



**Planning &
Environment**
Resources Regulator

WHS undertaking

**Undertaking to the Secretary,
Department of Planning and Environment**
given for the purposes of Part 11 of the *Work Health and Safety Act 2011*

by

Mangoola Coal Operations Pty Ltd

**ACN 127 535 755
ABN 54 127 535 755**

WHS undertaking

Purpose

The purpose of this WHS undertaking is to document the undertaking given to the Resources Regulator (**regulator**), the Secretary of the Department of Planning and Environment, for the purposes of Part 11 of the *Work Health and Safety Act 2011 (WHS Act)* in connection with a matter relating to a contravention or alleged contravention by the person of the WHS Act.

Section A - general information

1. details of the company or individual proposing the undertaking

Name of company or individual	Mangoola Coal Operations Pty Ltd (Mangoola Coal)		
Registered address	"Gateway" Level 44 1 Macquarie Place Sydney NSW 2000		
Mailing address (if different from above)	PO Box 495 Muswellbrook NSW 2333		
Telephone	██████████	Mobile:	██████████
Email address	████████████████████		
Legal structure	Australian Proprietary Company, Limited By Shares		
Type of business	Coal Mining Operations in the Hunter Valley		
Commencement date of the entity	13/9/2007		
Workers	Full time: 378	Part time: 0	Other: 0
Products and services	Thermal Coal		
Comments	Nil.		

2. the details of the alleged contravention

It is alleged that on 10 October 2016, Mangoola Coal, being a person conducting a business or undertaking at the Mangoola Mine at Wybong NSW, who had a health and safety duty under section 19(1) of the WHS Act to ensure, so far as is reasonably practicable, the health and safety of workers engaged by Mangoola Coal, while they were at work in the business or undertaking, failed to comply with that duty, and that failure exposed a worker to a risk of death or serious injury or illness.

3. details of the events surrounding the alleged contravention, eg incident details

At approximately 8:45 pm on 10 October 2016, during normal coaling operations, the cabin and cabin riser of a Liebherr R9250 Excavator (unit EX151) (**Excavator**) dislodged and tipped off the side of the Excavator, with the operator still inside, coming to rest against the excavator's tracks (**Incident**). Prior to the Incident, three vertical bolts and one horizontal bolt were progressively identified as broken from 13 May 2016 to 12 August 2016.

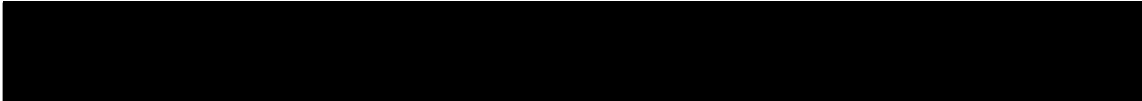
Prior to the Incident, three separate interim repairs were conducted on the Excavator with the aim of securing the cabin and an inspection program put in place to monitor the condition of the interim repairs with a view to conducting permanent repairs during a scheduled maintenance shutdown planned for November 2016.

WHS undertaking

4. an acknowledgement that the regulator alleged a contravention has occurred

It is acknowledged that, arising out of the Incident, the regulator has alleged that Mangoola Coal has contravened section 19(1) of the WHS Act.

5. the details of any injury that arose from the alleged contravention



6. the details of any enforcement notices issued that relate to the alleged contravention

Notices received:

- Yes (provide details) No

Date issued	Notice type	Notice number	Contravention	Action taken to respond to notice
12/10/2016	s 23 notice of WHS (Mines and Petroleum Sites) Act 2013	N23-2016/00823	Matter considered to be relevant to the continued safe operation of the mine and health and safety of workers at the mine	1. Develop an Interim Repair Trigger Action Response Plan (TARP) which will provide a structured process for decision making, risk based approval and monitoring of interim repairs. 2. Communicate to key personnel the requirement to maintain accurate and timely records of inspections. 3. Review the design and Maintenance Strategy around Cab Riser maintenance in consultation with original equipment manufacturer (OEM) and update planned maintenance (PM) documents to be more specific. 4. Review Mechanical Engineering Control Plan.

