but made written submissions. Some of the submissions do not deal with health, and safety but the Commission has read all the submissions and heard all the evidence. It will appear from our conclusions either directly or by implication to what extent we have accepted any of these, submissions. They are referred to briefly below.

ERGOTECH submitted that:-

- i) The regulations regarding environmental stresses be extended to include whole body vibration according to British Standard BS 6841.
- ii) Human - machine Interface (ergonomic) requirements for mining equipment be included in the regulations similar to current European standards for Earth Moving Machinery but taking into consideration South African Anthropometric and biomechanical data.

ESKOM

In his evidence Mr Deats made recommendations with regard to permissible gas quantities in caved or goafed areas.

ASPASA

ASPASA stated that they regard the system of the declaration of controlled mines in terms of the Occupational Diseases in Mines and Works Act as being haphazard in that one quarry may be declared controlled while another in the same area mining the same kind of stone is not so declared. Sand operators are not controlled at all. They recommend that all mining operators which make dust should be obliged to:-

- a) test the quantity and quality of dust by the gravimetric measurement method;
- b) submit the results of the test to a controlling body; and
- c) take action to reduce the quantities of dust emitted, particularly from areas where the quantity is high.

THE PUBLIC SERVICE COMMISSION

Mr Vos, on behalf of the Public Service Commission, suggested that the possible solution to the problem of inadequate remuneration of the Inspectorate would either be for a system of allowances to be introduced or for the Inspectorate to be removed from the ambit of the Public Services Act.

UNDERGROUND RAILWAY ASSOCIATION

Basic specifications of track and rail mounted equipment do not exist throughout the industry. It has recommended that a Committee of all interested parties be formed to establish basic specifications. It has itself compiled basic standards for tracks and trains which could form the basis for a code for all underground training operations.

MR HF DU TOIT

He contended that the real problem with regard to safety was the attitude of people. It has now been proved that people cannot be controlled unless they are empowered to control themselves. It was an error to think that management bore the ultimate responsibility.

What was required was a conservative updating of legal requirements and proper training and an attitude change on the part of employers and employees. If employees were properly trained this would create an integrated approach with health and safety for all.

MAC PERFORMANCE CONSULTANTS

Mr McArdle testified on behalf of the above organisation and made the following main points:-

- a) Supervisors should be trained in management techniques
- b) More attention should be given to create a higher level of literacy. Incentive schemes may help.
- c) Attention should be given to satisfy the aspirations of dedicated workmen by establishing adequate progression in their occupation. The opportunity should be provided for the progression from the team leader post to that of miner.
- d) The miner is overloaded with the task of handling the blasting requirements of the workforce. A new supervisory level, that of assistant miner should be created.
- e) The posts of miner and assistant miner should be embodied in the legislation which should also define their duties and responsibilities.
- f) Ability to communicate in an official language of the Republic of South Africa should replace the present language requirements.
- g) The Safety Representative system allows the workforce to have a say in safety management. However in practice the safety representative is hamstrung: he has no line of authority to take any safety steps.

THE SA NATIONAL GROUP OF ROCK MECHANICS

The above organisation made the following recommendations:-

- a) Statutory recognition of rock mechanics like professional engineers should be granted.
- b) All mine design work should be approved or carried out by a rock mechanics engineer, technologist or technician, whoever was appropriate.
- c) Government funding and greater industry funding should be made available for rock mechanics research.

NATIONAL PRODUCTIVITY INSTITUTE

Mr Mulder emphasized that the principles of the OHSA was applicable to all industries and that no reason existed for any distinction being drawn between the mining industry and other industries. He also referred to the perception that the inspectorate was closely linked to management, industry and SIMRAC. That was counterproductive to the important role of the inspectorate.

