

OCCUPATIONAL SAFETY AND HEALTH (OSH) ANNUAL REPORT FOR YEAR 2015

1. **INTRODUCTION**

Occupational Safety and Health (OSH) performance remained poor with an Injury Frequency Rate of 2.23 compared to an international standard of less than 1 injury per 1 million hours worked. There was however a marginal improvement compared to the previous year 2014 where the LTIFR was 2.27. In absolute figures there were 5 380 lost time injuries with 54 fatalities in 2015 while 2014 recorded 5491 injuries with 98 fatalities.

All promotional activities were successful. The Engineers workshop in March was attended by 145 paying delegates. The Zimbabwe Conference of Safety, Health and Environment Practitioners (ZICOSHEP) and the Nurses course were also well attended. The national conference (SHAW) attracted 165 paying delegates. At the safety awards dinner the national premier award was won by ZIMPLATS.

The division did not perform very well financially with \$1 231 454 being raised from the division's activities against a budget of \$2 165 886. This means the income was enough to cover 32% of the operating cost (i.e. staff costs + operating costs) which were at \$3 797 245. The income was affected by the default judgement on the case of Bulawayo Companies which were contesting the collection of annual fees for factory registration, which resulted in suspension of collection of the fees in June 2015.

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

We maintain the following key values to guide our behavior for the delivery of sound occupational safety and health services to the satisfaction of our stakeholders are:

- 2.2.1 Accountability
- 2.2.2 Teamwork
- 2.2.3 Delivery
- 2.2.4 Innovation
- 2.2.5 Ethical Conduct

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3. THE 5-YEAR OSH STRATEGY, 2016 TO 2020

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

3.2 AREAS OF STRATEGIC FOCUS IN 2015

- 3.2.1 Resubmission of the principles to Harmonization of OSH Bill to Cabinet
- 3.2.2 Expansion of Occupational health surveillance through mobile clinic and Willowvale Occupational Health Centre
- 3.2.3 Enforcement of the OSH laws
- 3.2.4 (a) Research on the applicability of the Quick Exposure Check (QEC) and Rapid Entire Body Assessment (REBA) procedures in Zimbabwe and (b) Evaluation of occupational exposure to silica dust in gold mines and quarries in Zimbabwe
- 3.2.5 Ratification of ILO Convention 187 on OSH Promotional Framework
- 3.2.6 OSH promotional work involving industrial OSH needs assessments, commemorating world day for safety and health, conferencing, workshops and training
- 3.2.7 Graduation of Occupational Safety, Health and Environmental (OSHEMAC) students
- 3.2.8 Development of the CIS (OSH information dissemination system) website and stocking of the library

4. OSH POLICY

The Policy was signed into operation on Monday 22nd September 2014.

5. HARMONIZATION OF OSH LAWS

The Principles to the harmonized OSH Bill were resubmitted to the Permanent Secretary of the Ministry of Labour and Social Welfare for approval by the Cabinet.

6. <u>RATIFICATION OF ILO CONVENTION 187 ON OSH PROMOTIONAL FRAMEWORK</u>

The draft rationale was submitted for ratification by Government as requested by the Ministry of Public Service, Labour and Social Welfare.

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. The actual implementation of the OSH programmes is carried out in the 6 NSSA regions headed by Regional Managers. These Regional Managers are in effect and reality, the OSH Operation Managers.

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7.1 OSH PROMOTION AND TRAINING

The Department's areas of strategic emphasis for the year under review included carrying out strengthened outreach programmes to raise awareness mainly through conferencing, training on OSH courses and assisting industry to establish occupational safety and health management systems.

<u>HUMAN RESOURCES IN THE OSH PROMOTION AND TRAINING DEPARTMENT</u>

Table 1: Human Resources

Head Office	Establishment	Strength	Variance
Manager	1	1	0
Secretary	1	1	0
Training Officers	2	2	0
Librarian	1	1	0
Library Clerk	1	1	0
OSH Promotion			
Officers			
Region			
Harare	11	9	2
Bulawayo	7	6	1
Gweru	3	2	1
Masvingo	4	3	1
Mutare	3	2	1
Chinhoyi	3	2	1
TOTAL	37	30	7

7.1.1 MAJOR OSH PROMOTIONAL ACTIVITIES AND EVENTS IN 2015

7.1.1.2 LOCAL SEMINARS, WORKSHOPS AND CONFERENCES

7.1.1.2.1 Engineers' Workshop on Occupational Safety and Health

The Engineers workshop for 2014 was held at the Meikles Hotel in Harare from 25th to 27th March 2015 under the theme "*Building and maintaining an OSH preventive culture.*" The workshop was officially opened by the Acting Minister of Public Service, Labour and Social Welfare, Hon. W. Chidhakwa (MP). The senior Government officials, the General Manager of NSSA and Directors thereof, and captains of industry were also present. The workshop was attended by 145 paying delegates.

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a) The objectives of the workshop were to:-

- (i) Promote an occupational safety & health culture through engineering interventions
- (ii) Advocate for a systems approach in engineering control of hazards at the workplace impart knowledge on the engineering approaches to the manufacturing, distribution and handling of chemicals.
- (iii) Create a platform for information exchange of best practices for economic growth.

(b) The Workshop Resolutions were as follows:

- (i) The National Social Security (NSSA), to engage the Chief Executive Officers of organizations in a forum once a year to discuss safety and health culture improvement.
- (ii) The Regulatory Authority NSSA needs to find a way of controlling Small to Medium Scale Enterprises (SMEs) to prevent high accidents emanating from this sector of the economy.
- (iii) Organizations were to identify pressure vessels manufactured to BS487 and decommission them since they were recalled after a design problem. A report would be presented in the next 2016 Engineers Workshop through their respective regional engineers' committees chairpersons.
- (iv) The National Social Security (NSSA) was requested to develop an online open platform for information exchange on its website.

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

The workshop was held from 11th to 12th June 2015 under the theme 'Building and maintaining an Occupational Safety and Health preventive culture.' Welcome remarks were given by the Acting General Manager, Mr T. Mafunda and the official opening was done by Hon O.C.Z. Muchinguri who was the Acting Minister of Public Service, Labour and Social Welfare. The workshop was attended by 53 paying delegates.

The conference was designed to meet the following objectives:

- (i) To consolidate an OSH preventive culture through the efforts of SHE practitioners.
- (ii) To propagate the OSH National Policy in an effort to promote a systems approach to occupational safety and health
- (iii) To exchange life experiences in promoting excellence in safety, health and environmental practices at work.

The conference did not make any resolutions.

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7.1.1.2.3 <u>National Conference on Occupational Safety and Health at Work</u> (SHAW Conference)

The Safety and Health at Work (SHAW) 2015 national conference was held at the Rainbow Towers Hotel in Harare from the 30th September to 2nd October 2015. The theme of the conference was 'Building and maintaining an occupational safety and health preventive culture'. The conference was officially opened by the Deputy Minister of Public Service, Labour and Social Welfare, Hon. Engineer T. Matangaidze (MP). The Permanent Secretary for the Ministry and ZOSHC Chairman Mr. Ngoni Masoka, the ZCTU President Mr. G. Nkiwane, the EMCOZ President, Mr. Jack Murehwa, the ILO representative, the NSSA Board Chairman Mr. R.T. Vela, the ZFTU representative, The Apex Council representative, the General Manager of NSSA, Mr. J.M Matiza, and the Acting Director of Occupational Safety and Health Dr Betty Isabel Nyereyegona constituted the top table.

a) The conference objectives were:

- (i) To promote a preventive culture of occupational safety and health.
- (ii) To encourage management of Occupational Safety and Health through a systems approach
- (iii) To create a platform to share experiences in promoting excellence in safety, health and environmental practices at work

Conference Resolutions

The delegates were unanimous in passing the following resolutions:-

- (i) To Organise targeted OSH awareness programmes/ initiatives for the informal sector (engage Ministry of SMEs and Zimbabwe Chamber of Informal Economy Association)
- (ii) To push for finalisation of the new OSH bill
- (iii)To have more than 50% of presentations designated for SHE Practitioners and reduce research papers

7.1.1.2.4 Occupational Nurses Course

The course was held at Beitbridge Hotel on 20th to 24th July 2015 with an attendance of 35 nurses.

