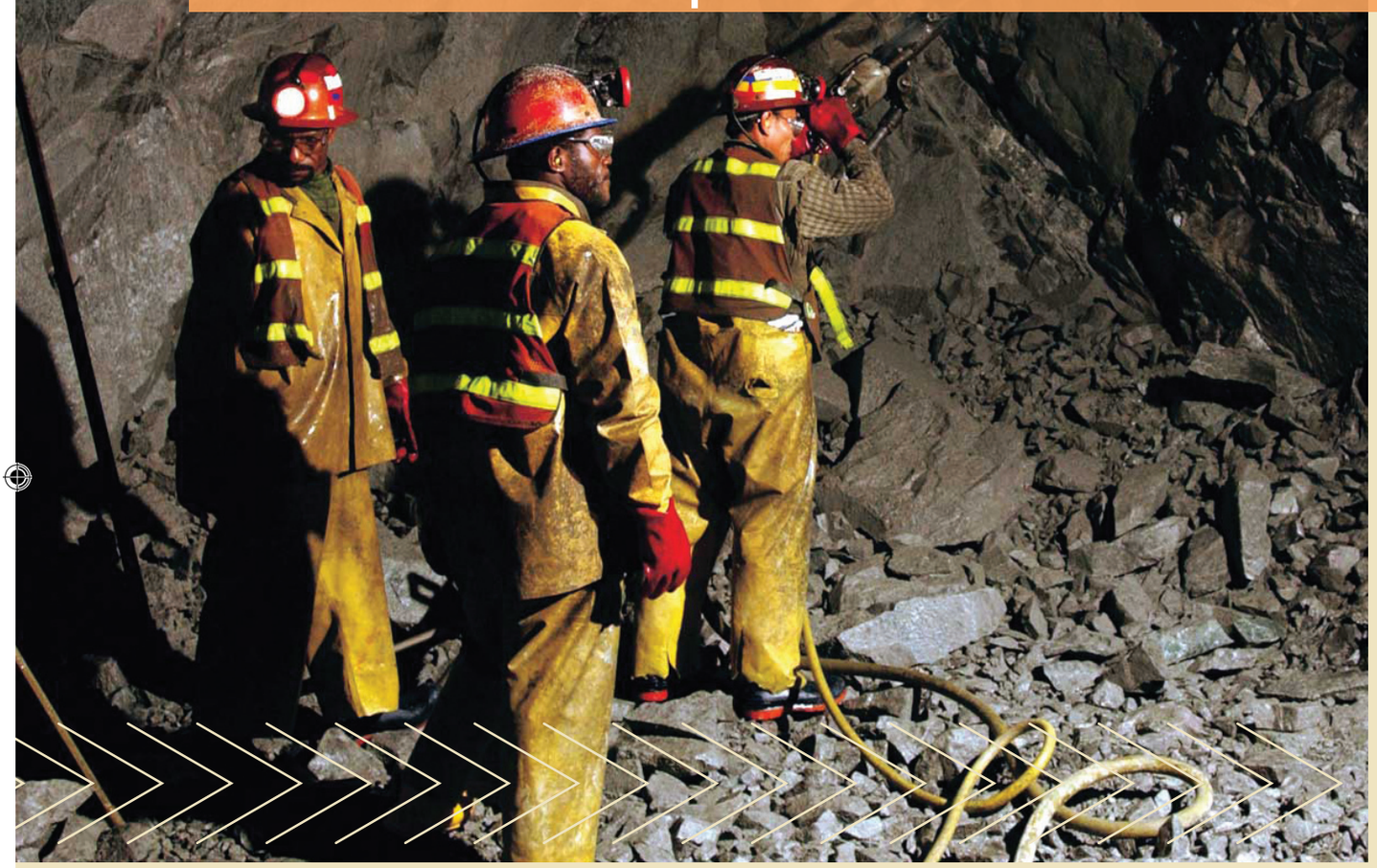
MINE HEALTH AND SAFETY INSPECTORATE

ANNUAL REPORT | 2009/2010



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

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preface

This document is a report by the Chief Inspector of Mines (CIOM) on health and safety at mines and the activities of the Mine Health and Safety Inspectorate, compiled as required by Section 49(1)(j) of the Mine Health and Safety Act (MHSA), 1996 (Act No. 29 of 1996).

The Mine Health and Safety Inspectorate (MHSI) established in terms of the MHSA, 1996 has the responsibility of protecting the health and safety of persons working at mines or affected by mining activities.

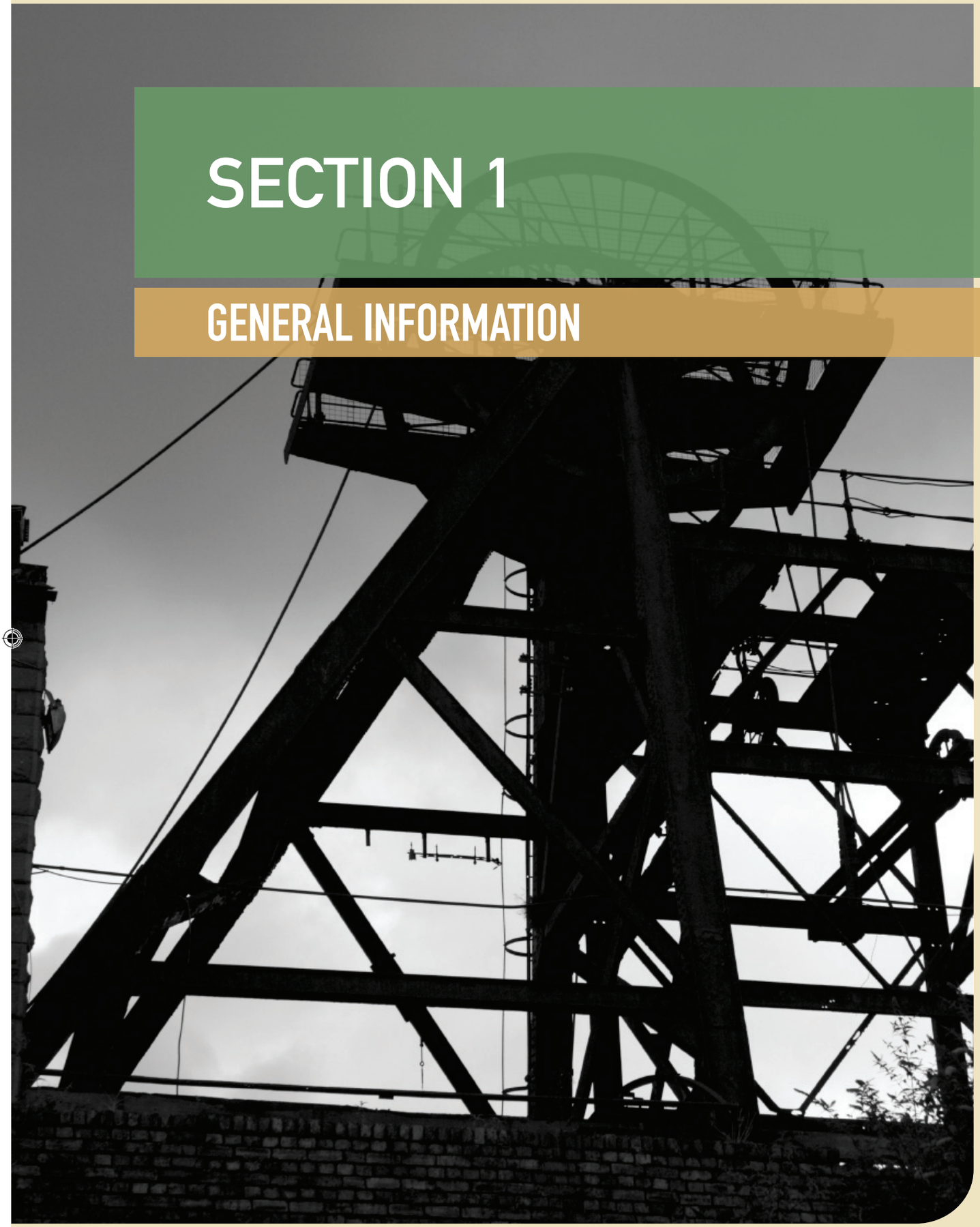
The CIOM also has the responsibility of leading the tripartite structures formed in terms of the MHSA as the chairperson of the Mine Health and Safety Council (MHSC) and the Mining Qualifications Authority (MQA).

The MHSC consists of representatives from the state, employee and employer organizations. The Council was established to advise the Minister on health and safety issues and promoting a healthier and safer culture in the mining industry.

The MQA is an education and training authority for the minerals and mining sector and is responsible for the education and training needs of the mining industry. The activities of the above-mentioned two bodies are intricately interlinked with that of the MHSI and their accounts is captured in their respective reports.

SECTION 1

GENERAL INFORMATION



1 general information

1.1 Submission of the Annual Report to the Executing Authority

The Honourable Susan Shabangu, MP
Minister: Department of Mineral Resources
Republic of South Africa

Dear Minister

I am pleased to present to you the annual report of the Mine Health and Safety Inspectorate for the 2009-2010 reporting period. This report is in accordance with the requirements of Section 49(1) (j) of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996).

Yours sincerely

TE Gazi
Chief Inspector of Mines
Mine Health and Safety Inspectorate

1.2. Chief Inspector of Mines' Overview / Executive Summary

Introduction

It is with great honour and pleasure that I present this report on the state of health and safety in the South African mining industry and the activities of the MHSI for the 2009/10 financial year.

Current Health and Safety Performance

The safety track record in the South African mining industry continues to be a matter of great concern to the Department although industry has in the last year managed to record a year-on-year reduction in fatalities due to mine accidents. A total of 168 mine employees died in 2009 when compared to 171 in 2008. Fall-of-ground accidents still remain the largest accident category and the predominant cause of fatalities followed by transportation and the machinery categories.

Occupational health impacts are not immediate and hence difficult to quantify. Silicosis remains a major cause of premature retirement and death at South African mines due to excessive dust exposure. On the other hand, Tuberculosis continues to be a serious challenge for the mining industry and this is exacerbated by HIV and AIDS. Noise Induced Hearing Loss is also a significant health hazards due to exposures to high levels of noise in working places.

In an attempt to address the internal capacity challenges experienced by the Inspectorate, Learner Inspectors were placed in regions such as Free State, Gauteng, Mpumalanga, Northern Cape and North West. Existing Inspectors employed by the MHSI attended courses at WITS as well as IRCA in order to capacitate them in the execution of their mandate of ensuring the safe mining of minerals under healthy working conditions.

Disaster-type Accidents

Fall of ground accidents still remain the largest accident category and the predominant cause of fatalities followed by the transportation and machinery categories. During the reporting period, a massive fall of ground accident at a platinum mine in North West, claimed the lives of nine mine employees. In the Gauteng Region, four seismic events resulted in the death of eight mine workers, two workers in each individual event.

Human Resource Development

During the reporting period, the Mine Health and Safety Inspectorate (MHSI) continued to develop the skills and knowledge base of its staff members as follows:

- 99 officials attended IRCA training;
- 97 officials attended WITS training; and
- 26 staff members attended other administrative and technical courses.

The Inspectorate appointed 19 engineering learner inspectors on 01 August 2007 on a two-year training contract that ended on 31 July 2010. They comprise of four female and 15 male learner inspectors and were placed for mine experiential training at Goldfields Business and Leadership Academy (GFBLA). Seven learner inspectors were placed in the electrical engineering discipline and 12 learner inspectors in mechanical engineering.

All of the above 19 engineering learner inspectors completed their respective mine experiential training and are now placed for inspector training within the regional offices of the Inspectorate. They were offered a 4-year conditional contract wherein they are supposed to acquire the Government Certificate of Competency (GCC) within the contract period. They will be permanently absorbed by the Department on successful acquisition of the GCC.

The Inspectorate offered 18 bursaries to students during the reporting period. These are made up of seven females and 11 male students of which one student has already completed his studies and the remaining 17 bursary holders are at various stages towards completing their respective qualification. The students are pursuing the following mining related qualifications:

- Electrical Engine5rin (Heavy Current)
- Electrical Engineering
- Mine Engineering

MHSI Staffing

The establishment of the Inspectorate provides for 316 posts of which 278 are currently filled and 38 are vacant. The demographics of the Inspectorate as on 31 March 2010 was as follows:

Gender	African	White	Asian	Coloured	Total
Male	113	66	1	1	181
Female	76	18	0	3	97

Small-scale Mining

Since the promulgation of the Minerals and Petroleum Resources Development Act, 2004 (Act No. 28 of 2004), the issuing of mining permits to SMMEs has increased dramatically and has stretched the regulatory capacity of the Inspectorate.

In light of this development, the MHSI had to match this increasing activity by conducting more inspections on these types of operations and continue to offer training and assistance to small-scale miners. Most of these operations are concentrated in the diamond sector, and are thus located in the Northern Cape and Northwest Regions.

HIV/AIDS and Occupational Health

The partnership of the Department of Minerals and Energy, Labour and Employers is committed to combating the HIV and AIDS epidemic in the mining industry.

It is "safe" to say that during the year under review a substantial number of employees opted for voluntary HIV testing and that the programmes for providing ARV's to the affected employees are gaining momentum.

TB, the effects of HIV and AIDS and noise induced hearing loss (NIHL) are the main occupational health challenges faced by the mining industry. The large mines have mainly been implementing awareness and wellness programmes to improve on the current status. Most of the mines are administering anti-retroviral medication to boost the health status of infected workers. The effort and level of success by these mines are commendable and all the mines are encouraged to develop and implement similar programmes.

Although there is still a challenge on achieving the health milestones, various initiatives and strategies

have been implemented in a number of mines in most of the regions. The initiatives are aimed at ensuring compliance to limits of both noise and silica hazards encountered at mines.

Regional working groups have been formed and maintained by the Inspectorate to support and monitor progress made by the mines on the health milestones.

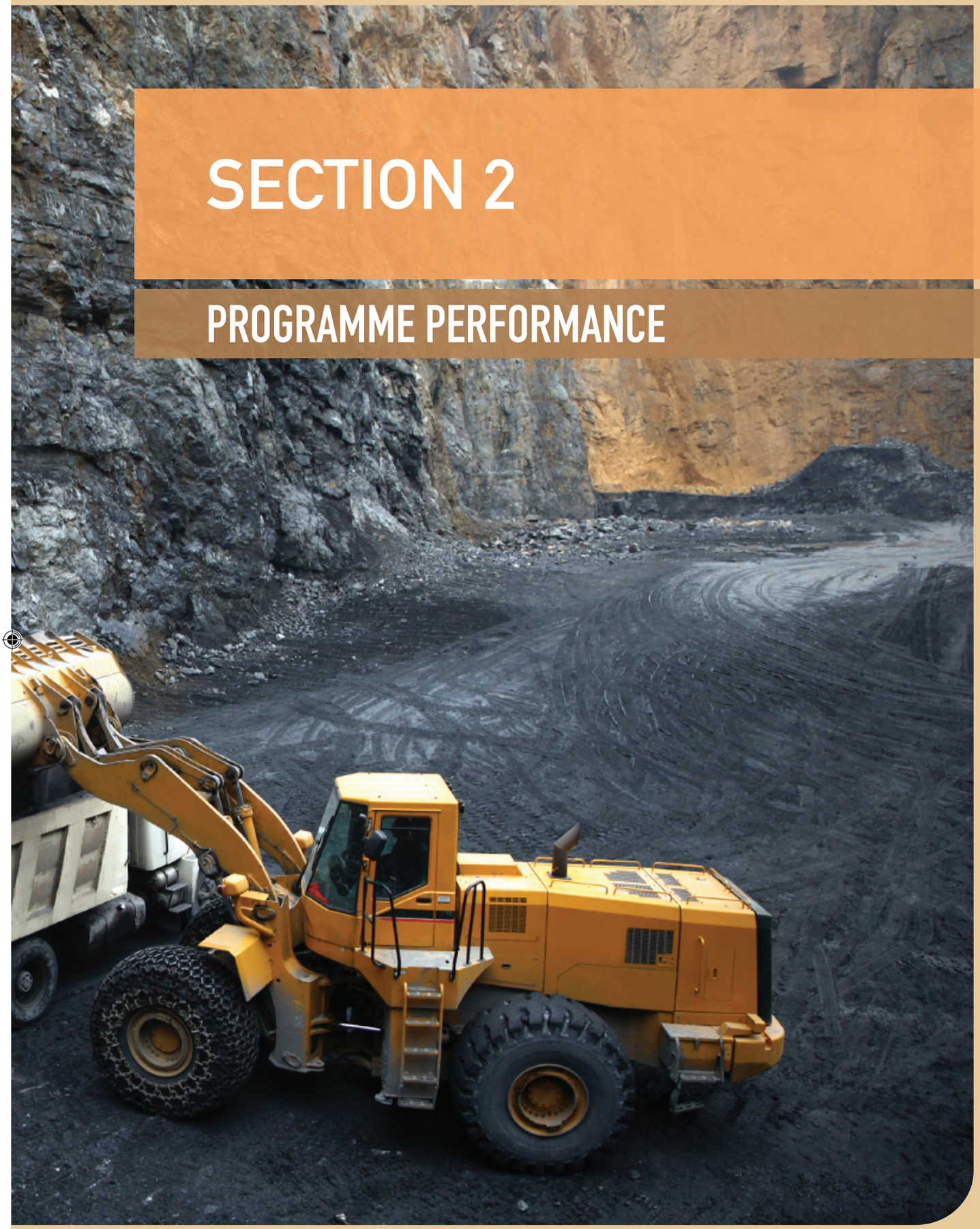
TE GAZI
CHIEF INSPECTOR OF MINES

1.3 Legislative Mandate

The Mine Health and Safety Inspectorate was established in terms of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996) for the purpose of executing the statutory mandate of the DME to safeguard the health and safety of mine employees and communities affected by mining operations.

1.4 Mission Statement

The MHSI strives towards a safe and healthy mining industry. This is to be achieved by reducing mining related deaths, injuries and ill health through the formulation of national policy and legislation, the provision of advice, and the application of systems that monitor and enforce compliance with the law in the mining sector.



SECTION 2

PROGRAMME PERFORMANCE

2 programme performance

2.1 Service Delivery Objectives and Indicators

The MHSI strategic plan and achievements during the reporting period are outlined in the table below. This is an account of progress achieved in the reporting period against the annual targets set for achieving the strategic objectives of the DME.

PURPOSE: "Execute the Department's statutory mandate to protect the health and safety of the mine employees and people affected by mining activities."

CUSTOMER AND STAKEHOLDER

Stakeholder	Objective	Measures	Initiatives	Target	Progress as at	Reason for under-performance	Verification source
				2009 - 2010	31 March 2010		**Reason for under-performance**
	Promote and regulate minerals and energy sectors	% increase in level of compliance to health and safety regulations	Annual analysis and review of OHS audits	10%	Not achieved	System still in development	Implementing management system.
	Improve turnaround times	Response days	Implement document management system	5 working days	Reported monthly		Management system is being implemented to track handling of task, documents etc.
		% adherence to prescribed timeframes	Skilling of employees and provide adequate systems	100%	Continuous process		Management system is being implemented to track handling of task, documents etc.
	Provide transparent and consistent enforcement	Number of appeals completed	Develop and implement policies and procedures	80%	80%		

Stakeholder		% completion of National MHS System	Regular review of OHS system implementation plan	30%	In line with implementation plan		Various modules have been developed and will be signed off in due course
	Communicate valid and reliable information on mine health and safety	% target audience reached	In conjunction with communication strategy	60%	67%		Monthly newsletters are being distributed to mines
		% of data verified	Verification of records submitted by mines	100%	Done monthly on SAMRASS		SAMRASS
		Number of MHS reports	Publication of MHS annual report	1	Submitted to Minister		MHSI Annual Report was completed and submitted to the Minister for Final approval
	Improve stakeholder engagements	Number of meetings with labour	Meetings with unions	4	Done on monthly basis		MHS Portal Reporting system
		Number of meetings with employers	Meetings with employer formations	4	Done on monthly basis		MHS Portal Reporting system
		Number of meetings with government departments	Meetings with DOH, DOL, DPP	4	Done monthly as per plan		MHS Portal Reporting system
	Address health and safety risks in mining	% of audits conducted	Conduct OHS audits	100%	83%	Capacity challenges are being experienced but Intense recruitment as well as initiatives such as bursaries and learnership programmes and training initiatives of existing inspectors are being done. The implementation of standardised policies and procedures will enhance the quality as well as the execution of tasks.	MHS Portal Reporting system

Stakeholder	Objective	Measures	Initiatives	Target	Progress as at	Reason for under-performance	Verification source
				2009 - 2010	31 March 2010		**Reason for under-performance**
	Address health and safety risks in mining	% of inspections conducted	Conduct regular inspections	100%	91%	Capacity challenges are being experienced but Intense recruitment as well as initiatives such as bursaries and learnership programmes and training initiatives of existing inspectors are being done. The implementation of standardised policies and procedures will enhance the quality as well as the execution of tasks.	MHS Portal Reporting system
		% of investigations completed	Conduct regular investigations	80%	90%	Achieved	MHS Portal Reporting system
		% of inquiries completed	Conduct regular inquiries	80%	105%	Achieved as well as completed from previous year	MHS Portal Reporting system
		% increase in the compliance levels	Annual analysis and review of OHS audits	10%	In line with Action plan	Follow-up audits are being performed following the release of the findings of the Presidential Audit	Action Plan from Presidential Audit Report

INTERNAL PROCESSES

	Objective	Measures	Initiatives	Target	Progress as at	Reason for under-performance	Verification source
				2009 - 2010	31 March 2010		**Reason for under-performance**
Internal Processes	**Efficient business processes**						
	Development of enforcement guidelines	Number of identified guidelines developed	Review existing guidelines	70%	Achieved		MHS Portal Reporting system
		Number of guidelines implemented	Implement enforcement guidelines	70%	Achieved		MHS Portal Reporting system
	Implementation of health and safety legislation	% of guidelines revised in line with current legislation	Identify guidelines that need to be revised	70%	Achieved		MHS Portal Reporting system as well as Priority Plan
		% reduction in issues of non-compliance (internal)	Implement compliance framework	20%	No major non compliance issues reported		Implementing management system to track progress
	Benchmark health and safety against international best practice	% Increased health and safety standards	Identify health and safety international best practice and align them to our standards	70%	70% achieved		Benchmarking on international Health and Safety Standards best practice done for every regulatory mechanism developed and reviewed
	Review and develop policies, procedures and processes	% of identified policies and procedures developed	Conduct policy studies	50%	Achieved		Reports of policy studies conducted as per project plans
	Effective business processes						
	Provision of adequate resources	% alignment of resource operational needs	Develop spending plans in line with strategy	80%	Achieved		Monthly Cash Flows Cash flows is monitored and reported during Management meetings
	Build accountability	% implementation of BSC	Monitor implementation of the BSC	100%	100% BSC principles implemented		MHS Portal Reporting system
	Manage service level agreements with professional bodies	% SLA's signed with agreed timeframes	Develop Terms of Reference for investigations and research contracts	100%	None for the period		MHS Portal Reporting system
		% adherence to SLAs	Review of implemented SLA's	100%	Achieved		MHS Portal Reporting system

	Objective	Measures	Initiatives	Target	Progress as at	Reason for under-performance	Verification source
				2009 - 2010	31 March 2010		**Reason for under-performance**
Internal Processes	Establish compliance standards	% standards established	Incorporate research outcomes into OHS regulations	100%			Developing a framework to facilitate standard identification
	Understand stakeholder needs	Number of stakeholder surveys conducted (once every 3 years)	Conduct regular surveys	1	Not yet planned		
	Stakeholder and customer relationship management						
	Educate and empower our stakeholders	Number of workshops / information sessions held as identified	Conduct regular workshops,	4	2		MHS Portal Reporting system
	Regular consultation and feedback on OHS	Feedback / consultation sessions held as identified	Attendance of Board meetings	8	Achieved		MHS Portal Reporting system and Minutes of Board meetings
	Drive health and safety innovations	% of innovation projects implemented to improve business practice	Hold regular meeting	50%	Done as research results are obtained		Review and implementation of research process
			Identify implementation challenges				
			Determine a research agenda				
			Develop intervention strategies				

LEARNING AND GROWTH

	Objective	Measures	Initiatives	Target	Progress as at	Reason for under-performance	Verification source
				2009 - 2010	31 March 2010		**Reason for under-performance**
Learning and Growth	Attract develop and retain skills	% reduction in staff turnover	Implement Integrated HR Plan	70%	Monitored monthly		MHS Portal Reporting system Alternative means of recruitment is being investigated
		% reduction in vacancies	Implement Integrated HR Plan	70%	Achieved		MHS Portal Reporting system OSD is under investigation
		% implementation of PDP's that are aligned to Departmental needs	Implement HRD plan	50%	Monitored monthly		MHS Portal Reporting system Training initiatives are underway through the MQA and Wits to train existing inspectors as well as new entrants to the MHSI
		MHSI training academy in place	Memorandum of Understanding with MQA	20%	Memorandum of Understanding being reviewed		
	Develop OHS MIS	Integrated OHS Management Information System in place	Regular review on OHS MIS implementation plan	50%	As per implementation plan		Progress Report from Steering Committee
	Improve leadership and management capabilities	% of managers that have completed leadership and management development courses	Extension of WITS Programme	70%	Achieved		MHS Portal Reporting system
		% return on investment on training and development	Implement 360 degree survey tool	65%	Tool not yet developed		
	Drive transformation	% achieved against DME Employment Equity targets	Implement Employment Equity Plan	100%	Monitored monthly		
		% procurement spent on targeted groups	Inform requisite suppliers to register on database	50%	Monitored monthly		MHS Portal Reporting system

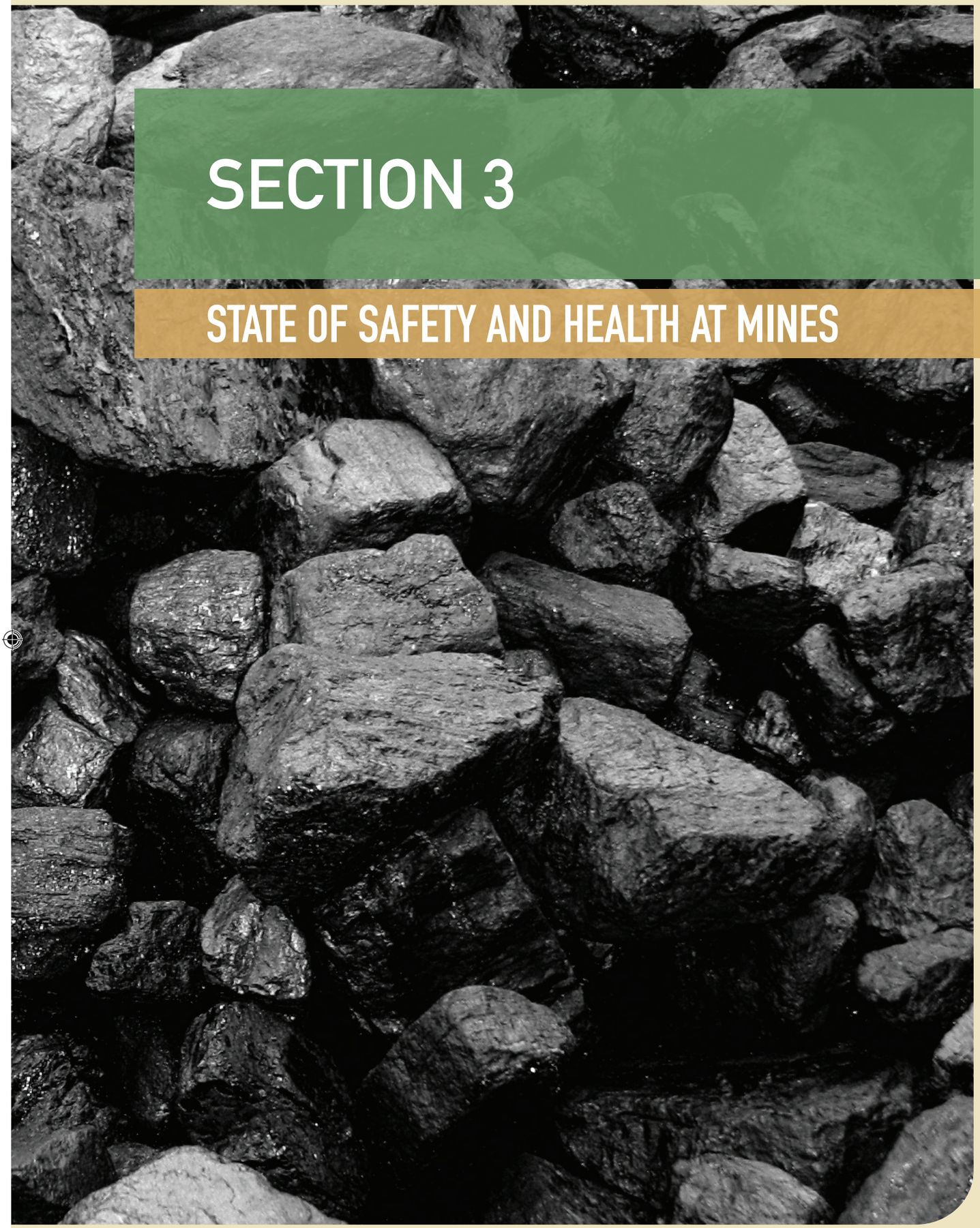
	Objective	Measures	Initiatives	Target	Progress as at	Reason for under-performance	Verification source
				2009 - 2010	31 March 2010		**Reason for under-performance**
Learning and Growth	Live the core values	% Increase in number of Batho Pele and Ubuntu awards nominees	As per Corporate Services plans	70%	4 Staff members received employee of the year awards		
		Number of core value awareness sessions	As per Corporate Services plans	4	Achieved on monthly basis		Minutes of Staff Meetings held by Units
		% decrease in transgressions of the code of conduct	As per Corporate Services plans	5%	Achieved		MHS Portal Reporting system as well as HR Reports

FINANCE

	Objective	Measures	Initiatives	Target	Progress as at	Reason for under-performance	Verification source
				2009 - 2010	31 December 2010		
Finance	Alignment of Strategy to budget	% of budget aligned to strategy	Develop spending plans in conjunction with finance	100%	Achieved		Spending Plans
	Effectively manage budget	% budget variance	Monitor actual expenditure against budget (spending plans)	5%	Achieved		Monthly Budget Reports
	Manage costs effectively	Reduction in confirmed fruitless, wasteful and unauthorised expenditure	Attend workshops arranged and conducted by CFO's Office	100%	Achieved		
			Respond to identified incidents within time frames determined by CFO's office				
	Improve revenue collection	% of funds due to MHSI collected	Verification of operating mines for levy purposes 100%	100%	In progress		Reports on meetings between the MHSC and SSU
	Promote Corporate Governance	Compliance to PFMA and Treasury Regulations	Implement compliance framework	100%	Monitored monthly		MHS Portal Reporting system

2.2. Service Delivery Improvement Plan

Key service	Service beneficiary	Current standard (2009/10)		Desired standard (2009/10)		Progress as at 31 March 2010
Address health and safety risks in mining through: • Number of Audits conducted • Number of Inspections conducted • Number of Investigations conducted • Number of Inquiries completed	Mining Operations	Quantity	100% of planned **audits** as per capacity 100 % of planned **inspection** as per capacity 80% of planned investigations as per capacity 80 % of planned **inquiries** as per capacity	Quantity	100% of planned **audits** as per capacity 100% of planned **inspections** as per capacity 100% of planned **investigations** as per capacity 100% of planned **inquiries** as per capacity	91% of planned **audits** as per capacity 83% of planned **inspections** as per capacity 90% of planned **investigations** as per capacity 105% of planned **inquiries** as per capacity
		Quality	Implementation and compliance to standardised Policies and Procedures	Quality	Implementation and compliance to standardised Policies and Procedures	Achieved
		Consultation	Quarterly consultation with mining operations	Consultation	Monthly consultation with mining operations	Achieved
		Open and transparency	Policies and Procedures is public documents	Open and transparency	Policies and Procedures is public documents	Achieved
		Information	Information is shared on a monthly basis with mines	Information	Information is shared on a monthly basis with mines and an electronic management system would improve the availability of information	In progress
		Value for Money	Ensure the optimum utilisation of voted funds	Value for Money	Ensure the optimum utilisation of voted funds	In progress



SECTION 3

STATE OF SAFETY AND HEALTH AT MINES

3 state of safety and health at mines

3.1 Occupational Safety

In terms of the requirements of the MHSA regulations, employers must report certain accidents and dangerous occurrences that occur at a mine to the regional Principal Inspector of Mines. The data is then captured onto the South African Mines Reportable Accidents Statistical System (SAMRASS) from which the information is analyzed.

