



OCCUPATIONAL SAFETY AND HEALTH (OSH) ANNUAL REPORT FOR YEAR 2013

1. INTRODUCTION

The year 2013 was a very difficult year in many spheres of the world of work. The economy continued underperformance with cries of the liquidity crunch becoming louder. Occupational Safety and Health responded by also under performing where it matters: the prevention of accidents. The 2013 number of serious occupational injuries reached 5 666 and resulted in 76 fatalities raising the Lost Time Injury Frequency Rate (LTIFR) to 2.34. This LTIFR is 21.24% above that of 2012 which experienced 5141 serious occupational injuries with 103 fatalities amounting to an LTIFR of 1.93. It is clear that the number of accidents went up in 2013 by 21% even though the average number of workers in formal employment and contributing to NSSA fell to 1 208 402 from 1 332 228 in 2012. The capacity utilization fell in 2013 to 39.6% as compared to 44% in 2012. It would appear therefore that OSH performance suffers greatly when the economy is not performing well. A point of celebration though, is that there were fewer deaths in 2013 by 29% despite the elevated number of serious accidents as compared to 2012. Any life saved is celebrated.

2. OUR MISSION

To promote occupational safety and health in Zimbabwe through the tripartism of Government, employer organizations and labour unions.

2.1 OUR VISION

To eliminate occupational accidents, injuries, diseases and fatalities in Zimbabwe.

2.2 OUR VALUES

The values we maintain to guide our behavior in order to deliver sound occupational safety and health services to the satisfaction of our stakeholders are:

- 2.2.1 Accountability
- 2.2.2 Integrity
- 2.2.3 Teamwork
- 2.2.4 Delivery
- 2.2.5 Innovation
- 2.2.6 Communication

3. THE 5-YEAR OSH STRATEGY, 2011 TO 2015: A NATIONAL PROGRAMME

- 3.1 To promote, develop and maintain an effective Occupational Safety and Health (OSH) culture through comprehensive preventive OSH systems at workplaces.

3.2 AREAS OF STRATEGIC FOCUS FOR 2013

- 3.2.1 Reviewing of the National Occupational Safety and Health policy
- 3.2.2 Harmonization of OSH Laws
- 3.2.3 Revival of the Mobile Clinic services
- 3.2.4 Occupational Health Services Expansion programme
- 3.2.5 Enforcing the OSH laws.
- 3.2.6 Evaluative research on social dialogue on Occupational Safety and Health (OSH) delivery at the workplace in Zimbabwe (b) Analytical research on OSH systems in analytical and biological laboratories in Zimbabwe. (c) Research on the applicability of the Quick Exposure Check (QEC) and Rapid Entire Body Assessment (REBA) procedures in Zimbabwe
- 3.2.7 Ratification of ILO Convention 187 on OSH Promotional Framework
- 3.2.8 OSH promotional work involving industrial OSH needs assessments, commemorating world day for safety and health, conferencing, workshops and training
- 3.2.9 Graduation of Occupational Safety, Health and Environmental (OSHEMAC) students

4. OSH Policy Review

The draft national OSH policy was produced, approved and adopted by the Zimbabwe Occupational Safety and Health Council (ZOSHC) on 20 November 2013. The review process commenced in May 2013 with the recruitment and training of 27 enumerators hired to collect baseline data in different sectors of the Zimbabwe economy in all NSSA regions. A statistical consultant was also hired to analyze the data and produce an OSH situational report to anchor the policy. The year 2013 closed while constituency consultations on the policy among the tripartite arms of ZOSHC namely; Government, Employers' Confederation of Zimbabwe (EMCOZ) and Labour Unions were under way. The Minister of Labour and Social Welfare is expected to sign the policy into operation in the first half of 2014.

5. Harmonization of OSH laws

The principles for the Bill to harmonize OSH laws were approved by Cabinet in January 2013. A consensus building workshop involving the immediate stakeholders on the issues to be addressed by the Bill and the mechanism of drafting a zero draft was held in April at Kadoma Ranch Hotel. Drafting by senior officials from both the Ministry of Labour and Social Welfare and the OSH division of NSSA commenced in July 2013 at Pandhari Lodge in Harare supported by the International Labour Organization (ILO). The drafting continued intermittently but restricted to the OSH division of NSSA until 9 December 2013. The draft of the zero draft Bill was scheduled to be returned to the Ministry for further processing early January 2014.

6. Ratification of ILO Convention 187 on OSH Promotional Framework

Both ZOSHC and the NSSA Board of Directors in separate resolutions, recommended the Ratification of Convention 187 to Government. A letter of recommendation was delivered to the Ministry of Labour and Social Welfare in April 2013. The matter had not been heard of by the close of the year under review but a strategy to remind the Ministry will be engaged early in 2014. The process of consulting constituencies for consensus on the ratification of this

Convention by the tripartite arms of ZOSHC commenced in 2010 with a ZOSHC seminar conducted by the ILO and concluded in February 2013 when EMCOZ proffered its consent.

7. **KEY RESPONSIBILITIES FOR EACH OSH DEPARTMENT**

The Division of Occupational Safety and Health has four departments namely; OSH Promotion and Training, Factories and Works Inspectorate, Occupational Health Services and Research and Development. All national OSH planning and implementation is achieved through these departments.

7.1 **OSH PROMOTION AND TRAINING**

The department's areas of strategic emphasis for the year under review included upgrading the skills capacity by sending officers on attachments in industry not minding the length of service with NSSA, carrying out strengthened outreach programmes which also involved conferencing, awareness training and assisting industry to establish occupational safety and health management systems.

HUMAN RESOURCES IN THE OSH PROMOTION AND TRAINING DEPARTMENT

Table 1: Human Resources

Head Office	Establishment	Strength	Variance
Manager	1	1	0
Secretary	0	0	0
Principal Training Officer	1	1	0
Training Officers	1	1	0
Librarian	1	1	0
Library Clerk	1	1	0
OSH Promotion Officers			
Region	Establishment	Strength	Variance
Harare	9 (1 Principal)	9	0
Bulawayo	7 (1 Principal)	7	0
Gweru	3 (1 Senior)	2	1
Masvingo	4 (1 Principal)	3	1
Mutare	2	2	0
Chinhoyi	2	2	0
TOTAL	32	30	2

Comments

A vacancy arose in Bulawayo region when one Promotion Officer retired on medical grounds. A replacement was recruited in May 2013. A total of five Promotion Officers from Harare, Mutare and Chinhoyi regions was sent on three months' industrial attachment to gain experience in organizations with functioning OSH management systems. A Librarian was recruited in April and the National Occupational Safety and Health Information Centre (CIS) also generally called the library, was moved to the Promotion and Training department.

- i. This is the department charged with putting OSH on the national agenda. Strong advocacy and OSH promotional framework is in place and is expanding in scope.
- ii. Industrial assessments were carried out effectively on a sample of over 2000 establishments (see table 8) and culminated in the annual safety awards in October 2013. In this programme, industry voluntarily enters into an annual safety and health excellence competition. The awards won in 2013 were for the safety and health performance in 2012.
- iii. The department is also responsible for ensuring the adoption and use of a systems approach to managing occupational safety and health in the workplace. As such the implementation of Occupational Safety and Health Management Systems (OSHMS) by industry remained on the radar in the year under review.
- iv. The department continued to strengthen the capacity of industry to manage OSH effectively through training. It held 8 highly successful sessions of the Occupational Safety, Health and Environmental Management Course (OSHEMAC) with a total of 392 students graduating in 2013.
- v. The department also assumed the responsibility and management of the Central Information Service (CIS) generally known as library and its herculean task of coordinating the other libraries resident with EMCOZ, labour unions and the African Regional Labour Administration Centre (ARLAC).

7.1.1 MAJOR OSH PROMOTIONAL ACTIVITIES AND EVENTS IN 2013

7.1.1.2 LOCAL SEMINARS, WORKSHOPS AND CONFERENCES

7.1.1.2.1 Engineers' Workshop on Occupational Safety and Health

The Engineers' workshop was held under the theme **"Promoting a Preventive Culture on Occupational Accidents and Diseases."** at the Meikles Hotel, Harare, from 20 to 22 March 2013. The workshop attracted a record attendance of 126 paying Engineers and allied professionals from various sectors of the economy. The workshop was officially opened by the Acting Minister of Labour and Social Services, Honourable Theresa Makone (MP), the Co-Minister of Home Affairs, in place of the Minister of Labour and Social Services who was committed elsewhere.

(a) The objectives of the workshop were to:

- (i) Promote an accident and disease preventive culture at the work place.
- (ii) Encourage sustainable engineering solutions to safety and health challenges at work.
- (iii) Provide a platform for networking and information exchange.

(b) The Workshop Resolutions were as follows:

- (i) Include standards and permit to work system in OSH regulations.
- (ii) Issue attendance certificate and award points to delegates attending the Engineers' workshops. Refer to the Zimbabwe Institute of Engineers for the number of points to award.
- (iii) Occupational Safety and Health be included in Zimbabwe's education curriculum.

