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POSITION PAPER: LESSON LEARNT AND THE IMPLICATIONS OF HEALTH AND SAFETY INCIDENTS AND ACCIDENTS

A. INTRODUCTION

1. While there has been year on year improvement in the number of persons who lose their lives in South African Mines, a single loss of life is unacceptable.
2. The purpose of this document is to highlight aspects for consideration which have arisen as a result of the various incidents and accidents which have occurred in 2009, and to identify areas for further discussion and action.

B. AMENDMENTS TO THE MINE HEALTH AND SAFETY ACT NO. 29 OF 1996 ("MHSA")

3. The primary responsibilities in terms of the MHSA regarding the health and safety of Employees and non-Employees is placed on the Employer, as defined. This is generally the entity which holds the Right to prospect or mine. The overall responsibilities placed on the Employer, are set out in Section 2 of the MHSA and can be summarised as placing a duty on the Employer to ensure, as far as reasonably practicable, that a Mine is designed, constructed and equipped to provide conditions for safe operation and a healthy working environment.
4. The Chief Executive Officer (the person contemplated in Section 2A MHSA) is required to take reasonable steps to ensure that the functions of the Employer as contemplated in the MHSA are properly performed. In terms of Section 2A(3) MHSA, the duties of the Chief Executive Officer can be carried out by a member of the Board of the relevant Company which is the holder of the Right to prospect or mine.

5. The MHSa does, in Section 22, place obligations on Employees to take reasonably practicable steps, to look after the health and safety of themselves, and their colleagues.
6. The MHSa also places obligations on suppliers and other entities who perform work at a Mine, to comply with the provisions of the MHSa, the MHSa Regulations, and the old "Minerals Act Regulations" which remain in force and effect in terms of Schedule 4 of the MHSa.
7. Despite the provisions of Sections 21 and 22 of the MHSa, the primary focus, in any Investigation in terms of Section 60 of the MHSa or Inquiry in terms of Section 65 of the MHSa, is on the Employer, the Chief Executive Officer (or person designated in terms of Section 2A(3) MHSa), the Employer Representative (persons appointed in terms of Section 4(1) MHSa), the Mine Managers (persons appointed in terms of Section 3(1)(a) MHSa), and the Engineers (persons appointed in terms of Regulation 2.13.1).
8. The emphasis on Senior Management is supported by the extensive amendments to the MHSa, which came into force and effect on the 30th May 2009. Primary amendments include amendments to Section 11(5) of the MHSa which require the relevant Employer to conduct an internal Investigation into every accident, serious illness and health threatening occurrence, and to prepare a report that (i) identifies the causes and the underlying causes of the accident, serious illness or health threatening occurrence, (ii) identifies any unsafe conditions, acts or procedures that contributed in any manner to the accident, serious illness or health threatening occurrence, and (iii) makes recommendations to prevent a similar accident, serious illness or health threatening occurrence. The amendments require a copy of the report to be delivered to the Principal Inspector.

9. In addition, the potential consequences, namely the administrative fines (in respect of the Employer), and the Employer (criminal) and Employees (criminal), have been significantly increased.
10. In this context, we have identified certain aspects which arose out of the incidents and accidents in 2009, for further discussion.

C. KEY ASPECTS FOR FURTHER CONSIDERATION

11. Strategic and/or Group Level Areas of Concern
 - 11.1. Participation in the Inspection in Loco, handing over of documents, submission of statements, and engagement with the Department of Mineral Resources (“DMR”)
 - 11.1.1. Following an incident or accident, Senior Management of the various Mines have been criticized, for failing to make telephonic contact and/or report the incident/accident, expeditiously. While the MHSa and its Regulations require the incident/accident to be reported by way of the SAMRASS forms (see MHSa Regulation 23), the Principal Inspectors generally require an immediate report. The primary difficulty associated with this, is that there is generally no written record of the reporting of the incident/accident.
 - 11.1.2. It is proposed that a formal system be implemented, in terms of which a formal notification is given to the Principal Inspector of the relevant region. It is also proposed that a Policy be drafted in this regard.
 - 11.1.3. A distinction must be made between this notification which is generally required by the Principal Inspectors (and not by Legislation), and the formal notification required in terms of Section 11(5B) of the MHSa (which came into force and effect on

31 May 2009). This Section requires the Employer to notify the Principal Inspectors of any accidents or occurrence at the Mine that result in a serious injury, illness or death. The purpose is to allow the Principal Inspector to instruct an Inspector to conduct an Investigation (as contemplated in Section 60 of the MHSA) simultaneously with the internal Investigation required be carried out by the Employer in terms of Section 11(5) MHSA.