Although there were three less fatalities (168) reported during 2009 than in 2008 (171), the provisional fatality rate per million hours worked actually increased by 6.67% due to a reduction in the number of workers employed. This reduction also resulted in an increase of 3.29% in the injury rate per million hours worked, although the number of reportable injuries actually dropped by 78 year-on-year.

3.1.1 Labour Statistics

The Mineral Economics Directorate of the DMR is responsible for the collecting and publishing of the labour figures for the South African Mining industry.

TABLE 3.1.1.1: Labour compliments comparison 2008/2009 per commodity

	2008					2009					
	U/G	Surface	O/cast	At sea	Total	U/G	Surface	O/cast	At sea	Total	% change
Gold	131390	24187	244	0	155821	123444	25074	314	0	148832	-4.49
Platinum	139864	41909	5146	0	186919	124773	39832	4283	0	168888	-9.65
Coal	19387	30667	12201	0	62255	19312	34621	14073	0	68006	9.24
Diamonds	3439	9044	5560	817	18860	2482	6342	3247	525	12596	-33.21
Copper	1180	2557	68	0	3805	760	2525	45	0	3330	-12.48
Chrome	8275	3314	613	0	12202	6918	3338	495	0	10751	-11.89
Iron ore	0	8632	4760	0	13392	0	7673	6157	0	13830	3.27
Manganese	1459	2155	194	0	3808	1717	2636	500	0	4853	27.44
Other	5147	41737	7867	197	54948	3492	41095	7492	47	52126	-5.14
TOTAL	310141	164202	36653	1014	512010	282898	163136	36606	572	483212	-5.62

Source: Mineral Economics

During the reporting period, the total number of persons at work in South African mines was reported as 483 212, which reflects a 6% decrease from the 512 010 reported in 2008. The only three commodities that showed an increase in labour figures are coal 9.24%, iron ore 3.27% and manganese 27.44%. The largest decrease in persons at work (33%) was reported in the diamond sector.

The drop in labour can be attributed to the collapse in world markets and the credit crunch that hit the industry from the middle of 2008.

The regions that indicated an increase in labour, were Limpopo (19.06%) and KwaZulu-Natal (4.13%). The increase in Limpopo and the drop in labour in Mpumalanga, can mainly be attributed

to the administrative transfer of 12 mines from the Mpumalanga to Limpopo region. All other regions indicated a drop in labour figures of between 1.92% and 12.34% with an average drop of 6% for the mining sector as a whole.

TABLE 3.1.1.2: Labour compliments comparison 2008/2009 per place of work

Labour at work	2008	2009	% change
All mines	512 010	483 212	-5.62
Western Cape	7 488	7 344	-1.92
Northern Cape	29 848	27 144	-9.06
Free State	44 784	40 920	-8.63
Eastern Cape	2 059	1 8 05	-12.34
Kwazulu Natal	10 825	11 272	4.13
Mpumalanga	77 705	71 470	-8.02
Limpopo	38 897	46 310	19.06
Gauteng	103 599	98 206	-5.21
North West	196 805	178 741	-9.18

Source: Mineral Economics

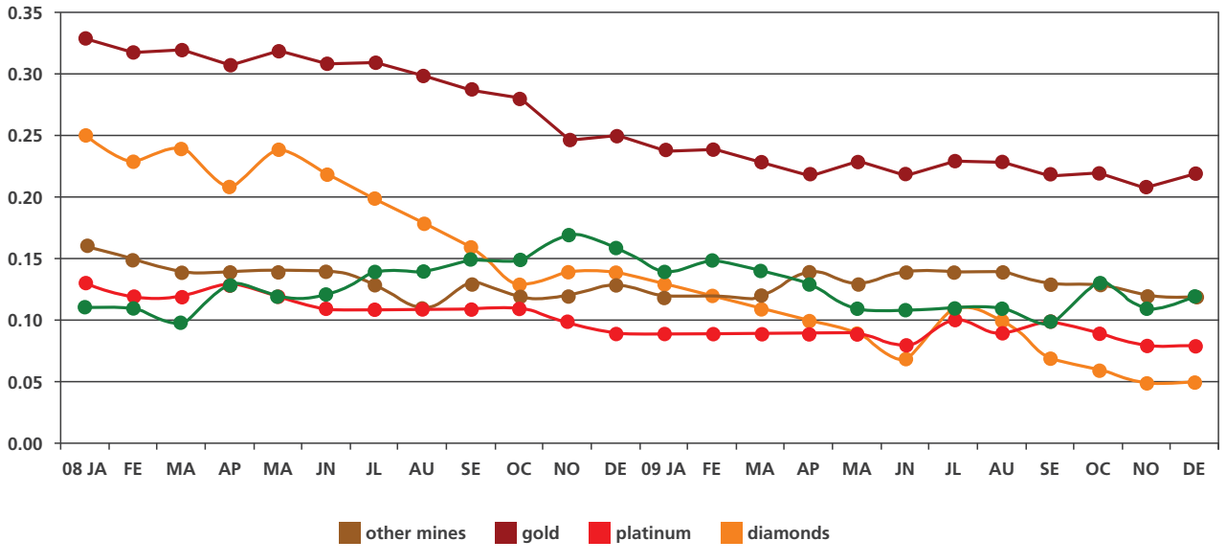
3.1.2 Overview of accident trends and comments

At the Mine Health and Safety Summit of 2003 it was decided that it was imperative that the South African industry's safety statistics become comparable with international trends. An agreement was reached in 2005 between the employers, labour and the DMR to implement new fatality milestones based on the actual fatality rates of Australia, the USA and Canada. This requires South Africa's safety statistics to decline by approximately 20% year. Although actual fatalities have reduced steadily over the past few years, fatality rates remain high and major intervention from employers, labour and the state is required to be able to reach these milestones.

To ensure sustainable improvement, continuous research on historic data remains of prime importance, as this will help in developing accident prevention mechanisms.

The risk taking behaviour, however, still remains the greatest contributor to accidents / injuries and is to be researched in the 2010 and 2011. A total culture change on safety and health is necessary where employees also accept responsibility towards zero harm.

GRAPH 3.1.2.1: Accident trends per commodity during the past two years



In accordance with the main commodities, the gold mining industry has registering a drop of 4% in fatalities (85 to 80 actual fatalities). However, platinum mines still present a problem, registering an increase of 22% in fatalities from 2008 to 2009. The actual fatalities in coal mines dropped from 20 to 18, with a resultant drop of 20% Diamond mines did well and registered a drop (27%) in fatalities and reduced fatalities from six in 2008 to three in 2009. The category other mines remains a matter of concern as these are the smaller enterprises that have registered an increase of 7% in fatality rates.

TABLE 3.1.2.1: Actual reportable fatalities and rates (million hours worked) per region

	2008		2009*		Rates
	Fatalities	Fatality rate	Fatalities	Fatality rate	% change 2008/2009
All mines	171	0.15	167	0.16	6.67
Western Cape	2	0.12	3	0.19	58.33
Northern Cape	6	0.09	4	0.07	-22.22
Free State	18	0.18	21	0.23	27.78
Eastern Cape	0	0	0	0	0.00
KwaZulu-Natal	2	0.08	9	0.36	350.00
Mpumalanga	27	0.16	25	0.16	0.00
Limpopo	8	0.09	5	0.05	-44.44
Gauteng	58	0.25	44	0.2	-20.00
North West	50	0.12	56	0.14	16.67

** Provisional*

** Provisional figures; statistics may change due to the late reporting of accidents and subsequent deaths*

TABLE 3.1.2.2: Actual reportable injuries and rates (million hours worked) per commodity

	2008		2009*		Rates
	Fatalities	Fatality rate	Fatalities	Fatality rate	% change 2008/2009
All mines	171	0.15	167	0.16	6.67
Gold	85	0.25	80	0.24	-4.00
Platinum	36	0.09	41	0.11	22.22
Coal	20	0.15	18	0.12	-20.00
Diamonds	6	0.15	3	0.11	-26.67
Copper	1	0.12	1	0.14	16.67

	2008		2009*		Rates
	Fatalities	Fatality rate	Fatalities	Fatality rate	% change 2008/2009
Chrome	4	0.15	3	0.13	-13.33
Iron ore	2	0.07	3	0.10	42.86
Manganese	0	0.00	1	0.94	94.00
Other	17	0.14	17	0.15	7.14

** Provisional*

** Provisional figures; statistics may change due to the late reporting of accidents and subsequent deaths*

TABLE 3.1.2.3: Actual reportable injuries and rates (million hours worked) per region

	2008		2009*		Rates
	Injuries	Injury rates	Injuries	Injury rates	% change
All mines	3750	3.34	3672	3.45	3.29
Western Cape	22	1.34	15	0.93	-30.60
Northern Cape	56	0.85	56	0.94	10.59
Free State	472	4.80	400	4.44	-7.50
Eastern Cape	12	2.65	8	2.01	-24.15
KwaZulu-Natal	31	1.30	54	2.18	67.69
Mpumalanga	472	2.76	419	2.66	-3.62
Limpopo	188	2.20	202	1.98	-10.00
Gauteng	862	3.78	761	3.52	-6.88
North West	1635	3.78	1757	4.47	18.25

** Provisional figures; statistics may change due to the late reporting of accidents and subsequent deaths*

TABLE 3.1.2.4: Actual reportable injuries and rates (million hours worked) per commodity

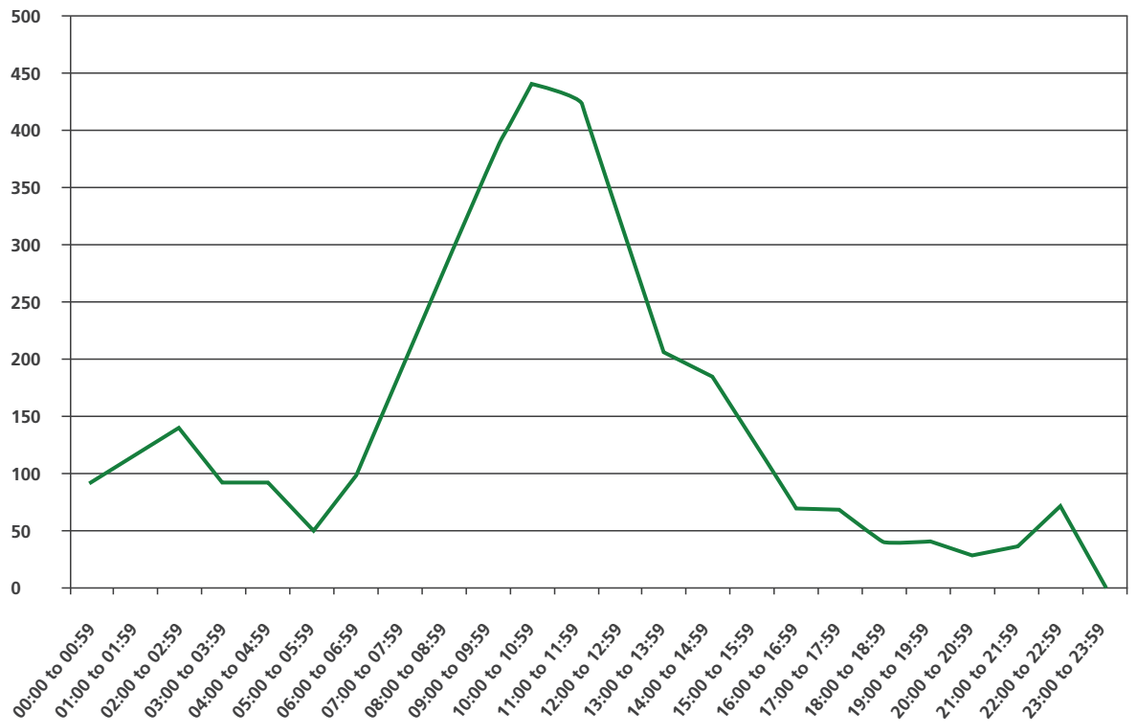
	2008		2009*		Rates
	Injuries	Injury rates	Injuries	Injury rates	% change
All mines	3750	3.34	3672	3.45	3.29
Gold	1938	5.65	1756	5.36	-5.13
Platinum	1221	2.95	1320	3.55	20.34
Coal	332	2.42	295	1.97	-18.60
Diamonds	35	0.84	46	1.66	97.62
Copper	22	2.51	19	2.59	3.19
Chrome	58	2.12	61	2.58	21.70
Iron ore	12	0.44	15	0.49	11.36
Manganese	16	1.91	11	1.03	-46.07
Other	116	1.23	149	1.30	5.69
** Provisional figures; statistics may change due to the late reporting of accidents and subsequent deaths*					

Whilst reportable injury rates in gold (5.13%), coal (18.6%) and in manganese mines (46.07%), rates dropped substantially, most other commodities registered increases in rates, however, under reporting of accidents still remains a problem and one would expect an industry such as diamond mining with its three fatalities, to report more than 46 injuries. The same trend is present in other small mining sectors grouped under the section of other mines, with only 149 reportable injuries compared with its 17 fatalities.

GRAPH 3.1.2.2: Actual fatalities and injuries by time of occurrence 2009

Most fatalities as expected happen during the peak production time when supervision should be at its best. During the period of midnight to 4h00 there seems to be the times when fatal accidents occur due to fatigue.

GRAPH 3.1.2.3: Actual injuries by time of day 2009



As with fatalities, the injuries show that by the time of day the most vulnerable time for an injury is in the morning when the supervision should be at its best with the supervisors monitoring their staff's behaviour.

3.1.3 Accident trend analysis by casualty classification – all mines.

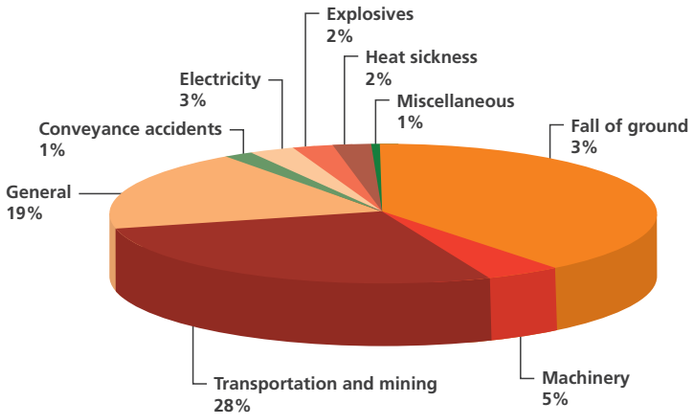
TABLE 3.1.3.1: Fatality and injury rates per casualty classification (rates per million hours worked)

	Classification	2008	2009	2008 rates	2009 rates	% change
1. Fatalities	All mines	171	167	0.15	0.16	6.67
	Fall of ground	56	64	0.05	0.06	20.00
	Machinery	4	8	0.00	0.01	100.00
	Transportation and mining	41	47	0.04	0.04	0.00
	General	45	32	0.04	0.03	-25.00
	Conveyance accidents	13	2	0.01	0.00	-100.00
	Electricity	5	5	0.00	0.00	0.00
	Fires	2	0	0.00	0.00	0.00
	Explosives	2	4	0.00	0.00	0.00
	Subsidence/caving	0	0	0.00	0.00	0.00
	Heat sickness	1	4	0.00	0.00	0.00
	Diving sickness	0	0	0.00	0.00	0.00
	Miscellaneous	2	1	0.00	0.00	0.00
2. Injuries	All mines	3750	3672	3.34	3.45	3.29
	Fall of ground	779	833	0.69	0.78	13.04
	Machinery	192	301	0.17	0.28	64.71
	Transportation and mining	729	694	0.65	0.65	0.00
	General	1868	1617	1.66	1.52	-8.43
	Conveyance accidents	24	19	0.02	0.02	0.00
	Electricity	31	20	0.03	0.02	-33.33
	Fires	3	5	0.00	0.00	0.00
	Explosives	39	37	0.03	0.03	0.00
	Subsidence/caving	2	0	0.00	0.00	0.00
	Occupational diseases	1	1	0.00	0.00	0.00
	Heat sickness	27	74	0.02	0.07	250.00
	Diving sickness	0	1	0.00	0.00	0.00
	Miscellaneous	55	70	0.05	0.07	40.00

* Provisional figures; statistics may change due to the late reporting of accidents and subsequent deaths

For fall of ground fatalities (20% increase) and injury rates (13% increase) have once again shown that this remains a major area of concern and by addressing these issues there would be a remarkable improvement. The fall of ground accidents are the single largest cause of fatalities and injuries. The transportation and mining accidents have shown an increase in fatalities (41 to 47) and a decrease in injuries (762 to 694

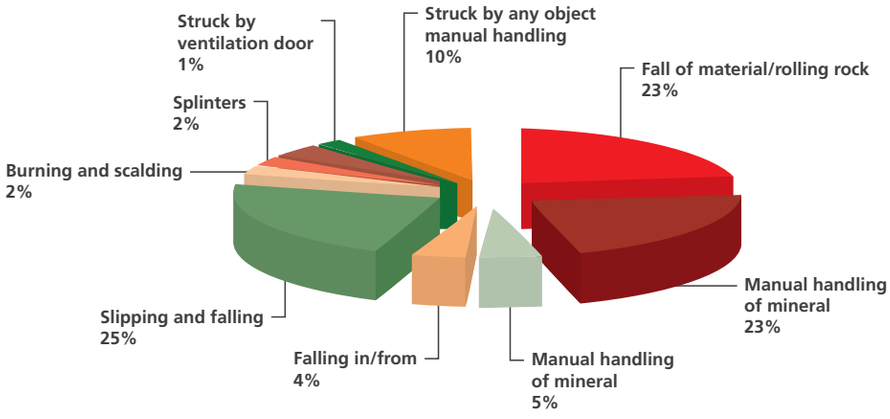
GRAPH 3.1.3.1: Fatalities per classification



As can be seen the three largest causes of fatalities in the mining industry is Falls of Ground (39%), Transportation in mining (28%) and General (19%).

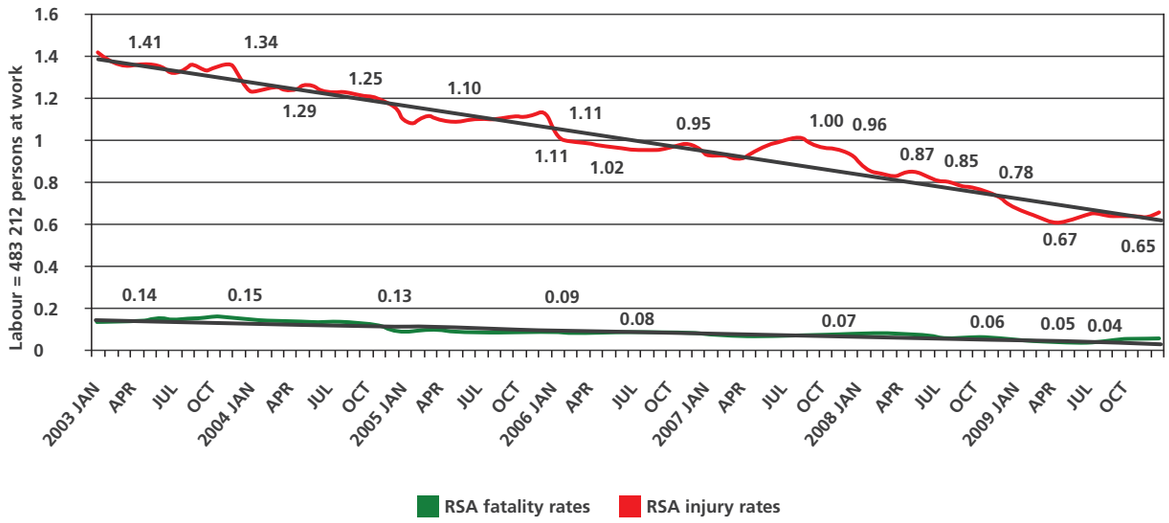
The injuries largest classification is General (44%), falls of ground (23%) and Transportation (19%). The general classification is broken down into the following breakdown:

GRAPH 3.1.3.2: General accidents



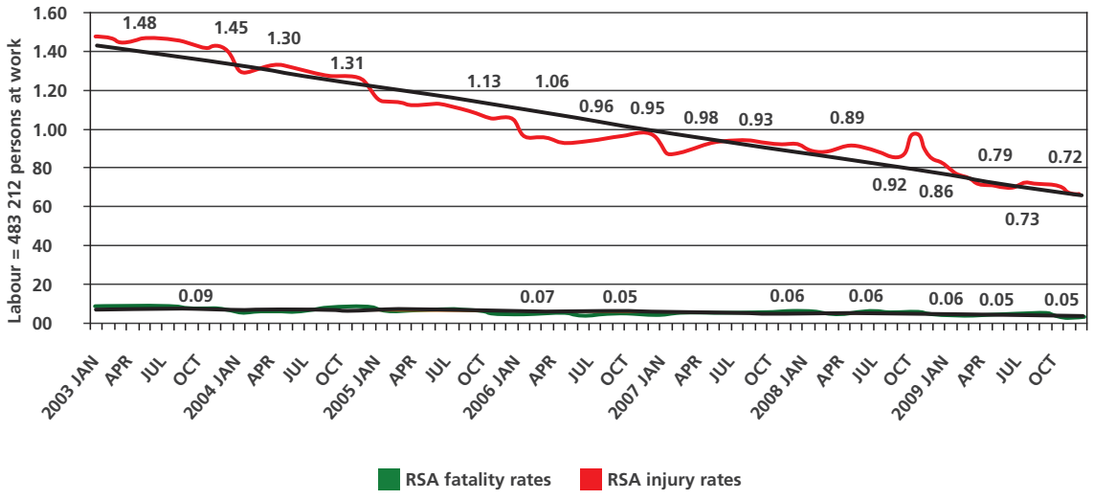
The general accidents consist of the following areas Slip and fall (25%), fall of material/rolling rock (23%), manual handling of materials (23%), struck by any object manual handling (10%),manual handling of material (5%), falling in/from (4%), Burning and scalding (2%), splinters (2%) and struck by ventilation door (1%). As can be seen from these descriptions they are dependent on the ability of the injured to identify the hazard or risk and take remedial action before the result is an injury.

GRAPH 3.1.3.3: Falls of ground



As previously indicated the fall of ground fatality rates and injury rates have both increased by 20% and 13.04% Fatalities caused by fall of ground remain the biggest killer and it is disappointing that this has not decreased when considering the implementation of several safety interventions such as the best practice initiative (MOSH) that was introduced to address the early morning inspections that should be taking place.

GRAPH 3.1.3.4: Machinery and transportation and mining accidents

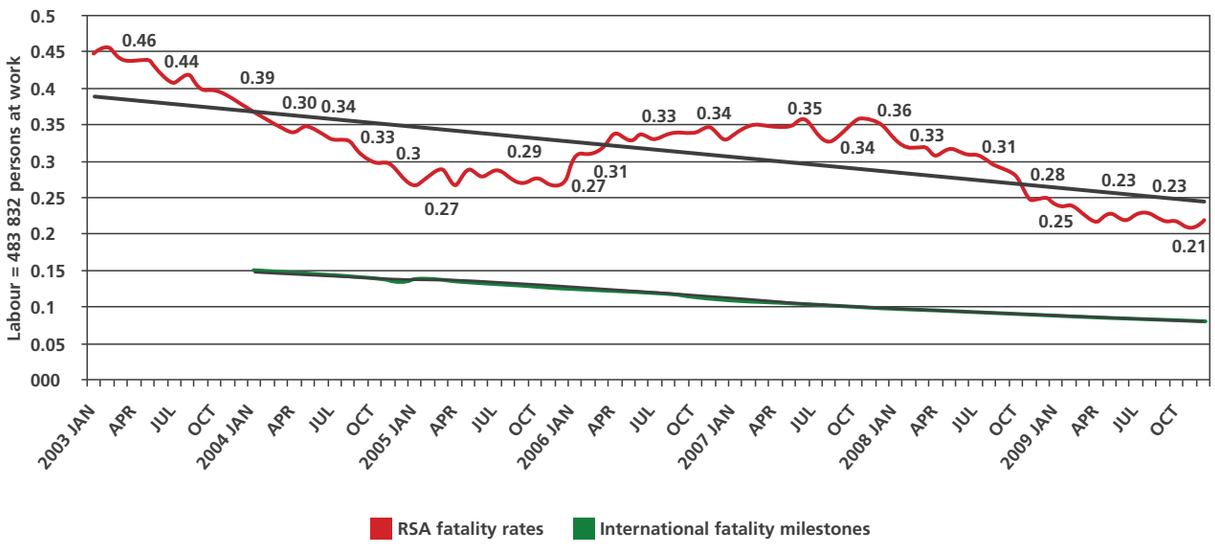


The machinery accidents have shown a decrease of 100% in fatalities and an increase of 64.77% in injuries (192 to 301 actual reported injuries). An effort is necessary to address the issues in order to identify and eliminate the hazards, risks and unsafe behaviour that seem to be the cause of these accidents.

General accidents are responsible for 44% of all injuries. Manual handling of material (23%) and fall of material and rolling rock (23%), as well as slipping and falling (25%) and these areas should therefore be focus points in all safety Inspections.

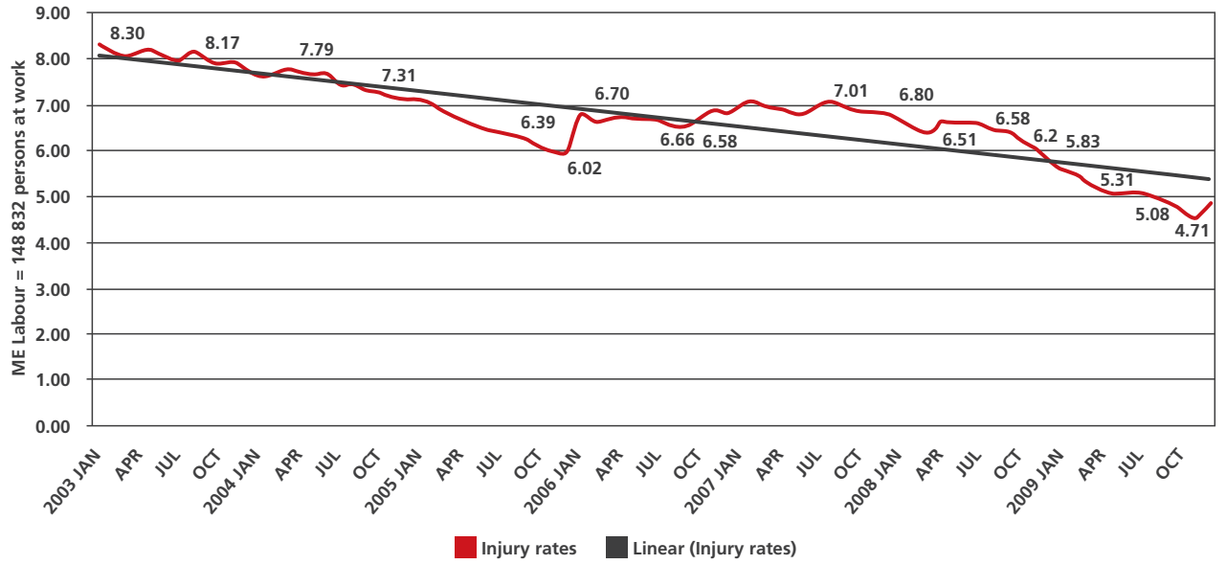
3.1.4 Performance against the milestones

GRAPH 3.1.4.1: Gold sector fatality rates vs. milestones



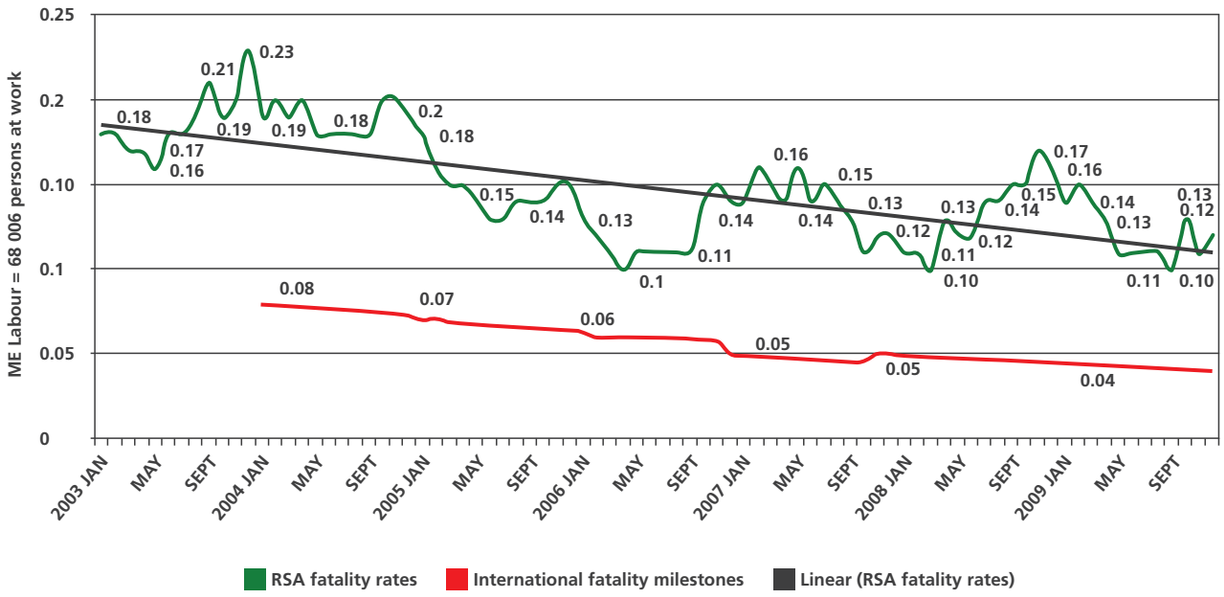
In January 2009 various interventions were made in the gold mine industry, resulting in a reduction of the fatality rate to the lowest ever of 0.24 per million hours worked.

GRAPH 3.1.4.2: Gold sector injury rates (per million hours worked)



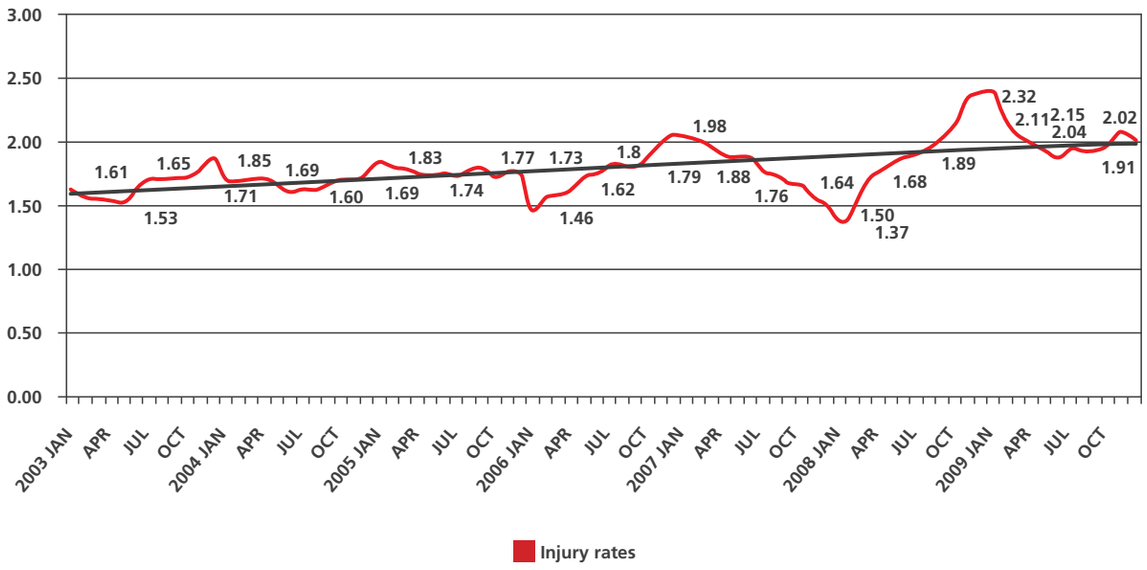
The injury rate has dropped from 5.72 by 6% to 5.36.