- (iv) Ban heavy vehicles at night on Zimbabwe's roads (Ministry of Transport and Communication).
- (v) Increase law enforcement to prevent electrical accidents (Approach Zimbabwe Energy Regulatory Authority (ZERA).
- (vi) Investors should sign an agreement of undertaking to comply with OSH legislation (Zimbabwe Investment Authority).

7.1.1.2.2 Zimbabwe Conference of Safety, Health and Environmental Practitioners (ZICOSHEP)

The second Zimbabwe Conference of Safety, Health and Environmental Practitioners (ZICOSHEP) was held at the Meikles Hotel from 17th to 18th May 2013. It was officially opened by Mrs Mukondomi, the Finance Director of the Ministry of Labour and Social Services and member of the NSSA Board, on behalf of the Permanent Secretary of the Ministry of Labour and Social Welfare. It was also held under the theme **“Promoting a Preventive Culture on Occupational Accidents and Diseases.”** It was attended by 68 paying delegates. The conference was designed to meet the following objectives:

- (i) Creating a culture of prevention through the efforts of SHE practitioners.
- (ii) To review progress on OSH legal reform and the ratification of Convention 187 for Occupational Safety and Health Promotional Framework.
- (iii) To exchange life experiences in promoting excellence in safety, health and environmental practice.

The conference concluded with the following resolutions:

- (i) NSSA must come up with toll free numbers to enable whistle blowers to report some dangerous operations to NSSA.
- (ii) To support more research in Zimbabwe and to come up with more data on dioxins and furans.
- (iii) EMA to arrange conference and seminars as part of improving their publicity.

7.1.1.2.3 National Conference on Occupational Safety and Health at Work (SHAW) : 2 - 4 October 2013 Rainbow Towers Hotel, Harare

The National Conference on Occupational Safety and Health (SHAW) was held under the theme **“Promoting a Preventive Culture on Occupational Accidents and Diseases.”** The conference was held at the Rainbow Towers Hotel, Harare, from 2nd to 4th October 2013. It was well attended by over 230 people 157 of which were paying delegates and the revenue raised was US\$69 750.00. The conference was officially opened by Honourable N. Goche (MP) the Minister of Labour and Social Welfare. The conference had 14 research papers with some of the presenters having come from other countries namely Ghana, South Africa and United Kingdom. It concluded with a safety awards dinner which was also well attended by 250 people 144 of which were paying revelers. The dinner raised an income of \$21 600. Therefore the conference and dinner accrued a revenue of \$91 350.

a) **The conference objectives were:**

- (i) To promote a paradigm shift to a culture of accident prevention in the workplace.
- (ii) To drive competence in occupational safety and health delivery through research.
- (iii) To facilitate networking and the exchange of information on occupational safety and health issues.

b) **Conference Resolutions**

The conference passed the following resolutions for actioning:

- (i) Ministry of Public Service, Labour and Social Welfare should produce guidelines for the implementation of wellness programmes at workplaces.
- (ii) NSSA should mandatorily maintain a register of competent occupational safety and health service providers (consultants) in order to maintain high performance standards by the same.
- (iii) NSSA should invite sister OSH authorities from the SADC region to local OSH conferences to facilitate interaction and experience sharing.
- (iv) NSSA should make OSH training to certificate level mandatory to all aspiring managers up to executive level.
- (v) Government of Zimbabwe through the Ministry of Public Service, Labour and Social Welfare should engage tripartite partners to tackle climate change challenges.
- (vi) NSSA should ensure that all occupational safety and health laws are available on its website

7.1.2 **PARTICIPATION IN MAJOR INTERNATIONAL SEMINARS, CONFERENCES AND WORKSHOPS**

7.1.2.1 **Ordinary and Simultaneous Extraordinary Meetings of the Conferences of the Parties To The Basel, Rotterdam and Stockholm Conventions**

The Medical Officer of Occupational Health Dr. H. Mapuranga, attended the meetings which were held from 28th April to 10 May 2013 in Geneva, Switzerland.

7.1.2.2 **ISSA Technical Seminar on Work Accidents and Occupational Diseases in Africa**

The Director OSH, Mr R. Dhliwayo attended and presented a paper at the International Social Security Association (ISSA) seminar from 25 to 26 April 2013 in Banjul, Gambia.

7.1.2.3 **Southern African Development Community Employment and Labour Sector (SADC-ELS) Meeting**

The Medical Officer of Occupational Health Dr. H. Mapuranga, attended the meeting which was held from 13th to 17th May 2013 in Maputo, Mozambique.

7.1.2.4 Southern African Development Community Globally Harmonized System of Classification and Labelling (SADC-GHS) training workshop

The Principal Occupational Safety and Health Promotion Officer for Harare Region Mrs S. Dumbu, The Senior Inspector of Factories Mrs H.T.L Mutubuki also of Harare Region and the Principal Hygiene and Research Officer Mr R. Dozva attended the training which was held in Pretoria, South Africa.

7.1.2.5 A Course on Industry Safety for Developing Countries: China

The Director OSH, Mr R. Dhliwayo and The Chief Inspector of Factories, Mr J. Mutswatiwa attended the course which was held from 10 to 30 September 2013 in Beijing, China. The duo made a well received presentation and Mr. Dhliwayo was selected twice to represent the over 70 third world countries on this training session.

7.1.2.6 Electrical Safety and Safety Auditing Workshop

Two inspectors of Factories, Engineer L. Mabhi and Mr R. Tanyanyiwa attended the workshop which was held from 25 to 27 September 2013 in Johannesburg, South Africa.

7.1.2.7 51st Meeting of the International Occupational Safety and Health Information Centre (CIS) Network

The Librarian, Ms D. Mutaputa attended the meeting which was held from 11 to 12 November 2013 in Turin, Italy.

7.1.2.8 International Scientific Conference on Safe use of Chrysotile Asbestos

The Medical Officer of Occupational Health, Dr Mapuranga, attended the conference which was held from 3 to 4 December 2013 in India.

7.1.2.9 ISO Regional Conformity Assessment Workshop on inspection Practices Based on ISO/IEC 17020:2012

The Chief Inspector of Factories, Mr J. Mutswatiwa, attended the workshop from 2 to 4 December 2013 in Nairobi, Kenya.

7.1.3 Zimbabwe Occupational Safety and Health Council Meetings (ZOSHC) Meetings

The consensus building process among social partners in OSH continued in 2013. The Zimbabwe Occupational Safety and Health Council (ZOHSC) which is a tripartite body representing the interests of Government, Employers and Labour each with 6 seats, was active in the year under review where it met every quarter to discuss and resolve occupational safety and health matters.

7.1.4 STATISTICAL SUMMARY OF OSH PROMOTIONAL ACTIVITIES

7.1.4.1 TEACH-INS

Table 2: Teach-Ins

Region	2013Target	2013		2012		VARIANCE	PER CENT IMPROVEMENT
		Teach Ins	Partici pants	Teach Ins	Partici pants		
Harare	50 – 60	69	1 041	67	1 003	2 (38)	2.99 (3.79)
Bulawayo	40 – 50	112	1 876	75	1 495	37 (381)	49.33 (25.48)
Gweru	15 – 20	10	533	23	397	-13 (136)	-56.52 (34.26)
Mutare	15 – 20	26	356	32	1 036	- 6 (-680)	-18.75(- 65.64)
Masvingo	20 – 25	6	124	2	19	4 (105)	200 (552.63)
Chinhoyi	15 – 20	18	383	3	62	15 (321)	500 (517.74)
Totals	150– 180	241	4 313	202	4 012	39 (301)	19.31 (7.50)

Comments

There was a 19% increase in the number of teach-ins conducted in the year 2013. Chinhoyi region was the busiest while Mutare under performed in the year under review.

7.1.4.2 Train The Trainer Courses:

Table 3: Train the Trainer Courses Held (Participants in Brackets)

Region	2013Target	2013	2012	Variance	Per Cent Improvement
Harare	10 – 12	9(95)	12(224)	-3 (-129)	-25 (-57.59)
Bulawayo	8 – 10	11(153)	9(109)	2 (44)	22.22 (40.37)
Gweru	3 – 4	5(103)	1(139)	4 (-36)	400 (-25.90)
Mutare	3 – 4	4(50)	4(64)	0 (-17)	0 (-25.37)
Masvingo	4 – 5	4(55)	5(59)	-1 (-4)	-20 (-6.78)
Chinhoyi	3 – 4	2(78)	4(162)	-2 (-84)	-50 (-51.85)
Totals	30 – 36	35(534)	35(760)	0 (-226)	0 (-29.74)

Comments

There was generally no improvement in the number of the courses conducted in 2013 and actually created a deficit in the number of participants when compare with the year 2012.