7.1.1.2.5 World Day for Safety and Health

This commemoration was successfully held in all 6 regions, with an average attendance of 350 in each region.

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7.1.2 PARTICIPATION IN MAJOR INTERNATIONAL SEMINARS, CONFERENCES AND WORKSHOPS

7.1.2.1 Site Inspection for the construction of the Mobile Medical Clinic, Pretoria

The Late Director of OSH Rodgers Dhliwayo and the Medical officer of Occupational Health, Dr Humphrey Mapuranga travelled to South Africa on 19 to 23 February 2015 for site inspection for the construction of the Mobile Medical Clinic.

7.1.2.2 Technical Workshop on Chrysotile Asbestos, Geneva Switzerland

The Medical Officer, Dr Humphrey Mapuranga attended a Technical Workshop on Chrysotile Asbestos in Geneva Switzerland on 30 to 31 March 2015.

7.1.2.3 Training of the Namibian Social Security Commission

Mrs Shingirayi Mugaviri, Occupational Safety and Health Promotion and Training Manager and two Safety and Health Promotion Officers namely Ms Nonhlanhla Ndhlovu Yalala and Mr Muvengwa Dzaramba travelled to Namibia for training of the Namibian Social Security Commission on 22 to 26 June 2015.

7.1.2.4 Elevator Training Course funded by Schindler Lifts Pvt Ltd, Johannesburg, South Africa

The Senior Factory Inspector Engineering (Electrical), Mr Rangarirayi Innocent Tanyanyiwa attended an Elevator Training Course in Johannesburg, South Africa which was funded by Schindler Lifts Pvt Ltd, on 03 to 04 August 2015.

7.1.2.5 ILO Tripartite Sectorial meeting on Safety and Health in road transport sector, Geneva

The Medical Officer, Dr Humphrey Mapuranga attended the ILO Tripartite Sectorial meeting on 12 to 16 October 2015 in Geneva, Switzerland.

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

The Zimbabwe Occupational Safety and Health Council (ZOSHC) 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.

Submission of a letter of the appointment of the Zimbabwe Occupational Safety and Health Council (ZOSHC) members for the term, August 2015 to 31 July 2018 was done to the Minister of Public Service, Labour and Social Welfare on 4 November 2015.

The ZOSHC Constitution was revised during the year at a seminar which was held on 25 November 2015 at NSSA Willowvale offices. The revised Constitution was send to the ZOSHC Chairman for approval on 9 December 2015 and no response has been received yet.

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7.1.4 STATISTICAL SUMMARY OF OSH PROMOTIONAL ACTIVITIES

7.1.4.1 **TEACH-INS**

Table 2: Teach-Ins

Region	2015 Target	2015		2014		Variance	Per Cent Improvement
		Teach	Partici	Teach	Partici		
		Ins	pants	Ins	pants		
Harare	50 – 60	47	802	56	1 035		
Bulawayo	40 - 50	68	1 042	43	1 149		
Gweru	15 - 20	15	253	21	334		
Mutare	15 - 20	26	334	26	762		
Masvingo	20 - 25	16	337	9	431		
Chinhoyi	15 - 20	14	248	12	219	_	
Totals	150-180	186	3 016	167	3 930		

Comments

The number of teach ins conducted countrywide rose though the number of people covered decreased. Bulawayo had the highest increase of 58%.

7.1.4.2Basic Occupational Safety and Health Course

Table 3: Basic Occupational Safety and Health Courses Held (Participants in Brackets)

Region	2015 Target	2015	2014	Variance	Per Cent
					Improvement
Harare	10 - 12	16(191)	11(94)	5(97)	
Bulawayo	8 – 10	12(172)	11(153)	1(19)	
Gweru	3 – 4	5(89)	0	5(89)	
Masvingo	3 – 4	8(134)	4(50)	4(84)	
Mutare	3 – 4	3(38)	4(55)	-1(-17)	
Chinhoyi	3 – 4	3(136)	0	3(136)	
Totals	30 – 38	47(760)	30(352)	17(408)	

Comments

The number of Basic OSH courses conducted saw an increase of over 100% in the total number of participants. Masvingo recorded the highest improvement in the number of participants at 168% followed by Harare 103.19%

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7.1.4.3 ESTABLISHMENT OF SAFETY AND HEALTH COMMITTEES

Table 4: Safety and Health Committees at Workplaces

Region	2015 Target	2015	2014	Variance	Per Cent
					Improvement
Harare	11	8	3	37.50	11
Bulawayo	3	1	2	200.00	3
Gweru	17	10	7	70.00	17
Mutare	18	13	5	38.46	18
Masvingo	9	6	3	50.00	9
Chinhoyi	3	6	-3	-50.00	3
Totals	61	44	17		61

Comments

More safety and health committees were established in 2015 compared to 2014 as companies realised the importance of establishing these committees.

7.1.4.4 ESTABLISHMENT OF OSH MANAGEMENT SYSTEMS

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

Region	2015	2014	Variance	Percentage Improvement
Harare	1	2	-1	-50
Bulawayo	0	1	-1	-100
Gweru	0	0	0	
Mutare	0	1	-1	-100
Masvingo	3	2	1	50
Chinhoyi	1	0	1	
Totals	5	6	-1	

Comments

OSHMS certification continues to be on the decline as companies are reluctant to go the certification route.

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Table 5(b): Certified Organizations as at December 2015

		OHSAS	EMS	
Item	Company Name	18001	14001	Region
1	Chemplex	V	√	Harare
2	Masimba Construction	√	√	Harare
3	ZIMPHOS	√	√	Harare
4	ZFC	√	√	Harare
5	Cafca	√	V	Harare
6	Unilever		√ V	Harare
7	Delta Transport		√ V	Harare
8	Delta Lagers		V	Harare
9	Freda Rebecca Mine	√	V	Harare
10	Jacob Bethel Corporation	√	√ V	Bulawayo
11	Schweppes	√		Bulawayo
12	Delta Beverages Belmont	√	V	Bulawayo
13	Turnall		V	Bulawayo
14	How Mine		V	Bulawayo
15	Zimasco Shurugwi	NOSA		Gweru
16	Zimasco Kwekwe	NOSA		Gweru
17	Sable Chemicals			Gweru
18	Haggie Rand	V		Gweru
19	Unki Mine			Gweru
20	ZPC Munyati	V		Gweru
21	BOC Gases Gweru	V		Gweru
22	Kwekwe Maltings	V		Gweru
23	Chibuku Kwekwe			Gweru
24	Dorowa Minerals		V	Mutare
25	MBPM Forestry	V	V	Mutare
26	Hippo Valley Estates	V	V	Masvingo
27	Triangle			Masvingo
28	Mwenezana Estates	V	√	Masvingo
29	Mimosa Mine	V	√	Masvingo
30	Renco Mine	√	V	Masvingo
31	Murowa Diamonds	√	√	Masvingo
32	Delta Transport	√	√	Masvingo
33	Zimasco	√	√	Chinhoyi
34	Empress Nickel refinery	√	√	Chinhoyi
35	Zimplats Ngezi	√	√	Chinhoyi
36	Zimplats SMC	√	V	Chinhoyi
37	Lake Harvest	HACCP		Chinhoyi

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The list of certifies companies remained static throughout the year. Companies were reluctant to go the certification route.

