

CANDIDATE EXAM PAPER**CANDIDATE NUMBER:** _____**OCM1 – Legislation****MINING ENGINEERING MANAGER OF COAL MINES OTHER THAN
UNDERGROUND COAL MINES****EXAMINATION FOR CERTIFICATE OF COMPETENCE**

Work Health and Safety (Mines and Petroleum Sites) Act 2013
Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Legislation to be assessed:

Unless otherwise stated all references to Act and Regulations are to:

Work Health and Safety Act 2011

Work Health and Safety Regulation 2017

Work Health and Safety (Mines and Petroleum Sites) Act 2013

Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Explosives Act 2003

Explosives Regulation 2013

This Examination is held in the following location:

Region: New South Wales Venue: Tocal College Room: The Hall

Date: 16 May 2024 Start time: 09:00:00 Finish time: 10:10:00

INSTRUCTIONS TO CANDIDATES

10 minutes reading time is allowed prior to the start of the examination

All five (5) questions must to be attempted.

Existing Candidates: 60% to pass paper, OR

New Candidates: minimum 60 marks to pass paper

OCM1 – Legislation | May-2024

CANDIDATE NUMBER: _____

(write in from your letter)

Question Number		Mark	Available mark	Marked by <i>Name</i>	Summary comments to justify, as necessary
1	a)		3		
	b)		5		
	c)		4		
	d) i)		3		
	d) ii)		3		
	Subtotal			18	
2	a)		6		
	b)		4		
	c)		13		
	Subtotal			23	
3	a)		7		
	b)		8		
	Subtotal			15	
4	a)		8		
	Subtotal			8	
5	a)		19		
	Subtotal			19	
PAPER	TOTAL			83	<i>Marks checked by:</i>

EXAM BOOKLET

Answers are to be written in the allocated spaces
within this booklet ONLY

Answers must be written in pen however,
drawings may be completed in pencil

This booklet is not to be altered in any way,
pages are not to be added or removed

Additional space is provided at the end of the paper.

Please label which question the answer relates to.

Question 1

Question 1 – (Total 18 marks)

Work Health and Safety (Mines) Act 2013 No 54

Incident notification

A) Summarise what is a notifiable incident **(3 Marks)**

B) Summarise the key requirements of Duty to notify of notifiable incidents **(5 Marks)**

C) Summarise the requirements of Notifiable incidents at coal mine **(4 Marks)**

D) Summarise the requirements of Duty to preserve incident sites:

i) When a notifiable incident has occurred at a mine **(3 marks)**

ii) What actions are allowed under scene preservation **(3 marks)**

Question 2

Question 2 – (Total 23 marks)

Work Health and Safety (Mines) Act 2013 No 54

Part 6 Enforcement measures

A) Summarise who, when, what are the requirements for Improvement notices **(6 Marks)**

OCM1 – Legislation | May-2024

B) Summarise who, when, what are the requirements for Prohibition notices **(4 Marks)**

C) Summarise what, when and how the Regulator may make stop work orders **(13 Marks)**

Question 3

Question 3 – (Total 15 marks)

Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Operational controls

A) What matters must be the operator have regard to when managing risks under Section 32 Movement of mobile plant (7 Marks)

a)

b)

c)

d)

e)

f)

g)

B) What matters must the mine operator consult on under section 115 Duty to consult with workers (8 Marks)

a)

b)

c)

d)

e)

f)

1)

2)

Question 4

Question 4 – (Total 8 marks)

Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Schedule 1 Principal hazard management plans

A) Summarise the matters that must be considered in developing the control measures to manage the risks of roads or other vehicle operating areas **(8 marks)**

a)

b)

c)

d)

e)

f)

g)

h)

Question 5

Question 5 – (Total 19 marks)

Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Schedule 1 Principal hazard management plans

A) What matters must be considered in developing the control measures to manage the risks of ground or strata failure in a Opencut Coal Mine **(19 Marks)**

a)

b)

c)

d)

e)

f)

g)

h)

i)

j)

k)

l)

m)

n)

o)

p)

q)

r)

s)

End of Document

CANDIDATE EXAM PAPER

CANDIDATE NUMBER: _____

OCM2 – Open cut mining practice

MINING ENGINEERING MANAGER OF COAL MINES OTHER THAN UNDERGROUND COAL MINES

EXAMINATION FOR CERTIFICATE OF COMPETENCE

Work Health and Safety (Mines and Petroleum Sites) Act 2013
Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Legislation to be assessed:

