Government Gazette
Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID AFRIKA

Regulation Gazette **No. 10620** *Regulasiekoerant*

Vol. 613 **15 July Julie 2016** **No. 40142**

N.B. The Government Printing Works will not be held responsible for the quality of "Hard Copies" or "Electronic Files" submitted for publication purposes

ISSN 1682-5843

AIDS HELPLINE: 0800-0123-22 Prevention is the cure

Government Printing Works

Notice submission deadlines

Government Printing Works has over the last few months implemented rules for completing and submitting the electronic Adobe Forms when you, the customer, submit your notice request.

In line with these business rules, GPW has revised the notice submission deadlines for all gazettes. Please refer to the GPW website www.gpwonline.co.za to familiarise yourself with the new deadlines.

CANCELLATIONS

Don't forget!

Cancellation of notice submissions are accepted by GPW according to the deadlines stated in the table above.
Non-compliance to these deadlines will result in your request being failed. **Please pay special attention to the different deadlines for each gazette**.
Please note that any notices cancelled after the cancellation deadline will be published and charged at full cost.

Requests for cancellation must be sent by the original sender of the notice and must accompanied by the relevant notice reference number (N-) in the email body.

AMENDMENTS TO NOTICES

take note!

With effect from 01 October, GPW will not longer accept amendments to notices. The cancellation process will need to be followed and a new notice submitted thereafter for the next available publication date.

CUSTOMER INQUIRIES

Many of our customers request immediate feedback/confirmation of notice placement in the gazette from our Contact Centre once they have submitted their notice – While GPW deems it one of their highest priorities and responsibilities to provide customers with this requested feedback and the best service at all times, we are only able to do so once we have started processing your notice submission.

GPW has a **2-working day turnaround time for processing notices** received according to the business rules and deadline submissions.

Please keep this in mind when making inquiries about your notice submission at the Contact Centre.

PROOF OF PAYMENTS

GPW reminds you that all notice submissions **MUST** be submitted with an accompanying proof of payment (PoP) or purchase order (PO). If any PoP's or PO's are received without a notice submission, it will be failed and your notice will not be processed.

When submitting your notice request to submit.egazette@gpw.gov.za, please ensure that a purchase order (GPW Account customer) or proof of payment (non-GPW Account customer) is included with your notice submission. All documentation relating to the notice submission must be in a single email.

A reminder that documents must be attached separately in your email to GPW. (In other words, your email should have an Adobe Form plus proof of payment/purchase order – 2 separate attachments – where notice content is applicable, it should also be a 3rd separate attachment).

REMINDER OF THE GPW BUSINESS RULES

- ❑ Single notice, single email – with proof of payment or purchase order.
- ❑ All documents must be attached separately in your email to GPW.
- ❑ 1 notice = 1 form, i.e. each notice must be on a separate form
- ❑ Please submit your notice **ONLY ONCE.**
- ❑ Requests for information, quotations and inquiries must be sent to the Contact Centre **ONLY**.
- ❑ The notice information that you send us on the form is what we publish. Please do not put any instructions in the email body.

government printing
Department: Government Printing Works
REPUBLIC OF SOUTH AFRICA

eGazette

IMPORTANT NOTICE:

THE GOVERNMENT PRINTING WORKS WILL NOT BE HELD RESPONSIBLE FOR ANY ERRORS THAT MIGHT OCCUR DUE TO THE SUBMISSION OF INCOMPLETE / INCORRECT / ILLEGIBLE COPY.

NO FUTURE QUERIES WILL BE HANDLED IN CONNECTION WITH THE ABOVE.

Contents

No.		Gazette No.	Page No.
	GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS		
	Mineral Resources, Department of/ Minerale Bronne, Departement van		
R. 839	Mine Health and Safety Inspectorate: Guidance Note for the Implementation of Standard Threshold Shift in the Medical Surveillance of Noise Induced Hearing Loss	40142	4
R. 840	Mine Health and Safety Act (29/1996): Guideline for a mandatory code of practice for risk based emergency care on a mine	40142	13

GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF MINERAL RESOURCES

NO. R. 839 **15 JULY 2016**

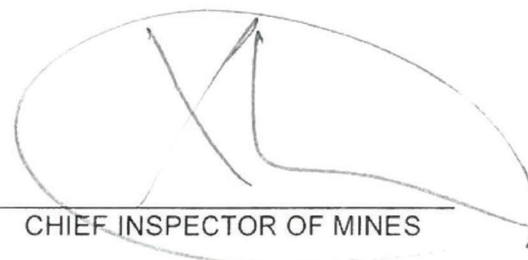
Reference Number:	DMR 16/3/2/3-B8
Last Revision Date:	First Edition
Date First Issued:	First Edition
Effective Date:	30 September 2016

DEPARTMENT OF MINERAL RESOURCES

MINE HEALTH AND SAFETY INSPECTORATE

GUIDANCE NOTE FOR THE IMPLEMENTATION OF

STANDARD THRESHOLD SHIFT IN THE MEDICAL SURVEILLANCE OF NOISE INDUCED HEARING LOSS



CHIEF INSPECTOR OF MINES

mineral resources

Department
Mineral Resources
REPUBLIC OF SOUTH AFRICA

CONTENTS

PART A: THE GUIDELINE		**3**
1.	Foreword	3
2.	Legal status of guidance notes	3
3.	The objectives of the guidance note	3
4.	Definitions and acronyms	4
5.	Scope	4
6.	Members of the task team	5
7.	Aspects to be addressed in the guidance note	5
8.	The process for measurement and management of STS	6
9.	Reporting milestones STS cases	7
PART B: AUTHOR\`S GUIDE		**8**
1.	Implementation Plan	8
REFERENCES		**9**
Occupational Safety and Health Administration		9

PART A: THE GUIDANCE NOTE

1. FOREWORD

1.1 The **guidance note** on the implementation of the **standard threshold shift** (STS) has been developed to provide a framework in which to manage the risk of Noise Exposure in a proactive manner.