Table 5(c): Organisations with Running Uncertified OSHMS

				%
Region	2015	2014	Variance	Improvement
Harare	3	40	-37	-92.50
Bulawayo	4	9	-5	-55.56
Gweru	9	32	-23	-71.88
Mutare	12	22	-10	-45.45
Masvingo	9	26	-17	-65.38
Chinhoyi	5	6	-1	-16.67
Totals	42	135	-93	

Comments

There was a decline in the identification of companies with running uncertfied OSHMS. Harare recorded the highest decline of 92.5%, followed by Gweru at 71.88%, Mutare 65.38%, Bulawayo at 55.56%, Masvingo at 45.45% and lastly Chinhoyi at 16.67%.

7.1.4.5 **SURVEYS**

Table 6: Needs Determination Surveys

Region	2015	2015	2014	Variance	Per Cent
	Target				Improvement
Harare	200 - 300	264	264	0	0.00
Bulawayo	150 - 200	233	204	29	14.22
Gweru	70 - 100	96	72	24	33.33
Mutare	100 - 150	157	152	5	3.29
Masvingo	80 - 100	209	159	50	31.45
Chinhoyi	80 - 100	84	76	8	10.53
Totals	700 – 900	1043	927	116	

Comments

Surveys increased in number in the year under review. The notable unsafe acts were: Workers are generally not issued with PPC/E, Poor Housekeeping, Poor machine guarding, Poor storage of gas cylinders, lack of firefighting devices and equipment. Corrective Action: Training of personnel in safety management, encouraging companies to comply with safety regulations, compelling employers to provide PPC/E.

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7.1.4.6**FARM VISITS**

Table 7: Number of farms visited

Region	2015 Farm Visits Target	2015	2015	Variance	Per Cent Improvement
Harare	25	145	-120	-82.76	25
Bulawayo	7	12	-5	-41.67	7
Gweru	40	36	4	11.11	40
Mutare	74	45	29	64.44	74
Masvingo	11	17	-6	-35.29	11
Chinhoyi	8	18	-10	-55.56	8
Totals	165	273	-108		165

Comments

Farm Visits declined this year as compared to 2014. Harare recorded a decline of 82.76% followed by Chinhoyi at 55.56%, Bulawayo at 41.67% and Mutare at 35.29%.

7.1.4.7 **2014 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 spearheads the programme with its OSH Promotion Officers carrying out assessments of performance for the previous year (2014 in this case).

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

Region	2014 Target	2015 Actual	2014 Actual	VARIENCE	Per Cent
					Improvement
Harare	680-820	889	866	23	2.66
Bulawayo	380-460	503	491	12	2.44
Gweru	160-200	285	197	88	44.67
Mutare	160-200	216	211	5	2.37
Masvingo	150-200	283	273	10	3.66
Chinhoyi	150-200	230	159	71	44.65
Totals	1 680 - 2 080	2406	2197	209	

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All the regions managed to exceed their set targets for assessments with Gweru and Chinhoyi recording an improvement of 44.67% and 44.65% respectively.

7.1.4.8 <u>SAFETY AWARDS FOR OSH PERFORMANCE IN 2013</u>

A. National Awards

(i) Premier Shield (The Biggest Award)

First Prize: Gold went to Zimplats Processing Plant

Second Prize: Silver went to Ngwarati Mine

Third Prize: Bronze went to Murowa Diamonds

(ii) Organization Most Improved in OSH

The prize was won by Sino Zimbabwe

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

The shield was won by Zimplats Processing Plant

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

The shield was won by Portland Holdings Collen Bawn

(v) Civil Engineering Contractors Shield

No winner

(vi) PROVINCIAL AWARDS

Table 9 A:

REGION	BRONZE	SILVER	GOLD
MASHONALAND	Dukodai Mino	Ngwarati	Zimulata Dua aggin a
MATEBELELAND	Rukodzi Mine Portland Holdings	Mine	Zimplats Processing
	Byo	How Mine	Portland Holdings CB
MIDLANDS	Zimasco Shurugwi	Haggie Rand	Sino Zimbabwe
MANICALAND	Green Fuel	Shawa Mine	Marange Resources
MASVINGO		Mwenezana	
	Nil	Estate	Murowa Diamonds

Table 9B: SECTORAL AWARDS

SECTOR	REGION	BRONZE	SILVER	GOLD
AGRICULTURE	MASHONALAND	Nil	Nil	Nil
AND FORESTRY	MATEBELELAND	Nil	Nil	Nil

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	MANICALAND	Nil	Nil	Nil
	MASVINGO	Nil	Nil	Dunsinane Estate
	MIDLANDS			Mwenezana
		Nil	Nil	Estate
MINING AND	MASHONALAND	Nil	Isabella Mine	How Mine
QUARRYING	MATEBELELAND			Zimasco
		Nil	Nil	Shurugwi
	MIDLANDS	Redwing		Marange
		Mine	Shawa Mine	Resources
	MANICALAND			Murowa
		Nil	Nil	Diamonds
	MASVINGO	Nil	Nil	Nil
COMMERCE AND	MASHONALAND	Volsec	Interoll	
DISTRIBUTION		Security	Kadoma	Total
	MATEBELELAND			Warman
		Nil	Haggie Rand	Zimbabwe
	MIDLANDS	ZETDC	ZETDC	
		Sherwood	Chertsy Bulk	Intertoll Zim
	MASVINGO	BOC	Zuva	ZETDC Eastern
		Gases	Petroleum	Region
	MANICALAND	Nil	Nil	Nil
CONSTRUCTION	MASHONALAND	Nil	Nil	Nil
	MATEBELELAND	Nil	Nil	Nil
	MIDLANDS	Nil	Nil	Nil
	MASVINGO	Nil	Nil	Nil
	MANICALAND	Nil	Nil	Nil
MANUFACTURING	MASHONALAND			Zimplats
		Gyproc	Unilever	Processing
	MATEBELELAND		Portland	
		Jacob	Holdings	Portland
		Bethel	Byo	Holdins CB
	MIDLANDS	Bata Shoe	Haggie Rand	Sino Zimbabwe
	MANICALAND		Sheba	
		Nil	Sawmill	Green Fuel
	MASVINGO	Nil	Nil	Nil

PROVINCIAL AWARDS

Table 9C:

Table 7C.			
REGION	BRONZE	SILVER	GOLD AND SALESFORCE
MASHONALAND	Rukodzi Mine	Ngwarati Mine	Zimplats Processing
MATEBELELAND	Portland Holdings		7 8
	Byo	How Mine	Portland Holdings CB

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MIDLANDS	Zimasco Shurugwi	Haggie Rand	Sino Zimbabwe
MANICALAND	Green Fuel	Shawa Mine	Marange Resources
MASVINGO	Nil	Mwenezana Estate	Murowa Diamonds

7.1.5 REVENUE GENERATED THROUGH OSH PROMOTIONAL ACTIVITIES

7.1.5.1 **OSHEMAC**

Table 10: OSHEMAC Revenue

Region	2015					2015 Expenditure
	Students		2014		%	
		2015 Income	Income	Variance	Improvement	
Harare	240	\$117,172.00	\$83,600.00	\$33,572.00	40.2	\$14,180.00
Bulawayo	195	\$95,238.00	\$67,050.00	\$28,188.00	42.0	\$5,001.66
Total	435	\$212,410.00	\$150,650.00	\$61,760.00	82.2	\$19,181.66

7.1.6. <u>NATIONAL OCCUPATIONAL SAFETY AND HEALTH INFORMATION CENTRE</u> (CIS)

Mission

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

Objectives were:

The strategic 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 ensure effective distribution of information materials such as ON GUARD Magazine, video tapes, OSH Posters.
- e) To draft a Collection Development Policy which guide library staff on the acquisitions procedures of library resources, donations and etc.
- f) To draft a Library Policy which guide library clients on library membership, library rules and regulations.