- 11.1.4. Generally, it appears that the Mines are not familiar with the provisions of Section 11(5B), and it is proposed that a Policy should be implemented, regarding the notification to the Principal Inspector, together with a draft standardised reporting document.
- 11.1.5. During the inspection in loco, the presiding Inspector, often places extensive pressure on the various participants and persons who are involved, to make comments and/or statements which may be incriminating. While, from a legal perspective, it would be possible to challenge any comments and/or statements which are recorded in the circumstances, it is preferable for a standardized approach to be adopted regarding participation in the inspections in loco. Any comments and/or statements which are made during the inspection in loco, and/or documents which are submitted to the Inspector, could be incriminating, and would jeopardise the right against self incrimination which would apply at the Investigation and/or Inquiry.
- 11.1.6. Of further concern, is that documents are often requested by the Inspector. As a result, generally, of the disarray in which the Management team, find themselves following on incident/accident, incorrect and/or inappropriate documents are often submitted. These documents are often outdated, not signed, or simply not applicable to the circumstances of the accident. These documents are then scrutinized by the Inspector, and will often form the basis

of extensive questioning, in the Investigation and/or Inquiry. Even if the correct documents are then submitted, at the Investigation and/or Inquiry, the impression is created that there are system failures (which expose the Employers to administrative fines), and/or that Management at the Mine, are not carrying out their duties and functions appropriately. In extreme cases, this could impact on the credibility of the Senior Management members, giving evidence at the Inquiry.

11.2. Directives in terms of Section 54 MHSA

- 11.2.1. It is common practice for the Inspector who carries out the inspection in loco, to issue a Section 54 Directive. The Section 54 Directive would generally require, at the very least, an audit to be carried out regarding the incident/accident, and to implement appropriate measures, and finally, to make representations to the Principal Inspector, before work can resume.
- 11.2.2. In several instances, the presentation to the DMR has not been vetted by appropriate persons, from, for example, Legal Services, Health and Safety etc. The presentation is then made, in the context of the pressure to resume activities, without thinking through the potential consequences, which may flow from the contents of the representations.
- 11.2.3. It is proposed that a formal Policy be drafted to address the nature, content and scope of representations, who will present the representations and which persons would be required to give comment on the representations, before the presentation is given.
- 11.2.4. Experiences in 2009, give a clear indication that information contained in the presentations, due to the time pressures, are not sufficiently thought through, detailed, or the subject of appropriate technical and other input.

- 11.2.5. When faced with contradictions between the presentations and the evidence which is being presented at the Investigation/Inquiry, Mangent Members are placed on the back foot, which impacts not only on their personal credibility, but on the ability of the relevant Employer to demonstrate compliance with the provisions of the MHSA.
- 11.3. Internal Investigation Report as contemplated in Section 11(5)(e) MHSA
- 11.3.1. The amendments to Section 11(5) MHSA require the Internal Investigation to commence within ten days of the incident/accident/health threatening occurrence, and for the report, referred to above, to be submitted, within 30 days (subject to an extension of time).
- 11.3.2. Experiences in 2009, give a clear indication that the reports are based, in several instances, on incomplete information and/or evidence, and once again, the contents of the Section 11(5) report, compromise the witnesses and ultimately the ability of the Employer, to demonstrate compliance with the provisions of the MHSA.
- 11.3.3. The various anomalies are often consistent throughout the documents ie. the representations, in respect of Section 54 Directives, the report prepared in terms of Section 11(5) MHSA, and the informal information and/or documents presented to the Inspector, during the inspection in loco.
- 11.3.4. It is proposed that a formal Policy be drafted and implemented, regarding the Section 11(5) reports, structure, content and method of delivery.
- 11.4. Referring to “the now deceased”