7. a statement of assurance about future work health and safety behaviour

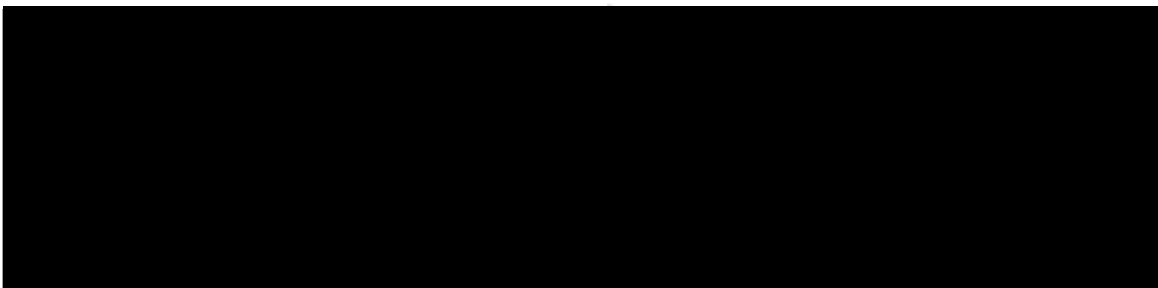
Mangoola Coal is committed to complying with all of its obligations under the WHS Act, the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* (NSW) (**WHS Mines Act**), and relevant regulations.

8. when an alleged contravention is associated with an injury or illness

- 8.1. the details of the type of workers compensation provided (if the injured person(s) is a worker of the person)