1.2 The Mining Occupational Health Advisory Committee (MOHAC) has established a task team to facilitate the development of the **STS guidance note** as per the outcome of the Summit Milestone 2014.

1.3 This **STS guidance note** has been designed around the best practice principles and standards, using the latest operational expertise and application of technology for the measurement, management and reporting of Noise Exposure.

1.4 The **guidance note** will only be reviewed on request based on the emerging issues pertaining to noise exposure.

2. LEGAL STATUS OF GUIDANCE NOTE

The **standard threshold shift guidance note** has been developed for the mining industry to align with international best practice. This is to ensure that the risk of noise exposure is effectively managed in order to improve occupational health performance on the mine.

3. THE OBJECTIVES OF THE GUIDANCE NOTE

3.1 The objective of this **guidance note** is to provide a framework to assist the employer of every mine to implement the **STS** principles in the mines' medical surveillance system.

3.2 Audiometric testing forms an integral part of the medical surveillance system and monitors the sharpness and acuity of an employee's hearing over time, whilst simultaneously providing an opportunity for employers to educate employees about their hearing and the need to protect it.

3.3 The **STS** principles aim to monitor with the intent to prevent noise induced hearing loss in line with the 2015 Milestones for the mining industry and thus the **STS** principles do not apply to compensation for industrial hearing loss and is not meant to replace Instruction 171 issued in terms of the Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993).

Note: Instruction 171 is available in the Occupational Health Programme for Noise, Annexure A Instruction 171.

This gazette is also available free online at www.gpwonline.co.za

4. DEFINITIONS AND ACRONYMS

a) **"Audiologist"** means an individual qualified as a specialist to undertake advanced testing and diagnosis and confirmation of hearing defects.

b) **"Audiometrist"**: means an individual qualified to undertake the initial checking in instances where hearing defect is suspected prior to referral to an **ENT specialist**.

c) **"Audiometric zero"** means **milestone baseline**.

d) **"At risk employees"** means employees exposed to noise level above or equal to the occupational exposure limit as defined in the **MHSA**.

e) **"ENT specialist"** means Ear, Nose and Throat Specialist.

f) **"Guidance note"** means a note issued to assist the industry in fulfilling its statutory obligations as outlined in the **MHSA**.

g) **"MHSA"** means Mine Health and Safety Act 1996,(Act No. 29) of 1996, as amended;

h) **"MHSC"** means Mine Health and Safety Council

i) **"Milestone baseline"** means the initial audiometric value determined at the first STS testing

j) **"Reportable level"** means the STS that is reported in terms of milestone monitoring if the average change in hearing from '**audiometric zero**'.

Note i.e. **milestone baseline** STS, is 25dB hearing loss or greater at the same frequencies in the same ear.

k) **"SAMI"** means South African Mining Industry.

l) **"Standard threshold shift (STS)"** means an average change in hearing of 10dB or more at the frequencies of 2000Hz, 3000Hz and 4000 Hz in one or both ears, as compared to the employee's **milestone baseline** audiogram.

5. SCOPE

5.1 The **STS guidance note** focuses exclusively on the measurement, management and reporting of **milestone baseline** Information in **SAMI**.

5.2 The **guidance note** will give effect to early detection of employees at risk of noise exposure and therefore promote prevention.

5.3 The **guidance note** outlines the process to be followed in an effort to ensure effective measurement, management and reporting of **STS**.

6. MEMBERS OF THE TASK TEAM

This **guidance note** was prepared by members of the Task Team, which comprised of:

Dr L Ndelu	(State) Chairperson
Dr D Mokoboto	(State)
Dr K Baloyi	(Employers)
Dr Z Eloff	(Employers)
Adv. H Van Vuuren	(Labour)
Mr. A Letshele	(Labour)

7. ASPECTS TO BE ADDRESSED IN THE GUIDANCE NOTE

7.1 Determine **milestone baselines** for all employees at risk

7.1.1 The following principles apply when determining **milestone baselines**:

7.1.1.1 A **milestone baseline** audiogram must be conducted on every ***current employee*** in any working place where the equivalent continuous A-weighted sound pressure level, normalised to an eight hour day or a forty hour working week, is equal to or exceeds 85 decibels A dB(A).

7.1.1.2 From 1 July 2016 a **milestone baseline** audiogram must be conducted within 30 days of commencement of employment on every ***new employee*** exposed to any working place where the equivalent continuous A-weighted sound pressure level, normalised to an eight hour day or a forty hour working week, is equal to or exceeds 85 decibels dB(A).

7.1.1.3 **Milestone baselines** must only be conducted if the employee was removed for at least a period of 16 hours from an environment in which the noise level was equal to or exceed 85 dB(A).

7.1.1.4 A **milestone baseline** audiogram is the better of the employee's two audiograms performed by an **audiometrist** on the same day and that do not differ from each other by more than 10 dB for any of the frequencies in the 2000, 3000, and 4000 hertz (Hz) test ranges in one or both ears.

7.1.1.5 If two audiograms do not conform to the requirements above, the employee must be referred to an **audiologist** to establish the **milestone baseline**.

7.1.1.6 If the **audiologist** cannot establish a **milestone baseline** as contemplated above, the **audiologist** may determine the **milestone baseline** by using other techniques, such as speech reception thresholds.

7.1.1.7 All subsequent audiograms conducted during medical surveillance examinations will be compared to the **milestone baseline** audiogram to determine if a **STS** has occurred and if the **STS** is reportable.

This gazette is also available free online at **www.gpwonline.co.za**

7.1.1.8 An employee's **milestone baseline** must be recorded and kept for 40 years with the medical surveillance records.

7.1.1.9 The **milestone baseline** of an employee as conducted in terms of this **guidance note** will be considered as the employee's **milestone baseline** for purposes of reporting on the 2014 Milestone for the duration of their total working career at that specific employer, or until a **reportable level** is reached.

7.1.1.10 When a **reportable level** is reached, the audiogram conducted at that time becomes the new **milestone baseline** for the purposes of future monitoring.