7.1.4.3 ESTABLISHMENT OF SAFETY AND HEALTH COMMITTEES

Table 4: Safety and Health Committees at Workplaces

Region	2013 Target	2013	2012	Variance	Per Improvement Cent
Harare	20	10	20	-10	-50
Bulawayo	12	4	20	-16	-80
Gweru	10	9	20	-11	-55
Mutare	8	12	20	-8	-40
Masvingo	5	1	3	-2	-66.67
Chinhoyi	5	11	8	3	37.5
Totals	60	47	91	-44	-48.35

Comments

There was a decrease of 48% in the total number of safety committees established in the year 2013, when compared to the previous year (2012). Chinhoyi region was the busiest. The target of 60 was rather too ambitious in hind sight in a receding economy.

7.1.4.4 ESTABLISHMENT OF OSH MANAGEMENT SYSTEMS

Table 5(a): Establishment of Certified OSH Management Systems

Region	2013 target	2013	2012	Variance	Cumulative Up To 2012
Harare	1	18	8	10	125
Bulawayo	1	0	1	-1	-100
Gweru	1	0	0	0	0
Mutare	1	1	0	1	100
Masvingo	1	0	0	0	0
Chinhoyi	1	0	0	0	0
Totals	6	19	9	10	111.11
Grand Total Up to 2013			62	10	125

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Comments

The establishment of OSH management systems to certification level is critical to the creation of an accident prevention culture in the workplace. However, management systems development requires capital investment and unwavering commitment. These factors were scarce in the year under review.

Table 5(b): Certified Organizations Up To 2013

	Company Name	OHSAS 18001	EMS	Region
1.	Chemplex Animal & Public Health	✓	✓	Harare
2.	Zimphos	✓	✓	Harare
3.	Windmill Pvt Ltd		✓	Harare
4.	Murray & Roberts	✓	✓	Harare
5.	ZFC	✓	✓	Harare
6.	CAFCA	✓	✓	Harare
7.	Unilever		✓	Harare
8.	Delta Transport		✓	Harare
9.	Delta Laagers		✓	Harare
10.	Fredda Rebecca	✓	✓	Harare
11.	Tobacco Processors of Zimbabwe	✓	✓	Harare
12.	Jacob Bethel Corporation, Harare		✓	Harare
13.	Nestle Zimbabwe	✓	✓	Harare
14.	Lafarge Cement		✓	Harare
15.	Schweppes Pvt Ltd		✓	Harare
16.	Turnall Fibre Cement		✓	Harare
17.	Total Zimbabwe		✓	Harare
18.	Shamva Mine		✓	Harare
19.	Jacob Bethel	✓	✓	Bulawayo
20.	Schweppes	✓		Bulawayo
21.	How Mine	✓		Bulawayo
22.	Turnall		✓	Bulawayo
23.	Zimasco Shurugwi		✓	Gweru
24.	Zimasco Kwekwe		✓	Gweru
25.	Sable Chemicals	✓		Gweru
26.	Haggie Rand	✓		Gweru
27.	Unki Mine	✓		Gweru
28.	Zimchem	✓		Gweru
29.	Mutare Bottling	✓		Mutare
30.	Hippo Valley Estates	✓	✓	Masvingo
31.	Mimosa Mine	✓	✓	Masvingo
32.	Triangle Limited	✓	✓	Masvingo
33.	Mwenezana Estates	✓	✓	Masvingo
34.	Renco Mine	✓	✓	Masvingo
35.	Murowa Diamonds	✓	✓	Masvingo
36.	Zimasco Mutorashanga	✓	✓	Chinhoyi
37.	Empress Nickel Refinery	✓	✓	Chinhoyi
38.	Zimplats Ngezi	✓	✓	Chinhoyi
39.	Zimplats SMC	✓	✓	Chinhoyi

Comments

It will be desirable as from 2014 to indicate organizations that have adopted a systems approach to managing safety and health even when they are not yet certifiable.

7.1.4.5 **SURVEYS**

Table 6: Needs Determination Surveys

REGION	2013 Target	2013	2012	Variance	Per Cent Improvement
Harare	200 – 300	269	207	62	29.95%
Bulawayo	150 – 200	188	163	25	15.34%
Gweru	70 – 100	36	45	- 9	- 20%
Mutare	100 – 150	152	106	46	43.40%
Masvingo	80 – 100	147	152	-5	-3.29%
Chinhoyi	80 – 100	79	101	-22	-21.78%
Totals	700 – 900	871	774	97	12.53%

Comments

The total number of surveys this year was higher than that of 2012. In this programme, Harare was the busiest followed by Mutare. This stage of OSH promotion is very useful in the design of teach-ins specific to organizations. The results are also useful to the Factory Inspector.

7.1.4.6 **FARM VISITS**

Table 7: Number of farms visited

REGION	2012 Farm Visits Target	2013	2012	Variance	Per Cent Improvement
Harare	8 – 10	85	40	45	112.5
Bulawayo	6 – 7	14	14	0	0
Gweru	6 – 8	17	18	-1	-5.56
Mutare	8 – 9	48	77	-29	-37.66
Masvingo	6 – 8	12	11	1	9.09
Chinhoyi	6 – 8	14	17	-3	- 17.65
Totals	40 – 50	190	177	13	7.34

Comments

Farms visited in 2013 increased by 7% mainly due to an increase in farm coverage in Harare region. It was also at a farm in the environs of Harare that a makeshift boiler exploded and killed people in the year under review.

Common unsafe trends noted on the farms were low OSH awareness, lack of OSH management systems, unregistered boilers and inappropriate personal protective clothing.

7.1.4.7 2012 OSH PERFORMANCE ASSESSMENTS

The mainstay of the Occupational Safety and Health division of NSSA is to promote occupational safety and health in the workplace. One such promotional programme is a national competition in occupational safety and health excellence which organizations in the five sectors of the economy viz Agriculture and Forestry, Manufacturing, Mining, Commerce and distribution and Construction voluntarily compete for OSH excellence in various categories. The OSH Promotion and Training Department spear heads the programme with its OSH Promotion Officers carrying out the performance assessments for the previous year.

Table 8: Assessment of OSH performance (figures in brackets are re-assessments)

Region	2012 Target	2013 Actual	2012 Actual	VARIENCE	Per Cent Improvement
Harare	680 – 820	928	892	36	4.04
Bulawayo	380 – 460	559	403	156	38.71
Gweru	160 – 200	165	195	- 30	- 15.38
Mutare	160 – 200	250	260	-10	- 3.85
Masvingo	230 – 280	244	179	65	36.31
Chinhoyi	160 – 200	144	191	- 47	- 24.61
Totals	1750 – 2100	2290	2120	170	8.02

Comments

In terms of output per region, Bulawayo was the busiest followed by Masvingo. The 2013 sample was larger than that of 2012 by 8%.

7.1.4.8 SAFETY AWARDS FOR OSH PERFORMANCE IN 2013

A. National Awards

(i) Premier Shield (The Biggest Award)

First Prize; : Gold went to Zimplats Processing Plant (Selous Metallurgical Complex)

Second Prize : Silver went to Bitumen Construction Services.

Third Prize : Bronze went to ZIMASCO Shurugwi

(ii) Organization Most Improved in OSH

The prize was won by Vumbachimwe Mine

(iii) Employers' Confederation of Zimbabwe (EMCOZ) Shield

The shield was won by Zimplats Processing Plant (Selous Metallurgical Complex)

(iv) 3M Personal Protective Equipment (PPE) Shield

The shield was won by Mbada Diamonds

(v) Civil Engineering Contractors Shield

The shield was won by Bitumen Construction Services

(vi) **PROVINCIAL AWARDS**

Table 9 A:

REGION	BRONZE	SILVER	GOLD AND SALESFORCE
MASHONALAND	Zimbabwe Phosphate Industries	Total Zimbabwe Limited	Zimplats Processing Division
MATEBELELAND	Blanket Mine	How Mine	Bitumen Construction Services
MIDLANDS	Zimchem Refineries	Haggie Rand-Kwekwe	Zimasco-Shurugwi
MANICALAND	Nil	Manica Boards and Doors	Redwing Mine
MASVINGO	Murowa Diamonds	Mimosa mine	Hippo Valley Estates

Table 9B: SECTORAL AWARDS

SECTOR	REGION	BRONZE	SILVER	GOLD
AGRICULTURE AND FORESTRY	MASHONALAND	Nil	Nil	Nil
	MATEBELELAND	Nil	Nil	Nil
	MANICALAND	Nil	Nil	Nil
	MASVINGO	Nil	Nil	Nil
	MIDLANDS	Nil	Nil	Nil
MINING AND QUARRYING	MASHONALAND	Bimha Mine Zimplats	Mupfuti Mine Zimplats	Ngwarati Mine Zimplats
	MATEBELELAND	Nil	Vubachikwe Mine	How Mine
	MIDLANDS	Nil	Nil	Nil
	MANICALAND	Marange Resources Pvt Ltd	Dorowa Minerals Pvt Ltd	Redwing Mine
	MASVINGO	Nil	Nil	Mimosa Mine
COMMERCE AND DISTRIBUTION	MASHONALAND	Tobacco Processors Zimbabwe	Mashonaland Tobacco Co.	Total Zimbabwe
	MATEBELELAND	Nil	Delta Transport Gwanda	Delta Transport Beitbridge
	MIDLANDS	Nil	Nil	Nil
	MASVINGO	Nil	Nil	Nil
	MANICALAND	BOC Gases	ZETDC Eastern Region	Total Zimbabwe Limited
CONSTRUCTION	MASHONALAND	Nil	Nil	Masimba Construction
	MATEBELELAND	Nil	Nil	Bitumen Construction Services
	MIDLANDS	Nil	Nil	Nil
	MASVINGO	Nil	Nil	Nil
	MANICALAND	Nil	Nil	Nil