GRAPH 3.1.4.3: Coal sector accident and fatality rates vs. milestones



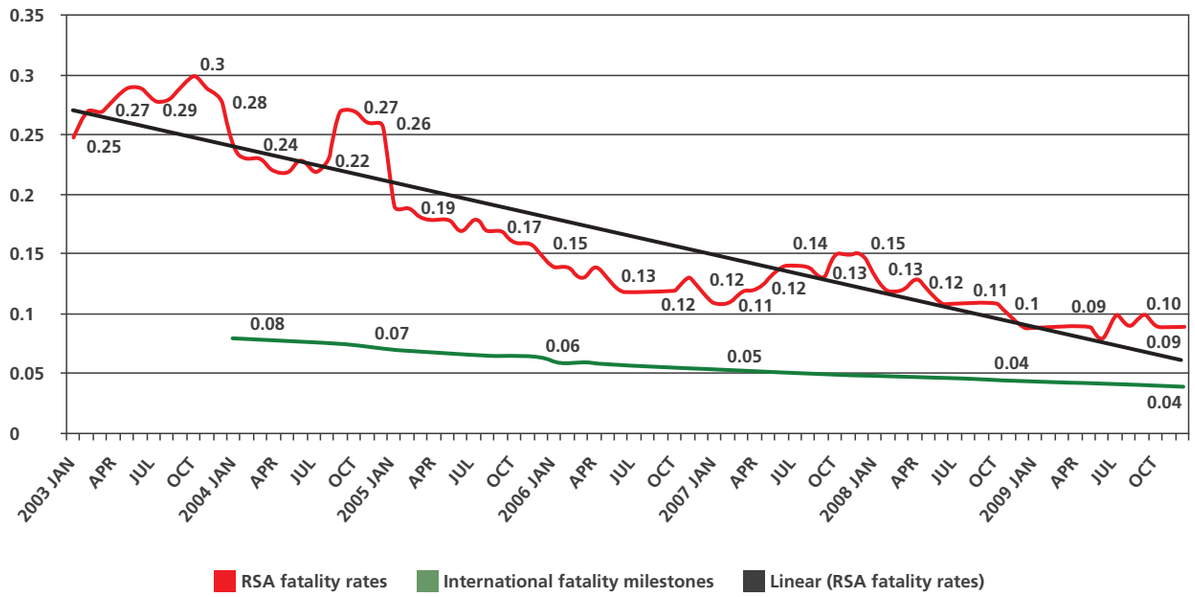
Although coal mining fatality rates fluctuated somewhat during the year, rates still dropped by 20% year.

GRAPH 3.1.4.4: Coal sector injury rates (per million hours worked)



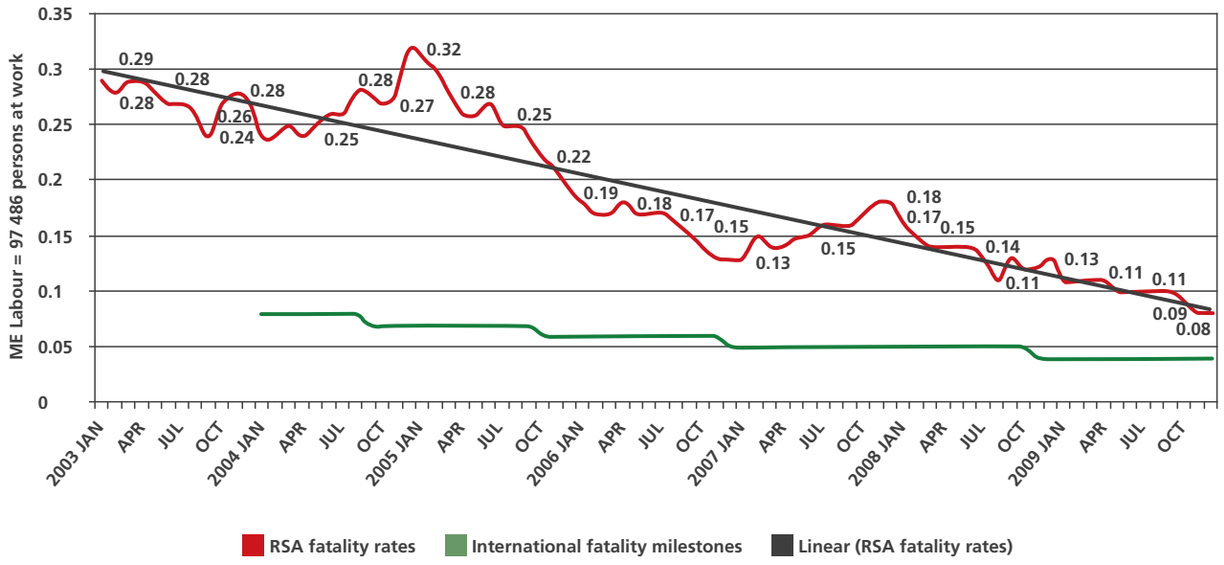
Although the injury rates in coal mines have dropped 19% for 2009, its trend in October to December 2009 is in the wrong direction. The actual rate from January 2003 (1.64) and December 2009 (2.02) is not an improvement. The coal mines need to address the causes of injuries and by reducing the injuries they should be able to reach the milestones by 2013.

GRAPH 3.1.4.5: Platinum sector fatality rates (per million hours worked)



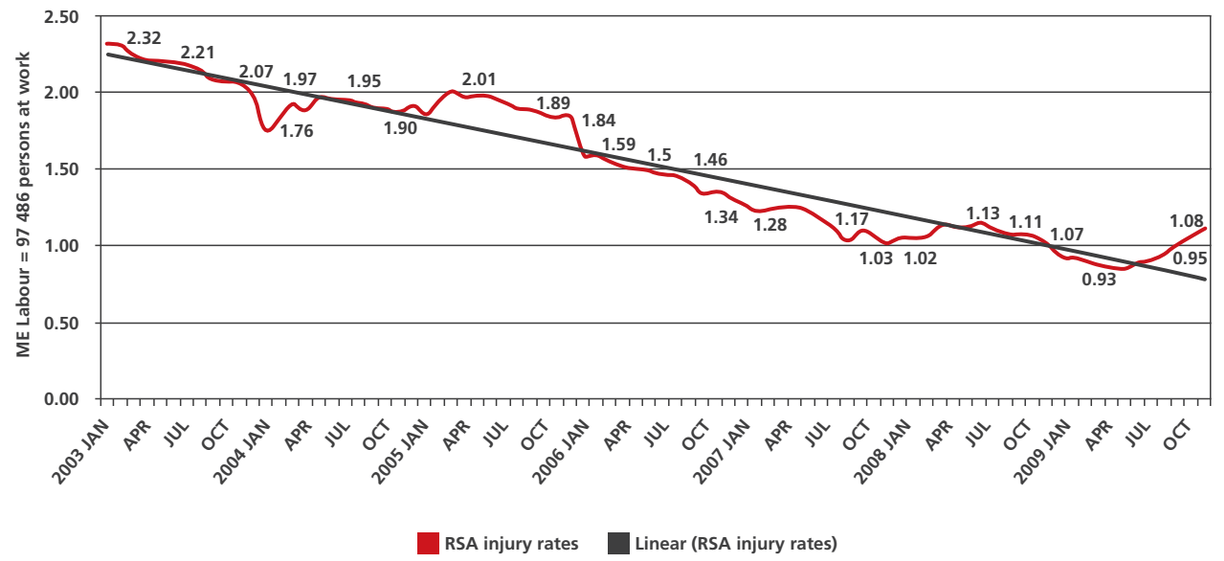
The fatality rate for platinum mines has steadily been decreasing since the middle of last year but has not yet approached the desired target set by the milestones.

GRAPH 3.1.4.6: Other mines' sector fatality rates (per million hours worked)



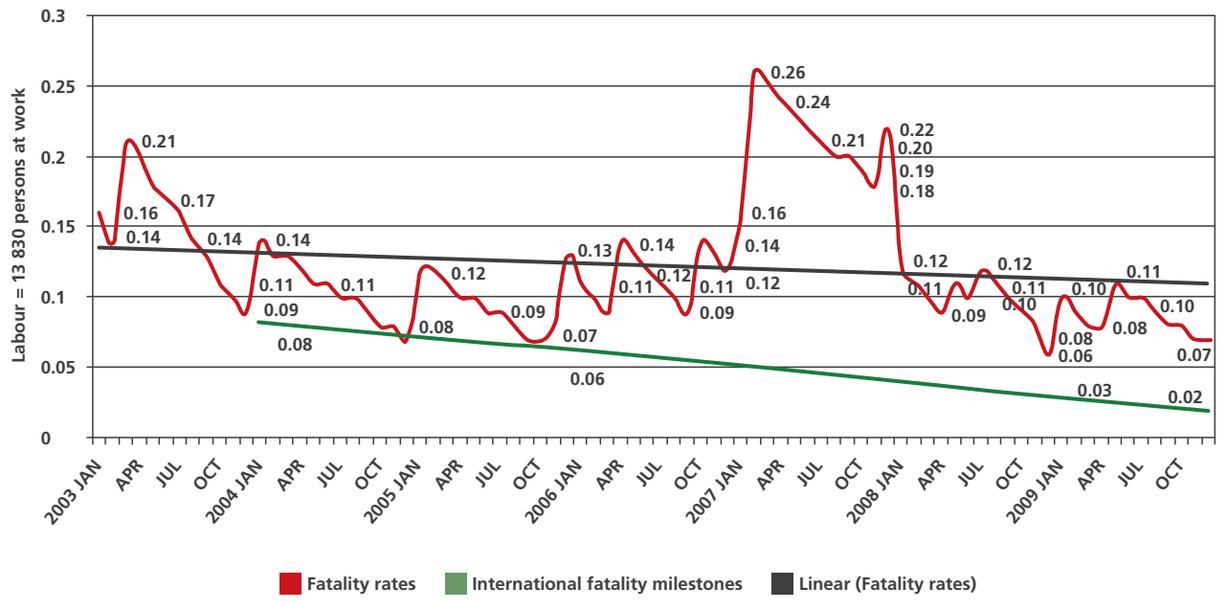
The broader definition of Other mines are those mines that excludes only gold, platinum and coal have indicated a drop but are still far from the desired 0,04 set by the international fatality milestones.

GRAPH 3.1.4.7: Other mines' sector injury rates (per million hours worked)



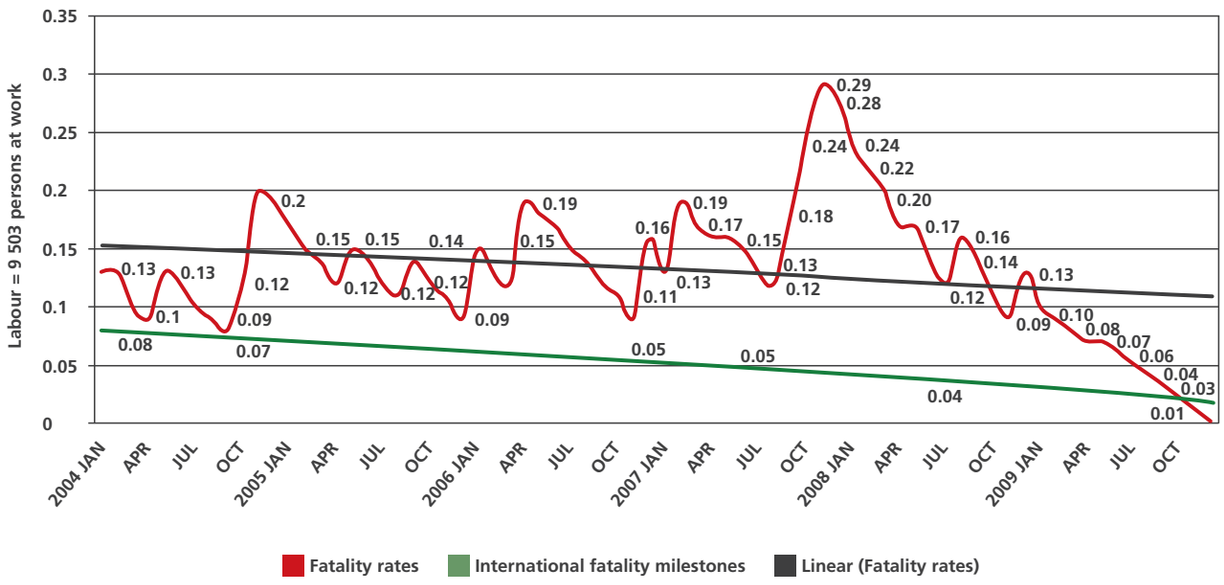
Once again a worrying increase in rates during the second semester of 2009.

GRAPH 3.1.4.8: Iron ore sector fatality rates (per million hours worked)

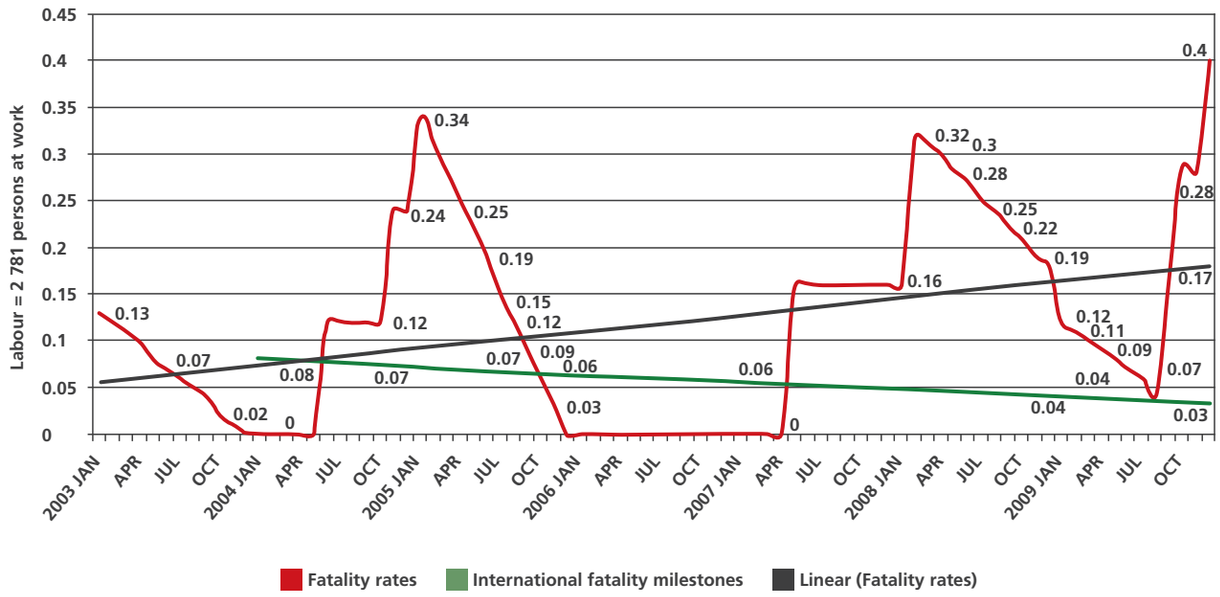


The iron ore mines have fluctuated over the past years and this seems to indicate a lack of commitment to achieve the desired Milestones. This industry will have to address the causes and take remedial action to achieve the desired outcome. Without the commitment of all the stakeholders such as state, employers and the employees these targets will never be achieved.

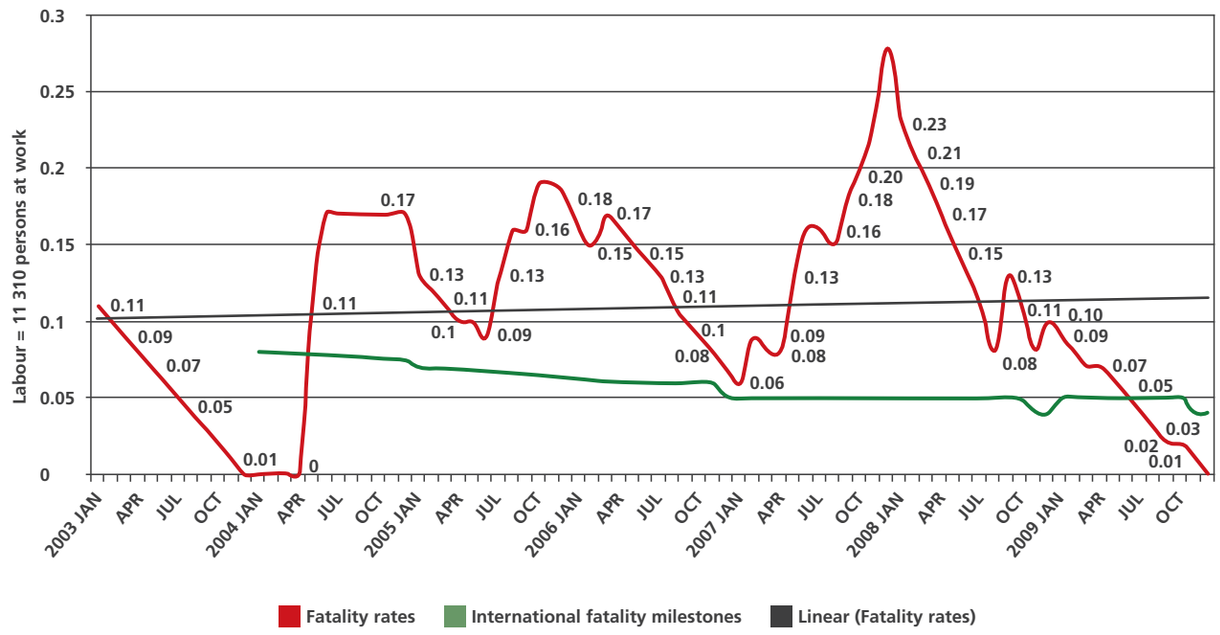
GRAPH 3.1.4.9: Sand and aggregate mines' fatality rates (per million hours worked)



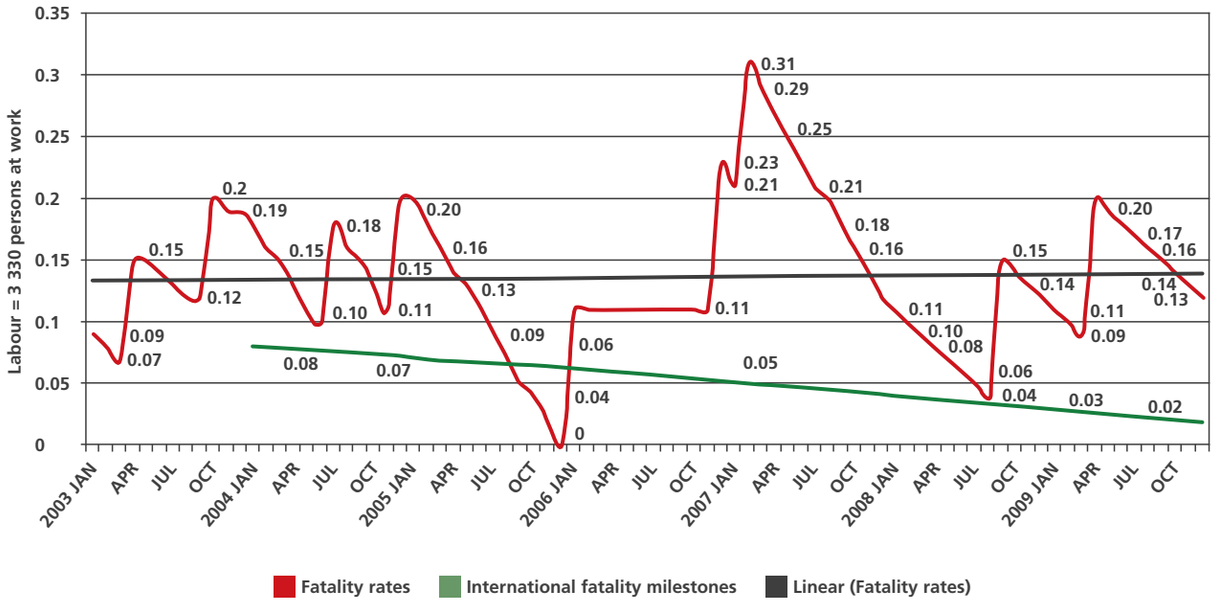
GRAPH 3.1.4.10: Granite DS mines' fatality rates (per million hours worked)



GRAPH 3.1.4.12: Clay mines' fatality rates (per million hours worked)



GRAPH 3.1.4.12: Copper mines' fatality rates (per million hours worked)



As can be seen from the above statistics the smaller commodities do not seem to have addressed the goals that were set by the milestones and these smaller industries must address the causes of accidents with the aim of reducing the accidents and injuries.

3.1.5 Conclusion

Throughout the 2009 year the industry has shown improvement in the areas of reducing the fatalities and injuries but this alone will not be able to assist the industry as a whole to achieve the milestones. There needs to be a total commitment of all stakeholders to address the various hazards and risks which are the causes of the fatalities and injuries in 2009 so that ultimately the rates can be reduced to acceptable levels. It has been stated at various forums that the aim in the South African Mining Industry is to mine safely and if that cannot be done to move over and give someone else that opportunity to improve on the existing rates.

3.2 Occupational Health

3.2.1 Occupational Hygiene

One of the integral provisions of the Mine Health and Safety Act, Act 29 of 1996 is to protect the workers in the mining industry from the adverse health effects of being exposed to occupational health hazards such as dusts, fibres, chemicals, noise, thermal stresses and radiation.

Regulation 9.2(2) of the Mine Health and Safety Act, read with Section 12 of the MHSA, requires the employer to establish, maintain, and record occupational Hygiene Measurements.

The information below is collected to help assess the magnitude of the hygiene problems, so that corrective action can be planned and prioritised. This also sheds light on whether current interventions are bearing fruit. The information is further utilised as lead indicators for the industry silicosis and noise milestones.

3.2.1.1 Occupational hygiene measurements: Airborne pollutants exposures

Table 3.2.1.1(a): Exposure to airborne pollutants per exposure classification band per commodity

Commodity	Number of Persons Exposed to Airborne Pollutants per Exposure Classification Band				% Persons Exposed to Airborne Pollutants per Exposure Classification Band		
	A	B	C	Total	A	B	C
Gold	169	9345	23853	33367	0.81	28.0	71.5
Platinum	1330	3296	37909	42535	3.13	7.75	89.1
Coal	1382	8925	28688	38995	3.54	22.89	73.57
Diamonds	139	188	236	563	24.69	33.39	41.92
Copper	2851	311	705	3867	73.73	8.04	18.23
Chrome	0	0	306	306	0	0	100
Iron Ore	463	530	3310	4303	10.76	12.32	76.92
Manganese	12	18	49	79	15.19	22.78	62.03
Other Mines	1463	3029	17980	22866	6.39	13.25	80.35
Total	7809	25642	113430	146881	5.32	17.46	77.23

Exposure Classification Bands:

A = Exposures ≥ the OEL or mixture of exposures ≥1

B = Exposures ≥50% of the OEL and <OEL or mixtures of exposures ≥ 0.5 and < 1

C = Exposures ≥ 10% of the OEL and < 50% of the OEL or mixtures of exposures ≥ 0.1 and < 0.5

Please Note:

- The exposure classifications are based on the air quality index (AQI) due to exposure to multiple pollutants in the mining environment.
- The AQI index of multiple pollutants is determined by dividing the dust concentration of each pollutant in the mixture by its Occupational Exposure Limit (OEL) and adding the results together. The sum should not be greater than Unity.
- The number of persons depicted on the table above is derived from the number of samples collected and does not reflect the actual number of people employed in the mining industry.

TABLE 3.2.1.1(b): Exposure to airborne pollutants per exposure classification band per region

Regions	Number of Persons Exposed to Airborne Pollutants per Exposure Classification Band				% Persons Exposed to Airborne Pollutants per Exposure Classification Band		
	A	B	C	Total	A	B	C
Gauteng	525	3230	13653	17408	3.01	18.55	78.43
North West	1388	2881	41 237	45506	33.82	14.48	51.71
Free State	371	6866	14580	21817	1.7	31.47	66.83
Limpopo	476	2608	2932	6016	7.91	43.35	48.74
Kwazulu Natal	136	768	5485	6389	2.13	12.02	85.85
Mpumalanga	3071	9274	32430	44775	6.86	20.71	74.42
Western Cape	9	0	629	638	1.41	0	98.59
Northern Cape	1939	830	2965	5734	33.82	14.48	51.71
Eastern Cape	0	17	483	500	0	3.40	96.6
Total	7915	26474	114 394	148783	5.32	17.79	76.89

Exposure Classification Bands:

A = Exposures ≥ the OEL or mixture of exposures ≥1

B = Exposures ≥50% of the OEL and <OEL or mixtures of exposures ≥ 0.5 and < 1

C = Exposures ≥ 10% of the OEL and < 50% of the OEL or mixtures of exposures ≥ 0.1 and < 0.5

Table 3.2.1.1 (a) shows that the total number of employees exposed to airborne pollutants per commodity as per A and B classification bands was 7809 (5.32%) and 25642 (17.46%) respectively in 2009 as compared to 6600 (6.84%) and 17563 (18.21%) in 2008. There was an increase of 50423 more samples taken during 2009 as compared to 2008. There were high exposures levels recorded in Gold, Platinum, Coal, Copper mines and other small mines. The mines must implement strategies for the suppression of dust exposures.

Tables 3.2.1.1 (b) shows that the total number of people exposed to airborne pollutants per region as per A and B classification bands was 7915 (5.32%) and 26474 (17.79%) respectively in 2009 as compared to 6600(6.84%) and 17563(18.21%) in 2008. Similarly, this is attributed to the fact that more samples were taken in 2009 as compared to 2008.

TABLE 3.2.1.1(c): Achievements against the milestones for respirable crystalline silica

Region	No <0.10 mg/m³	Total	Percentage
Gauteng	102	114	89.47
North West	103	112	91.96
Free State	98	113	86.73
Limpopo	14	18	77.78
Kwazulu Natal	97	101	96.04
Mpumalanga	355	404	87.87
Western Cape	5	5	100
Northern Cape	59	63	93.65
Eastern Cape	6	6	100
Total	839	936	89.64

GRAPH 3.2.1.1(d): Achievements against the milestone for respirable crystalline silica

The milestone set by the Mine Health and Safety Council regarding the elimination of silicosis is that by:

1. December 2008, 95% of all exposure measurement results will be below the occupational exposure limit for respirable crystalline silica of 0.10 mg/m3.
2. December 2013, with present diagnostic techniques, there will be no new cases of silicosis.

All the regions are striving towards the achievement of milestones as set by the Mine Health and Safety Council regarding the elimination of silicosis. Some of the regions have missed the December 2008 milestone. The results are currently fluctuating

between 90% and 100% achievement. Only KwaZulu-Natal, Western Cape and Eastern Cape have achieved the 95% target. All the mines must ensure that they achieve the milestones by December 2013.

3.2.1.2 Occupational hygiene measurements: noise exposures

TABLE: 3.2.1.2(a): Exposures to noise per classification band per commodity

Noise	Number of people Exposed to Nose per Exposure Classification Band				% People Exposed to Noise per Exposure Classification Band		
Commodity	A	B	C	Total	A	B	C
Gold	338	6722	5398	12458	2.71	53.96	43.33
Platinum	7757	36195	9941	53893	14.39	67.16	18.45
Coal	226	9751	8875	18852	1.2	51.72	47.08
Diamonds	0	46	262	308	0	14.94	85.06
Copper	1338	1151	0	2489	53.76	46.24	0
Chrome	0	408	6	414	0	98.55	1.45
Iron Ore	0	687	763	1450	0	47.38	52.62
Other Mines	999	4802	1409	7210	13.86	66.60	19.54
Total	10658	59762	26654	97074	10.98	61.56	27.45

Exposure classification band:

A = Exposures ≥ 105 dbLAeq, 8h

B = Exposures ≥85 ≤ 105db LAeq, 8h

C = Exposures ≥ 82 dbLAeq, 8h and <85 LAeq, 8h

Please Note

- The Occupational Exposure Limit for Noise is 85 dB (A) based on an 8 hour exposure shift.
- No special precautions are required except monitoring is required for the C classification Band.
- The Implementation of Hearing conservation programme is required for A and B classification Band.
- Persons in A and B classification Bands are over-exposed.

TABLE: 3.2.1.2(b): Exposures to noise per classification band per region

Noise	Number of people Exposed to Noise per Exposure Classification Band				% People Exposed to Noise per Exposure Classification Band		
Regions	A	B	C	Total	A	B	C
Gauteng	0	4710	484	5194	0	90.68	9.32
North West	7757	34703	10465	52925	14.66	65.57	19.77
Free State	839	3004	4364	8207	10.22	36.6	53.18
Limpopo	118	3536	957	4611	2.56	76.69	20.75
Mpumalanga	1944	10170	8225	20339	9.56	50	40.44
Kwazulu Natal	0	2039	1696	3735	0	54.59	45.41
Western Cape	0	325	208	533	0	60.98	39.02
Northern Cape	0	1598	186	1784	0	89.57	10.43
Eastern Cape	0	0	0	0	0	0	0
Total	10658	60085	26585	97328	10.95	61.73	26.71

Exposure classification band:

A = Exposures ≥ 105 dbLAeq, 8h

B = Exposures ≥85 ≤ 105db LAeq, 8h

C = Exposures ≥ 82 dbLAeq, 8h and <85 LAeq, 8h

Please note:

- The Occupational Exposure Limit for Noise is 85 dB (A) based on an 8 hour exposure shift.
- No special precautions are required except monitoring is required for the C classification Band.
- The Implementation of Hearing conservation programme is required for A and B classification Band.
- Persons in A and B classification Bands are over-exposed.

Tables 3.2.1.2(a) and (b) indicate that there was an increase of 3678 and 13440 employees exposed to noise levels in classification band A and B respectively during the year 2009 as compared to 2008. The number of people sampled increased by 18 140 people between 2009 and 2008. A total of 17118 (17.5%) was overexposed in the year under review.

All the mines where employees are exposed to noise levels classified in A and B must implement hearing conservation and also issue employees with the hearing protection devices to protection. All the mines must eliminate noise induced hearing loss and comply with the milestones set by the Mine Health and Safety Council.