7.2 Start monitoring for **standard threshold shift** from the **milestone baseline**

NOTE: The application of measuring **STS** as a leading indicator is to identify **at risk employees** who are of sustaining permanent hearing loss and to report on progress made towards the 2014 milestone.

7.2.1 During medical surveillance examinations, the audiogram of employees who are at risk must be evaluated to determine:

7.2.1.1 If a **STS** has occurred; and

7.2.1.2 Whether the **STS** is reportable.

7.2.2 Once a reportable **STS** has been determined; the **audiologist** and the OMP must

7.2.2.1 Inform the employee of the **STS** and the implications thereof.

7.2.2.2 Counsel the employee on the danger of exposure to noise in the work environment and the hearing protection measures.

7.2.2.3 Advise the employer to take appropriate management measures to prevent permanent hearing loss to this employee at risk.

8. THE PROCESS FOR MEASUREMENT AND MANAGEMENT OF STS

The process of measuring and managing the **STS** should be addressed as follows:

8.1 Step 1:

8.1.1 Determine if the employee's results indicate an **STS** as compared to the **milestone baseline**, i.e. is there an average change in hearing of 10 dB or more at the frequencies of 2000, 3000 and 4000Hz in one or both ears?

8.1.1.1 If 'No', stop process - no further management required.

8.1.1.2 If 'Yes', proceed to step 2

This gazette is also available free online at www.gpwonline.co.za

8.2 Step 2:

8.2.1 Determine if there is a significant average shift on the employee's current audiogram test, i.e. the average change in hearing from the baseline '**audiometric zero**' (the **milestone baseline STS**), is 25dB hearing loss or greater at the same frequencies in the same ear?

8.2.1.1 If 'No', stop process - no further management required.

8.2.1.2 If 'Yes', proceed to step 3.

8.3 Step 3:

8.3.1 Determine whether the hearing loss is work-related, i.e. if the employee is exposed to significant noise levels in the work environment?

8.3.1.1 If 'No', counsel the employee on the danger of exposure to noise outside of the work environment.

8.3.1.2 If 'Yes',

8.3.1.2.1 Counsel the employee on the danger of exposure to noise in the work environment;

8.3.1.2.2 Advise the employer to take appropriate management measures to prevent permanent hearing loss in employees who are occupationally exposed to significant noise levels, i.e. apply the hierarchy of controls to limit exposure to significant levels of noise in the work environment; and

8.3.1.2.3 Report the hearing loss to the employer in terms of the 2014 **MHSC** Summit milestones.

9. REPORTING MILESTONES STS CASES

Reporting should be done in line with the **MHSC** Milestones Reporting Template.

This gazette is also available free online at www.gpwonline.co.za

PART B: AUTHOR`S GUIDE

1. IMPLEMENTATION PLAN

1.1 The employer must prepare an implementation plan for this **guidance note** that makes provision for issues such as organisational structures, responsibilities of functionaries; programmes and schedules for this **guidance note** that will enable proper implementation thereof. (A summary of/and a reference to, a comprehensive implementation plan may be included).

1.2 **Milestone baselines** should be completed by 31 December 2017. It is recommended that companies allow for a period of at least 12 to 24 months to complete **milestone baselines**. It is therefore imperative for the software programme changes to be completed sooner rather than later.

1.3 A **milestone baseline** audiogram must be conducted between 1 July 2016 and 31 December 2017 on every current employee in any working place where the equivalent continuous A-weighted sound pressure level, normalised to an eight hour day or a forty hour working week, is equal to or exceeds 85 decibels A dB(A).

1.4 From 1 July 2016 a **milestone baseline** audiogram must be conducted within 30 days of commencement of employment on every new employee exposed to any working place where the equivalent continuous A-weighted sound pressure level, normalised to an eight hour day or a forty hour working week, is equal to or exceeds 85 decibels dB(A).

1.5 The monitoring for the STS from **milestone baselines** will commence from 01 January 2018.

This gazette is also available free online at www.gpwonline.co.za

REFERENCES

Occupational Safety and Health Administration

Is this hearing loss recordable? How to interpret the New Recordkeeping Rule (in effect January 1st)

OSHA has always defined a Standard Threshold Shift as "an average change in hearing of 10 dB or more at the frequencies of 2000 Hz, 3000 Hz, and 4000 Hz" as compared to the employee's baseline audiogram. This won't change. Although follow-up was required for any employee with an STS of 10 dB or more, Federal requirements previously only required that shifts of 25 dB or more be recorded on the OSHA 300 Form. (Some states, including NC & SC, required STSs to be recorded at 10 dB or more.)

Beginning January 1, 2003, the recordability criteria will be determined in a two–step process: (1) A standard threshold shift of 10 dB or more, ***and*** (2) A 25 dB hearing level compared to audiometric zero.

So, the first thing you look at on your reports is the **Age Corrected Threshold Shift** line to determine if it is 10 or more in either ear. (See below, Step 1)

Date: 7/26/02 1:24PM

INDIVIDUAL AUDIOGRAM

Page: 1

Employee [redacted] SSN [redacted] ID-Badge #

Company/Plant: SHU [redacted]
Department: FIN FINISHING
Job: CLP CORE LOADER PACKER
Location: 33 PLANT 33
Birth Date: [redacted]
Address:

Date of Audiogram 5/08/2002 Time: 3:28PM Audiometer Serial # 11232
Date of Baseline: 4/26/1984 Time: 12:00AM Calibration Date: 02/02

LEFT EAR									
Frec	1k	.5k	1k	2k	3k	4k	6k	8k	Avg
Curr	AAm	15m	10m	20m	35m	35m	45m	70m	30
Base		20	5	15	2C	20	20	15	18
Shift	**	-5	5	5	1C	15	25	55	12

RIGHT EAR									
Frec	1k	.5k	1k	2k	3k	4k	6k	8k	Avg
Curr	15m	10m	15m	15m	30m	35m	45m	65m	27
Base		15	15	5	15	20	45	3C	13
Shift	**	-5	0	1C	15	15	0	3C	14