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Success indicators

- a) CIS website established accessible to the public
- b) Library policy drafted
- c) OSH IEC materials distributed

Achievements

a) Head Office shelving and classification of library resources successfully completed.

Challenges

- a) The library has old furniture i.e. chairs and desks and very few in number. Clients coming in to read find it difficult to use the furniture.
- b) The section does not have the requisite printer for the printing of OSH course certificates. The section then has to outsource printing services.

7.1.6.1 COMPARATIVE ANALYISIS OF 2015 AND 2014 PERFORMANCE

SUMMARY OF OPERATIONS

Table 11:

Item Description	2015	2014	Variance	Total Books In 2015	Total Books In 2014	Variance
No. Of Book						
Received	89	0	89	1629	1540	89
On Guard						
subscribers	0	7	-7	7	7	0
Library members	38	51	-13	87	51	36

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Item Description	YTD 2015	YTD 2014	Total Received to date 2015	Previous Year to Date	Cumulative totals in Library
			uate 2015	Date	2015
On Guard					2010
Total Copies					
Printed	2 800	0	2 800	3 850	2 050
Total Copies Sold	903	0	903	1980	977
Income Generated					
Income From					
copies sold	\$4,515.00	\$0.00	\$4,515.00	\$9,900.00	\$4,885.00
Income from	+ 1,0 -0100	4 0 1 0 0	+ 1,0 = 0 10 0	42,920000	+ 1,000100
Subscribers	\$0.00	\$0.00	\$0.00	\$310.00	\$310.00
Income from	ψοίου	40.00	φσ.σσ	φ210.00	φε10.00
Adverts	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Information	\$0.00	Ψ0.00	Ψ0.00	Ψ0.00	ψ3.00
Request					
MSDS	0	0	0	0	0
General		<u> </u>	0		
Information					
request.	763	30	733	1056	293
Books	703	30	733	1030	273
Books Borrowed	136	3	133	199	59
Books Returned	88	3	85	128	41
TOT Certificates	1225	12	1213	1875	632
OHS DVDs	406	0	406	457	45
	400	U	400	437	43
Income from DVDs	\$812.00	\$0.00	\$812.00	\$914.00	\$90.00
	\$612.00	\$0.00	\$612.00	\$914.00	\$90.00
Periodicals Received					
African Newsletter	1050	0	1050	1751	701
Indoshnews	0	0	0	1/31	701
Periodicals	0	U	U	1	1
Distributed To Officers	212	0	212	452	240
	213	0	213	453	240
To Industry/Institutions		0		520	520
Industry/Institutions Norman and an	0	0	0	530	530
Newspaper Cuttings	1 1	0	1.4	27	10
Cuttings	14	0	14	27	18
Meetings Departments 1					
Departmental	10	_	10	10	4
Meetings	12	0	12	12	1
Posters C. 11	100	2.1	1.00	0.50	10.1
Total Poster Sold	492	24	468	968	424
Income From	****	* 4 0 0 0	φο ς - ος	# 4 00 5 00	\$0.40.0
Posters	\$984.00	\$48.00	\$936.00	\$1,936.00	\$848.00
OSH Policy					
Total Policy Sold	887	0	887	916	O Page
Income From				** -	
Policy	\$2,247.50	\$0.00	\$2,247.50	\$2,290.00	\$0.00

7.1.7. <u>REVENUE GENERATED AT REGIONAL LEVEL ON PROMOTIONAL</u> ACTIVIES

Table 12:

Region	Year 2015	Previous Year	VARIANC	PER CENT
	US\$	2014	\mathbf{E}_{-}	IMPROVEM
		US\$	US\$	ENT
Harare	\$43,965.25	\$42,772.40	\$1,192.85	2.79
Bulawayo	\$24,837.50	\$17,843.00	\$6,994.50	39.20
Gweru	\$12,310.00	\$15,586.00	-\$3,276.00	-21.02
Mutare	\$20,898.50	\$10,070.00	\$10,828.50	107.53
Masvingo	\$6,676.20	\$5,338.00	\$1,338.20	25.07
Chinhoyi	\$20,048.00	\$27,062.00	-\$7,014.00	-25.92
CIS	\$8,558.50	\$5,912.00	\$2,646.50	44.76
OSHEMAC	\$212,410.00	\$150,650.00	\$61,760.00	41.00
Totals	\$349,703.95	\$275,233.40	\$74,470.55	

7.1.7.1 <u>REVENUE FROM ALL OSH PROMOTIONAL ACTIVITIES</u>

Table 13: Revenue from Promotional Activities

Item	2015	2014	Variance	% Improvement
National Events	\$220,320.00	\$171,110.00	\$49,210.00	28.76
Regional	\$220,520.00	ψ1/1,110.00	Ψ19,210.00	20.70
Activities	\$349,703.95	\$275,233.40	\$74,470.55	27.06
Total	\$570,023.95	\$446,343.40	\$123,680.55	

Comments

There was an increase in the revenue generated in 2015.

OSH TRAINING

The following courses were conducted in 2015:

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

A total of 435 students were trained in OSHEMAC during the year under review. This was a significant rise showing the high demand of the course.

7.1.8.2 Occupational Health Nurses Course

The course was held at Beitbridge Hotel on 20^{th} to 24^{th} July 2015 with an attendance of 35 nurses.

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7.1.8.3 **Boiler Attendant Course**

The course was held in Harare and Mutare attracting an average class size of 20 participants in each case.

7.2 FACTORIES AND WORKS INSPECTORATE

The department failed to attain the target for revenue generation again for the second year running. The department however managed to enforce the law and scored as highlighted in the following report:-