The MILESTONES towards meeting the target on the elimination of Noise Induced Hearing Loss are that:

- After December 2008, there must not be any deterioration in hearing of greater than 10% amongst occupationally exposed individuals.
- By December 2013, the total noise emitted by all equipment installed in any workplace ≤ 110dB(A) at any location in that workplace

3.2.1.2 Occupational hygiene measurements: thermal stress exposure

TABLE: 3.2.1.3(a): Exposure to heat per exposure classification band per commodity

Thermal Stress	Number of people Exposed to Heat Stress per Exposure Classification Band					% People Exposed to Heat Stress per Exposure Classification Band			
Commodity	A	B	C	D	Total	A	B	C	D
Gold	0	5914	5094	4073	15081	0	39.21	33.78	27.01
Platinum	217	196	6022	50817	57252	0.38	0.34	10.52	88.76
Coal	0	0	5846	0	5846	0	0	100	0
Diamonds	0	0	0	0	0	0	0	0	0
Copper	0	0	0	0	0	0	0	0	0
Chrome	0	0	0	0	0	0	0	0	0
Manganese	0	0	55	0	55	0	0	100	0
Other	0	14	333	216	563	0	2.49	59.15	38.37
Total	217	6124	17350	55106	78797	0.28	7.77	22.02	69.93

Heat stress exposure classification band:

A = WB > 32.5 O C or DB > 37 O C or Globe Temperature > 37 O C

B = 29.0 >WB ≤ 32.5 O C and DB ≤ 37 O C Globe Temperature as for DB

C = 27.5 >WB ≤ 29.0 O C and DB ≤ 37 O C Globe Temperature as for DB

TABLE 3.2.1.3 (b): Exposure to heat per exposure classification band per region

Thermal Stress	Number of people Exposed to Heat Stress per Exposure Classification Band					% People Exposed to Heat Stress per Exposure Classification Band			
Regions	A	B	C	D	Total	A	B	C	D
Gauteng	0	803	1847	216	2866	0	28.02	64.45	7.54
North West	217	196	2594	51112	54119	0.4	0.38	4.79	94.44
Free State	0	2921	2874	2021	7816	0	37.37	36.77	25.86
Limpopo	0	0	3221	0	3221	0	0	100	0

Thermal Stress	Number of people Exposed to Heat Stress per Exposure Classification Band					% People Exposed to Heat Stress per Exposure Classification Band			
Regions	A	B	C	D	Total	A	B	C	D
Mpumalanga	0	2204	6487	1757	10448	0	21.09	62.09	16.82
Kwa-Zulu/Natal	0	0	1073	0	1073	0	0	100	0
Western Cape	0	0	0	0	0	0	0	0	0
Northern Cape	0	0	0	0	0	0	0	0	0
Eastern Cape	0	0	0	0	0	0	0	0	0
Total	217	6124	18096	55106	79543	0.27	7.7	22.75	69.28

Heat stress Exposure Classification Band:

A = WB > 32.5 O C or DB > 37 O C or Globe Temperature > 37 O C

B = 29.0 >WB ≤ 32.5 O C and DB ≤ 37 O C Globe Temperature as for DB

C = 27.5 >WB ≤ 29.0 O C and DB ≤ 37 O C Globe Temperature as for DB

D = WB ≤27.5 O C and DB ≤ 32.5 O C Globe Temperature as for DB

Table 3.2.1.3 (a) and (b) show that the total number of people exposed to heat stress in classification A and B has increased by 29 (0.27%) and 2587 (7.7%) employees respectively as compared to the 2008. This is partly due to an increase in the number of samples taken during the year 2009 as compared to 2008. All the mines where employees are exposed to heat stress conditions in classification A and B must implement heat stress management.

TABLE 3.2.1.3 (c): Exposure to cold stress per exposure classification band per commodity

Cold Stress	Number of people Exposed per Cold Stress per Exposure Classification Band				% People Exposed to Cold Stress per Exposure Classification Band		
Commodity	A	B	C	Total	A	B	C
Andalusite	0	0	75	75	0	0	100
Gold	0	221	30265	30486	0	0.72	100
Coal	0	192	2814	3006	0	6.39	93.61
Copper	0	60	174	234	0	25.64	74.36
Clay	0	0	48	48	0	0	100
Dolerite	0	0	33	33	0	0	100
Iron-Ore	0	218	0	218	0	100	0
Gravel	0	0	60	60	0	0	100
Limestone	0	0	48	48	0	0	100
Platinum	0	33	100	133	0	24.81	75.19
Sand	0	1052	0	1052	0	100	0
Antimony	0	27	147	174	0	15.52	84.49
Silica	188	51	0	239	78.66	21.24	0
Total	188	1854	33714	35806	0.53	5.14	94.30

Cold stress exposure classification band:

A = Temperature ≤ -30.0O C

B = Temperature ≤ 5.0 O C, Temperature ≤ -30.0 O C

C = Temperature >5.0O C

Please note:

- Temperature ranges are given in terms of equivalent chill temperature (ACGH).
- CSM: Cold Stress Management.
- Thermal environment in excess of 10.0O C Dry – Bulb must not be reported.
- Generally for Cold Stress: Quarter – June to August.

TABLE 3.2.1.3 (c): Exposure to cold stress per exposure classification band per Region

Cold Stress	Number of people Exposed per Cold Stress per Exposure Classification Band				% People Exposed to Cold Stress per Exposure Classification Band		
Regions	A	B	C	Total	A	B	C
Western Cape	0	1052	0	1052	0	100	0
Northern Cape	0	278	174	452	0	61.5	38.5
Free state	0	0	18	18	0	0	100
Kwazulu Natal	0	0	606	606	0	0	100
Mpumalanga	188	268	32992	33448	0.56	0.8	98.64
Limpopo	0	27	147	174	0	15.52	84.48
Gauteng	0	196	0	196	0	100	0
North West	0	33	253	286	0	16.67	88.46
Total	188	1854	34190	36232	0.52	5.12	94.37

Cold stress exposure classification band:

A = Temperature ≤ -30.0O C

B = Temperature ≤ 5.0 O C, Temperature ≤ -30.0O C

C = Temperature >5.0O C

Please note:

- Temperature ranges are given in terms of equivalent chill temperature (ACGH).
- CSM: Cold Stress Management.
- Thermal environment in excess of 10.0O C Dry – Bulb must not be reported.
- Generally for Cold Stress: Quarter –June to August.

General

1. There is still a challenge towards the achievement of the milestones on Noise and silicosis.
2. There was approximately 34.3% improvement in the reporting between 2009 and 2008 data collection.
3. The management of data from the Regions has improved tremendously after the introduction of Occupational Hygiene programme.

3.2.2 Occupational Medicine

In terms of Section 16 of the Mine Health and Safety Act, Act 29 of 1996, every Occupational Medical Practitioner at a mine must compile an Annual Medical Report; covering employees' health based on their records of medical surveillance, and giving an analysis of the status of the mentioned employee's health based on the employees' records of medical surveillance, without disclosing the names of the employees.

This report is then given to the employer, who must in turn deliver a copy to the Medical Inspector via the regional Inspectorate office. The records are then captured at the regional offices and complete data forwarded to the Medical Inspector. This information helps the inspectorate to analyse disease trends in different commodities and assess the industry's achievements in relation to the milestones set in terms of eradicating silicosis and Noise Induced Hearing Loss by 2013.

For the purpose of this report, the list of important diseases that are commonly found in the mining industry include pulmonary tuberculosis (PTB); silicotuberculosis (SITB); asbestosis (ASB); pneumoconiosis (PN); noise induced hearing loss(NIHL); silicosis (SIL) and other diseases.

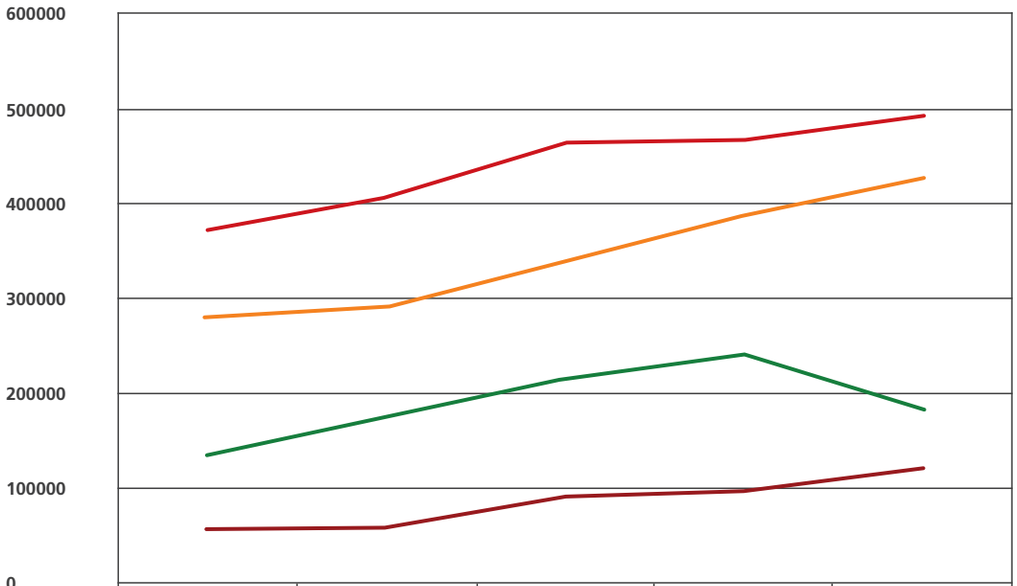
3.2.2.1 Annual medical report 2009

The number of annual medical reports submitted during the period under review has increased from 536 reports in 2008 to 547 in 2009. It is a good sign that more and more mines are now complying with section 16 of Mine Health and Safety Act however a lot of mines still need to ensure that reports are submitted to the Medical Inspector within stipulated timeframes. In terms of instruction OM-1-2009 the annual medical report must be submitted before the end of February of every year. There are mines which disregard the time frames and submit annual reports very late despite being reminded frequently.

3.2.2.2 Medical surveillance

The system of medical surveillance must consist of initial medical examination and other medical examination at appropriate intervals. In terms of Section 17 of the Mine Health and Safety Act, Act 29 of 1996, an employee must undergo an exit medical examination when such an employee's service is terminated for any reason. The examination referred to must be held before or within 30days of termination of employment. The certificate must be handed to the employee indicating all medical surveillance results and the presence or absence of any occupational disease. A copy must be entered into the employee's record of medical surveillance.

GRAPH 3.2.2.1: Medical surveillance 2005 vs. 2009

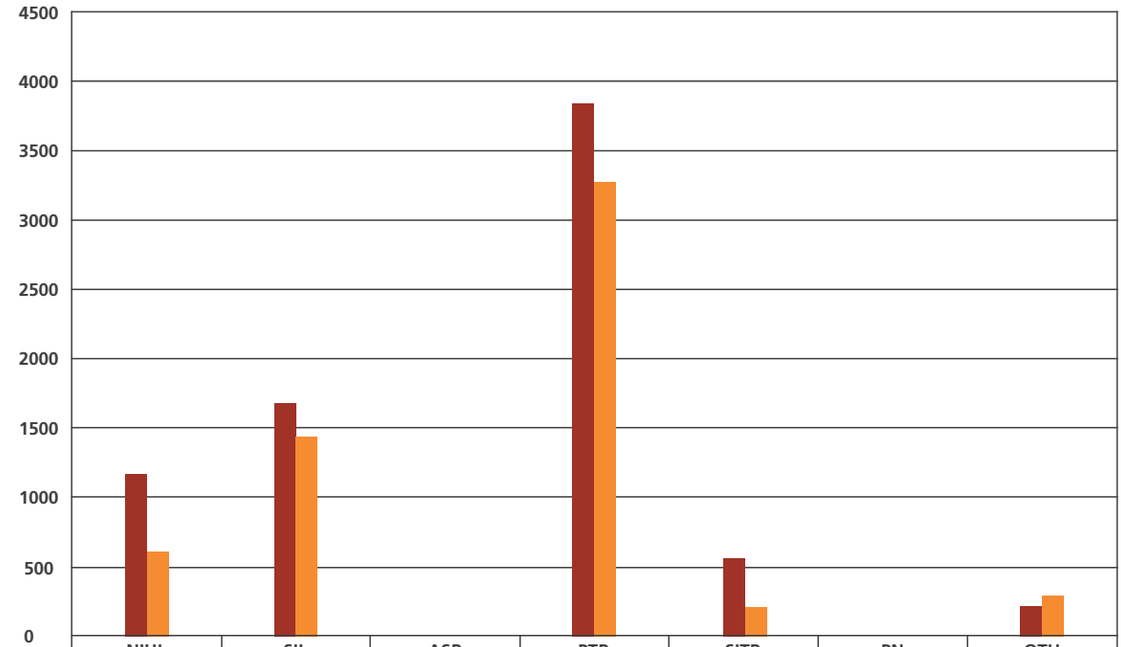


	2005	2006	2007	2008	2009
Employees	372470	406325	464070	467850	491195
Initial Medical Examinations	134594	175275	214099	240897	183719
Periodic Medical Examinations	280515	289724	336897	387104	426112
Exit Medical Examinations	57893	58929	91120	97288	122408

Looking at the last 3 years, there has been a steady increase in the number of employees who went through medical surveillance as per graph above. The number of initial medical surveillance has been showing a decline from 2008 as per graph above. This indicates that there are less new employees being hired by the mines because of the economic melt-down. The exit medicals are on an increase, indicating that more employees are leaving the mines. This increase can in most cases be attributed to retrenchment and/or medical separation. These changes have been maintained for the last 3years in keeping with global economic melt-down which talks to the possible increase in retrenchments in the mining industry and fewer initial examinations. The periodicals are on an increase and this can be due to frequent examinations conducted following ill health or injury or change of occupation.

3.2.2.3 Analysis of occupational diseases submitted per commodity

GRAPH 3.2.2.3 [A]: Occupational diseases for gold mines



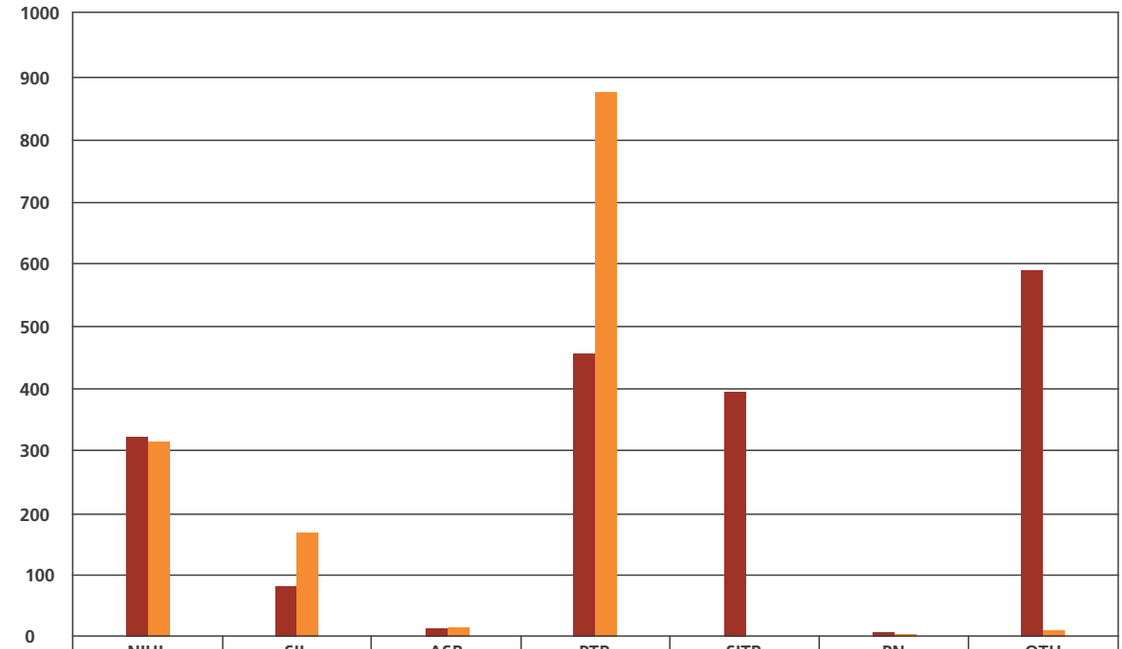
	NIHL	SIL	ASB	PTB	SITB	PN	OTH
2008	1159	1671	3	3829	555	0	209
2009	597	1430	6	3266	198	0	280

Silica exposure is more common in the gold mining industry. From the graph above there is a slight decrease in the number of silicosis cases as compared to the preceding year. This is not a manifestation of the current dust controls as the disease has a long latency period, meaning that effects of silica exposure are only seen years later. Focus should be on dust control measures as per the Mine Health and Safety Council milestones which aim to eradicate silicosis, whereby there should not be any new cases of silicosis by 2013 with present diagnostic techniques. At this rate it is unlikely there will be complete eradication by 2013 but a decrease in silicosis levels gives hope that the milestone will be achieved albeit at a later stage.

TB has been a worldwide problem for the past few years and the mining industry has appeared to be the hardest hit. This can be attributed to the many risk factors encountered in the mining industry, such as silicosis, age and HIV infection, amongst others. The graph above indicates that tuberculosis (TB) has actually gone down though not significantly. The decrease in TB corresponds to the decrease in silicosis levels and this is very encouraging.

Noise induced hearing loss (NIHL) has shown a decrease in the gold sector. It is expected that the number of people diagnosed with NIHL should be decreasing in line with the milestones for noise which states that after December 2008, there must not be any deterioration in hearing of greater than 10% amongst occupationally exposed individuals.

GRAPH 3.2.2.3 [B]: Occupational diseases for platinum mines



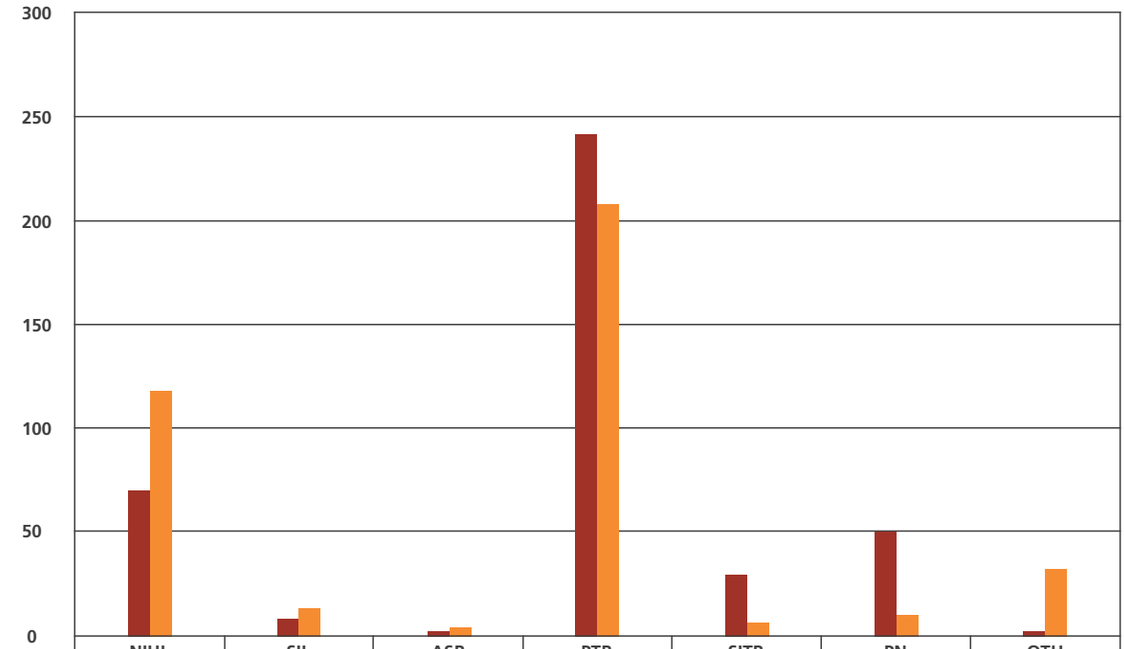
	NIHL	SIL	ASB	PTB	SITB	PN	OTH
2008	318	78	10	453	391	5	587
2009	312	165	12	873	0	1	8

The number of people with NIHL has decreased slightly and this is a good indication that the milestones are likely to be achieved. This further indicates that there are good hearing conservation programmes in place.

PTB is maintaining an upward trend in platinum mines but the numbers are much lower than in the gold mines. Since silicosis is not a key risk factor in this case, the most likely risk is concurrent HIV infection and other risk factors already mentioned.

The decrease in cases of Silica-TB in the platinum mines is expected and could also be due to non diagnosis for the reporting period. In terms of certification of reportable diseases, there are usually more cases of silica-TB certified than those certified. Some cases may be submitted as ordinary TB hence the high numbers of TB shown in the graph.

GRAPH 3.2.2.3 [C]: Occupational diseases for coal mines



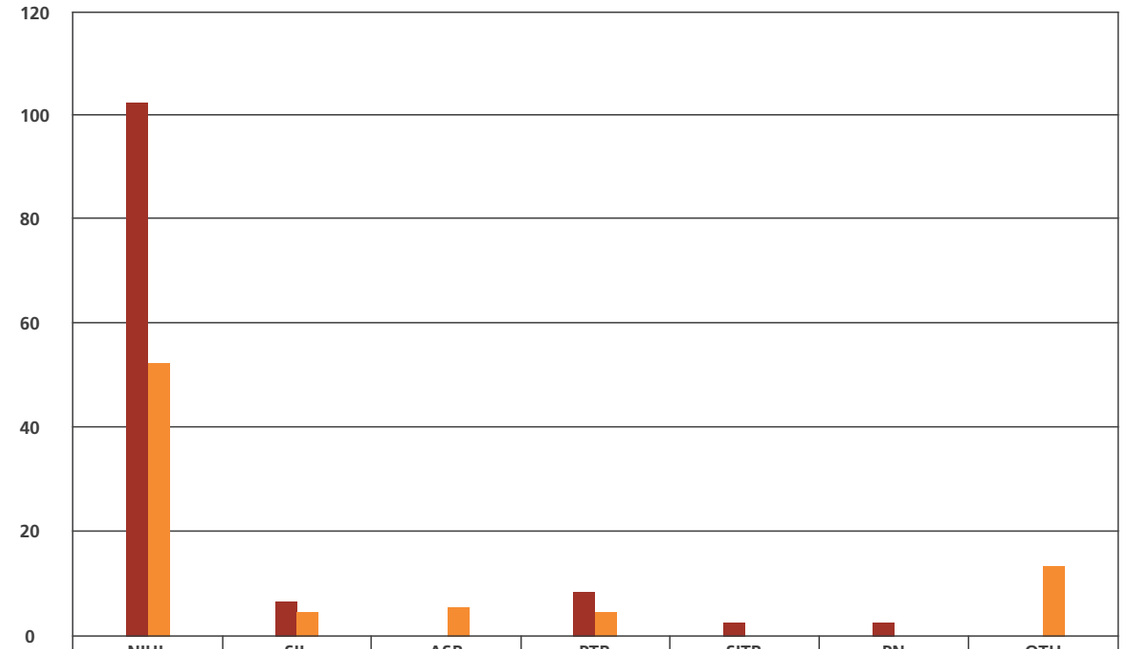
	NIHL	SIL	ASB	PTB	SITB	PN	OTH
2008	69	7	1	241	28	49	1
2009	117	12	3	207	5	9	31

There is an increase in NIHL cases in the coal mines and this is not promising in terms of milestones for noise.

PTB cases are lower as compared to last year in keeping with the trend for TB in the gold mines.

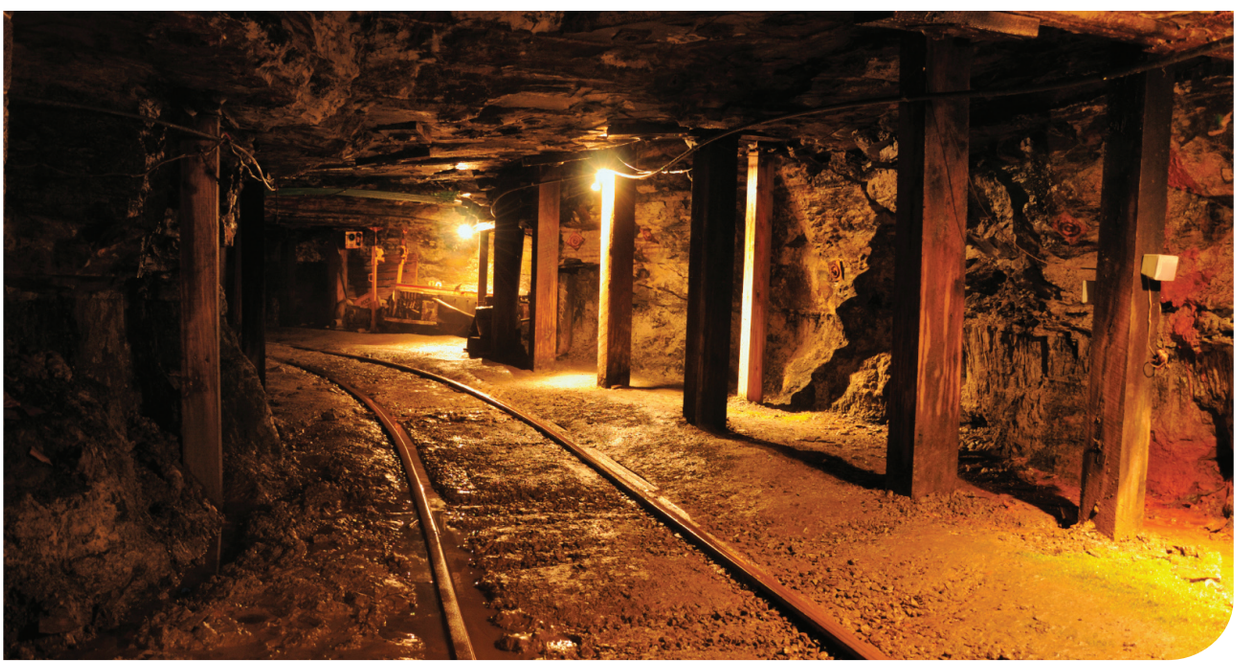
There have been less cases of coal workers' pneumoconiosis as compared to the preceding year where a couple of cases were diagnosed. There have not been many new cases diagnosed for the reporting period.

GRAPH 3.2.2.3 [D]: Occupational diseases for diamond mines

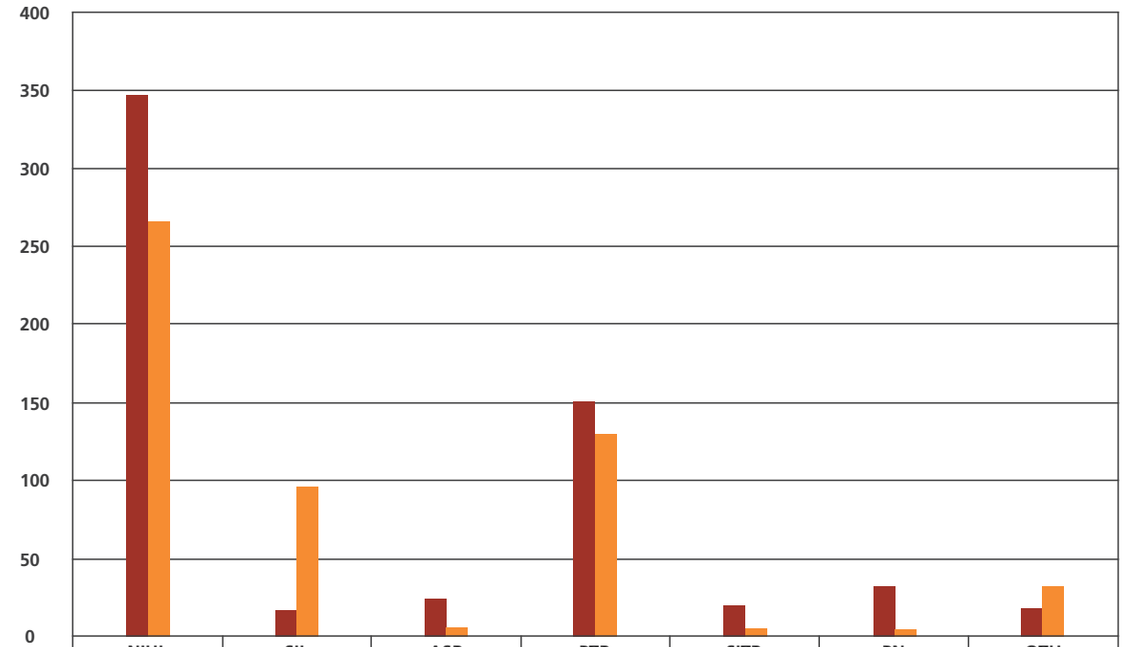


	NIHL	SIL	ASB	PTB	SITB	PN	OTH
2008	102	6	0	8	2	2	0
2009	52	12	5	4	0	0	13

NIHL cases have reduced significantly as compared to last year. This is comforting as it looks like the milestone for noise will be achieved and it further indicates that the hearing conservation programmes are in place or adhered to. In terms of best practice, this will have to be followed up to ensure there is a decrease and how this was achieved.



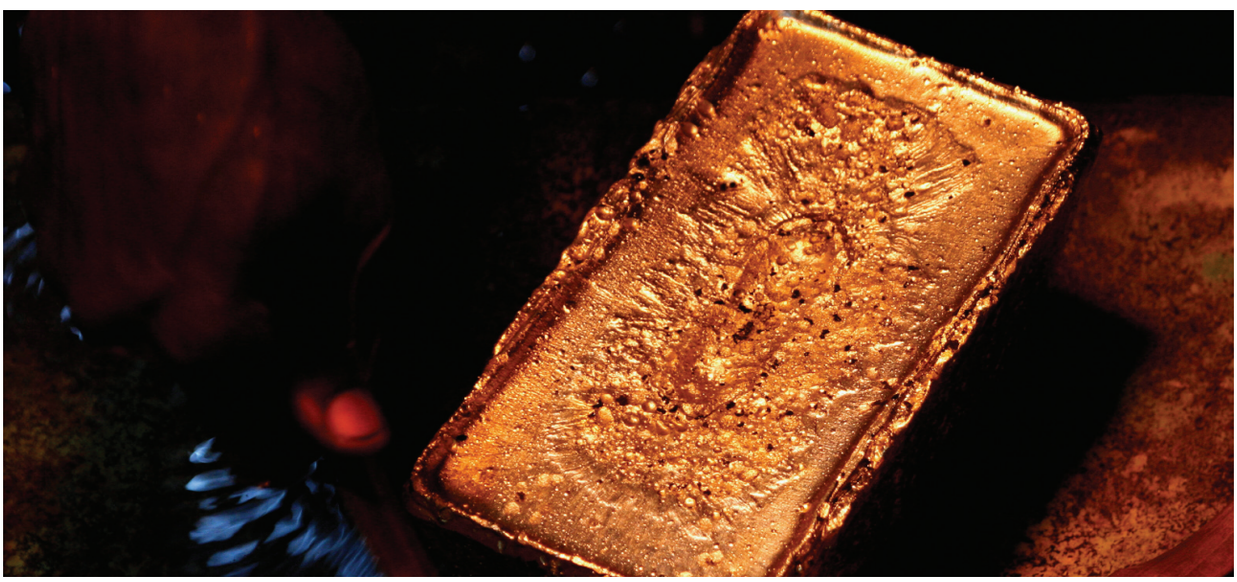
GRAPH 3.2.2.3 [E]: Occupational diseases for other mines



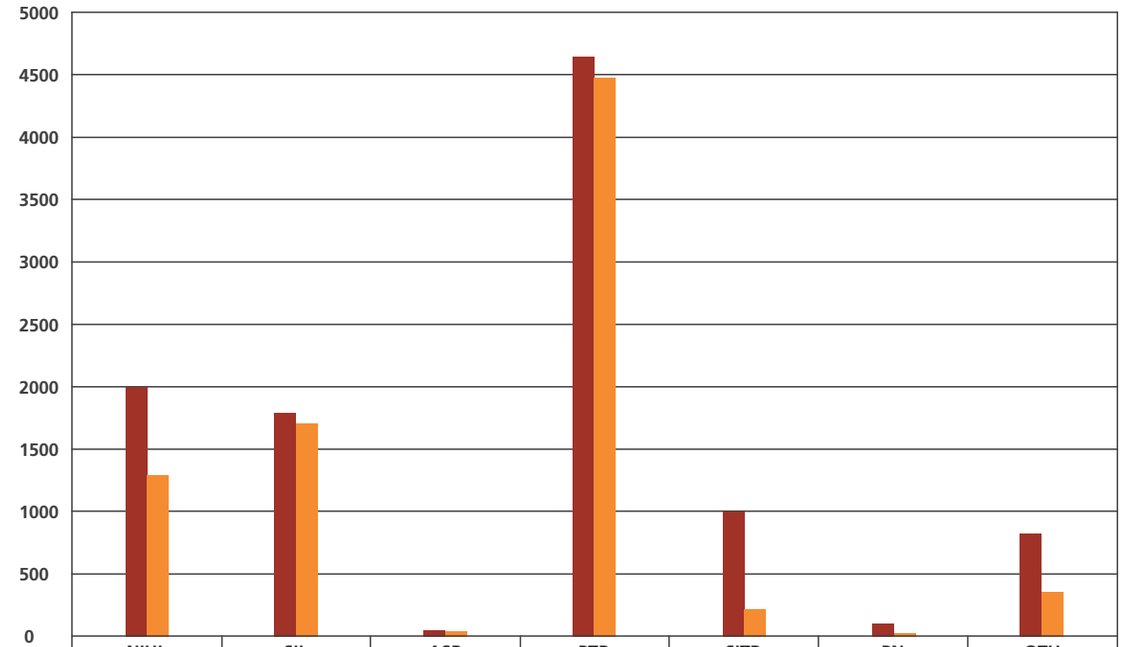
	NIHL	SIL	ASB	PTB	SITB	PN	OTH
2008	346	16	23	150	19	31	17
2009	265	95	5	129	4	4	31

Other commodities in the mining sector include chrome, manganese, iron ore, copper, dolerites, clay, sandstone, lime, etc which usually involve small mines. The graph above shows that NIHL cases have decreased as compared to last year.