Age Corrected Threshold Shift LEFT: 8 RIGHT: 10
PBI Calculations: [illegible]
Examiner: 243 JEANNA CLARK

Noise Exposure.......: 0.0 Hours Since Exposure:
NRR Recommended: 0 NRR Actually Used.....: 0
Protector Used.......: AIR AIRSOFT

Booth dB Levels

Employee received feed back and training in the proper use and maintenance of the hearing protection device

Employee Confirmation: ______________________

Status/Comments: PERSISTENT THRESHOLD SHIFT Status Code 7

Results of audiometric testing for this employee indicate a PERSISTENT THRESHOLD SHIFT (PTS), which m[...] that after retesting, results continue to demonstrate a threshold shift. This employee's baseline will be revised accordingly. The employee should be refit with hearing protection and counseled as to its proper use on and [...] job. His/her hearing protectors should be evaluated for proper attenuation based on noise exposure in the workplace. These follow-up procedures should be documented. His/her name should remain on the OSHA 20[...] Form.

Step 2: Determine if the "average change in hearing from zero" is 25 dB or more.

Step 1: Determine if an STS has occurred (Average change in hearing of 10 dB or more at the frequencies of 2k, 3k, and 4k).

Note: With the new requirements, all states will be on the same playing field, so to speak. No state will be allowed to have requirements that are more strict than federal guidelines.

The result will likely be that states with current recordability criteria of 10 dB will have fewer recordables, and the states with current recordability criteria of 25 dB will have more recordables.

The additional criteria is referred to as ***a 25 dB shift from audiometric zero***. To determine this, look at the Current Test Average (See above, Step 2). If this number is 25 or more, then the STS is recordable. If it is less than 25, it is not recordable.

In a simplified summary:

Step 1: Determine if the employee's results indicate an STS as compared to the baseline. If NO, stop process. No recordability required. If YES, go to Step 2.

Step 2: Determine if the employee's results show a 25 dB average shift on current test. If NO, stop process. No recordability required. If YES, go to Step 3.

Step 3: Determine whether the hearing loss is work-related. If NO, stop process. No recordability required. If YES, Record on OSHA 300 Form with 7 days.

We say "simplified summary" above only because there are other review criteria used for medical referrals, etc. that the audiologist considers.

In the sample test above, the STS would be recordable, because the average on the current test is greater than 25 db.

For more information, please call: Henderson & Associates, Inc. Mobile Healthcare Providers 888-696-4327

DEPARTMENT OF MINERAL RESOURCES

NO. R. 840 **15 JULY 2016**

MINE HEALTH AND SAFETY ACT, 1996 (ACT NO 29 OF 1996)

GUIDELINE FOR A MANDATORY CODE OF PRACTICE FOR RISK BASED EMERGENCY CARE ON A MINE

I DAVID MSIZA, Chief Inspector of Mines, under section 49(6) of the Mine Health and Safety Act, 1996 (Act No. 29 of 1996) and after consultation with the Council, hereby issues the guideline for risk based emergency care on a mine in terms of the Mine Health and Safety Act, as set out in the Schedule.

DAVID MSIZA
CHIEF INSPECTOR OF MINES

SCHEDULE

Reference Number: DMR 16/3/2/3-A5
Last Revision Date: 28 July 2014
Date First Issued: First Edition
Effective Date: 31 October 2016

DEPARTMENT OF MINERAL RESOURCES

MINE HEALTH AND SAFETY INSPECTORATE

GUIDELINE FOR THE COMPILATION OF A

MANDATORY CODE OF PRACTICE FOR

RISK-BASED EMERGENCY CARE ON A MINE

CHIEF INSPECTOR OF MINES

mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

CONTENTS

PART A: THE GUIDELINE 3

1. Foreword 3
2. Legal Status of Guidelines and Codes of Practice 3
3. The Objective of the Risk-based Emergency Care Guideline 3
4. Definitions and Acronyms 3
5. Scope 4
6. Members of Task Committee 4

PART B: AUTHOR`S GUIDE 6

PART C: FORMAT AND CONTENT OF THE MANDATORY CODE OF PRACTICE 7

1. Title page 7
2. Table of contents 7
3. Status of Mandatory Coad of Practice 7
4. Members of drafting committee 7
5. General information 8
6. Terms and definitions and acronyms 8
7. Risk management 8
8. Aspects to be addressed in the Code of Practice 9
   8.1 Determining emergency care requirements for each working site 9
   8.2 Ensuring sufficient and appropriated trained first aiders 13
   8.3 Transfer and transportation arrangements from the mine 13
   8.4 Information related to emergency care signage 14

PART D: IMPLEMENTATION 15

1. Implementation Plan 15
2. Compliance with the Code of Practice 15
3. Access to the Code of Practice and related documents 15

ANNEXURE A: Table 1A: Minimum standards to be complied with 16

ANNEXURE B: Mandatory Minimum Competency for inclusion in the training to deal with cyanide poisoning where applicable 17

ANNEXURE C: Minimum contents of the first aid pack and other equipment 19

This gazette is also available free online at www.gpwonline.co.za

PART A: THE GUIDELINE

1. FOREWORD

1.1 The numerous risks associated with work at a mine may lead to various incidents, ranging from relatively minor to major injuries and disasters at a work site and which injuries may lead to complications if the required emergency care is not rendered to the injured persons timely.

1.2 The aim of this guideline is to provide a framework to assist the employer of every mine to prepare a risk based Code of Practice **(COP)** on emergency care on a mine.

2. LEGAL STATUS OF GUIDELINES AND CODES OF PRACTICE

In accordance with section 9(2) of the **MHSA**, an employer must prepare and implement a **COP** on any matter affecting the health or safety of employees and other persons who may be directly affected by activities at the mines if the Chief Inspector of Mines requires it. These **COPs** must comply with any relevant guideline issued by the Chief Inspector of Mines (section 9(3)). Failure by the employer to prepare or implement a **COP** in compliance with this guideline is a breach of the **MHSA**.