MANUFACTURING	MASHONALAND	BOC Gases	Zimphos	Lafarge Zimbabwe
	MATEBELELAND	Chibuku Brewery	Datlabs	ZPC
	MIDLANDS	Nil	Haggie Rand Kwekwe	Zimasco Kwekwe Division
	MANICALAND	Nil	Nil	Charter Sawmill
	MASVINGO	Nil	Nil	Delta Beverages

PROVINCIAL AWARDS

Table 9C:

REGION	BRONZE	SILVER	GOLD AND SALESFORCE
MASHONALAND	Lafarge Zimbabwe	Mupfuti Mine Zimplats	Ngwarati Mine Zimplats
MATEBELELAND	Bitumen Construction Services	Vubachikwe Mine	How Mine
MIDLANDS	Nil	Haggie Rand Kwekwe	Zimasco Kwekwe Division
MANICALAND	Redwing Mine	ZETDC Eastern Region	Total Zimbabwe Limited
MASVINGO	Nil	Delta Beverages	Mimosa Mine

7.1.5 REVENUE GENERATED THROUGH OSH PROMOTIONAL ACTIVITIES

7.1.5.1 OSHEMAC

Table 10: OSHEMAC Revenue

REGION	NO. OF PAYING STUDENTS	INCOME 2013 IN US\$	INCOME 2012 IN US\$	VARIANCE IN US\$	PER CENT IMPROVEMENT
Harare	197	103,500.00	80,150.00	23 350	29.13
Bulawayo	195	101,650.00	82,600.00	19 050	28.06
Total	392	205,150.00	162,750.00	42400	26.05

Comment

There was a significant rise in income from OSHEMAC conquering the previous year by 26%.

7.1.6. NATIONAL OCCUPATIONAL SAFETY AND HEALTH INFORMATION CENTRE (CIS)

Strategic Vision

To provide relevant and responsive information for effective management of occupational safety and health in Zimbabwe, through documentation, dissemination and information sharing.

Objectives were:

- a) To provide relevant information on Occupational Safety and Health and Social Security to all stakeholders in Zimbabwe.
- b) To automate the CIS Centre with web based Library Management System so that clients can easily locate and retrieve resources from the centre.
- c) To catalogue and classify all the existing library collection so that clients can easily locate books in the library.
- d) To effectively distribute information materials such as ON GUARD Magazine, video tapes, OSH Posters etc.
- e) To document a Collection Development Procedure to guide library staff on the acquisition of library resources, donations etc.
- f) To draft a Library Policy which guide library clients on library membership, library rules and regulations.
- g) To increase library space to accommodate e-library and increased volume of patrons.

Success indicators

- i. Effective distribution of information materials such as ON GUARD Magazine, video tapes, OSH Posters etc.
- ii. Updated Accessions Register of existing library collections.
- iii. Generation of monthly reports in time.
- iv. Effective Management of information materials including books, OSH posters, films and videos.
- v. Increased patronage
- vi. Increased subscriptions and membership
- vii. Increased area for the library.

Achievements

- a) Shelving of the CIS and classification of library resources successfully completed.
- b) CIS stock taking of library resources completed.
- c) Positive feedback from NSSA Divisions for reading lists that the library had requested.

- d) Acquisition some OSH books.
- e) Clearance of OSH Train the Trainer certificates back log.
- f) The Librarian attended the 51st meeting for CIS Network held in Turin, Italy from 11-12 November 2013.

Challenges

1. Most activities which needed funding were affected due to budgetary constraints and these included the:
 - ❖ Purchasing of reference books.
 - ❖ Automation of the library.
2. There was temporary disruption of services due to relocation of the centre from 7th to 4th floor during first quarter of the year.
3. Shortage of space for library operations.

7.1.6.1 COMPARATIVE ANALYSIS OF 2013 AND 2012 PERFORMANCE

SUMMARY OF OPERATIONS

Table 11:

Item Description	Total Received To Date this Year	Cumulative Totals in Library - 2013	Cumulative Total to Dec 2012
No. Of Book Received	46	1487	1477
On Guard subscribers	3	3	
Library members	13	13	

Item Description	Cumulative Total to December 2013	Cumulative total to December 2012
On Guard		
Total Copies Printed	1000	
Total Copies Sold	1478	2 000
Income Generated		539
Income from Copies Sold	\$7260.00	
Income from Subscribers	\$310.00	\$2705.00
Income from Adverts	-	\$15.00

Information Request		
MSDS	4	8
General Information request.	183	187
Books		
Books Borrowed	42	80
Books Returned	36	53
Films/Video Tapes		
Films Borrowed	-	18
Films Returned	2	12
Income from Films	-	\$30.00
Periodicals Received		
African Newsletter	300	600
Indoshnews	1	1
Periodicals Distributed		
To Officers	120	145
To Industry/Institutions	330	275
Newspaper Cuttings	1	3
Meetings		
Departmental Meetings	1	-
Posters		
Total Poster Sold	1005	-
Income From Posters	\$2010.00	-

7.1.7. REVENUE GENERATED AT REGIONAL LEVEL ON PROMOTIONAL ACTIVITIES

Table 12:

Region	Year 2013 US\$	Previous Year 2012 US\$	VARIANCE US\$	PER CENT IMPROVEMENT
Harare	34,472.00	24,410.00	10,062.00	41.22
Bulawayo	26,172.00	20,237.00	5,935.00	29.33
Gweru	37,448.00	12,030.00	25,418.00	211.29
Mutare	26,434.00	8,447.00	17,987.00	212.94
Masvingo	6,082.00	3,034.00	3,048.00	100.46
Chinhoyi	6,938.00	11,146.00	-4,298.30	-37.76
Totals	137,546.00	79,304.30	58,241.70	73.44

Comments

A rise of 73% in income through promotional activities is no mean achievement. The main objective of OSH promotion is to raise awareness and to prevent accidents and ill health. It is much more satisfying that this process also brings in income.

7.1.7.1 REVENUE FROM ALL OSH PROMOTIONAL ACTIVITIES

Table 13: Revenue from Promotional Activities

ACTIVITY	Harare \$	Bulawayo \$	Gweru \$	Mutare \$	Masvingo \$	Chinhoyi \$	Head Office \$	Total \$
Promotions	34,472	26,172	37,448	26,434	6,082	6,938		137,546
OSHEMAC							205,150	205,150
W/shops and seminars							128,840	128,840
CIS							9,580	9,580
SHAW Conference							92,550	92,550
Total	34,472	26,172	37,448	26,434	6,082	6,938	436,120	573,666

Comments

A significant amount was raised through the national events namely workshops, SHAW conference and OSHEMAC training. OSH Promotions and Training requires support with resources so that it does not plateau at half a million revenue. A secretary for the OSH Promotion and Training Manager is required. Students on attachment and graduate learners can also offer useful additional hands for the job.

OSH TRAINING

The following courses were conducted in 2013:

7.1.8.1 Occupational Safety, Health and Environmental Management Course (OSHEMAC)

A total of 8 sessions (4 part 1 and 4 part 2) of OSHEMAC were conducted in Harare and Bulawayo raising US\$205,150.00 in revenue. The number of participants to the courses generally increased to 392 paying students in the year under review thus indicating a high uptake of the course. The increase is associated with the popularity of the course with employers and therefore its impact in promoting occupational safety and health on the shopfloor is expected to be significant. Graduation ceremonies were held in Bulawayo and Harare on the 22nd and 29th of November 2013 respectively.

7.1.8.2 NSSA Doctor's X-ray Reading Course

The course was conducted for Medical Doctors at the Meikles Hotel in April 2013 and attracted 11 paying Medical Doctors only. The course raised US\$ 4,950.00 in revenue against total expenditure of \$6,290.00 thereby making a loss of \$1,340.00. The division resolved to conduct this training once in every two years so as means to try and ensure profitability.

7.1.8.3 Occupational Health Nurses Course

The course was held at the Rainbow Towers Hotel in July 2013 and was oversubscribed with 56 paying nurses. This resulted in an income of \$25,200.00 being realized against an expenditure of \$18,182. The course realized a net surplus of \$7,018.00.