PTB on the other hand seems to be following a downward trend in keeping with the other commodities. It appears like TB management is improving even in the small mines however employees from small mines with TB are usually referred to local clinics and most get lost to the system. This downward trend could be as a result of those who were lost to the system and not a true reflection of the real situation.



GRAPH 3.2.2.3 [F]: Total diseases



	NIHL	SIL	ASB	PTB	SITB	PN	OTH
2008	1994	1778	37	4639	995	87	814
2009	1280	1694	31	4468	207	14	346

Generally NIHL, silicosis and PTB were found to have decreased as compared to the preceding reporting year whereby TB remains very high as compared to other occupational diseases. It should also be remembered that even though the results show a downward trend, it might actually not be a true reflection of the TB epidemic in the mines. Great strides have also been made in terms of detecting occupational diseases specially the lung diseases and screening methods have also improved in terms of picking up the diseases quicker, especially TB.

More focus should be on the key risk factors for TB mentioned earlier, via, HIV/AIDS and silicosis. It is clear that focus should be more on the fact that prevention is better than cure. It is important to go back to the basics. The latest National Strategic Plan (NSP) for TB looks at all aspects of TB starting with prevention. TB programmes in line with the NSP should be in place at all mines including the small ones. TB/HIV collaboration should be taken into consideration whereby the two programmes do not exist in isolation.

Silicosis is being addressed in terms of the milestones, but dust control measures have to be closely monitored. Collaboration with other stakeholders is important on best practice in managing these occupational diseases.

3.2.2.4 Statistics for diseases per commodity: 2008 and 2009

TABLE 3.2.2.4.1: Statistics for diseases per commodity

		2008	2009
Silicosis	Gold	1671	1430
	Platinum	78	165
	Coal	7	12
	Diamonds	6	4
	Other	16	95
TOTAL		**1778**	**1694**

		2008	2009
Pulmonary Tuberculosis	Gold	3829	3266
	Platinum	448	873
	Coal	231	207
	Diamonds	8	4
	Other	150	129
TOTAL		**4639**	**4468**

Noise Induce Hearing Loss	Gold	1159	597
	Platinum	318	312
	Coal	69	117
	Diamonds	102	52
	Other	346	265
TOTAL		**1994**	**1280**

Coal Miner's Pneumoconiosis	Gold	0	0
	Platinum	5	1
	Coal	49	9
	Diamonds	2	0
	Other	31	4
TOTAL		**87**	**14**

Asbestos	Gold	3	6
	Platinum	10	12
	Coal	1	3
	Diamonds	0	5
	Other	23	5
TOTAL		**37**	**31**

Silica Tuberculosis	Gold	555	198
	Platinum	391	0
	Coal	28	5
	Diamonds	2	0
	Other	19	4
TOTAL		**995**	**207**

Other	Gold	209	280
	Platinum	587	8
	Coal	1	31
	Diamonds	0	13
	Other	17	31
TOTAL		**814**	**346**

** The table above is in keeping with the graphs and analysis.*

3.2.2.5 Section 20: Medical Appeals

In terms of Section 20 of the Mine Health and Safety Act, Act 29 1996, (MHSA) employees may appeal to the Medical Inspector against a decision that the employee is unfit to perform any particular category of work; or any finding of an occupational medical practitioner contained in an exit certificate.

An appeal must be lodged with the medical inspector within 30 days of the relevant decision or finding of an occupational medical practitioner or such further period, with valid grounds for a late appeal, acceptable to the Medical Inspector

A total of 117 appeals were received for the reporting period of 2009/2010. A total of 73 appeals were completed based on several withdrawals, referral for compensation and some were suspended due to not non response.

A lot of challenges are experienced with regard to turnaround time and this includes, amongst others:

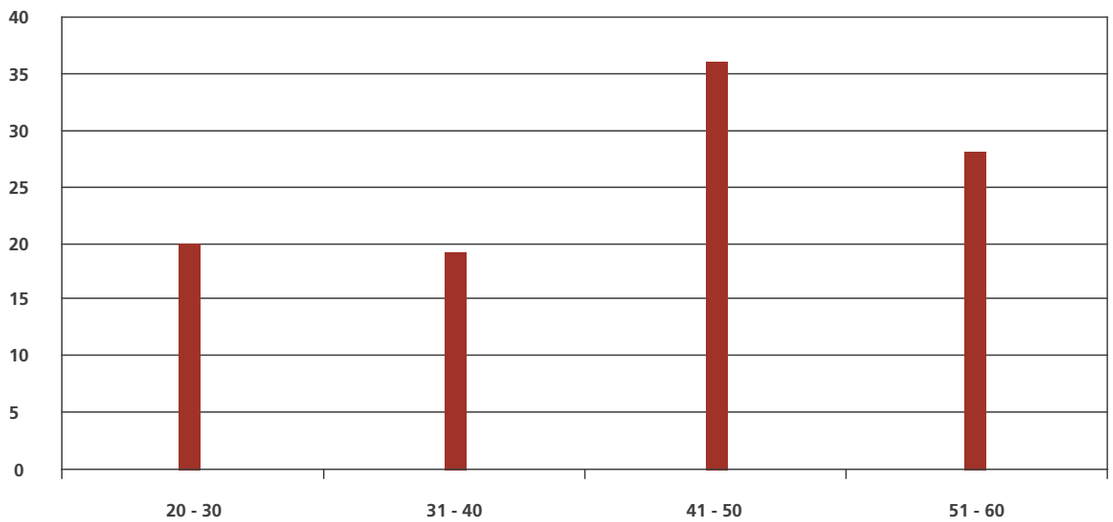
- Incomplete completion of forms
- Not sending relevant supporting documents
- Not attending appointments made with specialists.
- Medical incapacity used incorrectly by employers
- Some employers not complying with the requirements of section 20.
- HR issues not sorted in-house, ending up with the medical inspector
- Late submission of section 20 appeal.

Employees are either still not aware of their rights as enshrined in Section 20 of the MHSA or they are not receiving necessary and prompt assistance regarding issues of medical appeals from their employers. Measures need to be taken by all stakeholders to optimise popularisation of section 20. The medical inspectorate is also involved in popularising the Act especially pertaining to amendments made which became effective in May 2009.

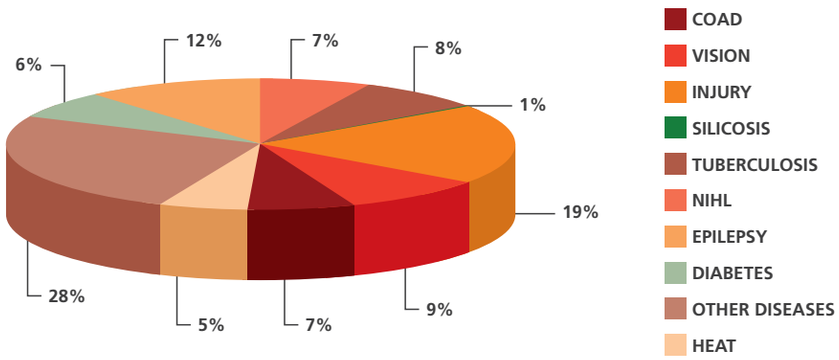
Appeals per age group

Most of the employees lodging appeals fall within the age group of 41-50 as can be seen in the graph below. These are people who have been working in the mining industry for a long time and might have acquired occupational lung diseases, like silicosis due to prolonged exposure to dust. This age group is followed by the age group approaching pension, i.e. 51-60 year olds. Most of these people are usually suffering from hearing loss and post injury complications or silicosis as already mentioned.

GRAPH 3.2.2.5.1: Appeals as per age range



GRAPH 3.2.2.5.1:Diseases



The commonest diseases appealed against are epilepsy, injuries and other diseases which include cardiac diseases, hypertension, and HIV related illness. Silicosis is the least reported disease in terms of appeals although it's the most common disease in the mining industry. This is probably due to the fact that diagnosis of silicosis goes together with compensation resulting in some element of satisfaction and not seeing the need to appeal.

Outcome of appeals

In determining the final outcome on any appeal a lot is taken into consideration. The final decision is based on background medical records, the working environment, the fitness status of the employee, second opinion results and not only on the assessment of the second opinion.

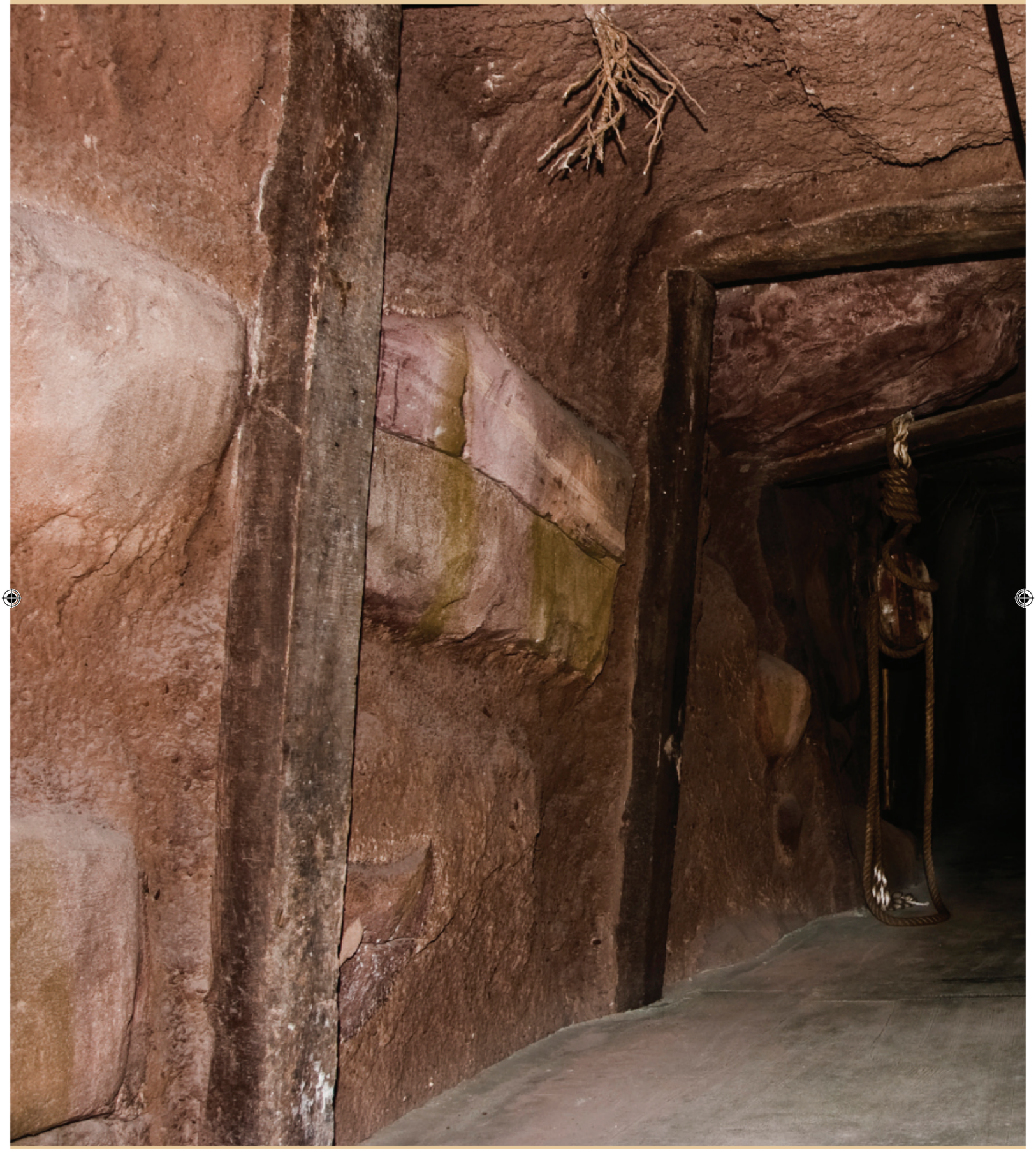
Of the 73 appeals completed for the reporting period, at least 35.6% of the employees were found to be fit while 64.4% were found to be unfit.

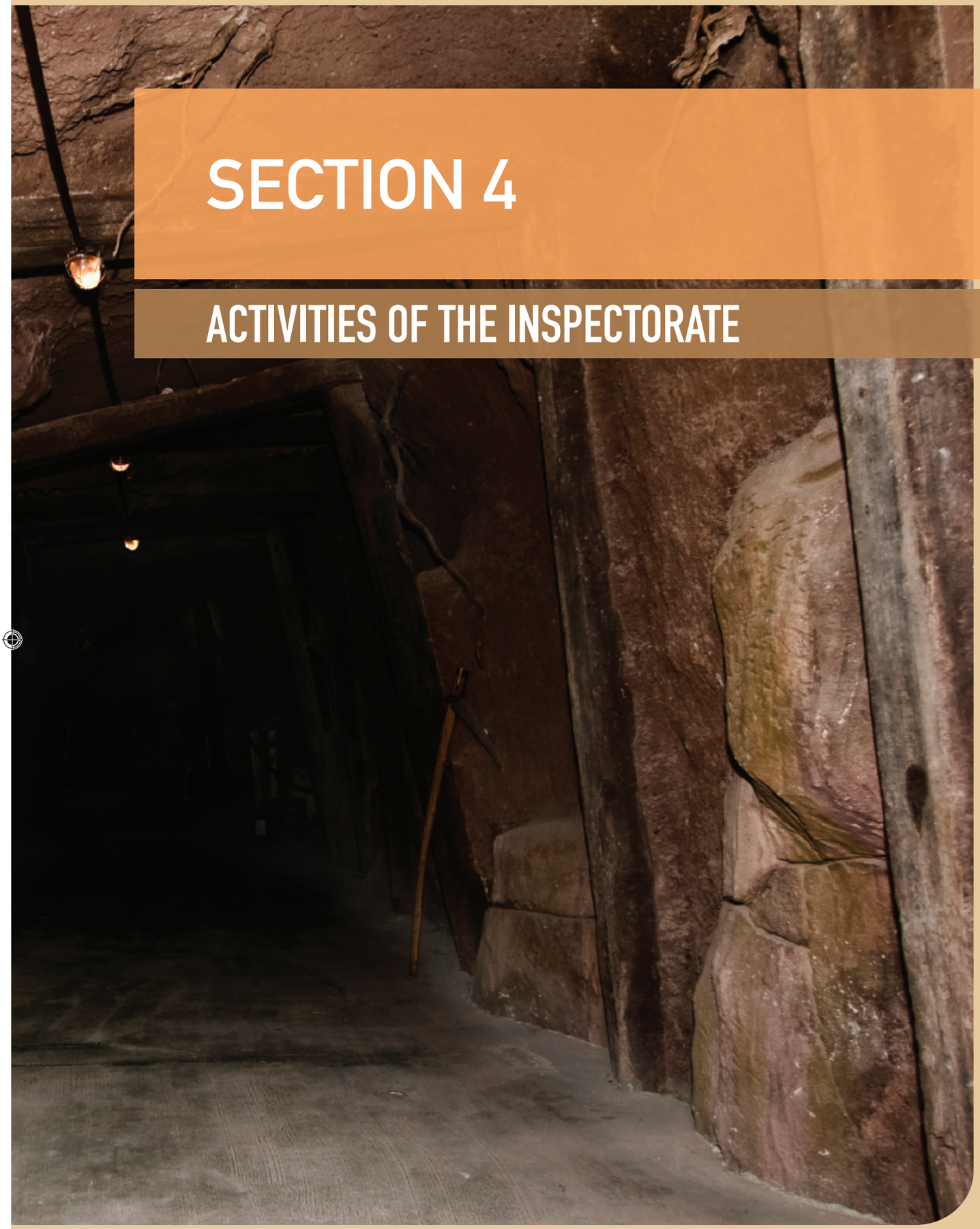
TABLE 3.2.2.5.3: Statistics for diseases per commodity

PEOPLE FOUND FIT/UNFIT 2009		
STATUS	**FIT**	**UNFIT**
JANUARY	2	4
FEBRUARY	4	5
MARCH	2	4
APRIL	1	1
MAY	2	0
JUNE	3	9
JULY	1	4
AUGUST	2	3
SEPTEMBER	4	6
OCTOBER	3	2
NOVEMBER	1	3
DECEMBER	1	6
TOTAL	**26**	**47**

Challenges are experienced in terms of some employers complying with section 20 of the MHSA, whereby some employees are separated while they have still lodged an appeal to the medical inspector. It is imperative that OMP's inform employees of their right to appeal as soon as they declare them unfit for work.

Employers should avoid using medical incapacity procedure for handling labour related issues of employees as this creates complications when the employee appeals.





SECTION 4

ACTIVITIES OF THE INSPECTORATE

4 activities of the inspectorate

4.1 National Overview

The Inspectorate is responsible for regulating health and safety in the mining sector. Its activities entails the monitoring of operations by conducting audits and inspections, investigating accidents and health related occurrences, enforcing legal requirements, processing of land use applications and conducting examinations for industry qualifications. The head office component of the MHSI is responsible for the development of policy and legislation, offering specialist support to the regions, administrative and technical support and training.

Increased activity is experienced in the mining industry because of better commodity prices and the strategy of Government to open opportunities for new entrants amongst others. This requires the Inspectorate to increase its resources in order to deal with the new challenges adequately. The increase in both the demand for residential land and mining permits and rights have a tremendous effect on the work load of the Inspectorate as this results in increased land-use applications coupled with complaints by communities due to residential and mining areas getting closer to one another.

During the reporting period, the MHSI staff managed to achieve most of the targets that were set. With respect to the head office functions, the streamlining of activities is being improved through the restructuring of the MHSI. It is envisaged that notable results with respect to policy and legislation matters, strategy implementation, employment equity and skills development will be realised in the future. Retaining skills and attracting new recruits continues to be a problem.

A national overview of the activities of the Inspectorate with respect to:

- Inspections and audits;
- Total accidents reported;
- Investigations and inquiries;
- Disaster-type accidents and outcomes of inquiries and investigations;
- Statutory notices; and
- Administrative fines.

Exception reports by the various components with emphasis on challenges related to the statistics presented at sub-headings 31 and 3.2 above.

4.2 Regional Operations - Coal

4.2.1 Regional Operations Manager's Overview

4.2.1.1 General

The Chief Directorate consists of the KwaZulu-Natal, Limpopo and Mpumalanga Regions. The labour force is approximately 125 100. The major commodities mined are coal, platinum, gold, copper and industrial minerals.

4.2.1.2 Topical issues and matters of interest

The year 2009 was a harsh year when compared with 2008 in terms of fatal injuries sustained by mine employees in these three regions. Fatal injuries increased from 37 in 2008 to 39 in 2009, with serious accidents reducing from 690 to 602.

There has been an increased activity experienced as a result of a better commodity prices. This also demands an increase of the regional inspectorate resources in order to deal with the new challenges adequately.

Noise induced hearing loss and lung related diseases appear to be the major contributor to disorders diagnosed on the mines. Underground coalmines, brickworks and quarries are the major contributors of the reported cases.

The co-operation between the stakeholders on mine health and safety is continuously encouraged and promoted.

4.2.1.3 Challenges

Challenges facing the coal regions are the concerted effort to achieve the Mine Health and Safety Council Summit milestones as initially agreed.

Secondly, with the skills shortage currently experienced by the growing industry, the attraction and retention of Rock Engineers and Mechanical / Electrical Engineers as a great concern.

Lastly, illegal and criminal mining remain one of the biggest threats to the health and safety of mining employees and inspectors. The Security Cluster is being involved in the investigations and subsequent arrests of culprits.

4.2.1.4 Achievements

During the reporting period many mines received awards from the MHSC Award Scheme. Modikwa Platinum Mine achieved six million fatality free shifts, while four more mines achieved under the million fatality free shifts category. Forzando North Colliery as well as Tselentis Colliery both achieved ten thousand fatality free production shifts, while twelve other mines achieved anything from a thousand up to five thousand fatality free production shifts in this category. This proves once again that mines can operate without fatalities.

4.2.1.5 Strategies for improving status-quo

The health and safety challenges, as experienced during the period under review calls for due diligence, mindset change and zero harm attitude by all stakeholders. We can achieve our goal and visions by effective communication and adopting a common approach.

The challenge ahead is to revive a safe working environment for all persons at the mines and communities surrounding mining operations. The inspectorate will issue stoppage instructions of working places and shafts in areas of non-compliance.

Investigations will be conducted into health cases, with particular attention being paid to their relationship to the current exposures in order to eradicate excessive exposures and subsequent new cases. Investigations are currently underway for all reported cases, mines are also instructed to investigate every reported case of occupational diseases and to provide strategies to eliminate and reduce cases.

4.2.2 Regional Report: KwaZulu-Natal

4.2.2.1 Overview of the region

The year 2009 was a very bad year compared to 2008, where fatal accidents rose from two to nine. Reportable injuries also rose from 33 in 2008 to 35 in 2009.

The region, through the implementation of the Strategic Plan and the Business Plan, embark on a change in health and safety attitude and mindsets strategy to enforce compliance with health and safety measures, and the reduction of accidents and occupational disease at mines.

The region still experiences a shortage / availability of qualified Rock Engineers and certificated Engineers. Availability of certificated inspectors is a cause for concern taking into account a large proportion of mining equipment / machinery related accidents. Inspectorate achievement of operational targets and focusing in priority areas is limited by current staff complement and availability.

4.2.2.2 Inspections and audits

Category	Inspections	Audits
Planned	460	144
Actual	357	103
% Compliance	78%	72%

The inspectorate's achievement of operational plans and also focusing on priority areas is limited by current staff complement and availability. An increase in staff complement will assist in ensuring achievement of the regional operational objectives.

4.2.2.3 Total accidents reported

Fatal Accidents	9
>14 Day Accidents	35
1 to 13 Day reportable Accidents	36

2009 was a bad year for the KwaZulu-Natal Region. It is with regret to report the loss of 9 employees. A brief description of the fatalities is presented below.

- A contractor employee was fatally injured when his head was caught between the stacker boom handrail and the cat ladder steel structure.
- An employee was fatally injured whilst cleaning / working in a concrete mixer. It would appear that the lock-out procedure was not properly communicated to the crew.
- Another employee was fatally injured whilst working in a cement silo. It would appear that the lock-out procedure and safe work procedure were not followed.
- An employee was driving a forklift down a slight decline on a dirt road which was slightly curved, when he was flung out of the vehicle. The forklift landed on top of him fatally injuring him. He was not wearing his seatbelt.
- An employee was fatally injured when he apparently connected up and prepared to blast a face, when an explosion occurred. A total of eighteen other people were affected with the explosion.
- A contractor was fatally injured when he fell from a roof top to plant floor at the kiln area.
- An employee was fatally electrocuted from a welding machine which was allegedly left unattended whilst plugged on a live three-phase plug supply.
- An employee was fatally injured and four other employees suffered minor injuries and gas inhalation, when a potent concentration of methane gas was ignited; deflagrated and perpetuated in the section.
- An employee subsequently passed away due to his extensive burn wounds away after falling into a furnace during a planned maintenance shutdown. It is alleged that the incident took place when the deceased was making his way from the grating platform to take a position on the furnace roof 1metre below the grating platform. He slipped (or lost his grip from safety barrier) and fell through the opening into the furnace.

The '1 to 13 days' accidents are being under-reported and are a cause for concern and are receiving attention.

4.2.2.4 Investigations and inquiries

	Investigations	Inquiries	Total
Initiated	35	9	44
Completed	20	7	27
% Completed	57%	77%	61%

Although seven inquiries were completed, there were delays in holding these inquiries due to the availability of representations and the inspectorate not being adequately capacitated.

Outcomes of the inquiries have highlighted amongst others:

- HIRA's not properly done;
- Poor or inadequate training and the recording thereof;
- Poor supervision or no supervision;
- Deviation from standards and procedures;
- Deviation or lock-out procedure not properly communicated;
- Inadequate protective devices;
- Contractor management system not adequate.

4.2.2.5 Disaster-type accidents

A methane explosion occurred in which an employee was fatally injured. The now-deceased apparently connected up and prepared to blast a face, when an explosion occurred. A total of eighteen other people were affected with the explosion. The extent of the damage was such that the mine's proto team was mobilized to conduct the rescue and primary evacuation of the persons involved.

In another accident, an employee was fatally injured and four other employees suffered minor injuries and gas inhalation, whilst assisting to prepare the CM for tramming in order to sweep the floor. It would appear that a potent concentration of methane gas was ignited; deflagrated and perpetuated in the section.

4.2.2.6 Statutory notices

Section 54 Notice	Section 55
33	169

Section 54 and 55 instructions were issued on issues relating to:

- Appointments not in place;
- HIRA's and Health Risk Assessments not done;
- First aid and emergency procedures and preparedness not adequate;
- Changehouse facilities not available;
- Codes of Practice not reviewed;
- Medical surveillance not done as required;
- PPE not provided;
- Hygiene returns and milestones reports not submitted;
- Brushing not maintained;
- Inadequate ventilation provided;
- Unsupported roof;
- Inadequate dust suppression;
- TB and HIV/AIDS policies not in place.

4.2.2.7 Administrative fines

No of fines recommended by inspector	0
No set aside by Principal Inspector	0
No imposed by Principal Inspector	0
Value of fines imposed	0
Appeals	0
Value of fines paid	0

No administrative fines were issued during this period. In the interim, the office has resorted to the issuing of stoppage instructions of working places and shafts, which ahs a greater punitive affect.

4.2.2.8 Examinations

Certificate	Exam Boards	No of Candidates	Certificate issued
Mine Overseer	0	0	0
Blasting	5	8	8
Onsetter	0	0	0
Lampsman	0	2	0

Only blasting certificates for open cast mines were issued during the reporting period. Received applications for lampsman were incomplete.

4.2.2.9 Land use applications and complaints

	Received	Completed	Percentage
Township developments	34	36	106%
Mining and Prospecting Right	318	273	86%
Closure Certificate	0	0	0
Environmental Management	172	76	44%
Complaints	11	8	73%

The increase in both the demand for residential land and mining permits and rights has a tremendous effect on the workload of the inspectorate. This result in increased land use applications coupled with complaints by communities due to residential and mining areas getting closer to each other. The investigations of these complaints are aimed at the problem areas and also to improve the relationships between the mines and the complainants.

4.2.2.10 Topical issues and matters of interest

With the new conveyor belt regulations, the use of conveyor belts on mines is a cause of concern. The appointment of engineers to be in charge of machinery and equipment is pertinent at some of the operations. Most of the operators have inadequate technical expertise and insufficient financial resources allocated for health and safety issues, which is negatively impacting on the health and safety of mine employees in the region.

4.2.2.11 Strategy adopted to improve status quo

One fatal is one too many. The region will continue to embark on a zero tolerance to non-compliance. Through our Code of Conduct, we will continue with our current practice, not limited to stopping working places, shafts and mining operations and presentation to be done by management to rectify non-compliance and to prevent accidents and injuries and occupational diseases, before work commence. This strategy appears to be bearing fruits and is set to continue.

Co-operation from mine employers, mine employees, communities affected by mining operations and the inspectorate will continue to be encouraged to ensure that there are effective and efficient ways and strategies in dealing with health and safety relating to mining operations in this region.

The inspectorate will continue to work towards eradicating these accidents. Our drive is to become pro-active in identifying weaknesses in management systems and implementing programmes and strategies that will improve the working conditions and eliminate risks.

4.2.3 Regional Report: Limpopo

4.2.3.1 Overview of the region

The Limpopo Region is situated between the Gauteng Region in the south, Zimbabwe in the north, the Mozambique border in the east, Mpumalanga Region in the south east, Botswana border in the west and the North West Region in the South West. A wide variety of minerals are mined in this region with platinum, coal and copper being the main commodities. Numerous base minerals are mined and there are a large number of crushers, quarries, brickworks and borrow pits in the region.

There are more than 610 mining operations which includes borrow pits in this region with a labour force of 45 000.

4.2.3.2 Inspections and audits

During the period under review, the following number of inspections and audits were conducted:

Category	Inspections	Audits
Planned	325	98
Actual	314	101
% Compliance	97%	103%

Inspections and audits were planned for the existing staff complement and the region managed to maintain staff complement of approximately 65% for the year.

4.2.3.3 Total accidents reported

Fatal accidents	8
> 14 day reportable accidents	215
1 to 13 day reportable accidents	120

4.2.3.4 Investigations and inquiries

	Investigations	Inquiries	Total
Initiated	87	8	95
Completed	86	7	93
% Completed	99%	88%	98%

Due to under complement and sick engineering staff member nine section 72(1)(b) reports have been carried over from 2008.

4.2.3.4 Disaster-type accidents

No disaster type accidents occurred during the year under review.

4.2.3.6 Statutory notices

Section 54 notices	Section 55 Notices
55	62

These statutory instructions were issued to various mines for the following:

- Substandard acts and conditions whilst working with scaffolding
- Substandard conditions at open pit area – highwalls and overhang
- Substandard rigging conditions in winch sections
- Substandard act – fell from heights
- Substandard conditions on conveyor belt
- Inadequate explosive control
- Inadequate lamp room controls
- Inadequate roof support
- Inadequate barring and safe making
- Non- compliance with Trackless mobile machine code of practice

- Inadequate ventilation controls
- Inadequate machine guarding

4.2.3.7 Administrative fines

No administrative fines were recommended by the Inspectors.

4.2.3.8 Topical issues and matters of interest

Additional platinum and a coal mines have opened up and these mines are using labour force from the local communities and outside communities. A total of 13 mines were absorbed from the Mpumalanga Region to Limpopo Region in July 2009. Modikwa Platinum mine has achieved 6 million fatality free shifts. The second power station, Medupi, in Lephalale is progressing well. Sasol Coal in the Waterberg district is conducting bulk sampling on the coal to see whether a Sasol plant can be erected.

4.2.3.9 Examinations

Certificate	Exam Boards	Number of Candidates	Certificates Issued
Mine Overseers	25	165	7
Blasting	17	178	53
Onsetters	7	37	16
Lampsman	0	0	0

The low pass rate figure can be attributed to candidates that are unprepared for examinations and due to cancellations. The region did not have an Occupational Hygienists for the whole financial year.