3. THE OBJECTIVE OF THE RISK – BASED EMERGENCY CARE GUIDELINE

This guideline has been developed to assist employers in achieving the objectives of ensuring the provision of appropriate emergency care at any working site determined in accordance with the relevant risks at the working site, which objectives are to:

3.1 Outline the competencies required to render risk based emergency care at a working site;

3.2 Minimize any complications that may result from any, accident or incident that adversely affects the health or safety of any person at the mine; and

3.3 Ensure that any injured persons are stabilised, transferred, transported and received as soon as practicable by appropriately trained, qualified and skilled personnel, from first aiders to the most advanced emergency care personnel.

4. DEFINITIONS AND ACRONYMS

"COP" means Code of Practice.

"Emergency" means a situation, event or set of circumstances at a mine that could threaten the health or safety of any persons at the mine and which requires immediate remedial action.

"Emergency Care" means all immediate and appropriate medical care required by any persons injured or experiencing any medical emergency at the mine, ranging from basic first aid to the most advanced emergency medical care.

This gazette is also available free online at **www.gpwonline.co.za**

"EMS" means Emergency Medical Services.

"Health Care Facility" means a hospital, medical clinic or doctor's surgery that has the capability of providing emergency medical care.

"MHSA" means Mine Health and Safety Act, Act No. 29 of 1996, as amended.

"Medical Emergency" means an injury or illness that is acute and poses an immediate risk to a person's life or long term health.

"Response time" means the time it takes for EMS to respond to the emergency (= EMS response time to the operation site plus the time to the side of the patient).

"FA" means Functional Assessment.

5. SCOPE

This guideline:

5.1 Should be read in conjunction with the following guidelines:

5.1.1 Guideline for the Compilation of a Mandatory Code of Practice for Emergency Preparedness and Response. (DMR reference no 16/3/2/1-A5).

5.1.2 Guideline for the Compilation of a Mandatory Code of Practice for Cyanide Management (DMR reference no 16/3/2/4-A4).

5.3 Apply to all emergency care required at the mine.

5.4 Addresses areas of emergency care required in case of an injury or any medical emergency, from basic first aid to the most advanced emergency medical care rendered.

6. MEMBERS OF TASK COMMITTEE

This guideline was prepared by Members of the Mining Occupational Health Advisory Committee which consisted of:

Dr. L. Ndelu	(Chairperson)
Ms. F B Senabe	(State)
Ms. N O Masekoa	(State)
Ms. M Lazenby	(State)
Ms. A. Van der Merwe	(State)
Dr. K Baloyi	(Employers)
Dr. M R Hansia	(Employers)
Dr. Z. Eloff	(Employers)
Ms. P Mboniswa	(Labour)
Mr. A. Letshele	(Labour)

List of Experts:

Mr. J W Johnson	(Expert)
Dr. K. Naidoo	(Anglo American)
Dr. D. van Tonder	(AngloGold Ashanti)

PART B: AUTHOR`S GUIDE

1. The **COP** must, where possible, follow the sequence laid out in **Part C "Format and Content of the mandatory COP"**. The pages as well as the chapters and sections must be numbered to facilitate cross-reference. Wording must be unambiguous and concise.

2. It should be indicated in the **COP** and on each annex to the **COP** whether:

2.1 The annex that forms part of the guideline must be complied with; or
2.2 Incorporated in the **COP** or whether aspects thereof must be complied with or incorporated in the **COP**, or
2.3 The annex is merely attached as information for consideration in the preparation of the **COP** (i.e. compliance is discretionary).

3. When annexes are used the numbering should be preceded by the letter allocated to that particular annex and the numbering should start at one (1) again. (eg. 1, 2, 3 ...A1, A2, A3...).

4. Whenever possible illustrations, tables, graphs and the like should be used to avoid long descriptions and/or explanations.

5. When reference has been made in the text to publications or reports, references to these sources must be included in the text as footnotes or side notes as well as in a separate bibliography.

PART C: FORMAT AND CONTENT OF THE MANDATORY CODE OF PRACTICE

1. TITLE PAGE

DMR 16/3/2/3-A5
The title page must include the following:

1.1 Name of mine;
1.2 The heading: "**Mandatory Code of Practice for risk based Emergency Medical Care on a Mine**";
1.3 A statement to the effect that the **COP** was drawn up in accordance with this guideline **DMR 16/3/2/3-A5** issued by the Chief Inspector of Mines;
1.4 The mine's reference number for the **COP**;
1.5 Effective date of the **COP**; and
1.6 Revision dates.

2. TABLE OF CONTENTS

The **COP** must have a comprehensive table of contents.

3. STATUS OF MANDATORY CODE OF PRACTICE

This section must contain statements to the effect that:

3.1 The mandatory **COP** was drawn up in accordance with Guideline **DMR 16/3/2/3-A5** issued by the Chief Inspector of Mines.

3.2 This is a mandatory **COP** in terms of sections 9(2) and (3) of the **MHSA**.

3.3 The **COP** may be used in an incident/accident investigation/inquiry to ascertain compliance and also to establish whether the **COP** is effective and fit for purpose.

3.4 The **COP** supersedes all previous relevant **COPs**.

3.5 All managerial instructions or recommended procedures (voluntary **COPs**) and standards on the relevant topics must comply with the **COP** and must be reviewed to assure compliance.

4. MEMBERS OF DRAFTING COMMITTEE

4.1 In terms of section 9(4) of the **MHSA** the employer must consult with the health and safety committee on the preparation, implementation or revision of any **COP**.

4.2 It is recommended that the employer should, after consultation with the employees in terms of the **MHSA**, appoint a committee responsible for the drafting of the **COP**.

4.3 The members of the drafting committee assisting the employer in drafting the **COP** should be listed giving their full names, designations, affiliations and experience. This committee should include competent persons sufficient in number to effectively draft the **COP**.

5. GENERAL INFORMATION

The general information relating to the mine must be stated in this paragraph.