7.2 FACTORIES AND WORKS INSPECTORATE

The focus was on the activities outlined in the 2013 strategic work plan for Inspectorate with emphasis on inspections, boilers, elevators, factory registrations, development plans, construction sites and accident investigations.

7.2.1 HUMAN RESOURCES IN THE OSH INSPECTORATE DEPARTMENT

Table 14: Human Resources

	Establishment	Strength	VARIANCE
Chief Inspector of Factories	1	1	0
Secretary	1	1	0
Manager	1	1	0
Mechanical Engineering Inspectors	17	17	0
Electrical Engineering Inspectors	4	4	0
Hygiene Inspectors	10	10	0
Total	34	34	0

DISTRIBUTION BY NSSA REGIONS				
Region	POSITION	ESTABLISHMENT	STRENGTH	VARIANCE
Head Office	Chief Inspector	1	1	0
	Secretary	1	1	0
Harare	Mech. Insp	7	7	0
	Elect. Insp	2	2	0
	Hygiene Insp	4	4	0
Bulawayo	Manager	1	1	0
	Mech. Insp	2	2	0
	Elect. Insp	1	1	0
	Hygiene Insp	1	1	0
Gweru	Mech. Insp	3	3	0
	Elect. Insp	0	0	0
	Hygiene Insp	1	1	0
Mutare	Mech. Insp	2	2	0
	Elect. Insp	0	0	0
	Hygiene Insp	1	1	0
Masvingo	Mech. Insp	2	2	0
	Elect. Insp	0	0	0
	Hygiene Insp	1	1	0
Chinhoyi	Mech. Insp	1	1	0
	Elect. Insp	1	1	0
	Hygiene Insp	1	1	0
TOTAL		34	34	0

Comments

Existing vacant posts were filled during the course of the year. Mr Owen Munyu and Mr Marvellous Sauro joined the department as OSH mechanical Inspectors. They are stationed in Harare and Masvingo respectively. Mr A. Kamba and Mr S. Masuka moved to Harare from Masvingo and Chinhoyi respectively. Mr E. Denhere was transferred to Kadoma sub office under Chinhoyi. The department had a full establishment although some officers are still under training.

7.2.2 Development Plans

Table 15:

Region	New Plans Processed	Old Plans Processed	Revenue US\$
Harare	13	8	69,289.00
Bulawayo	8	1	7,357.00
Gweru	3	6	7,863.00
Mutare	4	3	6,006.00
Masvingo	2	1	1,634.00

Chinhoyi	4	1	5,690.00
Total (2013)	34	20	97,839.00
2012	51	48	85,170.00

Comments

The number of new development plans reduced by a third as compared to last year. The following sectors food processing, automotive, furniture, general engineering, and warehousing topped the list of developmental projects. Factory alterations reduced to 42% as compared to last year's plan submissions. The submissions were from all the sectors of the economy. Revenue increased by 15% as compared to last year's figure. This implies that the number of the capital projects this year, though few, were of higher total monetary value due to their size and nature. The highest revenue was realised from Harare (71%), followed by Gweru (8%) and Bulawayo (7%).

7.2.3 **Factory Registrations and Closures**

Table 16:

Region	Factories Registered	Factory Closure	Total No. of Factories In use	Revenue US\$
Harare	357	35	3 891	41,700.00
Bulawayo	142	198	1 255	15,000.00
Gweru	50	57	555	5,500.00
Mutare	28	26	438	3,300.00
Masvingo	40	42	270	4,000.00
Chinhoyi	35	26	332	4,000.00
Total 2013	652	384	6 741	4,400.00
Total 2012	415	97	6 492	49,450.00

Comments

The new factory registrations increased by 57% as compared to last year. Closures were four times more than those recorded last year. Fifty five percent of the registrations were in Harare followed by Bulawayo with 22% and Gweru with 8%. Factory closures affected all regions with Bulawayo, Gweru, and Masvingo badly impacted. The increased number of registrations is a sign of growth in the economy. Growth was realised in the following sectors: food processing, automotive, general engineering, refrigeration, textile, brick moulding, painting, chrome processing, food processing and chemical manufacturing. The closures affected mostly the food industry, general engineering, automotive, dry cleaning and furniture industries.

7.2.4 **Factory Inspections**

Table 17:

Region	Complete Inspections	Special Inspections	Complying	Non Complying
Harare	2 746	0	830	1 916

Bulawayo	1 620	0	30	1 590
Gweru	614	0	42	572
Mutare	594	0	4	590
Masvingo	793	0	359	434
Chinhoyi	579	0	111	436
Total(2013)	6 946	0	1 376	5 538
2012	4 285	0	319	3 998

Comments

The department made a commendable achievement. Factory inspections were 1.52 times more than last year's achievement. The department carried out factory inspection blitz which yielded good results. The highest number of factory inspections were realized in Harare with 40%, followed by Bulawayo 23% and Masvingo 11%. Although the non compliance figure of 80% reduced by 10% as compared to last year, this percentage is disturbing. The department worked hard to address the following unsafe trends:- Occupation of unregistered premises, use of unsafe machinery , Exposure to poor electrical installations, unprotected dangerous openings, pits, trap holes and elevated workplaces, failure to carry out requisite medical examinations, Lack of provision of PPC/E. Use of incompetent machine operators, lack of worker supervision, illegal construction works, poor ventilation and lighting, poorly equipped first-aid boxes, poorly maintained sanitary conveniences exposure to chemicals, use of uninspected equipment and failure to report accidents and non appointment of responsible persons for machinery maintenance.

7.2.5 Building and Construction

Table 18:

Region	No. of Sites	Inspections
Harare	20	33
Bulawayo	16	41
Gweru	5	53
Mutare	9	28
Masvingo	7	26
Chinhoyi	5	12
Total 2013	62	193
Total 2012	51	186

Comments

The number of construction sites increased by 22% as compared to last year. This is a positive sign of economic growth. Inspections increased slightly by 2% as compared to last year's figure. A non-compliance rate of 80% though an improvement of 9% as compared to last year is still unacceptable. The highest number of inspections came from Gweru (27%) followed by Bulawayo (21%). The department worked hard to address the following unsafe trends:-use of unsafe scaffolding, use of uninspected equipment, poor excavation works, poor equipment maintenance, lack of Provision of PPC & E, poor

worker supervision, use of substandard electrical installations, inadequate shuttering of trenches, site used as residential premises, poor housekeeping ,poor sanitation and welfare facilities, illegal constructions, absence of dust suppression systems and no barriers to dangerous places.

7.2.6 Boilers

Table 19:

Region	New Reg.	Discarded	Total Temp. Out of use	Total in Use	Inspections		Com*	Revenue in US \$
					Int./ Ext.	Hyd.		
Harare	3	73	860	2 379	158	69	127	118,500.00
Bulawayo	0	2	234	115	104	35	55	54,600.00
Gweru	1	0	261	34	18	11	14	17,300.00
Mutare	4	0	521	93	105	19	38	58,200.00
Masvingo	0	2	12	54	65	22	28	33,600.00
Chinhoyi	0	0	812	295	16	7	14	11,100.00
Total(2013)	8	77	2 700	2 970	466	163	276	293,300.00
2012	15	26	1 938	3 918	652	188	295	289,570.00

Comments

Registrations reduced to 53% of those processed last year. Mutare recorded the highest number of registrations followed by Harare and lastly Gweru. Scraped boilers went up by 2.8 times as compared to those scraped last year. Harare contributed a lion's share due to an exercise of scrapping obsolete boilers. Inspections reduced by twenty percent as compared to last year. The revenue generated was higher by one percent due to the size of boilers inspected. The farm boiler identification exercise was in progress during the course of the year. Non-compliance stood at 75%. This also reflects the number of boilers which have not been put back on range. Some of the notable trends were: use of illegally imported boilers, use of unregistered boilers especially at the farms, steam leaks due to poor maintenance, poor boiler preparation for inspection, damaged tube ends and flue extension rings, use of uncalibrated fittings, lack of effective water treatment programme, failure to maintain boiler log books, and illegal repairs.

7.2.7 Elevators

Table 20:

Region	New Reg.	Discarded	Temp. Out of Use	Total in Use	Inspections	Revenue US\$
Harare	0	0	204	716	520	70,778.00
Bulawayo	0	0	119	136	135	31,670.00
Gweru	0	0	29	15	48	1,540.00
Mutare	0	0	9	22	7	380.00
Masvingo	0	0	0	0	0	0
Chinhoyi	0	0	5	0	3	0

Total (2013)	0	0	366	889	713	104,368.00
2012	22	0	173	1 163	728	152,910.00

Comments

Elevator and escalator inspections reduced by 2% as compared to last year. Compliance increased by 9% compared to last year. Harare constituted 73% of the inspections followed by Bulawayo 19% and Gweru with 7%. Harare contributed 68% of the revenue realised by the department. The following trends were noted:- use of obsolete main and governor ropes, flooding and dirty in pits, broken counterweight springs, obstruction of stairways, poor lighting and poor ventilation, car tops not protected, oil leaks, illegal installations without prior approval, corrosion of hatchway fixtures, Broken comb plates, malfunctioning safety devices, obstructed fire extinguishers and poor record keeping.