Unless otherwise stated all references to Act and Regulations are to:

Work Health and Safety Act 2011

Work Health and Safety Regulation 2017

Work Health and Safety (Mines and Petroleum Sites) Act 2013

Work Health and Safety (Mines and Petroleum Sites) Regulation 2022

Explosives Act 2003

Explosives Regulation 2013

This Examination is held in the following location:

Region: New South Wales Venue: Tocal College Room: The Hall

Date: 16 May 2024 Start time: 11:00:00 Finish time: 14:10:00

INSTRUCTIONS TO CANDIDATES

10 minutes reading time is allowed prior to the start of the examination

All six (6) questions are of equal value and must to be attempted.

Existing Candidates: 60% to pass paper, OR

New Candidates: minimum pass mark of 187

OCM1 – Legislation | May-2024

CANDIDATE NUMBER: _____

(write in from your letter)

Question Number	Mark	Available mark	Marked by <i>Name</i>	Summary comments to justify, as necessary
1	a)		5	
	b)		5	
	c)		10	
	d)		10	
	e)		10	
	f)		10	
	Subtotal		50	
2	a)		5	
	b)		5	
	c)		10	
	d)		10	
	e)		10	
	f)		10	
	Subtotal		50	
3	a)		5	
	b)		6	

OCM1 – Legislation | May-2024

CANDIDATE NUMBER: _____

(write in from your letter)

Question Number	Mark	Available mark	Marked by <i>Name</i>	Summary comments to justify, as necessary
3	c)	15		
	d)	6		
	e)	10		
	f)	8		
	Subtotal		50	
4	a)	10		
	b)	10		
	c)	20		
	d)	10		
	Subtotal		50	
5	a)	15		
	b)	10		
	c)	15		
	d)	10		
	Subtotal		50	
6	a)	10		
	b)	30		
	c)	10		
	Subtotal		50	
PAPER	TOTAL		300	<i>Marks checked by:</i>

EXAM BOOKLET

Answers are to be written in the allocated spaces
within this booklet ONLY

Answers must be written in pen however,
drawings may be completed in pencil

This booklet is not to be altered in any way,
pages are not to be added or removed

Additional space is provided at the end of the paper.

Please label which question the answer relates to.

Question 1

Question 1 - (Total 50 marks)

You are the Mining Engineering Manager of an Open Cut Coal Mining Operation. Over the past twelve months the mine has experienced higher than normal rainfall. Your development consent does not allow you to discharge water into a nearby river and as a result you are forced to start dumping Overburden into a disused pit which is currently being used for water storage. The depth of this water will extend up to 50m deep.

Your mine uses EX2600 Excavator's along with CAT785 trucks. Both D10 and D11 Dozers are utilised.

A) What Hazards would be present when working with heavy Equipment around a water body **(5 Marks)**

B) What are the key areas to be considered when planning and managing dumping in this area **(5 Marks)**

C) Which Management Plans and procedures should be reviewed to account for your identified hazards? For each one describe one aspect you would review **(10 Marks)**

D) In this scenario list the stakeholders who should be consulted and one objective each for three of them? **(10 Marks)**

E) Detail in a diagram a simple cross section of how to manage tipping and dumping in and around the water body (show approximate dimensions) Please explain your diagram **(10 Marks)**

F) What additional controls would you see for the following would you recommend **(10 Marks)**

i. Communication

ii. Mines Inspections

iii. Survey Controls

Question 2

Question 2 - (Total 50 marks)

You are a Mining Engineering Manager for a Small Coal Mine. You get a call from the shift OCE that mine water has discharged from a 30ML water storage into a nearby fresh water creek.

You have had excessive rainfall (150mm) during the past 48 hours and the OCE has been struggling to manage all of the water infrastructure.

Earlier analysis of this mine water 3 months prior to the rain event has the conductivity levels of this water at approx 5100 μ S.