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- 11.4.1. In line with the humane approach to Employees and stakeholders, persons who have lost their lives during incidents and accidents, are referred to by their full names, and not “the now deceased”, which is a common term used by the DMR. Unfortunately, the term “the now deceased” is still used by several Service Departments, when preparing exhibits, for submission.
- 11.4.2. It is proposed that a formal Policy be adopted to ensure a clear understanding of the approach to persons and the method of referring to persons who have lost their lives, during incidents and accidents.
- 11.5. Codes of Practice, Standards and Procedures
- 11.5.1. One of the primary concerns, which arose during the Inquiries in 2009, was the misalignment between Codes of Practice, Standards and Procedures that have been implemented, either as a result of “Group influence” or as a result of them being Group documents, which are meant to be customised, for the various operations. This is directly linked to the review procedures for the Codes of Practice, Standards and Procedures. The analysis carried out in preparation for Investigations and Inquiries, often reveal that, despite reviews, reference is still made to outdated and repealed provisions of the MHSA, Regulations etc, and/or are simply not aligned with related documents.
- 11.6. Appointment Structure and Letters of Appointment
- 11.6.1. Despite repeated attempts to standardise letters of appointment and the appointment structure throughout the Group, audits, audit reports, and proposals, in general, the appointment letters and the authorisations required, are not implemented appropriately.

- 11.6.2. The concerns here relate to two aspects namely (a) the Sections and Regulations under which persons are appointed and (b) the contents of the letters of appointment. Often, letters of appointment which are produced as evidence at the Inquiries, are outdated, in old formats, and often refer to repealed Sections and Regulations. In addition, the appointment structures often do not include appointment by appropriate persons as contemplated in the MHSA Regulations, where the primary responsibilities are placed on the Employer and the Employer Representatives. Examples include the person contemplated in MHSA Regulation 14, to examine and declare working places safe, appointment of competent persons in terms of the Conveyor Belt Regulations (MHSA Regulation 8.9), appointment of competent persons for the operation of scraper winch and mono rope installations (MHSA Regulation 8.4) (which also applies to lifting equipment), and the appropriate appointments in terms of the MHSA Regulations applicable to underground railbound transport (MHSA Regulation 8.2). A further area of concern, is the appointment of the Blaster/Miner/Ganger, as contemplated in MHSA Regulation 4.4. Each of these appointments, are Employer appointments, and unless the appointment is made either by an Employer Representative, or a person authorised to do so by an Employer Representative, the appointment could be defective.
- 11.6.3. The common practice of, for example, Shift Supervisors (Shift Bosses) appointing Operators of machinery, could be defective, unless the Shift Supervisors are themselves authorised, through the Employer authorisation process (from the Manager who is also generally appointed under Section 7(2)).

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- 11.7. Procedures contemplated in the MHSA Regulations
- 11.7.1. Generally, while Codes of Practice, Standards and Procedures are in place, these often do not comply and/or refer specifically to the provisions of the MHSA Regulations. This comment applies particularly with regard to the machinery procedures contemplated in MHSA Regulation Chapter 8. MHSA Regulation Chapter 8 addresses underground rail bound transport (MHSA Regulation 8.2), scrapper winch and mono rope installations (MHSA Regulation 8.4), lifting equipment (MHSA Regulation 8.5), fans (MHSA Regulation 8.6), general machinery regulations (MHSA Regulation 8.8), and conveyor belts (MHSA Regulation 8.9). Each of these Regulations requires certain procedures to be put in place by the Employer.
- 11.7.2. Shortcomings are often identified, particularly where due regard is not given to the complexities of the Regulations. In addition to the primary responsibilities placed on the Employer in terms of the Act itself, the MHSA Regulations must also be read with the “Old Mineral Act Regulations”. For example, Minerals Act Regulation Chapter 20, dealing with machinery, still applies, by virtue of the provisions of Schedule 4 of the MHSA.
- 11.7.3. It is proposed that a comprehensive Policy be implemented, addressing the appointment structures, to ensure that the appropriate appointments are made, and that these appointments are made by the person authorised to do so on behalf of the Employer, Manager etc.
- 11.8. Health and Safety Training
- 11.8.1. The Investigations and Inquiries revealed, in most instances, a deficiency in the manner in which records are kept, the records themselves (housekeeping issues), and the ability to demonstrate

that the persons were competent, with reference to assessments, testing and ultimately, confirmation of competency by Training Officers etc.