SASOHN

SASOHN made the following recommendations:-

- a) Provision should be made for continuous biological monitoring of employees in high risk categories by qualified occupational health nurse practitioners. In general the professional nurses in the mining industry lack any occupational health training with the result that they are completely under-utilized or they could be placed in positions for which they were not qualified. Mandatory upgrading of skills should take place.
- b) Each health centre on the mines should have at least one occupational health nurse practitioner. Neglected areas such as ergonomics, biokinetic, identifying and monitoring of hazards could be attended to by such a person.
- c) Specific minimum levels must be set when a person is required to be moved from high risk employment, for example as a result of high noise levels. It should not be left to the doctor, mine management to decide when someone should be moved out of a specific job/area.
- d) All doctors employed in an occupational health department must commence training in occupational health medicine at the earliest opportunity not more than within a year of their appointment.

WESTERN PLATINUM LIMITED

WESTERN PLATINUM LIMITED made certain suggestions to the Commission including one that their written submission be referred to a tripartite body with proposed guidelines from the Commission. With regard to proper changes in the Minerals Act the company recommended that restrictions should be lifted for Sundays and the Day of the Covenant to the extent that hoisting of ore, housing and training of men and material may be carried out ie. all work other than blasting operations. Restrictions should be maintained for Christmas Day and Good Friday.

COUNCIL FOR NUCLEAR SAFETY (CNS)

Mr Winkler testified on its behalf. He said that it was evident that radiation hazards exist in the mining industry in respect of the underground workforce, the surface workforce in various plants, the public due to discharge and waste disposal and workers in related industries (refurbishes and material recyclers). Although this was known it had not been regulated.

Regulatory control involves complex technical issues which requires specialist expertise on an ongoing basis. This expertise does not exist in the office of the Government Mining Engineer and is unlikely to become available in his office.

The Council for Nuclear Safety began proper regulatory control in 1989, key elements of this being:-

- a) quantitative safety standards taking account of international recommendations;
- b) systematic quantitative hazard assessment;
- c) major underground and surface hazards being addressed as first priority;
- d) a scheduled programme for implementing proper control covering all the necessary radiation protection for the workforce and the public.

Encouraging results have been obtained and Mr Winkler urged that radiation hazards within the mining and processing industries must continue to be that of CNS exclusively in terms of the Nuclear Energy Act making optimal use of the inspection resources of the Government Mining Engineer.

MR SMITH

MR SMITH made the following recommendations:-

- i) That formal pro-rata risk and hazard assessment be entrenched for all operations under the Minerals Act as is the case for industrial premises.
- ii) That the appointment of Safety Officers in terms of sec 2.17.1 be given the required effect.
- iii) That provision be made for continuous monitoring of employees in high risk categories by qualified occupational health practitioners as part of the safety and health management function.
- iv) That the requirements regarding the appointment of safety and health representatives from the employees be given substance.
- v) That the safety/health inquiry and disease ratios experienced in any given operation be reported in an appendix to the annual report (as required by the Companies Act).
- vi) OHSA was sufficient to deal with all occupational health and safety issues.

GENERAL RECOMMENDATIONS

Different programmes were put before the Commission claiming that they would enhance safety and health viz:-

- a) Mr Keague gave evidence on the 5 star-rating system of **NOSA**. A number of shortcomings were identified but he said that they were being currently addressed;
- b) Mr Hendrikse explained how an **Ergonomics** programme could be implemented to enhance safety;
- c) Mr Botha, on behalf of **Human Engineering**, explained the concept of a safety map.

VARIOUS WITNESSES GAVE EVIDENCE PROMOTING THEIR PRODUCT, namely:-

- a) Mr Daniel who gave evidence on behalf of **Mine Site Technologists** which had introduced an effective underground pager system by which anyone underground could be warned of impending danger;
- b) **Mr Horne** of Horne Hydraulics gave evidence about this company's clamping devices which could reduce the risk of accidents. He was supported by Mr Cotrill;
- c) **Mr Dobbin** introduced his solution to the indiscriminate use of ethylene based synthetic material such as PVC in underground mines.

DR DAVID REES

Dr David Rees presented a paper and gave evidence that a unitary system for health and safety was necessary and that the Occupational Health and Safety Act was quite adequate to handle all occupational health and safety issues. He was supported by **Mr Mulder, Mr McArdle and Mr Smith.**