7.2.1 HUMAN RESOURCES IN THE OSH INSPECTORATE DEPARTMENT

Table 14: Human Resources

Office Inspector 1 1 0 Secretary 1 1 0 Harare Mech. Insp 7 7 0 Elect. Insp 2 2 2 0 Hygiene Insp 3 3 0 0 Elect. Insp 1 1 0 0 Hygiene Insp 3 3 0 0 Elect. Insp 0 0 0 0 Hygiene Insp 1 1 1 0 Mutare Mech. Insp 2 2 2 0 Hygiene Insp 2 2 0 0 Masvingo Mech. Insp 1 1 0	1 uvie 14. 11 u	ıman Resources	T . 1 10 7	G	TT DT TT
Chief Inspector Inspecto			Establishment	Strength	
Factories Secretary	Chief I	n am a at a n	1	1	
Secretary		nspector of	1	1	U
Mechanical Engineering 18			1	1	0
Electrical Engineering 4		Enginooring	-	_	
Hygiene Inspectors		Engineering	10	10	U
Inspectors		Engineering	4	4	0
Hygiene Inspectors 10		21191110011119			
Total 34 34 0 DISTRIBUTION BY NSSA REGIONS Region POSITION ESTABLISHM ENT STRENGTH VARIANCE Head Office 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 Mech. Insp 3 3 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 Hygiene Insp 0 0 0 Hygiene Insp 0 0 0 Hygiene Insp 0 0<		spectors	10	10	0
Region POSITION ESTABLISHM ENT 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 Mech. Insp 3 3 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 1 0 Mutare Mech. Insp 2 2 0 Hygiene Insp 0 0 0 0 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0		•	34	34	0
ENT Head Office Chief Inspector 1 1 0 Harare Mech. Insp 7 7 7 0 Elect. Insp 2 2 2 2 0 Bulawayo Mech. Insp 3 3 3 0 Elect. Insp 1 1 1 1 0	DISTRIBU	TION BY NSSA	REGIONS		
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 Mech. Insp 3 3 0 Elect. Insp 1 1 0 Hygiene Insp 1 1 0 Gweru Mech. Insp 3 3 0 Elect. Insp 0 0 0 Hygiene Insp 2 2 0 Mutare Mech. Insp 2 2 0 Hygiene Insp 0 0 0 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0	Region	POSITION	ESTABLISHM	STRENGTH	VARIANCE
Office Inspector 1 1 0 Secretary 1 1 0 Harare Mech. Insp 7 7 0 Elect. Insp 2 2 2 0 Hygiene Insp 3 3 0 0 Elect. Insp 1 1 0 0 Hygiene Insp 3 3 0 0 Elect. Insp 0 0 0 0 Hygiene Insp 1 1 1 0 Mutare Mech. Insp 2 2 2 0 Hygiene Insp 2 2 0 0 Masvingo Mech. Insp 1 1 0			ENT		
Office Inspector 1 1 0 Harare Mech. Insp 7 7 0 Elect. Insp 2 2 0 Hygiene Insp 4 4 0 Bulawayo Mech. Insp 3 3 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 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0	Head	Chief	1	1	0
Harare Mech. Insp 7 7 0 Elect. Insp 2 2 0 Hygiene Insp 4 4 0 Bulawayo Mech. Insp 3 3 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 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0	Office	Inspector	1	1	U
Elect. Insp 2 2 0 Hygiene Insp 4 4 4 0 Bulawayo Mech. Insp 3 3 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 0 0 0 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0		Secretary			0
Hygiene Insp	Harare	Mech. Insp		7	0
Bulawayo Mech. Insp 3 3 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 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0		Elect. 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 2 2 0 Masvingo Mech. Insp 1 1 0			4	4	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 2 2 0 Masvingo Mech. Insp 1 1 0	Bulawayo	Mech. Insp	3	3	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 2 2 0 Masvingo Mech. Insp 1 1 0		Elect. Insp	1	1	0
Elect. Insp 0 0 0 Hygiene Insp 1 1 0 Mutare Mech. Insp 2 2 0 Elect. Insp 0 0 0 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0		Hygiene Insp	1	1	0
Hygiene Insp 1 1 0 Mutare Mech. Insp 2 2 0 Elect. Insp 0 0 0 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0	Gweru	Mech. Insp	3	3	0
Mutare Mech. Insp 2 2 0 Elect. Insp 0 0 0 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0		Elect. Insp	0	0	0
Elect. Insp 0 0 0 Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0		Hygiene Insp	1	1	0
Hygiene Insp 2 2 0 Masvingo Mech. Insp 1 1 0	Mutare	Mech. Insp	2	2	0
Masvingo Mech. Insp 1 1 0		Elect. Insp		0	0
			2	2	0
Elect. Insp 0 0	Masvingo	Mech. Insp	1	1	0
		Elect. Insp	0	0	0

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	Hygiene Insp	1	1	0
Chinhoyi	Elect Insp	1	1	0
	Hygiene Insp	1	1	0
TOTAL		34	34	0

No staff turnover were realised during the year. A graduate trainee Mrs N. Reza was transferred from Gweru at the end of November to Harare to save on training costs. The inspectors who had not finalised their training continued with their industrial attachments. All Inspectors managed to take leave during the year. The efforts put by the Inspectors to enforce the law are appreciated.

7.2.2 **Development Plans**

Table 15:

Region	New Plans	Old Plans	Total YTD	Revenue US\$
	Processed	Processed		
Harare	5	3	8	208,864
Bulawayo	4	7	11	6,531
Gweru	6	6	12	6,386
Mutare	6	2	8	6,358
Masvingo	3	3	6	2,157
Chinhoyi	2	3	5	2,049
Total 2015	26	24	50	232,345
Total 2014	41	20	61	53,267

Comments

Plans processed were 82% of plans processed last year. The revenue increased by 4,4 times as compared to last year. The quantity of revenue generated was commensurate with our office sizes. The biggest investor during the year was Pretoria Portland Cement who are constructing a cement plant in Harare. The rest were small projects across all industrial sectors.

7.2.3 Factory Registrations and Closures

Table 16:

Region	Factories Registered	Factory Closure	Total No. of Factories In use	Revenue US\$
Harare	390	1009	2938	42,700
Bulawayo	122	548	525	12,800
Gweru	15	26	339	1,500
Mutare	21	11	345	2,200

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Masvingo	7	23	222	800
Chinhoyi	15	42	283	1,900
Total 2015	570	1659	4652	61,900
Total 2014	750	1691	5741	87,320

New registrations reduced by 24% as compared to last year. The number of closures reduced by two percent as compared to last year. Factories continued to reduce by 19% due to few registrations and more closures as compared to last year.

7.2.4 Factory Inspections

Table 17:

Region	Inspections	Non Complying	Complying
Harare	2 936	1 542	1394
Bulawayo	1 148	516	632
Gweru	514	111	403
Mutare	596	2	594
Masvingo	400	79	321
Chinhoyi	553	205	348
Total 2015	6 147	2 455	3 692
Total 2014	7 086	2 225	4 861

Comments

87% of inspections carried out last year were realised this year. A compliance of 40% was achieved as compared to 31% last year. The increase in compliance of 78% is still far below the 100% goal.

7.2.5 **Building and Construction**

Table 18:

Region	No. of Sites	Inspections	Complying	Non
				Complying
Harare	27	117	38	79
Bulawayo	6	75	16	59
Gweru	4	46	0	46
Mutare	8	46	0	46
Masvingo	7	41	9	32
Chinhoyi	6	13	5	8
Total 2015	58	338	68	270
Total 2014	105	298	61	237

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There were 55% of sites running this year as compared to last year. Inspections increased by 13% as compared to last year. A compliance of 20% which was the same as the previous year was recorded.

7.2.6 Boilers

Table 19: Boiler Registrations

Region	Registered	Discarded	TOOU	In Use	Total
Harare	5	1	4610	464	5070
Bulawayo	0	2	158	102	260
Gweru	1	13	157	-51	106
Mutare	2	226	317	62	379
Masvingo	0	5	103	27	130
Chinhoyi	1	18	0	1093	1093
Total 2015	9	265	5345	1697	7038
Total 2014	1953	147	6297	1001	7298

Comments

The number of boilers reduced by 15% as compared to last year. The exercise to identify farm boilers in progress in other regions will continue until the records are correct.

Table 20: Boiler Inspections

Region	Inspection	Complying	Non Complying	Revenue
Harare	654	338	316	105,430
Bulawayo	261	199	62	54,100
Gweru	141	19	122	15,400
Mutare	249	65	184	33,100
Masvingo	81	52	29	23,200
Chinhoyi	113	46	67	15,600
TOTAL				
2015	1499	719	780	246,830
Total 2014	905	439	466	293,300

Comments

Inspections increased by 66% as compared to last year due to inspection of temporary out of use boilers. A compliance of 48% was realised as compared to 49% last year.

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7.2.7 Elevators

Table 21: Elevator Registrations

Region	Registered		TOOU	In Use	Total
Harare	77	6	0	996	996
Bulawayo	9	15	100	162	262
Gweru	0	0	34	10	44
Mutare	0	0	9	22	31
Masvingo	0	0	1	2	3
Chinhoyi	2	0	0	16	16
Total 2015	88	21	144	1208	1352
Total 2014	57	32	502	784	1286

Comments

Registration increased by 54% as compared to last year. Old elevator replacement with new ones was common. Most of the new registrations therefore were in old shafts.