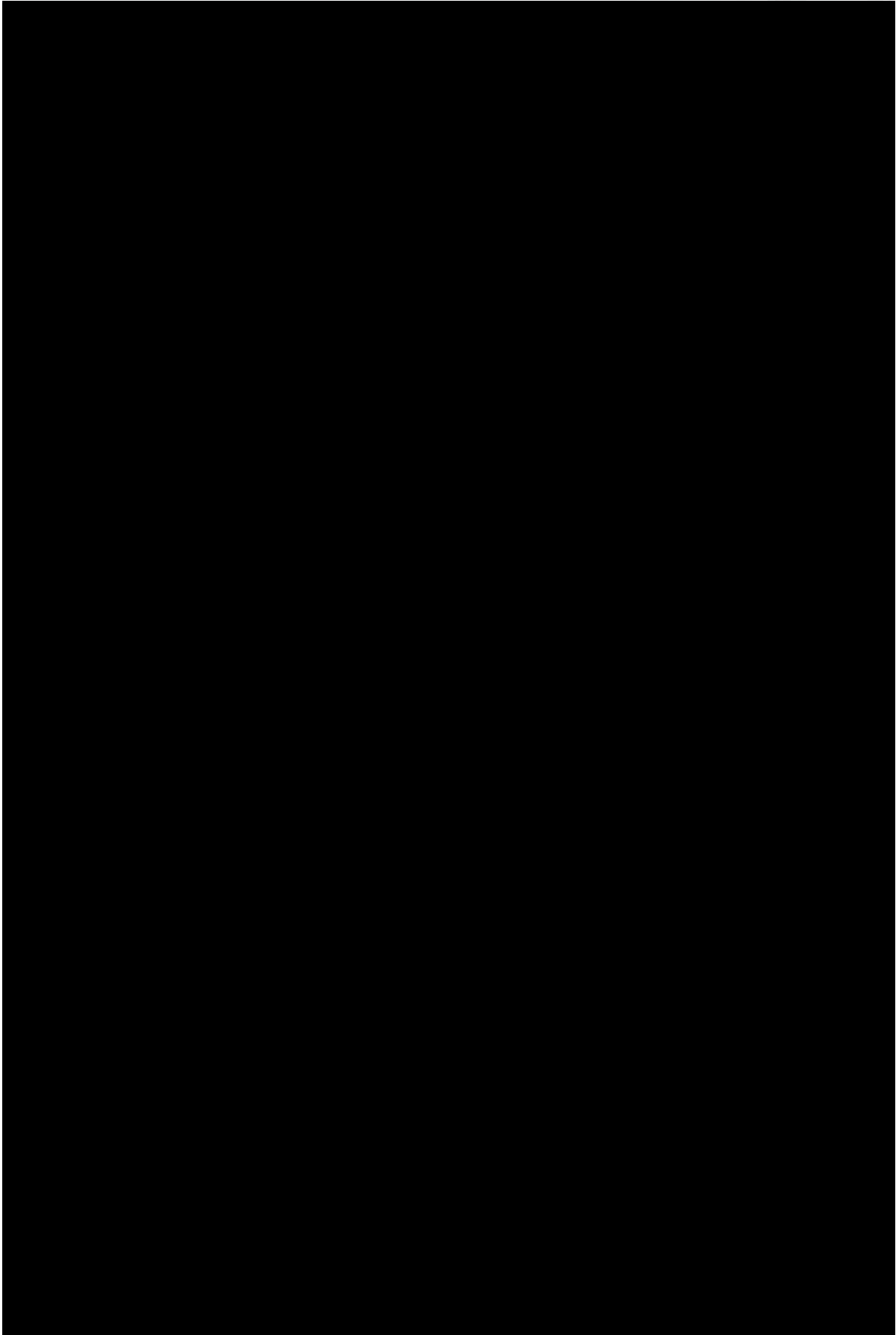


- 8.2. details of the support provided, and proposed to be provided, to the injured person(s) to overcome the injury/illness



WHS undertaking

Support provided to the injured person(s) or injured person(s) family:



9. the details of any existing safety management systems at the workplace including the level of auditing currently undertaken

Mangoola Coal has a Safety Management System Framework in place which includes the policies, principles, and practices by which health, safety, environment and community (HSEC) requirements are managed (Framework). This Framework provides guidance and direction in the development of operational HSEC Management Systems and alignment with relevant State and Federal legislative obligations.

The Framework is developed and implemented to meet the requirements of:

- WHS Act.
- *Work Health and Safety Regulation 2017* (NSW).
- WHS Mines Act.
- *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* (NSW).

The Framework also refers to applicable Australian and international standards, including AS/NZS 4801:2001 Occupational Health and Safety Management Systems – Specification with guidance for use, and International Standard 31000:2009 Risk Management – Principles and Guidelines.

The level of auditing undertaken by Mangoola Coal is as follows:

- Control verification of Principal Hazard Management Plans are conducted as part of a Targeted Visible Leadership Program involving scheduled Planned Task Observations (PTO) and Workplace Safety Observations undertaken on a daily, weekly and monthly basis.
- Critical Control Audits and Fatal Hazard Protocol verification inspections are undertaken on a monthly basis. The audits and inspections are undertaken by site personnel and reported.
- Legislative audits, for example, ventilation control audits and dust explosion management plan audits, which are undertaken by external certified bodies on an annual basis.
- High Potential Incident (HPI) audits, where, following any HPI, an audit of systems and processes will be undertaken remotely, and then on site to verify findings of the remote audit.
- Legislation self-assessment audits, which occur approximately every two years and comprise of a site self-assessment, followed by a third-party review of the site's compliance with applicable legislation.
- Auditing to HSEC standards, whereby each site undertakes a self-assessment against HSEC standards, and this is followed by an external assessment carried out approximately every two years.

WHS undertaking

- Fatal Hazard Protocol audits, which involve an assessment of site compliance with Fatal Hazard Protocols approximately every three years.

10. the details of any consultation undertaken within the workplace regarding the proposal of a WHS undertaking (including workers and work health and safety representatives)

Consultation undertaken regarding the proposal of this WHS undertaking has occurred amongst senior management of Glencore Coal (the parent company of Mangoola Coal) including the Chief Operating Officer, Director NSW Open Cut Operations, General Manager for Health Safety and Training and the Group Safety and Emergency Capability Manager.

Consultation has also occurred onsite with members of the Mangoola Coal Open Cut Site Leadership Team including the Operations Manager, Maintenance Manager, Mining Manager and the Health Safety and Training Manager.