The following minimum information must be provided:

5.1 A brief description of the mine and its location;

5.2 The commodities produced;

5.3 The mining methods/mineral excavation processes taking care to identify the potential situation and/or sources that could give rise to a medical emergency;

5.4 The unique features of the mine that have a bearing on the **COP** must be set out and cross referenced to the risk assessment conducted; and

5.5 Other relevant **COPs.**

6. TERMS AND DEFINITIONS AND ACRONYMS

Any word, phrase or term of which the meaning is not absolutely clear or which will have a specific meaning assigned to it in the **COP**, must be clearly defined. Existing and/or known definitions should be used as far as possible. The drafting committee should avoid jargon and abbreviations that are not in common use or that have not been defined. The definitions section should also include acronyms and technical terms used.

7. RISK MANAGEMENT

7.1 Section 11 of the **MHSA** requires the employer to identify hazards, assess the health and safety risks to which employees may be exposed while they are at work, record the significant hazards identified and risk assessed. The **COP** must address how the significant risks identified in the risk assessment process must be dealt with, having regard to the requirements of sections 11(2) and (3) that, as far as reasonably practicable, attempts should first be made to eliminate the risk, thereafter to control the risk at source, thereafter to minimise the risk and thereafter, insofar as the risk remains, to provide personal protective equipment and to institute a program to monitor the risk.

7.2 To assist the employer with the hazard identification and risk assessment all possible relevant information such as accident statistics, locality of mine and emergency services, ergonomic studies, research reports, manufacturers' specifications, approvals, design criteria and performance figures for all relevant equipment should be obtained and/or considered.

7.3 In addition to the periodic review required by section 11(4) of the **MHSA**, the **COP** should be reviewed and updated after every serious emergency, or if significant changes are introduced to procedures, mining and ventilation layouts, mining methods, plant or equipment and material.

8. ASPECTS TO BE ADDRESSED IN THE CODE OF PRACTICE

The **COP** must set out how significant risks identified and assessed in terms of the risk assessment process referred to in paragraph 7.1, will be addressed. The **COP** must cover at least the aspects set out below:

8.1 Determining emergency care requirements for each working site:

The **COP** should set out a process for determining the emergency care requirements for each work site. In order to provide appropriate emergency medical care this process should entail at least the following steps:

8.1.1. *Risk rating of the work site*

The employer should use a risk assessment process to classify each work site into low, medium or high risk for employees requiring emergency care. As the risk rating increases so do the requirements for emergency care services in terms of the number and qualifications of first aid providers and the type and quantities of first aid equipment and other supplies.

8.1.2. *Calculating the response time and classifying the work sites*

In order to calculate the response time to the emergency and classify work sites in terms of response time, the ***COP*** should require that the following steps be taken:

Step 1: Determine the EMS response time to the operation site.
EMS response time is the time from calling EMS to the time that the EMS arrives on the operation site;

Step 2: Determine the time to the side of the patient.
The time it would take for the EMS staff to get from the point of arrival on site to the side of the patient to start administering treatment. This will depend on several local factors such as opencast vs. underground mining work site, depth/level of work site underground, size of surface operation, etc.

Step 3: Response time to the emergency = EMS response time to the operation site plus the time to the side of the patient.

Step 4: Classify work sites in terms of response time.

- Close Work Site = Time to site < 30 minutes
- Distant Work Site =Time to site 30-60 minutes
- Isolated Work Site = Time to site > 60 minutes

8.1.3 *Establishing First Aid requirements*

Once each working site has been appropriately rated in terms of risks, and response time established, the first aid requirements must be determined in accordance with the following:

8.1.3.1. Number of employees at the work site per shift;

8.1.3.2. Level of first aid training that could be required by persons having to administer first aid;

8.1.3.3. First aid equipment (pack) as illustrated in table in Annexure C; and

8.1.3.4. Special risks, e.g. cyanide poisoning, pregnancy, etc.

8.1.4 *Determining appropriate First Aid Competencies*

8.1.4.1. Determine number of first aiders that need to be trained to ensure appropriate emergency care can be provided at all times.

8.1.4.2. Determine the appropriate levels of first aid competencies that could be required at each work site having regard to the different levels of competencies in Table 1 below.

This gazette is also available free online at www.gpwonline.co.za

TABLE 1:
Mining industry First Aid Training levels in relation to applicable National Qualifications Framework (NQF) registered unit standards

LEVEL RANKING	NQF STANDARDS	COMPETENCIES
Most competent	**Competencies to be customised to the mining industry and aligned to the** first aid standards of the Sectoral Education and Training Authority (SETA), as established under the Skills Development Act No. 97 of 1998.	
	NQF Level 3 **First Aid Training**	1. Principles of advanced first aid in emergencies. 2. Demonstrate an advanced level of preparedness to deal with sudden illness or emergency. 3. Assess and manage an emergency scene/disaster. 4. Anatomy and macro physiology of the human body 5. Disorders and diseases. 6. Primary first aid support for adults, children and infants. 7. Causes of shock and emergency treatment. **First Aid for cyanide poisoning** (Additional training where the risk exists/applies) 1. Preparation required to administer first aid for cyanide poisoning. 2. First Aid for cyanide poisoning. 3. Recording and reporting duties. 4. Final duties.

	NQF Level 2 **First Aid Training**	1. List relevant information from South African Qualifications Authority (SAQA) standards Principles of First Aid. 2. Contents of first aid kit plus maintenance and storage. 3. Emergency scene management. 4. Choking. 5. One-man Cardio-Pulmonary Resuscitation. 6. Recovery position. 7. Control of bleeding. 8. Management of general shock and anaphylaxis. 9. Immobilisation and transport techniques, especially neck & spinal injuries. 10. Head Injuries and levels of unconsciousness. 11. Fractures, dislocations and sprains. 12. Wound management. 13. Burns. 14. Thermal stress especially febrile patient & hyper/hypothermia. 15. Poisons e.g. common and working site accidental poisoning; overdose: animal/marine/insect/reptile bites and stings. 16. Common Illnesses e.g. Diabetes, Epilepsy, Asthma, Stroke, Heart attack. 17 .Keep records of incident/accident. 18. Communicated on transferral of injured or ill person. 19. Reported in accordance with current & accepted work site procedures and policies.
	NQF Level 1 **First Aid Training**	1. Principles of First Aid. 2. Emergency Scene Safety. 3. Elementary Anatomy & physiology. 4. Cardio-Pulmonary Resuscitation (one man). 5. Choking. 6. Severe haemorrhage. 7. Common injuries (Wounds; fractures; Dislocations; Soft tissue injuries; Burns; Unconsciousness; Head injuries; Spinal injuries). 8. Common conditions (Shock; Hyperthermia; Poisonous gases). 9. Transport of casualty. 10. Report and transfer of patient.