Table 22: Elevator Inspections

Region	Inspection	Complying	Non Complying	Revenue
Harare	919	360	559	132,210
Bulawayo	316	128	188	29,840
Gweru	48	9	39	0
Mutare	47	15	32	2,680
Masvingo	5	2	3	520
Chinhoyi	12	7	5	320
TOTAL 2015	1 347	521	826	165,570
Total 2014	1 128	634	494	137,660

Comments

Inspections increased by 19% as compared to last year due to an audit requirement of inspection of all elevators including non-working. A compliance of 39% was realized this year as compared to 56% last year.

7.2.8 Certificate Renewal

Table 23:

Region	Black	Blue	Red	Revenue US\$
Harare	719	111	135	965

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Bulawayo	299	34	48	381
Gweru	150	13	21	184
Mutare	183	19	29	231
Masvingo	141	8	7	156
Chinhoyi	182	15	10	207
Total 2015	1674	200	250	2124
Total 2014	1497	202	247	1946

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

Comments

The annual registration of factories was abandoned in July 2015 after the enabling instrument was nullified by a High Court ruling in the Case of ABJ and 4 others versus Ministry of Public Service, Labour and Social Welfare and NSSA was withdrawn in June 2015. The withdrawal meant the applicant clings to the HC3258/12 ruling delivered in March 2013 which set aside S.I. 28 of 2008 and 16 of 2011.

7.2.9 **Meetings**

Table 24:

Region	Meetings	Office Inquiries	Other (Excursions)
Chief Inspector's			
Office	90	117	30
Harare	59	10	5
Bulawayo	93	5	28
Gweru	50	2	27
Mutare	95	16	19
Masvingo	71	23	23
Chinhoyi	30	1	1
Total 2015	488	174	133
Total 2014	470	146	130

Comments

Meetings increased by four percent as compared to last year. Inquiries increased by 19% as compared to last year but compliance is still low. Other activities also increased by two percent.

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7.2.2.1.1 OCCUPATIONAL HEALTH SERVICES (OHS)

The year saw the department finally procuring the mobile clinic which is in the process of being registered. It also requires the services of a diagnostic radiographer who will work in conjunction with the current X-ray Operator.

A workload assessment was conducted with a view to improving both efficiency and effectiveness in the department. This resulted in two positions being transferred to NPS effective 1 February 2016. Revenue collected for the year were much lower compared to the previous year. This is a reflection of the current depressed macroeconomic environment. However we witnessed a significant jump of pneumoconiosis cases in the month from 9 to 44. This is partly explained by the fact that we have completed a 5 year period post dollarization (during which most certificates actually expire and this coupled with reapplications.

The department managed to develop 3 occupational health guidelines for industry. These will be rolled out once peer-reviewed. The old procedure manuals for the department were revised and new procedure manuals for newly introduced procedures were drafted.

7.3.1 HUMAN RESOURCES IN THE OHS DEPARTMENT

Table 25: 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

Training for excel word was conducted for all OHS staff. One of the Nursing Officers successfully completed an Executive Certificate in Programme and Project Monitoring and Evaluation. The Nursing Officer successfully completed and graduated in Bachelor of Science (Hons) Nursing Science, specializing in Occupational Safety and Health.

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7.3.2 Workplace Activities

Table 26:

Activity	Northern Region	Southern Region	Totals
Clinic Audits	116	85	201
Occupational Health Inspections	102	120	222
New Industrial Clinics Registered	5	2	7

7.3.3 Medical Bureau Activities Summary

Table 27:

Table 27:		
Activity	Year 2015	Previous Year 2014
Medical Certificate of Fitness	18 153	20 269
Applications received		
Pneumoconiosis x-rays processed	21 097	18 242
Pneumoconiosis Medical Certificates	18 064	14 895
issued		
Pneumoconiosis cases identified	33	9
Number of cases deferred	3 308	3 251
Monetary Value of Pneumoconiosis	2 555	6 125
certificate application received (US\$)		
Monetary Value of Pneumoconiosis	\$181 630	\$202,690
certificate application received (ZAR)		
Bureau Meetings	144	139
C C		
Payment of Medical Bureau Doctors	\$57,908	\$52,750
(Expenses) (US\$)		
Revenue after paying Medical Bureau	\$123,722	\$149,940
Doctors		,
	1	1

7.3.3.1 Pneumoconiosis Analysis By Sector

Table 28: Pneumoconiosis Cases per Sector

Company	Sector	Active Mineral	Number Of Cases
Goldern Kopje Mine	Mining	Silica	1
Jena Mine	Mining	Silica	1
Redwing Mine	Mining	Silica	2
Goldern Valley Mine	Mining	Silica	1
Dalny Mine	Mining	Silica	1
How Mine	Mining	Gold & silica	4

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Knight Frank & Rutley	Accommodation	Silica	1
	Services		
Forbes & Thompson	Mining	Gold & silica	1
Nyati Mine	Mining		1
Shamva Mine	Mining	Gold & silica	4
Turnal Holdings	Manufacturing	Asbestos	1
William Bain & Co	Foundry	Silica	1
Holdings p/l			
Mazoe Mine	Mining	Gold & silica	1
Trojan Nickel Mine	Mining	Nickel & silica	1
Mimosa Mine	Mining	Platinum	2
Madhatter Mine	Mining	Gold & silica	1
Casmyn Mine	Mining	Gold & silica	1
Freda Mine	Mining	Gold & silica	3
Shabani Mine	Mining	Asbestos	1
Zimplats	Mining	Platinum	2
Gaths Mine	Mining	Asbestos	1
Total			33

It is evident that silica is the predominant mineral. It could be assumed that these cases were silicosis and the majority were from the mining sector especially the Gold Mines. Two cases were picked with significant exposure from asbestos mines. Further research is warranted to determine whether this was asbestosis or silicosis given the ubiquitous nature of silica dust.

7.3.4 Accounts Audited Per Region

Table 29: Audited Accounts

Region	Accounts Audited	Amount Awarded In US \$	Amount Claimed In US \$	Savings In US\$
Harare	824	17 293.62	18 887.74	1 648.12
Mutare	794	13 381.11	15 517.70	2 136.63
Chinhoyi	378	9 302	16 910.90	7 608.90
Bulawayo	284	6 764	1 087.00	-5 677.00
Masvingo	93	12 752	7 367.00	-5 385.00
Gweru	73	3 769	3 756.00	-13.00
Totals	2 446	63 207.73	63 526.34	11 393.65

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7.4 RESEARCH AND DEVELOPMENT

The year 2015 focused on the following activities:-

- a) Research projects on;
- b) Value addition of Occupational Safety and Health to business.
- c) Evaluation of occupational exposure to silica dust in mines and quarries in Zimbabwe and implications on health of exposed workers.
- d) Occupational Hygiene Measurements.
- e) Ergonomic Risk Assessments.
- f) Publication of the On-Guard Magazine An Aid to Occupational Safety and Health.
- g) Presentations of Occupational Safety and Health lectures and information materials to OSHEMAC students, industrial workplaces, at workshops, conferences and seminars.
- h) Preparation and presentation of papers at workshops, seminars and conferences.

7.4.1 <u>HUMAN RESOURCES IN THE RESEARCH AND DEVELOPMENT</u> <u>DEPARTMENT</u>

Table 30:

Job	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	4	4	0

Comment

On certain assignments inspectors and/or promotion officers are coopted to beef up manpower.

