

EXAMINATION PANEL REPORT FOR OPEN CUT MANAGERS AUGUST 2013

EXAMINATIONS ROUND SUMMARY:

APPLICATIONS

Number applied:	18
Number approved:	18

Comments: Generally the candidates did well in the written papers

WRITTEN EXAMINATIONS

Date:	15 August 2013
Number of candidates:	15
Did Not Sit:	3
Passed:	13 (87% success rate)
Highest mark:	314/400
Average mark:	258

ORAL EXAMINATIONS

Date:	23-24 October 2013
Number of candidates:	17
Eligible but Did not sit:	1
Passed:	5 (29% success rate)

WRITTEN EXAMINATION PAPER ANALYSES

OCM1 Mining Legislation – Paper total 100

Number of candidates:	14
Minimum mark obtained:	60
Maximum mark obtained:	83
Average mark obtained:	67

Overall comments: All the candidates passed the legislation but many only managed to get the required marks.

Analysis of Answers to Questions:

Question 1 – (Worth 20 Marks)

This question asks you as the Manager of the mine for the legislative requirements to establish a new tailings dam and close the old one (20 marks).

Minimum mark obtained:	15
Maximum mark obtained:	20
Average mark obtained:	19

This question was generally handled well with all the candidates recognising Section 100 & 101 CMH&S Act.

Question 2 – (Worth 20 marks)

This question is in two parts and asks if each are a reportable incident and for a reason why it is or isn't reportable. The first part notes a power pole falling and striking a vehicle (10 marks), the second part notes a vehicle striking a vehicle (10 marks).

Minimum mark obtained:	0
Maximum mark obtained:	20
Average mark obtained:	9

The candidates again failed to recognise that these 2 incidents were not reportable. They insisted on assuming facts that were not supplied. In the first case there was no threat to life. The case had the vehicles approaching the mine but not yet on the mine site and therefore it was a police matter.

Question 3 - (Worth 20 marks)

This question has two parts with the first asking for the general obligations and if there are any exceptions placed on the operator when dealing with Health and Safety representatives (10 marks) and what the WH&SA 2011 states in relation to Codes of Practice (10 marks) .

Minimum mark obtained:	8
Maximum mark obtained:	20
Average mark obtained:	15

Most candidates handled this question well. Section 70 & 71 WH&S act cover the answers

Question 4 – (Worth 20 marks)

This question asks you what you would do if an inspector arrives at your mine and has not signed in at the front desk (20 marks).

Minimum mark obtained: 6
Maximum mark obtained: 15
Average mark obtained: 12

A lot of the candidates struggled with this question covered under Division 3 WH&S Act – Powers of entry

Question 5 - (Worth 20 marks)

This question asks you what you are required to do as the operator's representative after your mine has conducted elections for a new site check inspector (SCI) (8 marks), what the requirements are before the new CSI can carry out an inspection (8 marks) and what the functions of an Industry Check Inspector are (4 marks)

Minimum mark obtained: 6
Maximum mark obtained: 18
Average mark obtained: 11

Section 165, 167 & 174 CMH&S Act cover these topics which caused some candidates problems

OCM2 Coal Mining Practice – Paper total 300 marks

Number of candidates: 10
Minimum mark obtained: 142
Maximum mark obtained: 226
Average mark obtained: 193

Overall comments: Generally the candidates answered the questions reasonably well but again a lack of practical experience showed through in the answers.

Analysis of Answers to Questions:

Question 1 – Inspection Program (Total of 60 marks)

This question looks at the legislative requirement of the inspection program and how it is key in delivering positive health and safety outcomes for coal mine operations. As the MME you are required to develop an inspection program for the entire mine, detailing the key elements of the program and stating the assumptions required (40 marks) and asks how you would ensure that inspections were being undertaken and actions were being taken to uphold standards and procedures (20 marks).