Consultation with the Site WHS Committee, which includes site HSRs, will be undertaken on 19 October 2018 (or closest suitable date for attendees if unable to attend on chosen date).

11. a statement of regret that the incident occurred (ie not an admission of guilt)

Mangoola regrets that the Incident occurred.

12. any rectifications made as a result of the alleged contravention

Excavator rectification post incident involved:

- (a) Repair of cab riser, mounts and replace mounting bolts.
- (b) Re-alignment and certification inspection of cab.
- (c) Repair of emergency escape chute, cabin walkways, cabin access ladder and cab riser emergency access ladder.
- (d) Replacement of electrical harnesses, work lights and air conditioner compressor.
- (e) Replacement of damaged hoses and damaged grease system components.
- (f) Replacement of fire system harnesses.

Total cost spent on Excavator rectification (items (a) to (f)) approximately: \$139,919.

- (g) Following the Incident Mangoola Coal undertook an investigation into the Incident. The Incident investigation findings were communicated to the Mangoola Coal workforce during shift briefings.
- (h) Mangoola Coal developed an Interim Repair Trigger Action Response Plan TARP which provides a structured process for decision making, risk based approval and monitoring of interim repairs.
- (i) Mangoola Coal also reviewed the design and maintenance strategy around cab riser maintenance in consultation with the OEM and updated the Excavator's service sheet with more specific instructions including periodic ultrasonic testing regime on certain bolts.
- (j) Learnings following the Incident were also shared with the OEM across two meetings, in order to obtain any further feedback or further recommendations in relation to cab and riser maintenance for Mangoola Coal, as well as other sites.
- (k) The Mangoola Mechanical Engineering Control Plan was reviewed with members of the maintenance department and the Managing Interim Repairs document was incorporated into the Mechanical Engineering Control Plan. The Electrical Engineering Control Plan was also updated accordingly.

WHS undertaking

Total cost spent on additional rectification undertaken internally (items (g) to (h)) approximately \$17,100.

Total amount spent on rectification: **\$157,019**

13. an acknowledgement that the WHS undertaking may be published and publicised

Mangoola Coal acknowledges that the undertaking may be published on the regulator's website and may be referenced in NSW Resources Regulator material.

Mangoola Coal acknowledges that the undertaking may be publicised in newspapers or other publications (where applicable, as specified in Section B – enforceable terms).

14. a statement of ability to comply with the terms of the undertaking

Mangoola Coal has the financial ability to comply with the terms of this WHS undertaking and have provided evidence with this undertaking to support this declaration.

15. statement regarding relationships with beneficiaries

Mangoola Coal acknowledges that there are no known current relationships with any of the beneficiaries outlined in the WHS undertaking, other than the current workers of Mangoola Coal and the broader industry.

16. intellectual property licence

Mangoola Coal grants the regulator a permanent, irrevocable, royalty-free, world-wide, non-exclusive licence to use, reproduce, publish, distribute, electronically transmit, electronically distribute, adapt and modify any materials developed as a result of this WHS undertaking.

17. the company or individual may be required to provide information of any prior work health and safety convictions

The regulator requests a list outlining details of any prior work health and safety convictions or findings of guilt under work health and safety legislation² or work health and safety related legislation.

Does Mangoola Coal have any such prior convictions or findings?

Yes No

² Subject to any local legal constraints such as spent conviction legislation.

The list is attached (if applicable)

Yes No

18. a commitment to participate constructively in all compliance monitoring activities of the undertaking

Mangoola Coal acknowledges that responsibility for demonstrating compliance with this enforceable undertaking rests with the organisations who have given this enforceable undertaking. Evidence to demonstrate compliance with the terms will be provided to the regulator by the due date for the term.

Mangoola Coal acknowledges that the regulator may undertake other compliance monitoring activities to verify the evidence that is provided and compliance with the relevant terms of this enforceable undertaking. The evidence provided to demonstrate compliance with the enforceable undertaking will be retained by the organisations who have given this enforceable undertaking until advised by the regulator that the enforceable undertaking has been completely discharged.