4.2.3.10 Land use applications and complaints

	Received	Completed	Percentage
Township developments	101	91	90%
Mining and prospecting permits/rights	2	1	50%
Closure Certificates	63	15	24%
Environmental Management	534	520	97%
Complaints	10	8	80%

It must be noted that the percentage on the closure certificate is low due to borrow pits being visited once a month and RAL can only be available on that day.

4.2.3.11 Strategy adopted to improve status quo

Inspectors are conducting follow-up audits and inspections to monitor progress of action plans at the mines where section 54 and 55 instructions were issued.

A tripartite safety forum for all safety practitioners has been established between the Inspectorate in the region, employers and employee representatives to improve health and safety conditions on mines.

Inspectors are conducting system audits on mines beside the group audits to ensure compliance.

4.2.4 Regional Report: Mpumalanga

4.2.4.1 Introduction

A wide variety of minerals are mined in the region with coal being the main commodity. Gold, platinum and other base minerals are mined and there are a large number of brickworks, crushers and quarries in the region.

The escalating demand for energy as a result of the growing South African economy is also resulting in the significant growth in the number of small open pit collieries in the region.

Seen in the light of the current worldwide economical setbacks, this growth was welcomed, but the health and safety challenges faced by the region increased correspondingly. These include new operators, inexperienced employees, contractor management, management not familiarising themselves with legislation, lack of health and safety management systems and an ever increase in public complaints regarding mining activities.

The regional office of the Mine Health and Safety Inspectorate is dedicated to influence the attitude, culture and behaviour of employees and employers in matters of health and safety at their working places.

During the year the mines in the region were changed to be in line with the provincial borders of the Mpumalanga Province. A total of thirteen mines were moved to the Limpopo Province. The table below shows the present number of operating mines in the region:-

Type of mine	2008	2009
Underground coal	44	39
Opencast coal	56	36
Gold	5	7
Platinum	6	2
Other	84	67
Total	195	151

The number of employees decreased from 77,598 in 2008 to 72,000. Not all mines are reporting the labour figures to the Regional office but all efforts are made to rectify this.

4.2.4.2 Inspections and Audits

During the period under review, the following number of inspections and audits were conducted:

Category	Inspections	Audits
Planned (Calculated on full complement)	1548	826
Actual	983	340
% Compliance	64%	41%

Inspections and audits were planned for a full staff complement and the region managed to maintain an average staff complement of approximately 60% for the year. The following table indicates the performance against the figures planned monthly for the actual staff strength.

Category	Inspections	Audits
Planned (Calculated on staff strength)	879	450
Actual	983	340
% Compliance	112%	76%

The regional priorities still remain the prevention of flammable gas explosions, falls of ground, transport in mining, fires and occupational health threatening conditions.

Groups of Inspectors from the Regional office conduct Health and Safety system audits and Methane and Coal Dust explosion audits on identified mines in the region.

4.2.4.3 Accidents reported

Fatal accidents	23 (25 people killed)
> 14 day reportable accidents	382 (407 people injured)
1 to 13 day reportable accidents	181
Non casualties	77

The coal mining sector was responsible for 15 fatal accidents, the Gold mining sector for 4 fatal accidents and other mines for four fatal accidents.

4.2.4.4 Investigations and Inquiries (from 2008-01-01 to 2008-12-31)

	Investigations	Inquiries	Total
Initiated	409	73	482
Completed	386 *	71	457
% Completed	94%	68%	

** includes accidents occurring in previous years*

Inquiries of seven fatal accidents which occurred during 2008 were also conducted and finalised in 2009. The backlog in investigations and inquiries is due to the staff shortage.

4.2.4.5 Disaster type of accidents:

- An engineering construction crew comprising of ten employees were given a task of pulling/transporting a 6.6 kV cable from the station on one level to a workplace approximately 1.6 kilometres away. This shaft had been on stop since 2004. A reconnaissance of one level had been carried-out weeks before, by the mine's proto team and the level's main haulage was found to be in order as far as support, roof conditions ventilation and gasses are concerned.

  One contractor employee decided to leave his co-workers a few meters away and walked up a travelling way into an old abandoned stope to look for a chain to re-rail the locomotive. He collapsed while walking up the travelling way. His supervisor, the stope repairman, was apparently nearby. He followed and attempted to assist the fallen employee. He also collapsed as a result of what was later found to be oxygen deficiency and both persons died.

- Two persons travelled in the bucket of a load haul dumper from underground in the main decline shaft of a gold mine. At the portal the load haul dumper stopped for them to alight. A dump truck full of rock bumped them into

the bucket of the load haul dumper. One person died as a result of his injuries whilst the second person had portions of both his legs amputated.

- Three contractor employees were in the process of erecting a palisade fence around a mini sub-station on surface when they were struck by a concrete mixing truck over which the driver had lost control. Two persons succumbed as a result of their injuries in hospital whilst the third person only sustained lacerations to his face.

- Two persons were injured and one person killed in a fall of ground. Pillar extraction was done on a checker board configuration. The continuous miner finished cutting a coal pillar and was on its way reversing out of the area. Some of the employees went to assist with the trailing cable of the continuous miner when a layer in the roof of approximately 1,8 metres thick, 22 metres long and 16 metres wide came down without warning and struck the now deceased and the two injured persons.

- A blasting accident took place in a low seam coal mine. One person was killed and two more persons injured during the accident.

  The miner blasted a split between the first and second road to the right of the section without removing the auger drill crew from the second road. The blast holed through into the second road and fly rock and coal injured the two persons in the process of drilling on the face of the second road and a third person placed as a guard. One person was fatally injured and two more injured from the blast.

The fatalities were mainly caused by the following categories of accidents:

- Trackless mobile machines = 9
- Fall of ground = 4
- Blasting = 3
- Fall of material = 3
- Inhalation (gassing) = 2
- Conveyor belt = 2

Reportable accidents include accidents on construction sites of new mines.

Action taken to improve the accident statistics includes the following:

- Stopping mines until corrective action has been presented and implemented.
- Meetings with Chief Executive Officers of mining groups.
- Identification of problem mines and placing mines under "intensive care".
- Attempt to fill staff vacancies.
- Sending operational reports to mines and professional associations (SACMA, SACEA) and attending their annual strategic planning meetings.
- Prosecutions were recommended after the completion of most of the fatal accident inquiries.
- Meetings of various stakeholders have been attended.

Rock fall accidents were a concern and the recurring causes have been noted and the following initiatives were taken:

- Inspectors concentrated on brows which are unstable.
- Mining in bad hanging wall conditions and geological disturbed zones were identified and indicated to management.
- Inspectors identified and indicated ineffective identification, assessment and managing of slips at the workplace.
- Lack of identification of loose hanging and inadequate barring at the workplace as well as inadequate training and discipline on compliance of existing mine standards, procedures and systems were pointed out by inspectors.

- Inspectors conducted more comprehensive fall of ground audits and were dedicated to prevent these accidents.
- Inspectors educated mine employees on the awareness of entering unsupported areas.
- Inspectors questioned support strategies prescribed by rock mechanics and the application thereof by managers.

The Regional office endeavoured to decrease the large number of accidents contributed to trackless mobile machines which were mainly caused by:

- Lack of knowledge of machinery and drivers not properly licensed for a particular machine.
- Machinery not locked out.
- Unauthorised persons operating mobile machinery.
- Not observing safe clearances around mobile machinery.
- Un-authorised riding by passengers on vehicles not designed for the purpose.

Due to the number of accidents and the complaints due to blasting Inspectors concentrated on the following issues:

- The appropriateness of procedures drafted in terms Chapter 4 of the Mine Health and Safety Act regulations.
- The implementation, application and control of the procedures.
- The appropriateness of blasting equipment.
- The issuing of instructions to comply with international best practice with regards to ground vibrations, air blast intensity and dust fall out.

4.2.4.6 Statutory Notices

Section 54 notices	Section 55 Notices
78	206

Notices were inter alia issued for the following:

- Improvement notices in terms of Section 54 of the Mine Health and Safety Act.
  - Barring generally poor.
  - Poor explosives control underground.
  - Barring generally poor.
  - Poor explosives control underground.

- Stoppage notices in terms of Section 54 of the Mine Health and Safety Act.
  - Various belt conveyors were stopped for sub-standard guarding and the absence of nip guards.
  - Inadequate machine guarding
  - Inadequate electrical protection.
  - Inadequate explosion protection (flameproofing)

- Compliance notices in terms of Section 55 of the Mine Health and Safety Act.
  - Instructions were issued to train underground electricians in the maintenance and inspection of explosion protected equipment.
  - Instructions were issued to train contractors in the locking-out of machinery.
  - Instructions were issued for pull stops to be installed along belt conveyors.
  - Instructions were issued to install pre-start alarms on equipment in the plant.
  - Non-compliance with fall of ground code of practice.
  - Non-compliance to occupational hygiene codes of practices.

- Persons working without medical certificates of fitness.
- Change house facilities not provided.
- Inadequate availability of trained first aiders and ill-equipped first aid boxes.
- Instructions were issued to install guards over the unprotected V-belts of tractors.

4.2.4.7 Administrative Fines

No. of fines recommended by inspector	1
No. set aside by Principal Inspector	0
No. imposed by Principal Inspector	1
Value of fines Imposed	R200 000
Appeals	1
Value of Fines Paid	0

An administrative fine was recommended for a mine for insufficient guards and the lack of nip point guards on a belt conveyor. Administrative fines were used as a last resort after the provisions of the DME Guideline for Enforcement of the Mine Health and Safety Act has been exhausted.

4.2.4.8 Examinations

The Regional Inspectorate also conducts examinations for industry qualifications and the table below reflects the number of Examination Boards, Candidates and Certificates Issued during the reporting period.

Qualification	Exam Boards	Number of Candidates	Certificates Issued
Mine Overseers	40	708	48
Blasting *	29	473	152
Onsetter	3	8	4
Lampsman	5	8	8

** combined fiery, scheduled and surface blasting boards.*

Candidates for examinations are often very poorly prepared and/or bookings are cancelled at the last minute.

4.2.4.9 Land Use Applications and Complaints

	Received	Completed	Percentage
Township developments	37	30	81%
Mining and prospecting permits/rights	622	595	96%
Closure Certificates	2	2	100%
Environmental Management	253	263*	104%
Complaints	22	11	50%
Exemptions, permissions and approvals	814	740	91%

** Backlog of all outstanding work completed.*

The complaints investigated by Inspectors in the Mpumalanga Region often relates to dust, noise and blasting on mines close to residences. The Regional office strives to improve relationships between the mines and the complainants. Mines affected were advised to form Complaints Forums where all affected parties will lodge their complaints. International best practice with regards to ground vibrations, air blast intensity and dust fall out is enforced.

4.2.4.10 Challenges: Major problem areas

Strategy Adopted To Improve Status-Quo

- Criminal mining

Criminal mining is prevalent in the Barberton Mines for a number of years. Deaths of criminal miners were reported to the office of the Department of Mineral Resources regularly. A fire incident took place on 22 February 2009 in which twenty persons were killed. The incidents mentioned are the exceptions from "normal" encounters with criminal miners. Regular underground blasting operations were done by criminal miners in the course of their mining activities whereby mine employees then have to be withdrawn until the blasting fumes clear. Miners were threatened with firearms to leave a blasted face and criminal miners then proceeded to recover the gold. This sparked a concerted effort from a number of parties to attempt to improve the situation that prevailed.

A meeting was called and the approach of the chairman was to identify and draft an action plan in which all the stakeholders could contribute.

The mines involved proved very diligent in their contribution to the elimination of criminal mining. The following actions were taken by Barberton Mines:

- Identifying and sealing of critical adits.
- Strengthening of security forces.
- Installation of closed circuit television cameras.
- Controlling of food taken underground.
- Stricter control over explosives.
- Installation of biometric clocking stations.
- Searches at adits including women miners being searched by women.

The following actions were taken by Makonjwaan Mines:

- Strengthening of security forces.
- Installation of closed circuit television cameras.
- Building of bunkers.

Both the mining groups accepted social responsibilities with regard to communities in the area and support various projects to alleviate poverty in the area.

The local magistrate's court was represented by the Senior Control Prosecutor who contributed actively by giving information with regards to staff shortages to effectively prosecute criminals in general.

The local court accepted responsibility by instituting"Gold Court". All cases related to gold are heard in this court. The court has a rate of 85 percent effective prosecutions. Statistics provided by the local magistrate's court reflected that the criminal mining is linked to illegal immigrants.

Department of Home Affairs: Immigration Services proved their willingness to support the efforts against criminal mining.

Local community representatives participated by providing information with regard to criminal miners residing in the area.

- Other strategies adopted to improve -quo

The Inspectorate will continuously ensure that the mines, especially the smaller do have the necessary health and safety management systems that will enhance the health and safety standards at the working places.

The shortage of staff members in the Regional office had an impact on the efficiency of the office, but the staff has been well dedicated in ensuring that the objectives were met.

The level of commitment and effort that has been shown by all the stakeholders is encouraging and commendable. We can only achieve our goals by effective communication and adopting a common approach.

4.3 Regional operations – Gold and Platinum

4.3.1 Regional Operations Manager's Overview

4.3.1.1 Topical issues and matters of interest

The section is made up of the North West, Gauteng and Free State regions. A wide variety of minerals are mined in these regions with gold and platinum group metals being the main commodities. The Regional Operations: Gold and Platinum labour force is approximately 317 886 and represent about 66% of the mining industry labour force in South Africa.

However the mining industry, more specifically the Platinum Group Metals, Gold and Diamond sectors, have been negatively impacted by the global financial turmoil and this has sadly resulted in significant job losses. Regrettably, there has been an 8% reduction on jobs of about 27 321 from the 2008 figures. Unfortunately for the gold sector, this also occurred against the backdrop of record-high gold prices experienced during the period under review.

The mining of the 15 km Gautrain tunnel section has been completed and construction for the track is in progress. Construction of the northern most section between Sandton and Marlboro portal is complete and trains are currently running from Sandton to the OR Tambo International Airport on a trial basis.

During the period under review the Principal Inspector of Mines was appointed in the Free State regional office.

4.3.1.2 Occupational Health

TB and the effects of HIV and AIDS, silicosis and noise induced hearing loss are the main occupational health challenges faced by the mining industry. There was also an increase in the cases of medical deaths at mines mainly as a result of heart attacks. The effort and level of success by these mines are commendable and all the mines are encouraged to develop and implement similar programmes.

However, the occupational health issues are still the main challenge facing the mining industry and which will only take a collaborative and well-dedicated effort to overcome. The regional working groups have been formed and maintained by the Inspectorate to support and monitor progress made by the mines on the health milestones.

4.3.1.3 Occupational Safety

During the period under review the Regional Operations: Gold and Platinum experienced 118 fatalities compared to 126 in 2008. This is a 6% improvement as compared to the results achieved in 2008. Of major concern are the unacceptably high and recurring fatalities and injuries which have occurred at some of the mines.

There has been an 8% year-on-year improvement achieved on rock related fatalities in the gold sector. Regrettably, three seismic events at Driefontein and one at Kloof Mines resulted in the death of 8 persons with 2 persons having been fatally injured in each event. Also, there has been a 90% increase in fall of ground fatalities in the platinum sector mainly as a result of the Impala 14 Shaft accident where 9 employees were killed.

The gold sector experienced a reduction of about 38% regarding the transportation and mining fatalities. However, there was a 44% increase on the transportation and mining fatalities in the platinum sector. Also, the Gold and Platinum Regional Operations achieved a 7% reduction in the injuries compared to 2008.

When considering the number of disastrous underground explosions that occurred in other countries during the period under review, the potential of the risk in our mines cannot be overlooked. Two employees were fatally injured

at Impala 14 shaft as a result of flammable gas explosion.

The engagement and cooperation of the Inspectorate, employers and unions on mine health and safety is continuously encouraged and promoted. The ongoing engagements also culminated on holding of the first Hardrock Safe Conference in the North West region. This conference is designed to help bring South African mines to 'Zero Harm'.

However, the inspectors are also expected and encouraged to take critical actions where necessary to ensure compliance with the provisions with the Mine Health and Safety Act. The respective working places and mines have been stopped where serious contraventions have been revealed during inspections and accident investigations. The mines had to do a presentation giving details on the steps they will be taking to prevent recurrence.

4.3.1.4 Illegal Mining

There has been a drastic rise in illegal mining as a result of record Gold prices combined with unemployment, and an increasing number of desperate South Africans and people from neighbouring countries like Mozambique and Lesotho, willing to risk their lives. Ninety (90) illegal miners were allegedly killed after being exposed to harmful gasses emanating from a fire that they have

caused at an old African Rainbow Mineral Shaft area, in the Free State region.

Subsequently, the Minister established the Free State Illegal Mining Stakeholder Forum mainly made up of leaders from the community, organized labour, municipality, and mines, Departments of Mineral Resources, Police, Home Affairs, Justice and Constitutional Development to determine effective measures for stopping the activities locally. Other relevant Departments are also consulted to provide assistance where necessary.

The Minister has also elevated this concern to the Inter-Ministerial Security Cluster (IMSC) as this is a criminal matter. Subsequently, the Cluster has established a Task Team made up of the DMR and other relevant departments to ensure that there is national coordination in the fight against illegal mining.

4.3.1.5 Challenges

Although there has been positive milestones achieved on the way to zero harm of the employees, occupational health issues are still the main challenge facing the mining industry. Also, the fatalities and injuries are still very high and the recurring fatal accidents at some of the mines is still of a great concern. A significant effort is still needed for achieving the Mine Health and Safety Summit milestones.

Illegal mining remains the biggest threat to the employee's health and safety at the mines. Appropriate measures including effective access control and eliminating corruption at the mines are continuously encouraged.

4.3.1.6 Achievements

A substantial number of mines celebrated their fatality free production shifts during the period under review compared to the previous reporting period.

A change in attitude in the industry is generally been noticed and this encouragingly should result in

the revived focus and commitment on health and safety matters.

The level of commitment and effort that has been demonstrated by all Gold and Platinum Regional Operations staff is encouraging and commendable. The Regional Operations Manager extends his gratitude to the staff for their hard work in the past in their contribution to the improved overall compliance with legal requirements at the mines.

4.3.1.7 Strategies for improving status quo

The Gold and Platinum Regional Operations will maintain the following actions to ensure a sustainable health and safety improvements:

- Engagements with the respective stakeholders to ensure that we are well informed on the health and safety challenges and that a common approach is adopted.
- The regional working groups and Forums have been formed and maintained by the Inspectorate to support and monitor progress made by the mines on the health and safety milestones.
- The discussions with CEOs to ensure that appropriate measures are put in place to enhance health and safety in mines.
- The implementation of the DMR and Inspectorate policies and procedures to ensure that a common approach is adopted by all the regions.
- The promotion of the Mine Health and Safety Council's initiatives for enhancing health and safety.
- The involvement and support of the respective mines' health and safety initiatives.
- The achievement of the DMR and Inspectorate's Strategic Objectives.
- Proactive measures for capacity building within the Inspectorate and provide the necessary assistance to our staff to achieve that goal.
- Promotion and enforcement of the provisions of the Mine Health and Safety Amendment Act.
- The respective working places and mines are stopped where serious contraventions have been revealed during inspections and accident investigations.
- The Department will support the IMSC Task Team in ensuring that illegal mining is eliminated.
- Continuously commend and encourage mines' health and safety achievements.

4.3.2 Regional report: Free State

4.3.2.1 Overview of the Region

During the period under review one of the major mines in the region; Pamodzi Gold Mines was closed due to insolvency. The mine was out of production for most of the year and on care and maintenance, influencing the labour figures by 4000 workers who were retrenched.

The mine was taken over by Harmony Gold Mining Company, which is one of the 2 major mining houses in the gold sector, Goldfields Gold Mining Company being the second one, in the first quarter of 2010. These two mines have 26 working shafts between them of which 4 are set to close in 2010.

The main commodities in this region are:

- Gold, employing 31 185 people,
- Diamonds, employing 1 843 people,
- Coal, employing 2 939, working underground and open pit strip mining, and
- Other small mines, employing 5 119 people, working in open pit quarries, brick making and diggings.

4.3.2.2 Inspections and Audits

During the year under review, officers of this region conducted 784 underground, surface and statutory inspections. A total of 83 audits were done on various systems.

Category	Inspections	Audits
Planned	904	83
Actual	784	83
% Compliance	87%	100%

The planned figures are based on the strength of the total compliment and calculated over 12 months. The region is understaffed by 9 inspectors, accounting for 36% of the compliment.
The Principal Inspector of Mines also resigned during August and one Senior Inspector of Mines died in October. The office relocated in October and challenges caused various backlogs despite the abovementioned, the region performed well.

4.3.2.3 Total accidents Reported

Fatal Accidents	21
> 14 Day Reportable Accidents	405

- 21 persons were fatally injured in 19 separate accidents
- The 14 day reportable accidents decreased from 472 in 2008 to 405 in 2009, a 14% improvement. Fatal accidents however increased from 18 to 21, a regression of 16%.

The increase in fatalities is regrettable.

- Falls of rock accidents accounted for 29% of the total accidents, an increase of 3% from 2008 while machinery related accounted for 24% of the total figure a decrease of 3%.

4.3.2.4 Investigations and Inquiries

During the year under review the officers of this region initiated 147 accident investigations and 19 accident inquiries.

	Investigations	Inquiries	Total
Initiated	90	19	109
Completed	63	14	77
% Completed	70	74	71

Seven inquiries of 2008 were completed as well as seven that occurred in 2009, Most of the inquiries were held. It is planned to complete the inquiries as soon as possible. The office moved during the middle of October and experienced several challenges which caused various backlogs.

4.3.2.5 Disaster Type Accidents

This region can gladly say that no "Disaster Type" accidents occurred during the year under review.

4.3.2.6 Statutory Notices

During the year under review the officers of this region issued 241 orders to stop unsafe and unhealthy practices (i.e., Section 54) and 222 orders to comply with health and safety requirements (i.e., Section 55) to the employers of the mines. 37 mines were stopped and various practices.

Section 54 Notices	Section 55 Notices
241	222

4.3.2.7 Administrative Fines

No administrative penalties were imposed during the period under review as the directive is still being finalized.

No of fines recommended by inspector	0
No set aside by Principal Inspector	0
No imposed by Principal Inspector	0
Values of fines imposed	R0
Appeals	None
Value of fines paid	R0

4.3.2.8 Topical Issues and Matters of Interest

An Illegal Mining Forum, stakeholder established by the Minister, was to address the illegal mining problems. The Illegal Mining Forum consists of members of the Departments of Mineral Resources and Home Affairs, the South African Police Services, the National Prosecuting Authority, local municipalities and communities, mining houses and organised labour. The forum is chaired by the Regional Manager: Gold and Platinum

Illegal miners are still a huge problem in the underground workings of the gold mines, their sole purpose to obtain (steal) gold bearing material. They pose a health and safety hazard to themselves and to mine employees as a result of their unsafe actions.

All the shafts in the Welkom area are interconnected by haulages, raises and worked-out areas. Illegal miners go down the various operating shafts from where they move to specific areas. Various methods are used by illegal miners to bypass the mine's access control systems. Some methods involve bribery. Huge amounts of money are being paid to mine employee's to get them underground. Many of the illegal miners are illegal immigrants and ex-mineworkers.

During one operation over a period of 10 days against the illegal miners, a total of 114 were arrested. This operation was a huge success and the first of its kind combining mine security and the South African Police Services.

As part of the mines ongoing initiatives to combat this problem, they have tightened their security at shaft heads, they conduct frequent searches on persons, they have spot inspections underground and have gone to the extent of limiting the amount of food taken underground.

Challenges

Fall of ground accidents still remain the major challenge at the mines. A fall of ground accident occurred on 23 April 2009 whereby two persons were trapped. Rescue operations were initiated and the bodies were retrieved 3 days later.

A large portion of the stope collapsed and rescue workers had to work under difficult conditions to retrieve the bodies. After completion of the rescue and recovery operations, the area was abandoned, never to be mined again.

A full inquiry into the accident was done to determine the cause of the accident.

In another case a miner was fatally injured when he was inundated by a side wall slip on a diamond mine while exploring an old tunnel encountered. The sidewall slipped and plunged into the open pit. Another miner was with the now deceased but miraculously escaped when the moving ground slipped past another old excavation and he managed to jump into it. The now deceased also jumped but was drawn with the slip of rock.

Skills shortages in the mining industry are still a challenge.

4.3.2.9 Examinations

Certificate	Exam Boards	No. of Candidates	Certificates Issued
Mine Overseers	42	326	27
Blasting	44	553	338
Onsetter	31	98	98
Lampsman	2	2	2

The Blasting Board examinations came to an end on 30 June 2010 and there was pressure to complete all the applications in time.

The low pass rate figure in many of the mine overseer examinations remains a concern to the region. On investigation into the reasons for the low pass rate, it was found that candidates come to the examination boards unprepared. In the mine overseers' examination, many candidates pass only one subject at a time, resulting in a high number of re-applications.

In reaction to the findings, the region proposed to the mines that candidates must be screened or tested as to their readiness for the specific examination before such a candidate is allowed to sit for the examination.

We trust that this process will help in raising the numbers of candidates who pass the relevant examination.

4.3.2.10 Land use applications and complaints

	Received	Completed	Percentage
Township Developments	72	69	96%
Mining and Prospecting Rights	230	230	100%
Closure Certificates	56	52	93%
Environmental Management	282	282	100%
Complaints	41	41	100%

4.3.2.11 Strategies Adopted for Improving Status Quo

This region launched the following projects during the year in an effort to improve the status quo:

- Continuation of in-stope roof-bolting;
- Continuation of preconditioning for identified areas;
- Participating in working groups to monitor and mitigate occupational diseases;
- Developing close partnerships with other government departments, trade unions and other key stakeholders;
- Audit / inspections of safety management systems and the implementation thereof;
- Emergency preparedness and response;
- Quarterly workshops on health and safety with key stakeholders: Review current status and find a way forward, and
- Stoppages of unsafe practices and workplaces.

4.3.3 Regional report: Gauteng

4.3.3.1 Overview of the Region

The major commodity mined in the region is gold, which is mined in the large, deep mines of the West and Far West Rand. Mining activity in the old mining areas of the Central and East Rand is waning, with ERPM having closed down and Grootvlei in serious financial difficulty. However, the Modder East operation of Gold One has commenced production and Central Rand Gold to the west of Johannesburg is close to reaching the production phase. Diamond mining is carried out at the underground Petra Mine in Cullinan as well as numerous, small surface operations. Chrome and platinum is mined in the Brits district. In addition, there are a large number of hard rock quarries, clay quarries and sand mines. The labour force in the region is approximately 98200 persons

4.3.3.2 Inspections and Audits

During the year under review, officers of the region conducted 1200 inspections and 48 group audits and an additional 94 audits on management safety systems, occupational health and medical systems. Group audits are conducted on a weekly basis where mines are targeted to address specific problem areas. The shortage of inspectors impacted badly on the total number of inspections and audits carried out.

Even though the region is short staffed, every effort is made to increase inspector visibility on the mines. Audits of safety systems on the mines have revealed shortcomings at some mines.

Category	Inspections	Audits
Planned	**1549**	**179**
Actual	**1200**	**142**
% Compliance	**77%**	**79%**

4.3.3.3 Total Accidents Reported

During the year 44 persons were fatally injured in 39 accidents in the mines in the region, 14 fewer persons than in 2008. This is a notable improvement on previous years. 783 accidents were reported by the mines in the region, which is also an improvement on the achievements of 2008.

During the year under revue there was a major improvement in the number of persons fatally injured on small mines and surface operations when compared to previous years.

Fatalities	44
> 14 Day Accidents	783
1 to 13 day reportable Accidents	248

4.3.3.4 Investigations and Inquiries

Mines are reporting accidents and incidents to the responsible inspectors on a daily basis. This allows for such occurrences to be investigated very soon after the event. Risk profiles of working areas are being carried out so that the "hot spot" areas can be identified and targeted. Specific types of accidents are being targeted in an attempt to improve matters.

	Investigations	Inquiries	Total
Initiated	342	44	386
Completed	342	20	362
% Completed	100%	45%	94%

4.3.3.5 Disaster Type Accidents

Three seismic evens at Driefontein and one at Kloof resulted in the death of 8 persons with 2 persons having been fatally injured in each event. Two persons were fatally gassed at Grootvlei Gold Mine.

4.3.3.6 Statutory Notices

During the year, officers of the region issued 175 orders to stop unsafe and unhealthy practices (sect 54) and 258 orders to comply with health and safety requirements (sect 55) to the employers of the mines.

Section 54 Notices	Section 55 Notices
175	258

4.3.3.7 Administrative Fines

No administrative fine was recommended by the officers of the region.

No of fines recommended by inspector	Nil
No set aside by Principal Inspector	Nil
No imposed by Principal Inspector	Nil
Value of fines imposed	Nil
Appeals	Nil
Value of fines paid	Nil

4.3.3.8 Examinations

As can be seen from the tabulation, the success rate for candidates, especially for the Mine Overseers examination, is very poor. Candidates are generally poorly prepared for the examinations, which occupy much inspector time. Blasting Certificate examinations came to an end on 30 June 2009 as per the Chief Inspector's directive. The Mining Qualification Authority is now issuing the equivalent qualification.

Certificate	Exam Boards	No of Candidates	Certificates Issued
Mine Overseers	49	583	35
Blasting	37	459	206
Onsetter	18	289	148
Lampsman	10	15	4

4.3.3.9 Land Use Applications and Complaints

Much time is spent by the individual inspectors in processing applications for townships and new mining rights. An increasing number of complaints emanate from townships that are encroaching on established mining activities.

	Received	Completed	Percentage
Township developments	188	187	99%
Mining and Prospecting Rights	187	214	114%
Closure Certificates	5	3	67%
Environmental Management	137	133	97%
Complaints	29	26	90%

4.3.3.10 Matters of Interest

- Rising water in the Witwatersrand Compartments

As reported last year, pumping of water from the Central Basin, which extends from Roodepoort to Boksburg, was stopped. The water is now some 600 metres below surface at ERPM where pumping was last carried out and the water in the basin is rising at approximately 0, 7 metres per day. No decision has yet been taken to determine where a new pump station is to be established to recommence pumping operations. Central Rand Gold has a mining right over much of the Central Rand and is planning mining to a depth of 300 metres below surface. A decision with regard to the pumping and treatment of the water and the apportionment of costs is needed as a matter of urgency.

Pamodzi Gold Mine (Grootvlei) continues to pump large volumes of water, currently some 106 Mgl/day, from the adjoining mines to allow mining to continue in the East Rand Basin. The mine is in provisional liquidation and the work force is on strike. Acute financial problems have resulted in untreated water having been discharged into the Blesbok Spruit for more than a month.

First Uranium (Randfontein Operations) was able to put measures in place to improve the quality of the water that is being discharged from the mine. However, as a result of the very wet summer that has been experienced the volumes currently discharging from underground cannot be fully treated and between 10 to 20 Mgl of untreated water is flowing into the Krugersdorp Game Reserve on a daily basis.

- Gautrain Rapid Rail Link

The mining of the 15 km tunnel section has been completed and construction for the track is in progress. Construction of the northern most section between Sandton and Marlboro portal is complete and trains are currently running from Sandton to the O R Tambo International Airport on a trial basis. Official opening of this section of the route is scheduled for 27 May 2010.

4.3.3.11 Strategies to Improve the Status Quo

The following are some of the strategies that have been adopted to improve health and safety in the region:

- Focusing on certain areas or disciplines that have been identified as high risks:-
  - Seismically active areas
  - Fall of ground active areas
  - Hauling related issues.
  - Occupational hygiene / medicine related issues.
  - Engineering and shaft related issues.
- Concentrating on engineering out hazards (undesirable behaviour)
- Ensuring that mines plan safely and maintain daily planning.
- Behaviour based safety campaigns.
- Coercion of mine management to be more proactive in the prevention of dangerous situations and to initiate their own action measures following an accident.
- An increase in systems audits by inspectors with follow-up underground inspections.
- Increased interaction between inspectors, mine management and unions.
- Monitoring emergency preparedness and response at the mines.