7.2.8 Certificate Renewal

Table 21:

Region	Black	Blue	Red	Revenue US\$
Harare	262	95	114	83,000.00
Bulawayo	162	38	38	35,000.00
Gweru	136	14	15	20,150.00
Mutare	171	19	24	28,500.00
Masvingo	116	16	7	16,900.00
Chinhoyi	153	15	8	21,300.00
Total (2013)	1 030	197	206	204,850.00
2012	615	122	180	138,550.00

Key: Black = less than 50 employees; Blue = more than 50 but less than 100 employees; Red = more than 100 employees.

Comments

The annual factory registrations increased by 56% from last year's achievement and revenue also increased by 48%. The highest number of registrations were from Harare (35%), Bulawayo (17%), Mutare (15%) and Chinhoyi (12%). The base target of the strategic plan was not met. However, the annual registrations were on an upward trend.

7.2.9

Meetings

Table 22:

Region	Meetings	Office Inquiries	Other (Excursions)
Chief Inspector's Office	69	Not recorded	35
Harare	144	39	68

Bulawayo	47	36	1
Gweru	54	4	28
Mutare	76	16	20
Masvingo	42	3	14
Chinhoyi	46	1	0
Total(2013)	478	99	166
2012	399	174	250

Comments

Meetings were less than those experienced last year by 19.80%. The activities included but not limited to meetings with: - responsible persons, SADCAS, SAZ, Plant Engineers, OSH Management committee, Principal Inspectors, business liaison committee etc.

7.2.2.1.1 OCCUPATIONAL HEALTH SERVICES (OHS)

The strategic focus this year was on OHS expansion. We aimed at developing Occupational Health standards and guidelines in selected areas such as; Respiratory Protection Programme and heavy metal exposure. However, the year concluded with the selected standards and guidelines still at the drafting stages.

7.3.1 HUMAN RESOURCES IN THE OHS DEPARTMENT

Table 23: Human Resources

JOB	ESTABLISHMENT	STRENGTH	VARIANCE
Medical Officer of Occupational Health	1	1	0
Secretary	1	1	0
Medical Bureau Doctors	4	4	0
Nursing Officers	3	3	0
Medical Bureau Clerks	10	8	2
Total	19	17	2

Comments

Two clerks successfully completed OSHEMAC. Spirometry course was successfully conducted. Customer care and Med-Q system courses were also conducted. The secretary and Industrial Health Nursing Officer underwent report writing skills training. Mazhambe S. (Bureau Clerk) resigned against pending disciplinary cases in the second half of the year.

7.3.2 Workplace Activities

Table 24:

ACTIVITY	NORTHERN REGION	SOUTHERN REGION	TOTALS
Clinic Audits	132	84	216
Occupational Health Inspections	74	115	189
New Industrial Clinics Registered	2	0	2

Comments

Only two new industrial clinics were registered in the year.

7.3.3 Medical Bureau Activities Summary

Table 25:

ACTIVITY	YEAR 2013	PREVIOUS YEAR 2012
Medical Certificate of Fitness Applications received	18 347	16 216
Pneumoconiosis x-rays processed	16 933	19 797
Pneumoconiosis Medical Certificates issued	13 025	16 482
Pneumoconiosis cases identified	29	12
Number of cases deferred	4 565	2 959
Monetary Value of Pneumoconiosis certificate application received (US\$)	183,470.00	162,160.00
Monetary Value of Pneumoconiosis certificate application received (ZAR)	-	-
Bureau Meetings	127	153
Bureau Related Payments (Expenses) (US\$)	48,990.00	61,690.00
Revenue after paying Medical Bureau Doctors	134,480.00	100,470.00

7.3.3.1 Pneumoconiosis Analysis By Sector

Table 26:

ORGANIZATION	SECTOR	ACTIVE MINERAL/ PRINCIPAL MINERAL	NUMBER OF CASES IDENTIFIED
Zimasco Shurugwi	Mining	Chrome	1
Redwing Mine	Mining	Gold/ Silica	2
Conrock Construction	Construction	Silica	1
Hwange	Mining	Coal	1

Jessie Mine	Mining	Gold/ Silica	1
Premier Stone Crushers	Quarrying	Silica	1
Vumbachikwe Mine	Mining	Gold/ Silica	1
Mhangura Mine	Mining	Copper	1
ABJ Engineering	Manufacturing	Mixed	1
Shamva Mine	Mining	Gold/ Silica	8
Dalny Mine	Mining	Gold/ Silica	1
Lynx Mine	Mining	Silica	1
NRZ Mutare	Railway	Silica	1
Trojan Mine	Mining	Nickel/Silica	1
G & W Industries	Manufacturing	Silica	1
Mimosa Mine	Mining	Platinum / Silica	2
Freda Rebecca Mine	Mining	Gold / Silica	1
Zimplats	Mining	Platinum / Silica	1
Zimbabwe Power Company	Manufacturing	Coal	1
Marange Resources	Mining	Diamond / Silica	1
TOTAL			29

Comments

Mining operations (Gold) dominated the number of cases diagnosed at 58%. Shamva Mine had the highest number of cases contributing 27.6% of them

7.3.4 Accounts Audited Per Region

Table 27:

REGION	ACCOUNTS AUDITED	AMOUNT CLAIMED In US \$	AMOUNT AUDITED In US \$	SAVINGS In US\$
Harare	906	13 966.79	12 957.44	1 009.35
Mutare	523	10 507.63	9 322.02	1 185.61
Chinhoyi	551	10 908.74	8 883.89	2 024.85
Bulawayo	413	6 582.00	6 273.00	309.00

Masvingo	179	14 758.00	10 538.00	4 220.00
Gweru	268	20 165.00	19 271.00	894.00
Totals	2 840	76 888.16	67 245.35	10 494.81

7.4 RESEARCH AND DEVELOPMENT

The year 2013 primarily focused on the following;

- (a) Research projects on:-
 - I. Evaluation of the effectiveness of the use of respiratory protective Equipment (RPE) in chemical industries in Zimbabwe.
 - II. Evaluation of the appropriateness and applicability of the Quick Exposure Check (QEC) and Rapid Entire Body Assessment (REBA) ergonomic tools in Zimbabwe industrial sectors.
- (b) Occupational Hygiene Measurements.
- (c) Developing procedures on Ergonomic risk assessments.
- (d) Ergonomic Risk Assessments.
- (e) Publication of the On-Guard Magazine – An Aid to Occupational Safety and Health.
- (e) OSHEMAC training.
- (f) Preparation and presentation of papers at workshops, seminars and conferences
- (g) OSHEMAC Training.

7.4.1 HUMAN RESOURCES IN THE RESEARCH AND DEVELOPMENT DEPARTMENT

Table 28:

	ESTABLISHMENT	STRENGTH	VARIANCE
Chief Research and Development Officer	1	1	0
Secretary	1	1	0
Principal Hygiene and Research Officer	1	1	0
Ergonomist	1	1	0
Total	5	5	0

7.4.2 RESEARCH PROJECTS

7.4.2.1 EVALUATION OF THE EFFECTIVENESS OF THE USE OF RESPIRATORY PROTECTIVE EQUIPMENT (RPE) IN CHEMICAL INDUSTRIES IN ZIMBABWE

7.4.2.1.1 Abridged Report

A study on the evaluation of the effectiveness of the use of respiratory protective equipment as a hazard control measure in chemical industries in Zimbabwe was conducted from January to June 2013. The key objectives of the study were to:-

- (i) Determine the presence of functional respiratory protective equipment programmes in the paint and pesticides manufacturers in Zimbabwe.
- (ii) Evaluate the effectiveness of the respiratory protective equipment programmes (RPEP) in place.

The study focused on paint and pesticides manufacturing and use sectors. The study employed a qualitative cross-sectional approach wherein a structured questionnaire, interviews and observation methods were used to collect data. A total of 98 establishments operational entities in the pesticides and paint manufacturing and use sectors were identified in 6 major National Social Security Authority (NSSA) regions namely Harare, Bulawayo, Gweru, Masvingo, Mutare and Chinhoyi and 44 out of the 98 (i.e. 45% sample) were randomly selected for the study.

The study has shown that written and implemented respiratory protective equipment programmes were virtually non-existent in all paint manufacturing and use sectors with only 6 establishments (13.6%) from pesticides formulation showing that they have functional written RPE programmes. The study further showed that RPE observed to be in use in 79% of pesticides and paint sector establishments were manufactured in accordance with a recognised standard marked on the RPE. However, despite the RPE appearing to have been manufactured to a particular standard, only 7/44 (16%) of establishments had RPE with assigned protection factors (APF) putting into question the authenticity of the standard to which the RPE is manufactured. 70% of establishments evaluated were using RPE which was appropriate for the pollutant although the use was beyond its expiry date. 89% of establishments evaluated did not carry out seal and fitting tests to the RPE.