- 11.8.2. It is proposed that a Policy be drafted to ensure compliance with the provisions of the amended Section 10 of the MHSA, which requires the Employer to keep a record of all formal training given to Employees (in the wide sense).

12. Operational Areas of Concern

12.1. Falls of Ground

- 12.1.1. Where falls of ground have occurred, the primary issues which have been highlighted by the DMR, are the following:
- 12.1.1.1. The adequacy of the compulsory Code of Practice to prevent Roof Fall accidents (“the Roof Fall COP”);
 - 12.1.1.2. The adequacy of the support standards in place;
 - 12.1.1.3. The adequacy of the training material and training modules presented to Employees, with particular emphasis on geological anomalies, temporary support, and identification of geological anomalies and the application of temporary support;
 - 12.1.1.4. The use of the safety net system, and the training giving to Employees in this regard;
 - 12.1.1.5. The adequacy of the application of the barring procedures (whether these are the 11 or 13 steps – in several COPs, there is an interchangeable reference to 11/13 steps to barring, the buddy barring system etc, which requires alignment);
 - 12.1.1.6. The adequacy and competency of the persons carry out the pre-entry examinations;

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- 12.1.1.7. Over inspection by line supervision, such as the Miner, Shift Boss and Mine Overseer;
- 12.1.1.8. The frequency of visits by Rock Engineering Services (“RES”), and the implementation of recommendations by RES.
- 12.1.2. In almost all the falls of ground which occurred in 2009, one or more of the aspect set out above, where deficient in some form or another;
- 12.2. Underground Rail Bound Transport
- 12.2.1. In the various rail bound equipment/transport accidents, the following aspects were raised:
- 12.2.1.1. The Code of Practice on Rail Bound Equipment (“the RBECOP”), and the adequacy of the RBECOPs in relation to procedures in place;
- 12.2.1.2. Incorrect references in the RBECOP to repealed legislation, Group guidelines etc;
- 12.2.1.3. Procedures in place regarding the installation of the underground rail system, maintenance of the rail system and inspection of the rail system;
- 12.2.1.4. Proximity devices;
- 12.2.1.5. Interaction between the locomotives and persons;
- 12.2.1.6. Braking systems on the locomotives (in relation to the unbraked mass of the hoppers);
- 12.2.1.7. Fouling points;
- 12.2.1.8. Safe zones for pedestrians and other persons such as Locomotive Guards;

- 12.2.1.9. Loading procedures and speeds at which the locomotive may travel, when coming into the loading position;
- 12.2.1.10. Switching points;
- 12.2.1.11. Training provided to the Locomotive Operators and the adequacy of the training modules;
- 12.2.1.12. Adequacy of the training material and proof of training.
- 12.2.2. In most of the Investigations/Inquiries regarding Rail Bound Equipment, 2009, one or more of the issues set out above, where found to be deficient.
- 12.3. Trackless Mobile Machines
 - 12.3.1. The following aspects were generally raised during the Inquiries/Investigations regarding Trackless Mobile Machines;
 - 12.3.2. The adequacy of the compulsory Code of Practice on Trackless Mobile Machines ("TMMCOP");
 - 12.3.3. The appointment of Locomotive Operators and Guards (reference is often still made to repealed Regulation 18.1.1);
 - 12.3.4. Operator training and training modules;
 - 12.3.5. Visibility of the Operator in respect of pedestrians and other machines;
 - 12.3.6. Maintenance of TMMs.
- 12.4. In most of the Investigation/Inquiries involving TMMs, one or more of the aspects set out above, where found to be deficient.