4.3.4 Regional report: North West

4.3.4.1 Overview of the Region

The North West Region is made up of two distinguishable mining areas, namely the Klerksdorp area where the main commodities mined are gold, uranium, alluvial diamonds along the Harts and Vaal rivers and the Rustenburg area where the Platinum Group Metals (PGMs) and Chrome are predominantly being mined.

The region has a variety of other commodities like Iron Ore, Dimension Stone (Granite and Slate), Lime, Fluorspar, Vanadium, fissure diamonds and Clay that are also being mined. The Gold, Uranium, PGMs, Chrome and Fissure Diamond mines are predominantly made up of labour intensive underground operations. There are numerous slate and granite quarries with the rest being open pit operations.

4.3.4.2 Inspections and Audits

Category	Inspections	Audits
Planned	948	43
Actual	845	40
% Compliance	89%	93%

Planned target for inspections were not achieved due to vacancies and newly appointed inspectors in the region. Other workload factors contributing to this are; examination boards, accident inquiries and investigation, administrative work, land use applications and complaints. Planned target for audits were not achieved as a result of availability of mines, moving of offices and training.

4.3.4.3 Total Accidents Reported

Fatal Accidents	47
> 14 day reportable accidents	1710
1 to 13 day reportable accidents	829

During the year the North West Region experienced 47 fatal accidents in which 56 persons were fatally injured. This is a 4, 1% improvement when compared to the results achieved in 2008. The contribution of fall of ground accidents increased from 28, 5% to 44, 7% of the total.

4.3.4.4 Investigations and Inquiries

	Investigations	Inquiries	Total
Initiated	497	47	544
Completed	298	26	324
% Completed	60%	55%	60%

The reasons for high percentage of inquiries not completed are vacancies and the high labour turn over and inspectors who are still under training.

4.3.4.5 Disaster Type Accidents

A massive fall of ground at Impala Platinum Mine, Number 14 Shaft claimed the lives of nine people.

A methane explosion at Impala Platinum Mine, Number 14 Shaft claimed the lives of two mineworkers and the third one was critically injured.

4.3.4.6 Statutory Notices

Section 54 notices	Section 55 Notices
387	155

Mine Health and Safety Act Section 54 instructions were issued for explosives control, poor baring, and poor ventilation in stopes, sub-standard support, substandard and broken rail switches and tracks, locomotive braking systems not complying with standards, lock-out procedures and systems not available, unsafe electrical systems. Most of the Section 54 instructions issued resulted in the stoppage of the workplace(s) or equipment until remedial measures are put in place and presented to the Principal Inspector of Mines.

4.3.4.7 Administrative Fines

No. of fines recommended by inspector	2
No. set aside by Principal Inspector	0
No. imposed by Principal Inspector	1
Values of fines imposed	R50 000
Appeals	0
Value of fines paid	0

4.3.4.8 Topical issues and Matters of Interest

Unfortunately there has been a sharp increase of fall of ground fatalities from 27% in 2008/2009 to 50% in 2009/2010.

This increase could be attributed to a number of shortcomings from the mines:

- Non-adherence to support mine standards;
- Inadequate mine and support designs by Rock Engineers;
- Failure to adhere to Rock Engineer's recommendations;
- Inadequate mine staffing to cut costs;
- Poor early entry examination;
- Production pressure and production bonuses; and
- Reluctance to adopt latest and proven technologies.

There was also an increase in the cases of medical deaths at mines mainly as a result of heart attacks.
This unfortunate trend has once again indicated the need for mines to pay more focus on health matters.

Although the prices for platinum and PGM's are relatively low, the mines in the Rustenburg area are still expanding. This expansion resulted in an increase in labour force and thus the increase in novices employed by the mines. Novices are more accident prone and they can have an influence on the number of accidents.

With the increased mining activities in the Region the complement of inspectors for the Region remained constant and is not enough for sufficient visibility and inspections on the mines.

The exodus of inspectors continued and there are still nine vacancies for inspectors in the region. Although some of the positions were filled with new inspectors, it will take some time to ensure that they are appropriately trained to be an inspector.

4.3.4.9 Examinations

Certificate	Exam Boards	No of Candidates	Certificates Issued
Mine Overseers	44	446	56
Blasting	53	651	205
Onsetter	24	147	121
Lampsman	6	30	17

4.3.4.10 Land use applications and complaints

	Received	Completed	Percentage
Township Developments	90	90	100%
Mining and Prospecting Rights	136	132	97%
Closure Certificates	70	65	93%
Environment Management	120	117	98%
Complaints	15	8	54%

4.3.4.11 Strategy Adopted to Improve Status Quo

The following are some of the strategies adopted by the region to improve the Status Quo:

- The region has established the following Health and Safety tripartite forums which meet on regular basis:
  - Rustenburg
  - Klerksdorp
  - AngloGold Ashanti
- The tripartite forums are mainly made up of the regional Inspectorate officials, organised labour and mine managers.
- The Rustenburg tripartite forum successfully established the first ever national Hardrock Safety conference in September 2009. Hardrock safety will be held on annual basis.
- The Rustenburg tripartite forum has successfully compiled and implemented safety declaration record and the explosive control sheet.
- All burning and topical issues are communicated and discussed at the health and safety forums by all stakeholders at regular intervals.
- The involvement of employee representatives (organised labour) in mine health and safety matters at mines is encouraged and promoted.
- Statutory instructions to halt unsafe or unhealthy mining operations are issued to poor performing mines which consistently injure mineworkers.
- Before any Section 54 instruction may be considered for upliftment; the employer and organised labour must first make a presentation of remedial measures of system failures to the Principal Inspector of Mines or his delegated official.
- Inadequately staffed mines are instructed to revisit the staffing of their mining operations and also to conduct more health and safety statutory inspections for example safety officers' inspections of working places.
- Reporting and monitoring of methane intersections and exposure of nitrous fumes have been communicated at all safety forums.
- Meetings with the executives of various mining houses are arranged as and when it is necessary to communicate critical mine health and safety concerns.
- All accident investigations are attended by the 3(1) appointed managers to ensure their involvement. At inquiries into fatalities the employer representative are compelled to attend.

4.4 Regional operations – Other Mines and Offshore

4.4.1 Regional Operations Manager's Overview

4.4.1.1 General

The Chief Directorate: Other Mines and Off-shore Operations is responsible for the Cape regions comprising of Eastern Cape, Western Cape and the Northern Cape effectively covering the largest percentage of the surface area of South Africa. The regions have the lowest labour force in terms of mining and relatively small mining activity compared to other regions or provinces.

Mining activity occurs over range of commodities which includes base metals, industrial minerals, diamonds, and petroleum products. Mining operations occurs on surface, underground and off-shore. There is also a small coal mining operation which has started operating on a relatively small scale in the Indwe area.

4.4.1.2 Achievements

The Chief Directorate through the regional offices has conducted a total number of 100 audits, 1539 inspections 78 investigations and 7 inquiries against a target of 90 audits 1253 inspections, 81 investigations and 7 inquiries respectively. This translates to achievement of 111% audits, 123% inspections, 96% investigations and 97% inquiries.

The underachievement relates to staffing issues in the regional offices, which is mainly in the Northern Cape and largest of the three regions. Most vacancies have been filled; all the regions are operating at full complement except one vacancy in the Northern Cape.

Although the Northern Cape region achieved a drop of 22% year on year in fatality rate per million hours worked, the fatality rate in the Western Cape increased by 58%. The Eastern Cape, for the second year running, worked fatality free in 2009.

4.4.1.3 Challenges

There is still serious challenge on health issues which relates to collection and analysis of data to establish whether we are making any real improvement in reducing exposures to conditions conducive to health challenges in the mining industry, to ensure that occupational diseases are effectively managed. The new information management system in the Inspectorate is currently in its final stage of development, in order to address this challenge.

The other challenge is the availability of expertise in the mining industry to ensure that there is enough capacity to deal with health one safety issues especially in the small mining operations. There is still a lack of training facilities in the smaller regions, which needs urgent attention going forward. There are various initiatives within the Inspectorate and Mining Qualifications Authority to address this pressing challenge.

4.4.1.4 Topical issues and matters of interest

Coal mining operations have commenced in the Eastern Cape region in the area of Lady Frere/Indwe, which is an open-cast mining operation with underground mining operations expected to start in later part of 2010.

There is an increase of informal mining in the Northern Cape region which will require consolidation of efforts of different stakeholders to ensure that it is effectively managed or legalised to ensure that we maximise benefits to the area communities in the area, especially in arrears with limited job opportunities.

4.4.1.5 Strategy to improve status quo

There will be continuation of the strategy of zero tolerance to non-compliance taking into account the increased powers and measures at the disposal of the Inspectorate to deal with non-compliance, as result of the amendment of the Mine Health and Safety Act.

The inspectorate will also continue to participate in structures established to deal with challenges relating to informal mining and issues of training and capacity building in the mining industry.

4.4.2 Regional report: Eastern Cape

4.4.2.1 Overview of the Region

The Eastern Cape is the second largest of South Africa's nine provinces in terms of area and third largest in terms of population. The province includes the former homelands of Transkei and Ciskei and is inhabited with almost seven million people who speak mainly Xhosa, Afrikaans and English.

There are some 246 mining operations in the Eastern Cape employing over 2000 people in the medium and high risk operations. Mining takes place in some 57 hard rock quarries and many gravel and clay quarries to provide the necessary materials for the construction industry. There continues to be much activity through the region in repair and upgrading of roads from materials mined from many borrow pits. Production activities at many operations increased production levels to support the infrastructure development for the 2010 soccer world cup.

4.4.2.2 Audits and Inspections

Inspections were performed in accordance with the annual planning.

Category	Inspections	Audits
Planned	374	44
Actual	440	52
% Compliance	118%	119%

4.4.2.3 Accidents

No fatal accidents occurred in the Eastern Cape for the 2009 calendar year.

Fatal Accidents	0
> 14 day reportable	8
1 to 13 day reportable	4

Period 1January 2009 to 31 December 2009

4.4.2.4 Investigations and Inquiries

The necessary investigations have been completed for the >14 day accidents. Eastern Cape mining equipment presided over two fatal accidents which occurred in the Western and Northern Cape. These are not recorded in the table below to avoid double accounting.

	Investigation	Inquiries (Including investigation)	TOTAL
Initiated	8	0	8
Completed	8	0	8
% Compliance	100%	-	100%

4.4.2.5 Disaster Type Accidents

No disaster type accidents were reported.

4.4.2.6 Statutory Notices

A total of 193 Section 55 notices were given to mines. These were mainly due to due to the following non-compliances:

- Occupational Hygiene: with hygiene measurements, dust control and lack of mandatory codes of practice.
- Occupational Medicine: with regard to medical surveillance, Annual Medical Reports, lack of mandatory codes of practice and first aid training.
- Mine Equipment: with the new machinery regulations on conveyor belts and general machinery, lack of mandatory codes of practice, and risk assessment.
- Mining: with regard to signage and lack of mandatory codes of practice.

A total of four Section 54 notices were issued mainly for guarding of moving machinery, steep slopes, and mining closer than 100m to objects to be protected.

Section 54 notices	Section 55 notices
4	193

4.4.2.7 Administrative Fines

No of fines recommended by Inspector	Nil
No set aside by the Principal Inspector	Nil
No imposed by the Principal Inspector	Nil
Value of fines imposed	Nil
Appeals	Nil
Value of fines paid	Nil

4.4.2.8 Topical Issues and Matters of Interest

It was reported last year that Elitheni Coal had been granted a mining permit for opencast mining as well as a Mining Right to mine underground. This mine is situated in the Indwe / Lady Frere area in the Eastern Cape. During 2009 infrastructure development continued with blasting taking place in the Open Cast mining area. An amount of 80 000 tonnes remains to be mined from the open cast operations prior to surface infrastructure being completed. Underground mining is expected to commence in late 2010.

While the Social and Development Plan includes the incorporation of illegal miners into underground production sections of the mine, illegal mining, otherwise referred to as 'criminal mining' continues in the lease area.

4.4.2.9 Examinations

Certificates	Exam Boards	No of Candidates	Certificates Issued
Mine Overseers	Nil	Nil	Nil
Blasting	7	7	7
Onsetter	Nil	Nil	Nil
Lampsman	Nil	Nil	Nil

4.4.2.10 Land Use Applications

	Received	Completed	Percentage
Township Developments	18	14	78%
Mining and Prospecting Rights and Mining Permits	175	167	95%
Mine Closures	10	5	50%
Environmental Management	29	36	124%
Complaints	11	11	100%

4.4.2.11 Strategy Adopted to Improve Status Quo

The Eastern Cape Region embarked on Presidential Audits in December 2007, which ended in May 2009. The operation in the Eastern Cape which top scored with 82% whilst the lowest score was 25%. The average score was disappointing at only 61%. Following each Presidential Audit employers lodged a corrective action plan. Inspectors are now doing follow up audits to monitor progress made during these follow up audits. It is pleasing to report a marked improvement in audit scoring achieved during these follow ups. These Audits continue to serve to increase awareness to the Mine Health and Safety Act and thereby increase disappointing compliance levels revealed by the Presidential Audits.

During September 2009 Inspectors went on a regional road show in an effort to further promote the Mine Health and Safety Act as well as the Amendment Act. Four locations were visited throughout the Eastern Cape with disappointing attendance at each venue. A total of 38 persons attended the presentations made.

Various meetings have been made to promote the Inspectorate and in so doing heighten the awareness of health and safety viz. regional offices of NUM, Department of Labour, employer organisations such as Clay Brick Association and ASPASA, SAPS and the Director Public Prosecution.

4.4.3 Regional report: Northern Cape

4.4.3.1 Overview of the Region

The Northern Cape Region is situated in the central part of the country, with its boundaries formed by the following areas: Namibia North-Westerly; Botswana and North West Province situated North Easterly; Free State Region situated in the East; Eastern Cape in the South East and the Western Cape forming the South boundary.

There are 174 operating mines in the Northern Cape and employing over 23 683 people in the low, medium and high risk operations.

A wide variety of Minerals are mined in this region, with diamonds being the main commodity. Base metals, iron ore manganese, kieselghur, mica, rose quarts, mica, gypsum, tiger's eye, granite and other minerals are also being mined, including a number of brick works, sand works, and quarries.

4.4.3.2 Audits and Inspections

Inspections were performed according to the annual plan and agreed targets of the department. Two posts were filled in July and September one mining and the other Occupational medicine. Assistant inspectors of Mines (Machinery) were also appointed in the two vacant posts of Machinery inspectors in September 2009.

Category	Inspections	Audits
Planned	393	22
Actual	692	29

4.4.3.3 Accidents

Four fatal accidents occurred in the Northern Cape for the 2009 calendar year.

Fatal Accidents	4
> 14 day reportable	57
1 to 13 day reportable	43

Period 1 January 2009 to 31 December 2009

4.4.3.4 Investigations and Inquiries

58 Reportable accident (> 14 day accidents) investigations were completed and 3 are still outstanding.

	Investigation	Inquiries (Including investigation)	TOTAL
Initiated	58	4	62
Completed	55	4	59
% Compliance	95%	100%	95.1%

4.4.3.5 Disaster Type Accidents

No disaster type accidents were reported.

4.4.3.6 Statutory Notices

A total of 221 section 55 notices were given to mines. These were mainly due to the following: non-compliances:

- Occupational Hygiene: with hygiene measurements, dust control and lack of mandatory codes of practice.
- Occupational Medicine: with regard to medical surveillance, Annual Medical Reports, lack of mandatory codes of practice and first aid training.
- Mine Equipment: with the new machinery regulations on conveyor belts and general machinery, lack of mandatory codes of practice, and risk assessment.
- Mining: due to lack of legal appointments and lack of mandatory codes of practice.

A total of 24 Section 54 notices were issued mainly for guarding of moving machinery, steep slopes, and blasting operations.

Section 54 notices	Section 55 notices
24	361

4.4.3.7 Administrative Fines

No of fines recommended by Inspector	0
No set aside by the Principal Inspector	0
No imposed by the Principal Inspector	0
Value of fines imposed	0
Appeals	0
Value of fines paid	0

4.4.3.8 Topical Issues and Matters of Interest

Illegal mining is a problem in the diamond dumps and other closed sections of some of the opencast mines, and sugilite continues in the area and results in some dangerous workings e.g. undermining.

4.4.3.9 Examinations

Certificates	Exam Boards	No of Candidates	Certificates Issued
Mine Overseers	3	14	3
Blasting	22	89	74
Onsetter	2	9	3
Lampsman	1	3	3

4.4.3.10 Land Use Applications

	Received	Completed	Percentage
Township Developments	0	0	0%
Mining and Prospecting Rights	478	478	100%
Closure Certificated	102	100	98%
Environmental Management	31	31	100%
Complaints	27	24	89%

4.4.3.11 Strategy Adopted to Improve Status Quo

Following each Audit employers lodged a corrective action plan though some of the mines did not communicate these measures to the office. These Audits continue to increase awareness and improve health and safety and compliance to the Mine Health and Safety Act.

Meetings have been made to promote the Inspectorate and in so doing heighten the awareness of health and safety viz. regional offices of NUM, Department of Labour, employer organisations such as NCMMA, ASPASA, SAPS and the Director of Public Prosecution.

4.4.4 Regional report: Western Cape

4.4.4.1 Overview of the Region

The mining sector in the Western Cape is dominated by construction material producers (sand, stone, clay and dolomite for cement production) with brick making being the most labour intensive type of operation. Several industrial mineral mines exist, Namakwa Sands being the largest of these. Labour in the region is about 6338 and they work on 224 registered surface and opencast mines.

There are no underground mines in this region.

The year started off on a bad note with three fatal accidents occurring within the first five months. There after the situation improved with no further fatalities being reported.

4.4.4.2 Inspections and audits

Due to the majority of mines in the region being medium to small mines, a thorough physical and systems check is done on all mines during routine inspections. There has been a marked improvement on high risk issues encountered at mines such as machine guarding as a result of ongoing inspections being carried out by the different inspector disciplines.

The shortfall in inspections was primarily as a result of non-achievement of the target, ill-health of inspectors and budget constraints.

Category	Inspections	Audits
Planned	513	24
Actual	407	19
% Compliance	79%	79%

4.4.4.3 Total accidents reported

A total of 46 accidents were reported with the breakdown as illustrated below.

- Caught between and struck by, continue to be the prevalent type of reportable accidents that occur in the Western Cape.
- Comparing 2009 / 2010 with 2008 / 2009 accident statistics there has been a 4 % reduction in accidents.

Fatal accidents	3
> 14 Day Accidents	15
1 to 13 day reportable Accidents	28

4.4.4.4 Investigations and inquiries

The following fatal accidents were inquired into:

1. A contract worker was fatally injured when he fell from a flexible ladder whilst climbing out of a 6 metre vertical tank.
2. A general labourer was fatally injured when he was trapped at the tail pulley of a screening plant conveyor.
3. A forklift operator was fatally injured when the forklift he was operating went off a ramp and fell onto him.

	Investigations	Inquiries	Total
Initiated	15	3	18
Completed	15	3	18
% Compliance	100%	100%	100%

4.4.4.5 Disaster-type accidents

No disaster type accidents occurred in the region during the reporting period.

4.4.4.6 Statutory notices

The majority of the Statutory Notices were issued for inadequate guarding of machinery, training and risk management issues.

Section 54 notices	Section 55 notices
Notices	Notices
8	165

4.4.4.7 Administrative fines

No. of Fines recommended by Inspectors	1
No. set aside by Principal Inspector	0
No. imposed by Principal Inspector	1
Values of Fines imposed	R 10000
Appeals	0
Values of Fines paid	R 10000

4.4.4.8 Topical issues and matters of interest in area of responsibility

Due to the downturn in the economy there was a corresponding slowing down in mining activities, especially in the clay and aggregate sectors. Brick operations, which are the largest employers in the region, were the worst affected. Three mines closed down and numerous others suspended production for periods of 9 to 12 months.

Severe drought conditions in the Southern Cape aggravated the situation and directly led to the stopping of production at two clay brick mines.

Several mines in the region are fighting court orders brought about by local municipalities because they have not applied for rezoning permission in terms of the Land Use Planning Ordinance. One municipality has gone so far as to issue instructions to all mines to stop operating until they have acquired the required rezoning.

The DMR is opposing the actions taken by the municipalities and is represented in the court cases currently taking place.

4.4.4.9 Examinations

Since there are no underground mines in this region no Mine Overseer, Underground Blasting, Onsetter and Lampsman examinations took place in this region. Very few opencast certificates are issued in this region and this explains why there were only two boards during the year under review.

Certificate	Exam Boards	No. of Candidates	Certificates issued
Mine Overseer	Nil	Nil	Nil
Blasting	2	4	4
Onsetter	Nil	Nil	Nil
Lampsman	Nil	Nil	Nil

4.4.4.10 Land use applications and complaints

	Received	Completed	Percentage
Township developments	87	87	100%
Mining and Prospecting Rights	89	89	100%
Closure Certificates	12	12	100%
Environmental Management	88	88	100%
Complaints	4	4	100

4.4.4.11 Strategies adopted for improving status quo

1. New mines which have attained mining rights and mining permits over the last two years are being registered and included into the inspection database.
2. Future challenges for the inspectorate are to influence mines to up the quality and effectiveness of
   - Risk management
   - Training
   - Safety based behaviour

4.5 Policy Unit

The Policy Unit has been established to provide clear policies and regulatory framework to promote Health and Safety in the minerals sector. The unit provides support to the MHSI through conducting policy studies, reviewing occupational health and safety legislation and raising awareness on occupational health and safety matters in the industry by publishing newsletters.

Members of the Policy Unit effectively participate as state representatives in tripartite structures established in terms of the MHSA, 1996 (as amended). These structures include the Mine Health and Safety Council (MHSC), the Mining Qualifications Authority and their permanent committees. The unit also coordinates HIV and AIDS work in the mining industry, through the active role played by its members in the HIV and AIDS Tripartite Committee.

4.5.1 Policy studies

The CIOM and the Head of Policy Unit sourced the WITS Centre for Sustainability in Mining Industry to conduct a Skills gap analysis for the MHSI Policy Unit. A need for capacity development in the area of Policy Development was identified, a process which led to development of a Guide and procedure on Policy Development for the MHSI.

Prior to conducting policy studies, the Policy Unit scanned legislation, identified gaps on OHS policies and best practice, reviewed existing statistics and submitted reports to the Chief Inspector of Mines.

Policy studies conducted were on

- Accidents caused by the use of track bound equipments on mines
- The effects of a lack of second escape way on employees working underground during a power failure
- The effects of the lack of the secondary outlets on underground mines
- Fall of ground accidents in the SA mining industry
- Status of mine rescue services in SA
- Assessment of the guidance note on lung function test for Occupational medical practitioner in the mining industry
- The effectiveness of the Occupational Health and Safety representatives Committees in South African mines

- OHS training
- OHS reporting

4.5.2 Articles for the mining industry newsletters

As its contribution to keep the industry informed on health and safety matters, the Policy Unit submitted several articles for the mining industry newsletter coordinated by the SSU, of which the following 8 were published in
the newsletters:

- HIV and AIDS Implementation Plan
- The role of employers in assessing and responding to airborne lead
- Health and Safety in Small Scale Mining: A Perspective from the African Mining Partnership Conference 2009
- Managing TB, MDR and XDR TB in SA Mines
- Occupational exposure to HIV among health care workers in the mining industry.
- Diesel particulate emissions in the South African mining industry.
- Fall of ground accidents in the South African mining industry and elsewhere in the world.
- Diesel Particulate Matter in the mines.

4.5.3 Effective Participation in Tripartite Committees

The MHSC and the MQA are tripartite structures established under the MHSA. Members of the Policy Unit chaired and actively participated in tripartite committees within the MHSC, strategic and other skills development initiatives within the MQA and other interdepartmental committees, to ensure advocacy for State positions within these committees. The MHSC committees, i.e. MRAC, MOHAC and SIMRAC give specialist advice to the MHSC on regulatory mechanisms, occupational health matters and occupational health and safety research priorities. These committees advice assisted the MHSC to formulate and prioritize its advice to the Minister on Occupational Health and Safety issues in the mining industry.

4.5.4 Policy and Legislative Development

The Unit actively participated in the ongoing review of initiatives to formulate the following guidelines:

- Guideline for the compilation of a mandatory code of practice for the prevention of flammable gas explosions in mines other than coal mines.
- Guideline for the compilation of a mandatory code of practice for the prevention of flammable gas explosions in coal mines.
- Guideline for the compilation of a mandatory code of practice for the assessment of personal exposure to airborne pollutants
- Guideline on the management of disability/ return to work in the mining industry
- Guideline and regulation for emergency care on a mine
- The Process document on formulation of regulatory mechanisms by the MHSC

4.5.5 HIV and AIDS issues

An HIV and AIDS Principals meeting was held at the Department of Minerals and Energy under the auspices of the Mining Tripartite HIV and AIDS Committee. Stakeholders from State, Employers and Labour attended these meeting; of which high on the agenda were deliberations on the HIV and AIDS Implementation Plan for the mining industry, initiatives to involve participation of mining communities within the tripartite committee and housing guidelines within the industry. The need to evaluate implementation of HIV and AIDS Policies and programs within the mining industry led to initiatives to conduct a survey to assess implementation of the HIV and AIDS and STI NSP 2007-2011. A report on the outcomes of the survey will be finalized during 2010, of which the outcomes will inform preparations for the next Mining HIV and AIDS Summit.

4.6 Technical Support Unit

4.6.1 General overview

The core business of the Technical Support Unit is to provide a centre of excellence in order to provide specialist and technical services to the Inspectorate with particular focus on the regional components and other Head Office Units.

Some of the key responsibilities of the Unit are:-

- Participate in specialist investigations and inquiries within regions when required;
- To marshall / mobilise specialist skills when required;
- To provide integrated professional advice and make recommendations from incidents, accidents and legislation to other Government Departments, the mining sector and other key stakeholders;
- Liaise with national and international key stakeholders in order to identify key research areas and influence key research agenda via the Policy Unit for research institutions and conduct literature research to maintain specialist knowledge;
- Ensure quality assurance of the performance of the inspectorate by providing mentorship, knowledge transfer and promotion of safety to the inspectorate;
- Identify technical training needs that exist in the MHSI and recommend appropriate action; and
- Liaise with other Governmental departments and other key stakeholders for the development of standards and specifications.

Achievements

The Technical Support Unit through the Mine Safety team; together with the Policy Unit has managed to develop the final draft of the Guidelines on Administrative Fines. Furthermore; the Mine Safety team has revised and updated audit forms for SAMSHA system and the forms include those for:

- Fire and Explosions;
- Explosives;
- Support systems; and
- Travelling Ways and Outlets.

The team has further reviewed old directives that were issued based on previous legislations; and this was to ensure that the directives are still relevant and in line with the current legislation. The team is also spear-heading a monthly fatality report with the intention of updating the MHSI and the industry Stakeholders on fatalities occurring at the mines.

The underachievement relates to staffing issues in the engineering specialist field. Most vacancies have been filled, particularly for Technical Advisors – Mining. The challenge is the two vacancies for Technical Advisors – Engineering. However; efforts are being made to fill the vacancies.

Challenges

There is still serious challenge on the interpretation of Section 72 inquiry reports forwarded by the regions to the Prosecuting Authority. The Prosecuting Authority has indicated that many of these reports are not giving them enough information to can proceed with prosecution. Therefore; the Technical Support Unit is currently analyzing these reports with the aim of identifying any shortfalls and recommend an appropriate way forward in line with the Prosecuting Authority requirements. And this process is done in conjunction with the internal Legal Support Unit.

The other challenge is that the Technical Support Unit is fairly new and many officials are not yet familiar with its responsibilities; however; the Mine Safety team is currently selling the Unit to all Stakeholders through visits to the regions.

Topical issues and matters of interest

Since late 2009 until recently there has been an increase in fatalities relating to fall of grounds in trackless mining sections; and this includes the disaster of nine mine workers losing their lives underground at Impala 14 shaft in July 2009. With that in mind; the team is visiting several trackless mining sections to analyze the operational systems employed at these mines; identify any shortfalls and make recommendations with the aim of improving mine safety.

Strategy to improve status quo

There would be a continued visibility and communication with the regions and all industry Stakeholders so as to improve relations and the promotion of Legislation.

4.6.1 Directorate: Surveying

The main functions of this directorate are the continuous monitoring of mine surveying standards and practices in order to promote a culture of safety and health on mines, the safe utilisation of undermined land for development purposes, the safe and optimal exploitation of mineral resources as well as the rendering of mapping and draughting services. Additionally, the identification of hazards and risk control together with the training of new personnel are imperative functions.

4.6.1.1 Occupational Safety

- Surveying matters

The Directorate is rendering a continued service to the Regional offices, in particular with regard to the maintenance of surveying and mapping standards and the monitoring of compliance by mines with the relevant Health and Safety regulations in order to ensure a safe mining environment and the protection of surface structures and underground workings.

The Auditing of the departmental copies of mine plans in all regions is an ongoing function.

There was, however, a decrease in both the number of underground and opencast mine surveying inspections and physical checks carried out due to an acute staff shortage. Underground inspections and check measurements in restricted mining areas, where underground and surface structures are to be protected, were still given priority.

The following table shows a comparison of tasks completed during the year:

TABLE 4.6.1.1: Comparison of tasks completed

ACTIVITIES	2007/2008 Actual	2008/2009 Planned	2008/2009 Actual
Mine survey inspections (underground and surface mines)	430	540	318
Underground control measurements	214	270	158
Surface utilisation files received and completed			
• Carried over from previous year	108	-	15
• Received during the year	989	-	691
• Completed during the year	1082	-	684
• Carried over to next year	15	-	22
Miscellaneous tasks (Examinations, projects, etc.)	21	-	34
Permissions and Exemptions	95	-	126

- Special surveys

The Directorate: Mine Surveying is constantly involved in practical surveying projects mostly to assist with any mining boundary disputes as well as verifying the accuracy of survey data submitted by candidates undertaking the trial survey part of the Mine Surveyors Certificate of Competency examination.

The verification surveys of rehabilitation earthworks, carried out by contractors who are paid out of State funds, are normally conducted from time to time on a spot check basis during the life of the projects as time permits but to date no verification surveying requests were received by this Directorate during the past year.

- Mapping Services

- Management of mine survey data

The Sub-directorate: Mapping and GIS, strives to maintain and promote a sustainable data management of the country's defunct and current mines, inter-alia, prescribed mine plans, maps and related spatial survey data for the lasting benefit of the nation, future land use applications and ensuing possibilities of arising mining activities which include indexing and storage of recently closed and current mine plans as an ongoing process.

- Scanning of defunct mine plans

Several mine plans have been scanned, including the cadastral maps showing the undermined areas.
A project plan is to be developed to monitor different phases along the data capturing and other procurement processes involved.

- Technical Draughting

An ongoing mapping and technical draughting service of the sub-directorate includes modern Survey, Mapping and Geographic Information Systems (GIS) technology, which places great emphasis on survey data linkages, database management, spatial queries, data manipulation, specialized analysis and large format scanning and printing. The sub-directorate has, in recent years, accomplished technological advancements on Mapping and GIS software (Arc view) and related equipments in producing the following maps and/or plans:

- Processing of mine dump models, volumetric calculations for earthworks, rehabilitation of the closed mines.
- Updating of undermined areas on topo-cadastral maps, which will later be integrated on NMPS.

4.7 Internal Control Sub-unit

4.7.1 Overview

The Internal Control Unit 's purpose is to provide and internal assurance service for the Mine Health and Safety Branch by identifying opportunities for improving effectiveness of management controls, service delivery and compliance.