Least competent	First Aid Awareness	1. Understanding First Aid. 2. Protection against infections. 3. First Aid and the law. 4. First Aid principles. 5. Assessing the scene. 6. Make area safe. 7. Give emergency aid. 8. Calling for assistance. 9. Head to Toe examination.

8.1.5 *Control of First Aid equipment*

The COP must set out a procedure to ensure effective control and management of all first aid equipment.

8.2 Ensuring sufficient and appropriated trained first aiders

The COP must set out a procedure to ensure that:

8.2.1 The first aid training is aligned with levels of first aid competencies that could be required at each work site;

8.2.2 Sufficient numbers of first aiders are trained and available to ensure appropriate emergency care can be provided at all times;

8.2.3 The first aid training provided to employees complies with First Aid unit standards determined by the South African Qualifications Authority and recognised by the Mining Qualifications Authority;

8.2.4 The First Aid training is conducted by an accredited service provider and refreshers are conducted at appropriate intervals;

8.2.5 The accredited service provider must have a programme to ensure quality control of systems and competencies of trainers, as well as updated training material; and

8.2.6 The minimum competencies of first aiders are as set out in table 1.

8.3 Transfer and transportation arrangements from the mine

If the required level of emergency care is beyond the capabilities of the first aiders and facilities available at the mine, appropriate alternative pre-hospital transfer and transportation arrangements must be in place. In order to ensure that the patient is transferred and transported in accordance with the requirements for the type of emergency care required, the **COP** must set out a procedure to ensure that:

8.3.1 Where required, transfer agreements with service providers are entered into for transportation and recipients of transfers, such as ambulance services and neighbouring hospitals;

This gazette is also available free online at www.gpwonline.co.za

8.3.2 The patient is stabilised before transfer, in order to avoid further complications;

8.3.3 Any receiving health facility/institution is given adequate prior notice about the transfer and the condition of the patient;

8.3.4 Where possible, the patient is informed of the need to be transferred to a health care facility;

8.3.5 The patient's information is appropriately recorded in an accident/ incident register; and

8.3.6 Follow-up is done to confirm the patient's arrival and acceptance by the receiving health facility/institution.

8.4 Information related to emergency care signage

The COP must set out a procedure to ensure that emergency care signage is brought to the attention of all persons at a mine, which measures could include the display of appropriate, prominently displayed and clearly visible notices at working sites. In respect of notices and signs, note should be taken of SANS standards 0400 SABS 1186.

PART D: IMPLEMENTATION

1. IMPLEMENTATION PLAN

1.1 The employer must prepare an implementation plan for its **COP** that makes provision for issues such as organizational structures, responsibilities of functionaries and programs and schedules for this **COP** that will enable proper implementation of the **COP**. (A summary of/and a reference to, a comprehensive implementation plan may be included).

1.2 Information may be graphically represented to facilitate easy interpretation of the data and to highlight trends for the purpose of risk assessment.

2. COMPLIANCE WITH THE CODE OF PRACTICE

The employer must institute measures for monitoring and ensuring compliance with the **COP**.

3. ACCESS TO THE CODE OF PRACTICE AND RELATED DOCUMENTS

3.1 The employer must ensure that a complete **COP** and related documents are kept readily available at the mine for examination by any affected person.

3.2 A registered trade union with members at the mine or where is no such union, a health and safety representative on the mine, or if there is no health and safety representative, an employee representing the employees on the mine, must be provided with a copy on written request to the manager. A register must be kept of such persons or institutions with copies to facilitate updating of such copies.

3.3 The employer must ensure that all employees are fully conversant with those sections of the **COP** relevant to their respective areas of responsibility.

ANNEXURE A:
Table 1A:
Minimum standards to be complied with

INTEGRATION OF RISK INDICATORS AND MITIGATING FACTORS

WORK SITE RISK IS DETERMINED BY THE MINE/OPERATION FOR THE SPECIFIC WORKSITE WITHIN THE MINE/OPERATION

INCREASING LEVEL OF WORKSITE RISK →

INCREASING TIME TO SIDE OF PATIENT ↓

	WORKSITE RISK LEVEL I	WORKSITE RISK LEVEL II	WORKSITE RISK LEVEL III
CLOSE WORK SITE	FA Awareness for all FA Level 3 & 1 ratio 1:9 FA Pack A	FA Awareness for all FA Level 3 & 1 ratio 1:6 FA Pack A	FA Awareness for all FA Level 3 & 1 ratio 1:3 FA Pack A
DISTANT WORK SITE	FA Awareness for all FA Level 3 & 1 ratio 1:6 FA Pack B	FA Awareness for all FA Level 3 & 1 ratio 1:3 FA Pack B	FA Awareness for all FA Level 3 & 1 ratio 1:3 FA Pack B
ISOLATED WORK SITE	FA Awareness for all FA Level 3 & 1 ratio 1:3 FA Pack C	FA Awareness for all FA Level 3 & 1 ratio 1:3 FA Pack C	FA Awareness for all FA Level 3 & 1 ratio 1:3 FA Pack C