Minimum mark obtained: 20

Maximum mark obtained: 45
Average mark obtained: 35

This question was based around Subdivision 2 of the Regs 15 Inspection program; only 1 candidate fully answered this question which should have been easily summarised from the Regs which lists all the key requirements. Most failed to mention the section of the Regs which could mean they failed to refer to the Regs prior to answering the question.

Part (b) was generally answered well; some failed to mention that inspections sheets are required to be counter signed by the relevant manger.

Question 2 – Drill & Blast (Compulsory) (Total of 60 Marks)

This question relates to Through Seam Blasting (TSB) using ANFO to be carried out in a newly developed area. You are asked to outline how you would implement TSB (15 marks) devise a load sheet with numerous parameters (30 marks) and list the key desired outcomes for success (15 marks).

Minimum mark obtained: 0
Maximum mark obtained: 47
Average mark obtained: 35

This question tested the candidate's basic knowledge of the drill and blast process and the understanding of the operating bench height for a 600t excavator. The answers for the implementation of TSB were well covered with most listing the key requirements i.e. Explosive companies, shotfirers, drillers, industry experts etc.

Part (b) required some knowledge of drill and blast, stemming heights, incorrect kg/m, some assumed a different density when the density was supplied and high standoffs for the coal seams. Overall this part of the question wasn't answered well.

Part c was answered well with most covering the key requirements.

Question 3 - Incident Management and Review (Total of 60 Marks)

This question is about a mine with a Total Recordable Injury Frequency Rate (TRIFR) which has increased to an alarming level over the past few months.

You are asked:

for the powers and functions of the site HSR (10 marks),

How TRIFR is calculated (5 marks),

if the injuries are reportable under the CMHS Act or Reg's (5 marks),

to list immediate actions in order of importance to address the injury trend (10 marks)

and to detail a site 100 day plan to bring the sites TRIFR's back to <5 (30 marks).

Minimum mark obtained: 48
Maximum mark obtained: 48
Average mark obtained: 48

Only 1 person answered this question, this candidate covered all areas of the question. There was good detail in the 100 day plan which was allocated half the marks.

Question 4 – Change Management (Total 60 Marks)

This question asks you as the OCM to deal with a change from hydraulic backhoe excavator to an electric shovel due to a change in geology at your pit. You are asked; to list the advantages and disadvantages of the change in equipment (15 marks), for the chief hazards and operational challenges and the controls to manage these (20 marks), and to describe the process you would use to introduce the change (25 marks).

Minimum mark obtained: 36
Maximum mark obtained: 56
Average mark obtained: 45

This question tested the candidate's knowledge of the change management process and ability to identify the major change: introduction of electrical reticulation and support infrastructure.

Also tested was the candidate's ability to recall anecdotal benefits and disadvantages of an electric rope shovel over a hydraulic excavator.

Most candidates answered this well with practical responses bound with systematic processes. Only a few candidates identified the construction process of the shovel. Most candidates identified the introduction of electric reticulation as the major change.

Very few candidates acknowledged Electrical Emergency Training as a change that needed implementation. Only a few candidates correctly identified maintenance related issues such as training and resourcing.

Question 5 – Incident Management (Total of 60 Marks)

This question deals with the rollover of a 20t digger submerged into a sump area where the trapped excavator operator has not been able to be rescued. As the MME you are asked;

*To describe in priority order the immediate steps to take (15 marks)
to describe how you would recover the body (5 marks),
to outline the investigation into the incident (10 marks)
for the most likely contributing factors (10 marks) and
to outline the recommendations to prevent reoccurrence of the incident (20 marks).*

Minimum mark obtained: 28
Maximum mark obtained: 51
Average mark obtained: 41

This question was largely based around MDG1029: Body Recovery. Strong knowledge of this MDG would have led to strong performance in this question. The first part of the question tested the candidate's ability to step back from the immediate situation and think of global controls to manage a rapidly dynamic scenario such as media, family members, workforce, emergency services and legislative compliance.