7.4.2 **RESEARCH PROJECTS**

7.4.2.1 VALUE ADDITION OF OCCUPATIONAL SAFETY AND HEALTH TO BUSINESS

The key objectives of the research were:-

- (a) To describe the pattern of occupational accidents and injuries in selected cases before and after introduction of OSHMS or OSH initiative(s) in the establishment.
- (b) To describe the pattern of lost workdays and lost time injury frequency (LTIFR) due to occupational accidents and injuries before and after introduction of OSHMS or OSH initiative(s).

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- (c) To establish estimates of investment (input cost) of OSH initiatives in selected establishments.
- (d) Establish estimates of the cost of occupational accidents and injuries before and after introduction of an OSHMS or OSH initiative.

Abstract

The link between effective OSH management and the economic benefits are usually not appreciated and OSH in itself is viewed as not contributing to the economic viability of an organisation. Such a failure to link the economic advantages of effective OSH interventions limit the effectiveness of preventing accidents, injuries and diseases at work.

The research employing case study approach was initiated to examine the business case of OSH in which a retrospective review of available records, information and data on OSH was done at selected establishments. Sampling was purposive and 32% of targeted establishments (9/28) were examined. The study has shown that with proper OSHMS or OSH initiative, the link between OSH and economic performances can be evident. Three case-studies showed that OSH is not necessarily a cost but rather a beneficial investment where, ratio of investment cost (input cost) to cost of accident was greater than 1, this suggesting that effective implementation of OSH system and/or initiative add value to business and does have a contributory effect to the bottom line. Two cases also showed improved productivity with improved SHE performance. As in most studies elsewhere the majority of case studies (75%) showed that implementation of effective OSH systems or safety initiative generally show corresponding improvement on lost time injuries frequency rate (LTIFR), a measure of how safe a workplace is.

In order to strengthen the economic aspects of OSH, organisations must be compelled through legislation to systematically collect and record data on lost time injuries, lost work days, initial investment and recurring OSH costs, cost of accidents, injuries and diseases and track these over years. This will provide a measure of the impact of OSH investment to management of some business risks associated with loss of production, human capital, plant and equipment.

7.4.2.2 RESEARCH ON EVALUATION OF OCCUPATIONAL EXPOSURE TO SILICA DUST IN MINES AND QUARRIES IN ZIMBABWE AND IMPLICATIONS ON HEALTH OF EXPOSED WORKERS

The key objectives of the research were:-

- (a) To determine levels of siliceous dust in selected mines and quarries in Zimbabwe.
- (b) To assess the implications of the obtaining siliceous dust exposure levels on the health of exposed workers.

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Abstract

Exposure to siliceous dust is widespread in many occupational settings, however, exposure levels obtaining in mines and quarries have not been established to any significant extent in Zimbabwe. A cross-sectional dust exposure assessment was carried out at 13 mines (8 gold and 5 other mines) and 5 quarries across the country employing the NIOSH method 0600 on analytical measurement of respirable and total dust. Eighty four (84) and 30 personal dust samples were collected in mines and quarries respectively in order to determine total respirable and inhalable siliceous dust exposure levels. A significant number of mines (87%) and all quarries had total inhalable siliceous dust exposure levels exceeding Zimbabwe prescribed exposure limit of 5mg/m³ in some areas especially at primary and secondary crushing for both mines and quarries. The primary and secondary crushing areas for both mines and quarries were the most affected. Respirable siliceous dust levels exceeded the prescribed limit of 2mg/m³ in 50% of mines underground and especially during secondary crushing. Mean respirable siliceous dust exposure levels in areas evaluated ranged from 0.4-1.1mg/m³ while mean total inhalable siliceous dust ranged from 0.7-11.5mg/m³ in the mines. For quarries, mean respirable siliceous dust exposure levels ranged from 0.5-8mg/m³, while total inhalable dust ranged from 5.4-143.7mg/m³. Exposure levels to siliceous dust in the majority of mines and quarries exceeded prescribed limits suggesting that control measures are weak. Gold mining alone contributed 51% of all pneumoconiosis cases recorded between 2009 and 2014 suggesting that exposure to siliceous dust is more prevalent in gold mining compared to mining of other minerals. Control measures in gold mines and quarries in Zimbabwe need to be improved to minimize risk of developing silicosis, lung cancer and other diseases associated with exposure to silica dust. Capacity to measure respirable crystalline silica also needs to be developed in order to update current local prescribed exposure limits.

7.4.3 OCCUPATIONAL HYGIENE MEASUREMENTS

Occupational hygiene measurements mainly focused on noise, dust, light, heat, and chrysotile fibre. The number of establishments in which occupational hygiene measurements were done was 22 compared to 31 done in 2014, a decrease of 32% largely due to low activity in industry.

Table 31: Measurements

Measured Occupational Hygiene Elements	Number of Establishments Surveyed 2015	Number of Establishments Surveyed 2014
Noise	18	26
Dust	13	20
Heat	9	8
Lighting	8	16
Chemicals	0	2
Chrysotile Fibre	1	1

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Occupational hygiene elements on high demand continue to be noise and dust though requests declined by 31% with respect to noise and 35% with respect to dust compared to previous year of 2014.

7.4.4 <u>ERGONOMIC RISK ASSESSMENTS</u>

Ergonomic Risk Assessments requests declined by 35% to 11 compared to 17 done in 2014. The decline can generally be attributed to low industrial activity in all sectors of the economy.

The need for workplaces to embrace ergonomics will be widely promoted in 2016 at every forum such as workshops, conferences, seminars, OSH training sessions etc.

7.4.5 <u>PUBLICATION OF THE ON-GUARD MAGAZINE: AN AID TO OCCUPATIONAL SAFETY AND HEALTH</u>

Two publications of the On-Guard Magazine were produced Volume 21 No. 1, June 2015 and Volume 21 No. 2, December 2015.

Topics covered by these publications included:-

- (a) The role of the Mine Manager in fostering a preventive safety and health culture.
- (b) The maintenance of full proof safety systems culture in preventing electrical accidents.
- (c) Agrochemicals use by small holder farmers in vegetable production in Matabeleland North Province.
- (d) The indispensable requisites for project management in accident prevention.
- (e) Performance indicators and measurement in occupational safety and health.
- (f) Role of human factors in accident prevention "The AKBC Model".

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7.4.6 STATISTICAL SUMMARY OF RESEARCH AND DEVELOPMENT ACTIVITIES

<u> Table 32:</u>			
Item No.	Activities	2015	2014
1.	OSH Research Projects	Two researches done: (a) Value addition of Occupational Safety and Health to business. (b) Evaluation of occupational exposure to silica dust in mines and quarries in Zimbabwe and implications on health of exposed workers. (Continued from 2014).	Two researches done: (a) Evaluation of the applicability of the Quick Exposure Check (QEC) and Rapid Entire Body Assessment (REBA) ergonomic tools in Zimbabwe industrial sectors focused on Manufacturing,
			Commerce & Distribution and Building & Construction sectors. (b) Evaluation of occupational exposure to silica dust in gold mines in Zimbabwe and implications on health of exposed workers.
2.	Occupational Hygiene Measurements	22 establishments evaluated	31 establishments done
3.	Ergonomic Risk Assessments	11 establishments done	17 establishments done
4.	Publication of the On-Guard Magazine : An Aid to OSH	Two issues published June and December 2015 issues	Two issues published June and December 2014 issues
5.	OSH Training and Workshops/Confer ences presentations for knowledge impartation and skills development	90 OSH presentations done (OSHEMAC, conferences and workplace specific presentations).	50 OSHEMAC lectures were delivered and 30 external presentations done.
6.	Revenue	US\$15 148.45	US\$18 897.36

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8. OCCUPATIONAL INJURIES AND FATALITIES

8.1 <u>Occupational injuries from All Workplaces in Zimbabwe</u> (Figures in brackets are fatalities)