The lack of essential RPE programmes in the paint manufacturing and use sector can largely be attributed to generally lack of OSH policies and structures to support the RPE programmes. While the study shows that most establishments (about 80%) had RPE which appear to be designed to a particular recognised standard, most of these establishments continue to use RPE beyond the expiry date, with seal and fit test having never been done suggesting that these establishments have limited awareness and knowledge to timeously replace the RPE in order to provide effective protection to the worker. It was further observed that the RPE is taken as a permanent preventive measure ahead of other more effective measures such as engineering controls which require top priority in the hierarchy of hazard control.

It is therefore recommended that:-

- (a) Respiratory Protective Equipment Programmes be adopted and implemented by all chemical manufacturers and users for effective protection of workers against chemical airborne contaminants.
- (b) There be widespread awareness and training on standard RPE programmes, in order to empower the chemical industry on skills and knowledge to implement effective RPE programmes.
- (c) All panel beating workshops must have functional spray booths as a pre-requisite for registration as a factory.
- (d) There be enforcement blitz targeted at the chemical industry in order to compel employers to acquire adequate and suitable RPE.

- (e) The RPE research report was submitted for possible publication in the International Journal of Occupational and Environmental Health (IJOEH) in 2014.

7.4.2.2 EVALUATION OF THE APPLICABILITY OF THE QUICK EXPOSURE CHECK (QEC) AND RAPID ENTIRE BODY ASSESSMENT (REBA) ERGONOMIC TOOLS IN ZIMBABWE INDUSTRIAL SECTORS

7.4.2.2.1 Abridged Report

The presence of ergonomic risk factors in developing countries is not well known; neither appreciated. Lack of knowledge and appreciation of the discipline of ergonomics and its application may be a part cause of high accident rates, injuries, chronic back pain and many musculoskeletal disorders which are eventually blamed on ageing. Furthermore, a poor appreciation and lack of application of ergonomics in work system design may result in low productivity, quality and efficiency. Hence, this study sought to improve the knowledge and application of ergonomic risk assessment tools in selected industrial sectors namely agriculture and mining.

Objectives

- (a) To evaluate the correlation of risk action limits per task that are determined by each risk assessment tool.
- (b) To qualitatively evaluate the level of appreciation of ergonomic risk factors and risk assessment tools in industry.
- (c) To determine the applicability of two postural assessment tools namely- Rapid Entire Body Assessment Tool (REBA) and the Quick Exposure Check (QEC) to identify manual materials handling and postural risk to workers.

Methodology

The study employed qualitative cross-sectional approach, wherein a questionnaire, checklist, interviews and observations were used to collect data. Two mining and two agricultural establishments randomly selected were targeted per each of 6 NSSA regions. Various postural adjustment tasks were randomly selected per establishment and both tools (REBA and QEC) were applied on each task. Risk ratings were obtained and presented graphically. Safety, Health and Environment (SHE) practitioners at each establishment were also required to evaluate the two tools.

Results, Analysis and Discussion

Most tasks assessed had high risk rating scores, suggesting a gap in optimal work system design. Those which presented high to very high risk ratings generally corresponded between the two tools. SHE practitioners found tools to be user friendly, concise and easy to understand and use.

The findings suggest that the tools do indeed assist in identifying some ergonomic risk factors in the agricultural and mining sectors. Prospective end users were also confident of this point

and this suggests a positive uptake potential if more effort is placed into promoting and expanding ergonomics in industry.

Conclusion and Recommendations

More effort needs to be made in order to expand ergonomics, primarily from the NSSA Division of Occupational Safety and Health. It is also recommended that this evaluation be carried out in the remaining three key industrial sectors in Zimbabwe, namely - Commerce and Distribution, Building and Construction and Manufacturing.

7.4.3 OCCUPATIONAL HYGIENE MEASUREMENTS

Occupational hygiene measurements mainly focused on noise, dust, light and heat. Eighteen establishments were measured for occupational hygiene same as in 2012.

Table 29: Measurements

Measured Occupational Hygiene Elements	Number of Establishments Surveyed 2013	Number of Establishments Surveyed 2012
Dust	15	9
Heat	9	5
Noise	14	16
Lighting	5	2
Total	43	32

Comments

It can be noted that occupational hygiene elements on high demand are dust and noise, with requests for the former increasing by 67% in 2013 when compared to requests in 2012. However, requests for noise decreased by 12.5% in the same period. The department acquired a Bruel & Kjaer Human Vibration Meter in the year and is expected to widen scope of occupational hygiene measurements, in 2014.

7.4.4 ERGONOMIC RISK ASSESSMENTS

Establishments at which Ergonomic Risk Assessments were carried out increased by 2 to 6 establishments compared to 4 done in 2012. As noted in 2012, ergonomics should continue to be widely promoted in industry in order to mitigate the ergonomic risk factors which impact on workers' health.

The Rapid Entire Body (REBA) and Quick Exposure Check (QEC) Ergonomic Risk Assessment Tools were applied in the mining and agricultural sectors in the year under review. These tools will continue to be applied in 2014 in other industrial sectors namely manufacturing, commerce and distribution, and building & construction as a way of promoting their widespread use in Zimbabwe in identifying ergonomic risk factors.

7.4.5 **PUBLICATION OF THE ON-GUARD MAGAZINE: AN AID TO OCCUPATIONAL SAFETY AND HEALTH**

Two issues of the On-Guard Magazine were produced in 2013, Volume 19, No. 1 in June 2013 and Volume 19, No. 2, December 2013. Topical issues featured by these two issues included:-

- (a) Research paper on critical analysis of accidents causes in the basic metal production and metal fabrication in Zimbabwe.
- (b) Ergonomic strategies to prevent the occurrence of work accidents.
- (c) Workplace lead programme guidelines.
- (d) The prevalence and management of occupational stress in a distressed Economic Environment: The case study of Zimbabwe.
- (e) Gender sensitive approach to safety and health at work.
- (f) Dioxins and Furans
- (g) Accident Reporting and Notification

7.4.6 **STATISTICAL SUMMARY OF RESEARCH AND DEVELOPMENT ACTIVITIES**

Table 30:

ITEM NO.	ACTIVITIES	2013	2012
1.	OSH Research Project	Two researches done: (a) Evaluation of the effectiveness of the use of Respiratory Protective Equipment (RPE) in chemical industries in Zimbabwe. (b) Evaluation of the applicability of the Quick Exposure Check (QEC) and Rapid Entire Body Assessment (REBA) ergonomic tools in Zimbabwe industrial sectors.	Two researches done: (a) Evaluation of Social Dialogue on Occupational Safety and Health (OSH) delivery at the workplace in Zimbabwe. (b) Evaluation of Occupational Safety and Health (OSH) systems in analytical and biological laboratories in Zimbabwe.
2.	Occupational Hygiene Measurements	43 establishments done	32 establishments done
3.	Ergonomic Risk Assessment	6 establishments done	4 establishments done
4.	Publication of the On-Guard Magazine : An Aid to OSH	Two issues published June and December 2013 issues	Two issues published June and December 2012 issues
5.	Training and Workshops	24 OSHEMAC lectures were delivered and 25 external presentations with a research	21 OSHEMAC lectures delivered and 13 external presentations.

		paper delivered at the national conference on OSH.	
6.	Revenue raised	US\$9 681.58	US\$6 329.27

8. OCCUPATIONAL INJURIES AND FATALITIES

8.1 Occupational injuries from All Workplaces in Zimbabwe (Figures in brackets are fatalities)

Table 31:

NSSA Region	Worker Population 2013	Injuries 2013	LTIFR 2013	Worker Population 2012	Injuries 2012	LTIFR 2012	Variance 2013 vs 2012
Harare	888 722	2 202(36)	1.24	1 012 495	2 014(45)	0.99	25.25%
Bulawayo	126 332	1 571(10)	6.22	119 900	1 382(17)	5.76	7.99%
Gweru	46 298	688(6)	7.43	53 289	481(12)	4.51	64.75%
Mutare	47 000	525(11)	5.59	53 289	555(13)	5.21	7.29%
Masvingo	52 354	234(4)	2.23	53 289	254(3)	2.38	-6.30%
Chinhoyi	47 696	446(9)	4.68	39 966	455(17)	5.69	-17.75%
Totals	1 208 402	5 666(76)	2.34	1 332 228	5 141(107)	1.93	21.24%
Standard LTIFR	21						

Comment

The 2013 number of serious occupational injuries is 5 666 and resulted in 76 fatalities raising the lost time injury frequency rate (LTIFR) to 2.34. This LTIFR is 21.24% above that of 2012 which experienced 5141 serious occupational injuries with 103 fatalities amounting to an LTIFR of 1.93. It is clear that the number of accidents went up in 2013 by 21% even though the average number of workers in formal employment and contributing to NSSA fell to 1 208 402 from 1 332 228 in 2012. The capacity utilization fell in 2013 to 39.6% as compared to 44% in 2012. It would appear therefore that OSH performance suffers greatly when the economy is not performing well. A point of celebration though, is that there were fewer deaths in 2013 by 29% despite the elevated number of serious accidents as compared to 2012. Any life saved is celebrated.