CLOSE WORKSITE = CALL TO ARRIVAL OF EMS AT SIDE OF PATIENT < 30 MIN (AVERAGE)
DISTANT WORKSITE = CALL TO ARRIVAL OF EMS AT SIDE OF PATIENT 30 - 60MIN (AVERAGE)
ISOLATED WORKSITE = CALL TO ARRIVAL OF EMS AT SIDE OF PATIENT > 60 MIN (AVERAGE)

ANNEXURE B:
Table 1B:
Mandatory Minimum Competency for inclusion in the training to deal with Cyanide poisoning where applicable

Specific Outcome	Assessment Criteria
Prepare to administer first aid in the event of cyanide poisoning.	• The administration of first aid in the event of cyanide poisoning and the consequences of non-adherence. • The importance of the administering of first aid in the event of cyanide poisoning in terms of the consequences to individuals and the organization. • Explanation of symptoms of cyanide poisoning. • Identification of the antidote required for the administration of first aid to treat the different types of cyanide poisoning and the potential effects on the patient. • Identification of types of cyanide poisoning, i.e. inhalation, ingestion absorption through the skin. • Hazards and associated risks, pertaining to the administering of first aid in the event of cyanide poisoning. • Actions to be taken should hazards and risks be encountered. • Identification and equipping of first aid equipment essential for the administering of first aid. • Equipment must include: First Aid equipment, personal protective and safety equipment, cyanide antidote, oxygen, Hydrogen cyanide gas monitor, neutralizing reagents, Hazchem information, communication equipment. • First Aid procedures pertaining to the various forms of cyanide poisoning. • Communication with the medical emergency response team. • Emergency procedures to be followed in the event of administering of first aid. • Emergency procedures must include: First Aid treatment for cyanide poisoning, entry into confined places, evacuation procedure, spillage neutralizing and disposal. • Preparation of the patient for treatment in line with operational requirements. • Summoning emergency services.

	• Patient handling and removal from contaminated area. • Proper handling of contaminated clothing. • Handling and use of Personal protective and safety equipment.
1. Administer first aid.	• Handling and use of Personal protective and safety equipment. • Administration of Cyanide antidote in accordance with prescribed practices. • Patient stabilization. • Neutralisation and disposal of cyanide spillage as per requirements. • Legal and site specific requirements considerations in handling problems.
2. Complete the duties pertaining to the administering of first aid.	• Handling and use of personal protective and safety equipment. • Restocking of the cyanide first aid kit/ pack is in line with operational requirements. • Housekeeping practices according to plant policy. • Recording and reporting of information in line with legal and site specific requirements.

ANNEXURE C:
MINIMUM CONTENTS OF THE FIRST AID PACK AND OTHER EQUIPMENT
(Must be complied with and maintained as per Regulation 24.7 of the MHSA)

TABLE 1C:
CONTENTS OF FIRST AID PACKS AND OTHER EQUIPMENT

PACK	CONTENTS	
A	10	antiseptic cleaning towellettes, individually packaged.
	25	sterile adhesives dressing, individually packaged.
	10	10cm x 10cm sterile gauze pads, individually packaged.
	2	10cm x 10cm sterile compress dressings, with ties, individually packaged.
	2	15cm x 15 cm sterile compress dressings, with ties, individually packaged.
	2	gauze bandages – 7.5 cm.
	3	cotton triangular bandages.
	5	safety pins assorted.
	1	pair of scissors.
	1	pair of tweezers.
	1	25mm x 4.5 m roll of adhesive tape.
	1	crepe tension bandages
	1	artificial resuscitation barrier device with a one-way valve.
	4	pairs of disposable surgical gloves.
	1	first aid manual.
	1	inventory of kit/pack contents.
	1	waterproof waste bag.
B	10	antiseptic cleaning towellettes, individually packaged
	50	sterile adhesives dressing, individually packaged
	20	10cm x 10cm sterile gauze pads, individually packaged
	3	10cm x 10cm sterile compress dressings, with ties, individually packaged
	3	15cm x 15 cm sterile compress dressings, with ties, individually packaged
	1	20cm x 25cm sterile abdominal dressing
	2	gauze bandages – 7.5 cm
	4	cotton triangular bandages
	8	safety pins assorted
	1	pair of scissors
	1	pair of tweezers
	1	25mm x 4.5 m roll of adhesive tape
	2	crepe tension bandages
	6	pairs of disposable surgical gloves
	1	artificial resuscitation barrier device with a one-way valve
	1	first aid manual
	1	inventory of kit/pack contents
	1	waterproof waste bag
C	240	antiseptic cleaning towellettes, individually packaged

This gazette is also available free online at **www.gpwonline.co.za**

	100	sterile adhesives dressing, individually packaged
	50	10cm x 10cm sterile gauze pads, individually packaged
	6	10cm x 10cm sterile compress dressings, with ties, individually packaged
	6	15cm x 15 cm sterile compress dressings, with ties, individually packaged
	4	20cm x 25cm sterile abdominal dressing
	6	gauze bandages – 7.5 cm
	12	cotton triangular bandages
	12	safety pins assorted
	1	pair of scissors
	1	pair of tweezers
	2	25mm x 4.5 m roll of adhesive tape
	4	crepe tension bandages
	12	pairs of disposable surgical gloves
	1	tubular finger bandage with applicator
	1	artificial resuscitation barrier device with a one-way valve
	1	first aid manual
	1	inventory of kit/pack contents
	2	waterproof waste bag
Personal /pack	10	sterile adhesive dressings assorted sizes, individually packaged
	5	10cm x 10cm sterile gauze pads, individually packaged
	1	10cm x 10cm sterile compress dressings, with ties
	5	antiseptic cleaning towelettes, individually packaged
	1	cotton triangular bandage
	1	first aid manual
	1	waterproof waste bag
	1	pair disposable surgical gloves
Other equipment	Stretcher and blanket. (These must be kept at a convenient and accessible location, within reasonable time or distance from each work site)	

This gazette is also available free online at www.gpwonline.co.za

Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001
Contact Centre Tel: 012-748 6200. eMail: info.egazette@gpw.gov.za
Publications: Tel: (012) 748 6053, 748 6061, 748 6065