This mandate is achieved through:

- Identifying responsibility areas that the Mine Health and Safety Inspectorate must do well in order for it to achieve it's mandate.
- Assessing potential risks to the performing of such responsibilities or achievement of strategic goals.
- Monitoring of adequacy of management controls, compliance to legislative framework and service delivery requirements.
- Providing management reports on identified control, compliance and service delivery improvement opportunities.
- Continuous monitoring of implementation of remedial measures.

4.7.2. Activities of the Unit

During the year under review, the Internal Control Unit achieved the following:

Internal Processes:

- A risk based annual audit plan (Operational Plan) was developed and implemented. Four (4) key responsibility areas were identified for auditing. The areas planned to be audited were: Occupational Health Reporting; Accidents Reporting; Investigations and Inquiries and Performance Reporting.
- An Annual Audit schedule was developed and circulated to all managers in April 2009. This assisted in minimising last minute cancellation of planned audits by auditees and improved planning of work by the audit teams.
- Policy and procedure on conducting Internal Control Audits was developed and implemented. The approved procedure has assisted to improve consistency and uniformity in the audit approach

of different audit teams.

- Four (4) management control needs of the five (5) identified during the reporting period were developed and implemented, thus translating into an 80% achievement. The customer satisfaction survey tool is still outstanding as the customer engagement sessions for collating inputs were not finalised. The management controls developed are;
  - a tracking sheet for monitoring turn around times for activities relating to internal control audits;
  - an expenditure control sheet for monitoring individual official's monthly expenditure;
  - a risk management register for monitoring implementation of corrective action plans; and
  - A monthly reporting checklist for each official.
- The implementation of the Risk Management Plan through corrective measures on findings from DME Internal Audit from the previous financial year (2008/09) resulted in six (6) of the eight (8) identified short comings rectified. This reflects a 75% achievement and the outstanding two (2) corrective measures were out of the control of the unit and were probably never dealt with as a result of the disbanding of the Internal Control Unit. Therefore in real terms, 100% of matters in the control of the unit were rectified.

Customers and Stakeholders:

- Engagement letters with working papers for all the audits scheduled were sent to auditees at least a week before the commencement of the audit. This is a 100% achievement against the set target.
- A total of 39 Internal Control Audits were conducted as compared to the 42 that were planned for. Audits were cancelled as a result of requests for postponement by auditees that could not be accommodated during the financial year, due to year end budget closure arrangements and the impact of the new organisational structure. The 93% achievement against the target is highly commendable when taking into consideration requests for postponements by auditees and is a reflection of the benefits of improved planning and communication.
- Management Letters for all the 39 audits conducted on the different subjects in the various regions and head office functions were issued to management within two (2) weeks after the audit. A 100% achievement against set targets.
- Customer engagement sessions were held at seven regional offices. Two regions and the three head office functions are still outstanding. These entailed presentations aimed at assisting stakeholders understand the purpose and functions of the Internal Control Unit and collating inputs on customer expectations for use in improving the unit's service offering. The impact of these seems to have been minimal as only a weighted average of 54% of Corrective Actions requested were received.
- The Branch Risk Management Register was maintained by conducting 12 Follow-up audits out of the 16 that were planned. This reflects a 75% achievement against the target. Most planned follow-up audits were cancelled due to unavailability of auditees and lack of corrective action plans received. The follow-up audits revealed an impressive 72% implementation of corrective actions checked.
- Acceptance of candidates for Mine Overseer and Mine Manager Certificates of Competency in the unit was processed within 10 days of receiving them. 263 and 419 applications for acceptance as candidates were processed for the Mine Manager and Mine Overseer certificates of competency respectively. The main challenge experienced is that applicants often submit unacceptable and unauthentic records of service used for determining the adequacy and appropriateness of working experience, resulting in many resubmitted applications. This often results in unnecessary delays in the acceptance of candidates.

Financial:

- Spending plans costing each initiative in line with the strategy were developed and implemented.
- Expenditure on goods and services incurred was 74% of budget. This was mainly due to a post that became vacant towards the end of the

reporting period as most expenditure is on subsistence and travelling and a portion of the expenses were not processed as at the closing of the financial year. Cost containment measures were also adopted.

Learning and Growth:

- PDP related courses: Of the 15 courses identified for officials for the reporting period, eight were covered as follows:
  - Secretarial Development (one official covered four modules)
  - Financial Management (two officials attended)
  - Mine Health and Safety Law (one official attended two modules) by officials from the Unit.

  This translates into a 53% achievement. Identified courses requested for could not be attended due to HRD not approving the requests and not nominating officials for courses organised (e.g. Project Management).
- Two (2) officials attended the National Occupational Safety and Health Conference (NOSHCON) and one official attended a SASHON workshop.
- One (1) post became vacant at the end of the 1st half of the financial year. The post was not filled due to restructuring of the branch and the subsequent abolishment of the Internal Control Unit. Employment equity targets were satisfactory except for people with disability. The demographics at the end of the reporting period were; women-60%, Africans 80% and 20% whites and zero for people with disabilities.

4.8 Legal Support Services Sub-unit

4.8.1 Overview

- The legal support unit has in the part years dealt with appeals, legal advice and opinion to a total of 111
- It has also embarked on legal projects such as the Mine Health and Safety Amendment Act, 2008 which was promulgated and came into effect May 2009. Some Sections had not taken effect and are still going back to Parliament for further deliberation.
- The unit has also developed processes and procedures for appeals; legal advice and opinion; agreements; service level agreements and legislation (i.e. regulations).
- The unit has developed and managed agreements and service level agreements for Mine Rescue Service; Contract for Learner Inspectors; National Nuclear Regulator; and the Railway Safety Regulator.
- The unit regularly participate in the following tripartite meetings such as MHSC, MRAC and LDC
- The unit provides legal support in investigations and inquiries i.e. the Impala Platinum Inquiry and the South Deep Investigation.
- The unit is also in the process of re-introducing the two section of the MHS Amendment Act, 74/2008 that was suspended (Section 50(7) and Section 86A).

4.8.2 Liaison with other stakeholders

- The Unit had embarked on regional offices visits to popularise the Mine Health and Safety Amendment Act, 2008 and to identity the legal needs of Mine Health and Safety Inspectors.
- The unit visited the directors of the public prosecutions in all different regions in order to promote co-operation between the two institutions and popularise the new Amendment Act.

4.8.3 Pending Regulations and Guidelines

The following regulations and guidelines will be finalized shortly:

TABLE 48.3(a): Regulations

PENDING PROMULGATION	PENDING AT MHSC
Emergency Care Regulations	
Fall of Ground	
Off-Shore Installation	
Draft Exit Certificate	
Chairlifts	
Survey Mapping	
SAMODD and Annual Medical Report on Regulations	

TABLE 4.8.3(b): Guidelines

PENDING PROMULGATION	PENDING AT MHSC
Competences: Hazardous location water storage and pumping, draw points, tipping points, rock passes and box fronts	Emergency Care Regulations
Competences: Offshore mining	Fall of Ground
Record of hazardous work and exit certificates	
Hazardous location, chairlifts, lifts and vessels under pressure	Survey Mapping
Accident scene and inspection in-loco	SAMODD and Annual Medical Report
Repeal of Minerals Act Regulations	
Offshore installations (Repeal)	
Offshore mining	

	TOPIC
1	Flammable Gas
2	Ore Passes & Draw Points
3	Administrative Fine

4.9 Support Services Sub-unit

4.9.1 Overview

The Support Services Sub-unit (SSU) was established to provide support services to the MHSI through the following Sub-directorates:

- Management Information System (MIS) Sub-directorate provides management information services;
- Administration Sub-directorate provides administrative support services;
- Training Sub-directorate plan and co-ordinate training and development matters; and
- Promotions Sub-directorate promotes the health and safety of the Inspectorate.

4.9.2 MIS Sub-directorate

- Background

The South African Mines Reportable Accident Statistics System (SAMRASS) has been in place since 1988. However, more databases have since been developed in order to address the data needs on, for example, health and equipment.

MIS is currently running the following databases:

- Annual Medical Reports
- Hygiene
- Mine Equipment
- SAMRASS
- South African Mines Occupational Diseases Database (SAMODD) though not yet regulated

As the years went by, the need for a more progressive and integrated information system was identified as a critical tool.

- Integrated MIS project

Phase I of this project was to plan and design an Integrated MIS so as to gain a good understanding of the functional behaviour of all the current systems within the Inspectorate. At this stage the Inspectorate is in the process of the development and implementation phases of the project.

4.9.3 Administration Sub-directorate

- Staffing of the Inspectorate

The establishment of the Inspectorate provides for 316 posts of which 278 are currently filled and 38 are vacant. The demographics of the Inspectorate as on 31 March 2010 was as follows:

Gender	African	White	Asian	Coloured	Total
Male	113	66	1	1	181
Female	76	18	0	3	97

- Staffing at SSU

The establishment of the Support Services Sub-unit provides for 23 posts of which 20 are currently filled and 3 are vacant. The demographics of the staff as on 31 March 2010 was as follows:

Gender	African	White	Asian	Coloured	Total
Male	8	1	0	0	9
Female	7	4	0	0	11

- Administrative Fines Account

The Administrative Fines Account was established in terms of Section 55H (1) of the Mine Health and Safety Act, 1996. All money received by the Principal Inspectors must be paid into the account and the funds must, with the agreement of the Minister, be utilised for the promotion of health and safety in the mining industry.

The Administrative Fines Account on 1 April 2009 reflected a credit balance of R 2 059 564-93. Payments totalling R 225 000 were received for fines issued by the Inspectorate during the financial year.

Apart from the monthly banking costs, no funds were utilised during the year, and the account closed the financial year with a credit balance of R 2 283 860-43.

4.9.4 Training Sub-directorate

4.9.4.1 Training

- Implemented training

During the reporting period, the MHSI developed skills and knowledge base of its staff members as follows:

- Ninety-nine officials attended IRCA skills training;
- Ninety-seven officials attended WITS training; and
- Twenty six staff members attended administrative and technical courses.

- Wits Inspector Training

- The DMR contracted the University of the Witwatersrand (WITS) to develop learning material and to facilitate training of Inspectors.
- This project commenced with a pilot training in April 2009. Actual training commenced in October 2009. The last scheduled training will be 28 January 2011.
- Experienced Inspectors were utilized to assess the pilot programme.
- Focus was on modifications of the programme. Subsequent to finalization of training material, actual training commenced in October 2009.
- The coursed is accredited

The four modules that each Inspector must attend are:

1. Inspections, Audits and Investigation Methods;
2. Mine Health and Safety Act Legal Enforcement Part I;
3. Mine Health and Safety Act Legal Enforcement Part II; and
4. Principles of Occupational Health and Hygiene Part I.

- MQA Initiative

- The DMR collaborated with the Mining Qualifications Authority to train Inspectors through a provider based training programme.
- This training which commenced in November 2009 will end on 07 May 2010.
- It is proposed that a certification ceremony be held within the Inspectorate to recognize all those Inspectors who would have completed the training successfully.

- Skills Programme

- The skills programme which is proposed to be called "Mine Health and Safety Inspector is in the process of registration through a collaborative effort between the DMR and MQA.
- The skills programme will integrate theoretical knowledge with practical application and the learner assessed for competence.
- It is an interim arrangement which will at a later stage be developed into a full qualification.
- Unit standards achieved from the skills programme will be credits towards the full qualification which is proposed to have the same name as the skills programme.

4.9.4.2 Training Interventions

Achievements

- Engineering Learner Inspectors

The Mine Health and Safety Inspectorate had on 01 August 2007 appointed 19 Engineering Learner Inspectors on a two-year training contract ending 31 July 2009. They comprised of four females and 15 males, and were placed for mine experiential training at Goldfields Business and Leadership Academy (GFBLA).

They were placed in the following Engineering disciplines:

1. Mechanical Engineering: 12
2. Electrical Engineering: 7

All of the 19 Engineering Learner Inspectors completed their mine experiential training. They are now placed for Inspector training within the Regional offices of the Inspectorate. They were offered a four-year conditional contract wherein they are supposed to acquire the Government Certificate of Competency (GCC) within the contract period. They will be permanently absorbed by the Department on successful acquisition of the GCC.

- Bursary Scheme

  - The MHSI has offered 18 bursaries to students to study in different disciplines related to mining during the reporting period.
  - They are made up of seven females and eleven males.
  - One of them has completed his studies and awaiting graduation. The rest are at various stages towards completion.

  - They are pursuing the following mining related qualifications at different institutions:
    - Electrical Engineering (Heavy Current);
    - Mechanical Engineering;
    - Mine Engineering; and
    - Mine Surveying.

- Examinations

  The following table reflects the Government Certificate of Competency examinations that were recorded during the reporting period:

Qualifications	Applications	Certificates Issued
Mine Engineers (Electrical and Mechanical)	692	51
Mine Manager's	1504	97
Mine Overseer's	*437	207
Mine Surveyor's	453	14
Winding Engine Driver's	87	42
TOTAL	**3173**	**411**

** New applicants only.*

4.9.5 Promotions Sub-directorate

- Mine Health and Safety Council (MHSC) Award Scheme

  The Promotions Sub-directorate is responsible for administering the MHSC Award Scheme.

  In the category of Million Fatality Free Shifts:

  a) A total number of 29 mines achieved 1,000,000 fatality free shifts
  b) Six mines achieved 3,000,000 or more fatality free shifts
  c) Three mines achieved 4,000,000 or more fatality free shifts
  d) One mine achieved an exceptional 11 000,000 fatality free shifts

In the category of Thousand Fatality Free Production Shifts:

a) A total number of 29 mines achieved 1,000 fatality free production shifts
b) Out of the above 29 mines, 19 achieved 3,000 or more fatality free production shifts
c) Fifteen achieved 4,000 or more fatality free production shifts
d) Two mines achieved 11,000 fatality free production shifts

- Awareness and promotional activities

The Promotions Sub-directorate participates in health and safety events to promote awareness within the mining industry and communities affected by mining activities.

During the reporting period, the Sub-directorate participated in the following events:

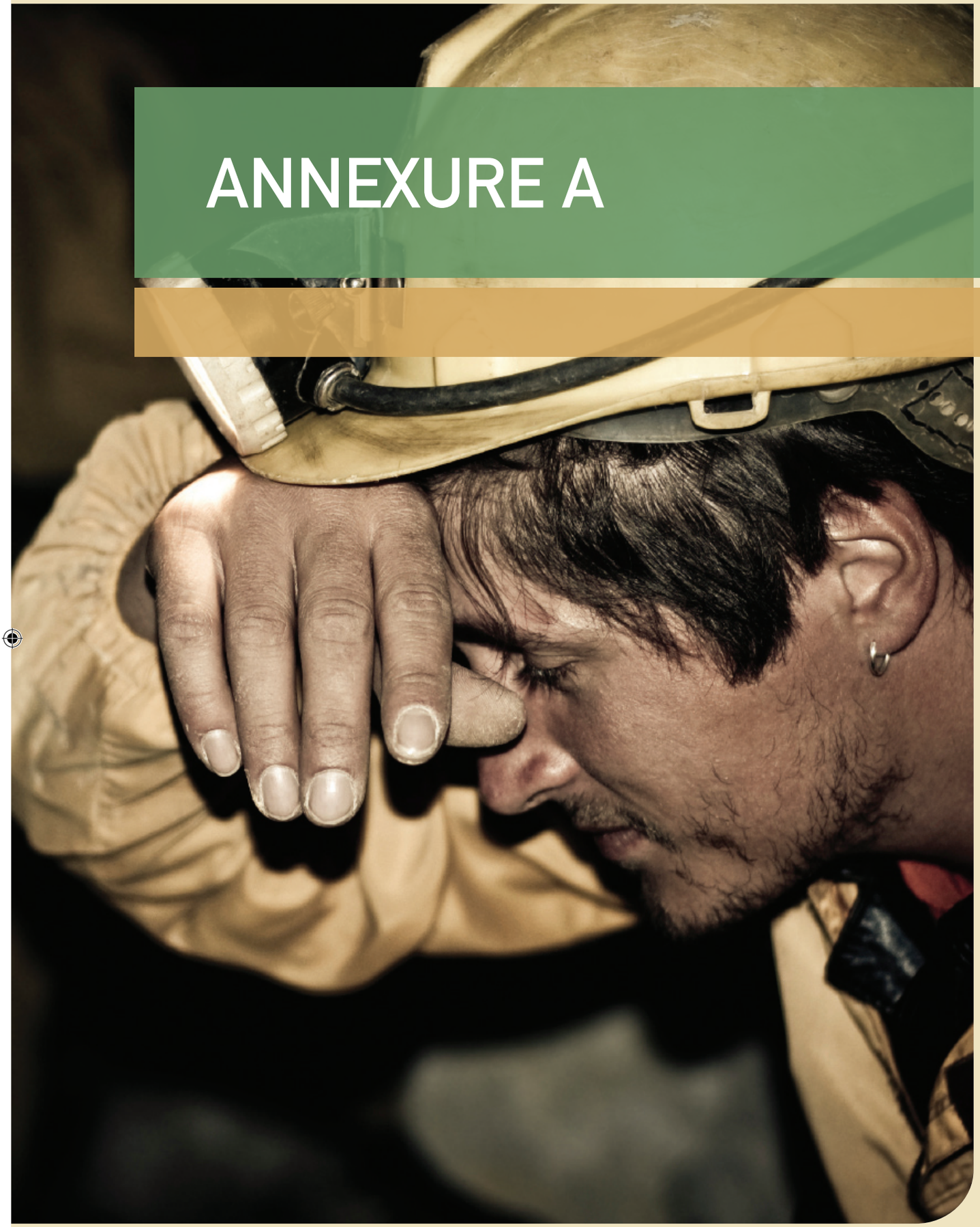
a) International conferences
b) National exhibitions
c) Regional exhibitions
d) Mining technical exhibitions

- Publications

The Inspectorate initiated a monthly MHSI newsletter from April 2008. During the reporting period, seven editions were published and distributed to internal and external stakeholders. In order to make occupational health and safety data more readily available to stakeholders, the Inspectorate initiated MOHS in a Nutshell.

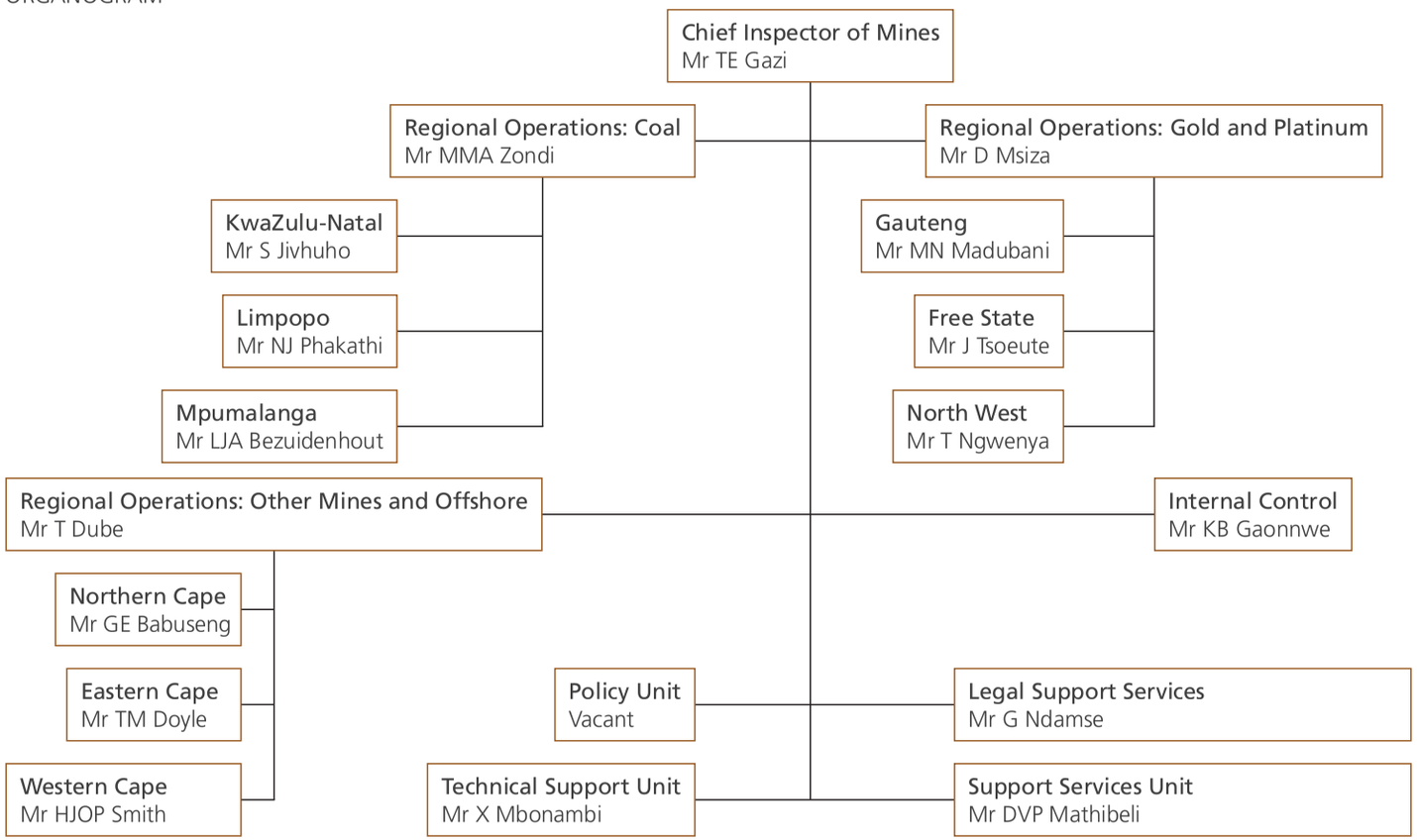
As part of the promotion of the Inspectorate, the Sub-directorate is responsible for the distribution of health and safety publications to stakeholders.

ANNEXURE A

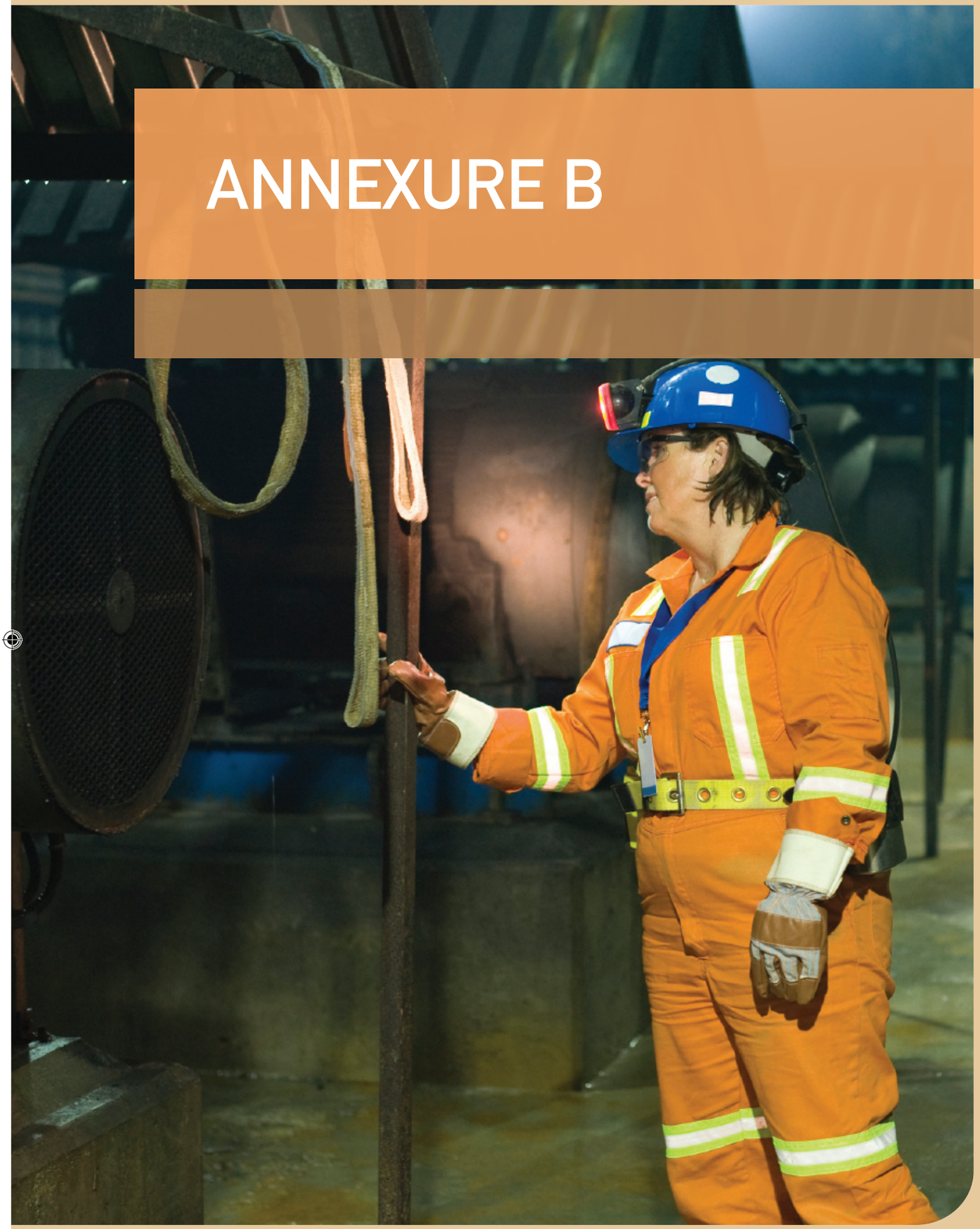


annexure A

ORGANOGRAM



ANNEXURE B



annexure B

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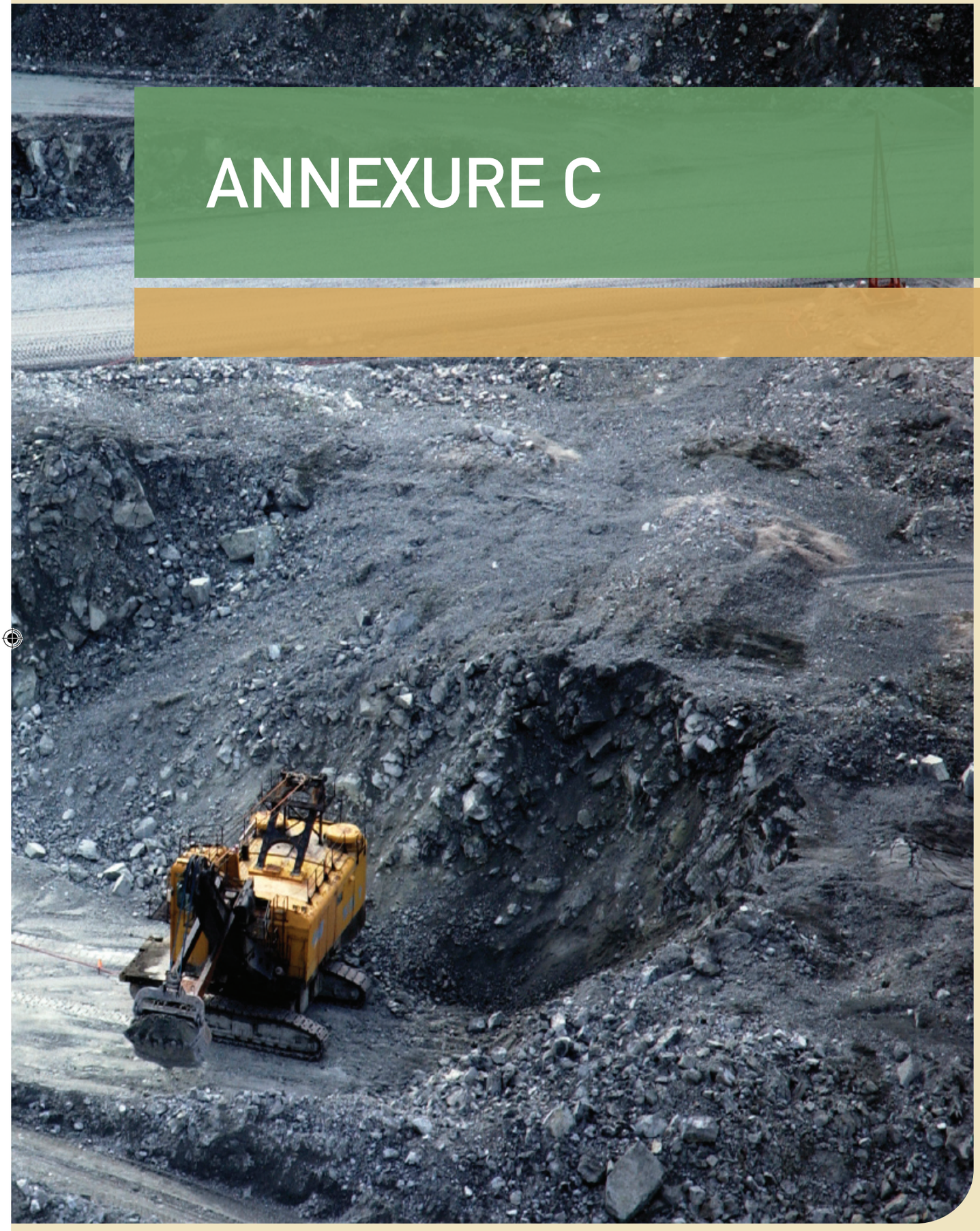
ANNEXURE C



annexure C

ACRONYMS

ACOSH	Advisory Council for Occupational Health and Safety
AIDS	Acquired Immune Deficiency Syndrome
AQI	Air Quality Index
ASPASA	Aggregate and Sand Producers' Association of South Africa
CIOM	Chief Inspector of Mines
COAD	Chronic Obstructive Airway Disease
COP	Code of Practice
CSIR	Council for Scientific Industrial Research
CSM	Cold Stress Management
DG	Director-General
DME	Department of Minerals and Energy
EE	Employment Equity
EMP	Environmental Management Plan
EMPR	Environmental Management Programme Report
FIFA	Federation of International Football Associations
GIS	Geographic Information Systems
GTT	Government Task Team on Mine Closure and Water Management
HDI	Historically Disadvantaged Individuals
HDSA	Historically Disadvantaged South Africans
HIV	Human Immune Virus
JIPSA	Joint Initiative for Priority Skills Acquisition
KRA	Key Responsibility Areas
LDC	Legal Drafting Committee
MBOD	Medical Bureau of Occupational Diseases
MHSA	Mine Health and Safety Act, 1996
MHSC	Mine Health and Safety Council
MHSI	Mine Health and Safety Inspectorate
MOHAC	Mine Occupational Health Advisory Committee
MPRDA	Mineral and Petroleum Resources Development Act, 2002
MQA	Mining Qualification Authority
NCMMA	Northern Cape Mine Managers' Association
NIHL	Noise Induced Hearing Loss
NIOH	National Institute of Occupational Health
NMPS	National Minerals Promotion System
NOSHCON	National Occupational Safety and Health Conference
NQF	National Qualifications Framework
NSP	National Strategic Plan

NUM	National Union of Mineworkers
OEL	Occupational Exposure Limit
OHS	Occupational Health and Safety
OMP	Occupational Medical Practitioner
PGM	Platinum Group Metals
PTB	Pulmonary Tuberculosis
RMDEC	Regional Mining Development and Environment Committee
SABS	South African Bureau of Standards
SADC	Southern African Development Community
SAMINDEX	South African Minerals Information Database
SAMODD	South African Mines Occupational Diseases Database
SAMRASS	South African Mines Reportable Accidents Statistical System
SANAC	South African National Aids Council
SAPS	South African Police Service
SAQA	South African Qualifications Authority
SDM	Systems Development and Maintenance Directorate
SIMRAC	Safety in Mines Research Advisory Committee
SMME	Small Micro and Medium Enterprises
STI	Sexually Transmitted Infections
TB	Tuberculosis
TRG	Technical Research Group
TTG	Technical Task Group
UASA	United Associations of South Africa

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ISBN: 978-1-920448-45-5