8.2 Occupational Injuries in Factories and Works

Table 33:

Region	Reported			Investigated		
	Minor	Serious	Fatal	Minor	Serious	Fatal
Harare	111	12	9	2	12	10
Bulawayo	71	1	1	24	1	2
Gweru	19	8	2	3	2	2
Mutare	9	12	2	8	11	4

Masvingo	5	4	1	0	4	1
Chinhoyi	8	2	3	2	2	4
Total (2013)	223	39	18	39	39	23
Year 2012	184	48	23	36	38	25

Comments

Fatal accidents reduced by 22% as compared to last year. This figure is not acceptable as no one should die at work. Harare performed badly with 50% contribution followed by Chinhoyi with 17%. Serious accidents also reduced by 19%. The following are brief descriptions of investigated accidents:-

1. Harare Region

- (a) The deceased was crushed on the chest when the gate he had opened and the supporting wall was knocked down by a truck trailer. He died on the spot.
- (b) The veranda roof which was under construction collapsed killing the deceased on the spot injuring six. The injured were rushed to Parirenyatwa Hospital.
- (c) A ZETDC artisan got in contact with live 11kv live line after he had switched off the wrong line. He got an electrical shock whilst preparing to connect a new transformer to the ground. He was rushed to Marondera hospital where he died later.
- (d) "A T & T Tank Clinic employee severely burnt to death after the tank he intended to weld caught fire when some residual paraffin fumes inside the tank he intended to weld caught fire and ignited his clothing thereby severely burning his face, trunk and limbs. Accident occurred on 11 August and worker died on 16 August 2013. A preliminary report was forwarded to the Director's office."
- (e) A security guard at a construction site died when a lintel collapsed on him after he and three other employees removed shattering supports. The two other employees were injured slightly and were treated and discharged on the same day at Parirenyatwa hospital.
- (f) A worker died when he and his colleague fell from a roof they were constructing when the IBR sheet they were working on gave in after the movement of a supporting purlin. They were rushed to Harare Hospital and subsequently transferred to Parirenyatwa Hospital where he died six hours later. His colleague was treated and discharged.

2. Bulawayo Region

- (a) In an attempt to shift a truck trailer from its position with seven other work mates, a worker died when he was struck by the trailer on the left leg and incurred a fracture. He was rushed to Mpilo Hospital and died two days later.

3. Gweru Region

- (a) A worker died when he and four other workers were offloading a hoist bar from a truck when he collapsed before putting it on the floor. He died on the spot.
- (b) Whilst connecting a new customer at house number 3233 Simbi Park in Redcliff, the deceased, a ZETDC employee was electrocuted when he was working on a live installation which had been presumed isolated. He was pronounced dead on arrival at the hospital.
- (c) The deceased was on his way to resume duty when he was caught and entangled by a rotating shaft of an overhead crane cross member. He died on the spot. His body was taken to Kwekwe General Hospital five hours later.

4. Mutare Region

- (a) The deceased was crushed to death on the spot when some timber fell on him from a truck trailer which had been loaded. The deceased was part of the crew loading the timber.
- (b) A police officer who was on a familiarization tour of the dam tower jumped from a generator to one of the screens covering the tower shaft. The screen gave in and he fell into the shaft and drowned. His body was trapped at the bottom and was recovered two weeks later down Stream of Odzi River.

5. Masvingo Region

- (a) A worker for Askeland Media was electrocuted and fell 7m to the ground when a steel sheet he was using to align an advertising billboard for Metbank at Masvingo Polytechnic got in contact with a live overhead 11Kv electric cables. He died on the spot.

6. Chinhoyi Region

- (a) A ZETDC employee was severely burnt by electricity when it was switched on whilst he was working on an 11kV power line at Wingate farm in Karoi on 11 September 2013. He passed away on 14 September 2013 while receiving medical attention at Harare hospital.
- (b) The deceased fell from a height of about 19 metres where he was erecting a structural working platform. He was rushed to Selous Clinic and transferred to Trauma Centre in Harare where he died four hours later.
- (c) A worker employed by Grid Transmission was killed and another one seriously injured when an acetylene gas bottle exploded at Zimplats Construction site, Ngezi.
- (d) A container which was being lifted from the ground into the truck trailer, swung towards the operator, the deceased, hitting him on the head. His head in turn hit against a ring arm of the truck. He was rushed to Selous Metallurgical Complex Medical Centre where he died on arrival.

Occupational Fatalities in The Mining Sector

Table 34: Fatal Injuries in Mining Sector

DISTRICT	MINE	DATE OF ACCIDENT	NAME OF DECEASED	OCCUPATION	U/GROUND SURFACE	YTD
Harare	Ming Chang Chelsea East	11/01/2013	Darlington Mhako	Lasher	U/ground	11
	Esperance 20	22/01/2013	Lawrence Marondera	General Hand	U/ground	
	Jinan Diamond Mine	27/01/2013	Innocent Bhemure	General Hand	Surface	
	Trojan Nickel Mine	16/02/2013	Happison Munemo	Lashing Assistant	U/ground	
	Plain Gold Mine	11/03/2013	Brain Katiyo	General Hand	U/ground	
	Ravine 15 Mine	23/05/2013	Adrick Jacobs	General Hand	Surface	
	Zimplasts Ngwarati Mine	05/08/2013	Osika Chidhakwa	Team leader	U/Ground	
	Blanket	14/08/2013	Elvis Zhou	Drilling Gang leader	U/ground	
	Trojan Mine	13/10/13	Lovemore Nyanusanu	Machine Operator	-	
	Underground 17	21/12/13	Adam Chandolo	General hand	Surface	
Bulawayo	Ephesian Queen Mine	09/04/2013	Nkosikhona Ndlovu	Lasher	U/ground	8
	Lyne24 Mine	22/06/ 2013	Vikitshwa Ncube	Lasher	Surface	
	Stell City C Mine	13/05/2013	Nkosinoziso Ndlovu	Lasher	U/ground	
	Gossan 26	18/07/2013	Edmore Dube	Lasher	U/ground	

	Kent North	20/07/2013	Mugovera Mazive	Lasher	U/ground	
	Piri Piri C4	11/09/13	Dalumuzi Ndlovu	Lasher	U/ground	
	Rainy Day	27/09/2013	Nqabutho ncube	Lasher	U/ground	
	Coronation South 1 Mine	27/10/2013	Mfiselwa Mloyi	Lasher	U/ground	
Gweru	Victory 9	13/01/2013	Tafirenyika Mpofu	Lasher	Surface	10
	White Heather	13/01/2013	Kimason Dakura	General Hand	Surface	
	Last Chance	22/01/2013	Aleck Mhlopi	Surface	surface	
	Primrose	11/02/2013	Gift Ndebele	Mill Feeder	Surface	
	Dalny	11/03/2013	Wilson Phiri	Lasher	U/ground	
	Golden Quarry Mine	06/05/2013	Leonard Chazatira	Assistant welder	U/ground	
	Dalny Mine	08/05/2013	Raymond Mwale	Trammer	U/ground	
	Jolly Miller 7 Mine	11/05/2013	Bernard Chicholo	General Hand	U/ground	
	Cissy 9	03/09/2013	Sylvester Paradza	General Labourer	Surface	
	Northampton 19	04/10/2013	Knowledge Marute	General Labourer	U/Ground	
Masvingo	Chamazi 25 Mine	28/02/2013	Arlington Rusere	Lasher	U/Ground	7
	Gudo 25 Mine	15/03/2013	Clemmence Tusile	Machine operator	U/Ground	
	Clifton 2 Cyaniding Plant	09/08/2013	Peter Zinhu	General Hand	Surface	
	Special Grant 5455	16/08/2013	Abel Sibanda	General Labourer	U/Ground	
	Hungoedza 33	23/08/2013	Godfrey Zhou	Blaster	U/Ground	

	Vex 5 Mine	07/11/2013	Efanos Moyo	Driver	U/Ground	
	Growth Mine	07/11/2013	Simon Dzingai	Lasher	U/Ground	
Total						36

9. **Summary of meetings attended by the Director of Occupational Safety and Health**

Table 35: Communication and Influence

Activity	Year 2013
Policy Meetings	17
OSH Management committee meetings	12
Executive Management Meetings	9
Workshops/Seminars/ Conferences	10
Functions	18
ZOHSC Meetings	4
Board of Directors meeting	8
OSH Board Committee Meeting	4
Other Meetings	50
Total	132

Rodgers Dhlwayo
DIRECTOR: OCCUPATIONAL SAFETY AND HEALTH