Table 33: Occupational Injuries and Fatalities

NSSA Region	Worker Population	Injuries 2015	LTIFR 2015	Worker Population	Injuries 2014	LTIFR 2014	Variance 2015 vs
	2015			2014			2014
Harare	888 722	2252(23)	1.27	888 722	2519(36)	1.41	-9.93%
Bulawayo	126 332	1 476(11)	5.84	126 332	1217(17)	4.81	21.41%
Gweru	46 298	518(7)	5.59	46 298	619(4)	6.68	-16.32%
Mutare	47 000	487(5)	5.18	47 000	490(15)	5.21	-0.58%
Masvingo	52 354	182(3)	1.74	52 354	258(6)	2.46	-29.27%
Chinhoyi	47 696	465(5)	4.87	47 696	388(20)	4.06	19.95%
Totals	1 208 402	5 380(54)	2.23	1 208 402	5 491(98)	2.27	-1.76%
Standard LTIFR							-

Analysis

There was a decline in the number of serious accidents and fatalities recorded in 2015. The accidents statistics continue to be very high with an IFR of 2.23 against 2.37 of 2014.

8.2 Occupational Injuries in Factories and Works

Table 34: Lost Time Injuries

Region	Received	Received		
	Non-Fatal	Fatal	Non-Fatal	Fatal
Harare	119	7	75	6
Bulawayo	60	2	23	1
Gweru	17	1	22	1
Mutare	22	2	20	2
Masvingo	28	0	19	0
Chinhoyi	25	0	21	0
TOTAL	271	12	180	10
Last year	330	13	211	13

Comments

The number of accidents reported reduced by 17% as compared to last year. Fatalities reduced by one as compared to last year. The following fatalities s were reported and investigated:-

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1. Harare Region

- (a) An employee fell backwards headlong from a 1,8metres platform when a mahole cover of a Cooking Pan opened under 2 bar pressure he was tightening the nut. He died at Harare Hospital an hour later.
- (b) Three employees were injured when the elevator they were dismantling fell from 6th floor to 1st floor after the five tonne chain block holding the car gave in. One worker died four hours later at Parirenyatwa Hospital. One was admitted the other one was discharged.
- (c) An electrician received some burns when the circuit breaker he was switching off exploded. He was taken to Harare Hospital where he died hours later.
- (d) The deceased was thrown 31 metres away from the boiler when the home made boiler he was manning exploded. He died on the spot.
- (e) The deceased died on admission to Harare Hospital when he fell 8,5m from a scaffolding. The incident happened when he was climbing up the scaffolding whilst holding a tin of paint in one hand.
- (f) The deceased died on the spot when he was entangled and crushed by the rotary blades of a sand mixing machine during maintenance when his assistant switched on the machine.
- (g) The deceased fell through the roof when he stepped on a translucent sheet that was covered by tea dust at Southdown Tea Factory whilst replacing worn out galvanized iron roof sheets. He died before he arrived at Chipinge Hospital.
- (h) The deceased died due to injuries he sustained when the brick wall they were backfilling in an excavated sedimentation tank pit collapsed on him and 19 other employees. He died an hour later at Harare Central Hospital.

2. Bulawayo Region

- (a) The deceased fell from a height of 7 metres in a bucket which he and other employees were assembling at the coal washing plant at South Mining coke processing factory in Hwange. He was trapped in between the bucket and a metal plate, fixed at the bottom incline of a bucket elevator. He was rushed to Hwange Colliery Hospital where he died after 4 hours.
- (b) The two employees suffered multiple fractures as they fell from 8th floor through elevator number 235 shaft to the pit. They both died on the spot.
- (c) A worker's leg was nipped and rolled between two rotating rollers whilst repairing a machine. The trapped leg fractured and he bled profusely, he was then rushed to Mpilo Hospital where he died after 15 hours.
- (d) The deceased fell from a height of 6, 58 metres onto a hard concrete floor through an old translucent roof sheet whilst renewing the roof sheets. He was rushed to Mpilo Hospital where he died 6 hours later.
- (e) A makeshift boiler exploded hitting the attendant on the abdomen severely injuring him. He was rushed to United Bulawayo Hospitals where he died 2 hours later.

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3. Gweru Region

(a) The deceased was electrocuted whilst trying to earth an 11Kv electric dead line in order to replace a fallen wooden pole at Mattle Pos Farm in Nyazura with eleven other casual workers. He was rushed to hospital and pronounced dead on arrival.

4. Mutare Region

(a) The deceased fell through the roof when he stepped on a translucent sheet that was covered by tea dust at Southdown Tea Factory whilst replacing worn out galvanized iron roof sheets. He died before he arrived at Chipinge Hospital.

8.3 Occupational Fatalities in the Mining Sector

Table 35: Fatal Injuries in Mining Sector

DISTRICT	MINE	DATE OF ACCIDENT	NAME OF DECEASED	OCCUPATION	U/GROUND SURFACE	YTD
MASHONALAND WEST	NIL		NIL	NIL	NIL	1
	Sino Hydro		Onisimo Mushure	Welder	Underground	
MASHONALAND EAST	NIL		NIL	NIL	NIL	0
MASHONALAND CENTRAL	Shamva	08/02/2015	Wilfred Sitima	Ass Mine Overseer	U/ Ground	3
	Trojan	25/03/2015	Binwell Mazivazvose	Shift boss	u/Ground	
	Timsite Custom	21/04/2015	David Matewo	Customer	Surface	
MANICALAND	NIL	NIL	NIL	NIL	NIL	0
	Golden Quarry	26/07/2015	Abraham Mutunjwa	Loco Driver	U/Ground	
	Rupemba 33 Mine	02/08/15	Henry Shumba	NIL	Surface	
	Aletena 2 Mine	18/08/15	Mathe Shoti	Lasher	Surface	
	Mimosa Mine	24/08/15	Erick Mukazi	Lasher Supervisor	Surface	
	Clover 5 Mine	27/08/15	Victor Soda	Lasher	U/Ground	
MAT SOUTH	Eagle North	28/01/2015	Piano Kondwe	Lasher	U/Ground	10
	Eagle North	28/01/2015	Ankela Checha	Lasher	U/Ground	
	Zulu 8	31/01/2015	Mandla Nyoni	Lasher	U/Ground	
	Vubachikwe	02/02/2015	Edson Sibindi	Storekeeper	U/Ground	

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	Turpin	06/02/2015	Wilson Maphosa	Blaster	U/Ground	
	Vulture East	08/03/2015	Mpumelelo Moyo	Lasher	U/Ground	
	cowslip	30/03/2015	Tungamirirai Moyo	Lasher	U/Ground	
	Lady anna	07/04/2015	Bhekhithemba Ndlovu	Tractor Driver	Surface	
	Maribeha East	30/04/2015	Innocent Ncube	Driller	Underground	
	New Eclipse	16/08/2015	Kudakwashe Ndebele	General Hand	Surface	
MAT NORTH	Turk	24/04/2015	Edson Chenhara	Machine Operator	Underground	1
MASVINGO	NIL	NIL	NIL	NIL	NIL	0
TOTAL						20

9. <u>Summary of meetings attended by the Director of Occupational Safety and Health</u>

Table 36: Communication and Influence

Activity	Year 2015
Policy Meetings	1
OSH Management committee meetings	12
Executive Management Meetings	12
Workshops/Seminars/ Conferences	9
Functions	3
ZOSHC Meetings	4
Board of Directors meeting	6
OSH Board Committee Meeting	2
Other Meetings	15
Total	64

B. I Nyereyegona

ACTING DIRECTOR: OCCUPATIONAL SAFETY AND HEALTH

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