Mangoola Coal acknowledges that the regulator may initiate additional compliance monitoring activities of compliance with the terms of the enforceable undertaking, such as inspections, as considered necessary at the regulator's expense.

WHS undertaking

19. a commitment that the behaviour that led to the alleged contravention has ceased and will not reoccur

Mangoola Coal commits that the behaviour that led to the alleged contravention has ceased and that it has taken steps to prevent a recurrence of the Incident, so far as is reasonably practicable.

20. a commitment to the ongoing effective management of work health and safety risks

Mangoola Coal is committed to the ongoing effective management of WHS risks in accordance with the WHS Act, the WHS Mines Act, and relevant regulations.

21. acknowledgment of WHS undertaking guidelines

Mangoola Coal has read and understood:

Enforceable undertakings guidelines version 4 dated June 2018.

Section B – enforceable terms

1. A commitment to cause to be published information about the undertaking

Mangoola Coal will, within 30 days of receiving notification from the regulator of the acceptance of the WHS undertaking, cause a public notice to be published in the Newcastle Herald and Muswellbrook Chronicle which will be drafted using the script provided in Attachment 2.

2. A commitment to disseminate information about the undertaking to workers, and other relevant parties (which may include work health and safety representatives), and in the annual report (if applicable)

Dissemination will be achieved by implementing the following:

Mangoola Coal will issue a written communication to all relevant Mangoola Coal workers in relation to the WHS undertaking. The written communication will provide information about the WHS undertaking and the initiatives. The written communication will also be presented to workers during site meetings including during toolbox talks.

Dissemination will occur within 12 weeks of receiving notification from the regulator of the acceptance of the WHS undertaking.

3. Strategies that will deliver worker benefits

Mangoola Coal has specifically outlined in Attachment 1 to this WHS undertaking, the initiatives that it will undertake in order to deliver benefits to workers, the industry and the community (**WHS Initiatives**).

The WHS Initiatives will deliver benefits to workers through:

- (a) Engaging the Maintenance Technology Institute (**MTI**) at Monash University to undertake an assessment and prepare a report on the Incident. The report will provide recommendations, which will be reviewed from a legal compliance perspective (**Report Initiative**). The Report Initiative will share the learnings of the Incident with Mangoola Coal and the workforce, empowering both the business and workers to identify and understand the causes of the Incident. The Report Initiative will also develop recommendations to, among other things, address the main cause and/or contributing factors of the incident and recommend a risk management strategy for the industry to prevent similar failures. More detail on the recommendations is provided in **Attachment 1**. The Report Initiative will provide a benefit to workers, as it may assist in preventing similar incidents from occurring in the future.
- (b) Developing an educational video in relation to the incident, which will highlight fatigue issues associated with mobile plant and share safety lessons and recommendations. The video will be an animation (or similar) and will be 1 - 2 minutes in duration (**Video Initiative**). The Video Initiative will be included in the training provided to Mangoola

WHS undertaking

Coal's workforce (detailed below at 3(c)) and will provide workers with an engaging and visual tool to increase their understanding of the incident and raise awareness of mobile plant fatigue issues.

- (c) Developing and implementing training for Mangoola Coal apprentices and maintenance workers on "human and organisational factors in maintenance" (**Education Initiative**). The Education Initiative training will increase the knowledge and competencies of participants in relation to understanding human and organisational factors in maintenance, and will include:
- (i) One full day for the core unit on "human and organisational factors in maintenance".
 - (ii) One half day for an additional unit targeted to specific workers.
 - (iii) Pre-reading material.
 - (iv) Participant workbook.
 - (v) Situational Safety Awareness Assessment (**SSA**), to be conducted online.

More detail on the course material and deliverables listed above is included at 2 of **Attachment 1**.

The Education Initiative training and associated materials will provide a direct benefit to Mangoola Coal workers by raising awareness of human and organisational factors in maintenance, and will assist workers to develop the tools to address and mitigate human and organisational factors in maintenance. This training will enhance the skills and capabilities of workers, and may provide a benefit to other workers who are affected by maintenance activities.