The second part of the question tested the candidate's ability to identify causes and preventative measures in managing the hazard of working near water.

Candidates generally answered the first section adequately, mainly let down by the fact that next-of-kin was not promptly notified. Key steps such as setting up a control room to centrally manage and co-ordinate tasks were commonly missed. One candidate excelled with strong demonstration of MDG1029 knowledge.

The second section, candidates generally answered this well. Many not including a hazard register or hazard plan for identification of sumps, or specific procedures for working around water.

Question 6 – Construction (Compulsory) (Total of 60 Marks)

This question relates to the relocation of items of infrastructure where a contractor has been assigned with the design and construct for the project. You are asked to;

To list the key steps from design to commissioning phases (20 marks)

For who is responsible for activities during construction and how does the legislation account for these activities on a mining lease (20 marks)

For the projects highest risks, how to control these risks and how to ensure the controls are being followed (20 marks)

Minimum mark obtained: 22

Maximum mark obtained: 49

Average mark obtained: 35

This question tested the candidate's knowledge of how to manage a construction zone on a mining lease, in particular, the requirements under WHSR Chapter 6. The candidates were expected to be able to identify the Construction Zone, and clearly define the boundaries of responsibilities and interaction between Colliery Holder (PCBU) and Principal Contractor. The question also tested the candidate's ability to identify key hazards associated with the Construction Zone.

Most candidates were able to identify the construction zone however did not clearly identify lines of responsibilities. Very few nominated a separate Operator for the construction zone. Most candidates missed the requirement for the Principal Contractor to provide a WHSMP that complied with the HSMS for the Colliery Holder (PCBU).

Hazards were broadly identified, but again, due to lack of WHSR Ch.6 knowledge, key terms such as "High Risk Activity" or "General Construction Induction Training" were missed.

Question 7 – Training and Competence (Total of 60 Marks)

*This question asks if you know what is meant by “Order 34” (5 marks)
To outline a process of developing a training scheme (10 marks)
For the process for obtaining approval for the training scheme (10 marks)
To list the components of a Training Competence Management Scheme and
a summary of requirements under each component (35 marks).*

Minimum mark obtained: 18
Maximum mark obtained: 18
Average mark obtained: 18

The question tested the candidate's knowledge regarding the requirement for and development of a TCMS.

The question was generally answered well where the candidate had studied the Coal Services guideline which is the go to reference for TCMS information. Some candidates struggled to cover the 9 elements of the TCMS even though the elements are generic to other management plans. Time/exam management may have also influenced some candidate's ability to provide thorough answers.

Question 8 – Highwall Mining (Total of 60 Marks)

This question requests you as the MME to introduce a highwall auger system using equipment from your parent company mine next door and includes data relating to the seam. . You are asked

For the legal obligations in relation to the introduction of highwall mining at your operation (10 marks)

For the hazards and controls associated with highwall auger mining and to state all assumptions (30 marks)

To describe the process to introduce and manage this mining method (20 marks).

Minimum mark obtained: 17
Maximum mark obtained: 45
Average mark obtained: 37

Generally this question was answered adequately by most candidates. The candidates who gained higher marks demonstrated a good knowledge of dept. guidelines, legislative requirements and also identified a wider scope of hazards and associated controls than just highwall/low wall and geotechnical hazards. Use of diagrams were only used in some cases but served the candidates well in demonstrating knowledge. It was pleasing to see candidates adopting a process approach to introducing the mining method to the operation.

ORAL EXAMINATION ANALYSES

Oral examinations

Overall comments: Generally the standard of the candidates who attended their oral exam showed a lack of practical experience or that they were not supplying answers to a manager's standard ie Not looking at the big picture.

Analysis of topics on which candidates were not yet competent Topics examined

- Legislative Framework
- Shotfiring
- Highwall stability
- Contractor management
- Fatigue