A) What are your immediate actions upon discovery of the incident? **(5 Marks)**

B) Discuss what could be done immediately to ensure further environmental damage is avoided **(5 Marks)**

Following your immediate actions:

C) List who you would notify of the spill? **(10 marks)**

D) What other actions must be completed to further control the water spill? **(10 Marks)**

E) What legislation and consent documents have been breached and how does this link to the operation of the mine?(10 Marks)

F) With further rain on its way in 48 hours, detail what action you would take to prevent a further recurrence and how would you implement the actions **(10 Marks)**

Question 3

Question 3 - (Total 50 marks)

As a Mining Engineering Manager at a new small Open Cut coal mine you have just installed a new Explosives Magazine area with 2 magazines. When your blasting program commences at the mine, your own Drill & Blast Engineer will design the blast patterns and the mine will provide supervision but contractors will be used to perform the down-the-hole blasting operations including shotfiring.

OCM2 – Open cut mining practice | May-2024

A) What Legislation are you required to follow for the construction and installation of the Magazine Area **(5 Marks)**

B) What key Control plans and procedures are required under these Act and Regulations **(6 Marks)**

C) Summarise the requirements of the explosives control plan to that meet the requirements of the WHS (Mines and Petroleum Sites) Regulation 2022 **(15 Marks)**

OCM2 – Open cut mining practice | May-2024

E) What training and appointments are required to be completed prior to any blasting on site **(10 Marks)**

F) You have decided to store only 2 classes of initiating explosives on site (i.e. - Class 1.1B and 1.1D). What are these and how would they be stored in the magazines **(8 Marks)**

Question 4

Question 4 - (Total 50 marks)

You have recently been appointed as the Mining Engineering Manager of a large Open Cut Coal Mine which has recently purchased the adjoining Open Cut Mine and approval has been given to mine both sites as one mining operation.

You have been tasked to update the Safety Management system for the site which requires the development and implementation of the site Inspection plan.

The mining operation will incorporate.

- Two Mining Areas (public road dividing the mining areas)
- Three Maintenance workshops
- Magazine facilities
- Two Coal Handling preparation plants and train loadout facility
- Rehabilitation areas and project areas.
- Drilling areas including exploration drilling
- A tailings dam and Flocculant plant

OCM2 – Open cut mining practice | May-2024

A) Summarise the legislation references and their key requirements to be considered when developing an Inspection plan **(10 Marks)**

B) How would you develop this inspection plan, what resources would be involved and who would be consulted **(10 Marks)**

C) When dividing the mine into Inspection areas what must be taken into account, who is accountable for each area and what is required to carry out the inspections of each area.

(Please sketch a map that sets out how the information provided in the scenario and applying legislative requirements for the inspection plan) **(20 Marks)**

Please include a key for coding in different colours the specific areas.

D) How will this inspection plan from question three be communicated to workers, and persons be trained in the inspection plan **(10 Marks)**

Question 5

Question 5 - (Total 50 marks)

You are the Mining Engineering Manager and receive a call at shift change on Sunday afternoon from the N/S OCE that a haul truck has reversed through the tip head windrow and is resting at the base of the dump 20 metres below. The operator of the haul truck can be contacted by two-way radio and is stating that they are unable to move. Access to the area is restricted due to the dump being tipped over block tip.

OCM2 – Open cut mining practice | May-2024

A) List in sequence initial actions you would undertake as MEM in response to the incident **(15 Marks)**

B) You are required to engage external services to assist in recovering and managing the injured person.

How would you manage this safely **(10 Marks)**

C) As the site Mining engineering manager (MEM), summarise all the immediate and foreseeable legislative requirements that are required to be complied with in relation to this incident **(15 Marks)**

D) Describe the immediate actions you would take to rectify the causes of the incident and to minimise re-occurrence to enable work to continue **(10 Marks)**

Question 6

Question 6 - (Total 50 marks)

OCM2 – Open cut mining practice | May-2024

You are the Mining Engineering Manager at an Open Cut coal mine that has just been given notification that a gas pipeline is to be constructed across the mining lease spanning 4km. The project is a state significant development project with approval granted by the Department of Planning, Housing and Infrastructure. The pipeline crosses 2 active haul roads in the open cut. You have been given 4 months until construction commences to implement plans for the project to proceed safely.

A) Prior to construction commencing what would you need to organise and be in place for the project to proceed through the mining lease **(10 marks)**

B) Outline the major hazards identifiable for the construction of the gas pipeline through the mine site and how they would be managed **(30 marks)**

Multiple horizontal lines for writing.

C) Following the construction of the pipeline what would you need to ensure is in place to manage safely the gas pipeline operation long term **(10 Marks)**

End of Document