4. Strategies that will deliver industry benefits

The WHS Initiatives will deliver benefits to the industry through:

- (a) The final report that will be prepared in accordance with the Report Initiative. The final report will be made available to the regulator and the industry, and published on Mangoola Coal's website. The Report Initiative will assist in increasing industry awareness of the causes of the Incident, sharing learnings and providing recommendations to avoid similar incidents in the future. The legal compliance and assurance aspect of the Report Initiative will also benefit the industry by assisting industry to take steps to meet ongoing legal compliance requirements.
- (b) The Video Initiative will be developed in consultation with the regulator. The video will be made available to the regulator, who in turn, may choose to make the video available to the wider industry. This will provide benefit to the industry by raising awareness of mobile plant fatigue issues with the broader industry as well as sharing safety lessons and recommendations.
- (c) The Education Initiative, as the course materials developed will be made available to the regulator and to industry. Sharing the assets developed for the Education Initiative with the broader industry will assist other businesses in the industry enhance workers' capabilities on understanding and mitigating human and organisational factors risks. Making the course materials available to the broader industry will benefit the industry as a whole, by providing the tools to enhance the capabilities of workers industry wide.

5. Strategies that will deliver community benefits

The WHS Initiatives will deliver benefits to the community through the purchase and donation of a modified transport vehicle to Merton Living, a retirement village located in Denman (**Merton Village**). The donation of this vehicle will allow Merton Village to transport all of its residents, irrespective of mobility. This donation will provide valuable and needed means of transport for certain individuals in Mangoola Coal's local community.

WHS undertaking

6. A commitment regarding linking the promotion of benefits to the WHS undertaking

Mangoola Coal is committed to linking any promotion of a benefit arising from this WHS undertaking to the WHS undertaking.

7. A commitment to reimburse the department's agreed costs associated with any monitoring of the enforceable undertaking

Where the regulator considers appropriate in the circumstances:

Mangoola Coal agrees to pay the regulator's costs associated with the undertaking, as itemised below, and acknowledgment that payment is due **30 days** after receipt of the regulator's invoice:

<input type="checkbox"/> investigative, legal and administrative costs	\$85,000
<input type="checkbox"/> compliance monitoring costs	\$8,500
<input type="checkbox"/> publication costs	\$0

Total amount **\$93,500**

Insert case, if any, for why the regulator would not seek to recover costs.

N/A

8. Minimum spend

Mangoola Coal commits to a minimum spend of \$464,710 for this undertaking, inclusive of the regulator's recoverable costs.

Mangoola Coal acknowledges the minimum spend comprises of:

Activities to deliver	Total estimated cost
Report Initiative	\$195,000
Video Initiative	\$12,000
Education Initiative	\$84,720
Community Initiative	\$79,490
Regulator recoverable costs	\$93,500
Estimated total value of the undertaking	\$464,710

9. Project of undertaking

Mangoola Coal offers and commits to carry out the projects as described in **Attachment 1** to this WHS undertaking.

10. Timeframe for delivery

The WHS undertaking will be delivered on or before 18 months following acceptance of this WHS undertaking by the regulator.

Section C - Offer of undertaking

BY AN INDIVIDUAL

I offer this undertaking and commit to the terms herein.

Signed _____
[Person]

Name _____
[Print name]

Position _____

Dated at _____ this _____
_____ day of _____ 20_____

BY A CORPORATION

As a duly appointed and authorised officer or agent of
Mangoola Coal Operations Pty Ltd
I offer this undertaking and commit
Mangoola Coal Operations Pty Ltd
to the terms herein.

Signed _____
[Director]

Name Ian Cough
[Print name]

Position: Director

Dated at Muswellbrook this
24th day of September 2018

Signed Rosemary Summers
[Director or company secretary]

Name **ROSEMARY SUMMERS**
[Print name]

Position COMPANY SECRETARY

Dated at SYDNEY this
24th day of SEPTEMBER 2018

Section D - Regulator's acceptance of undertaking

I accept this undertaking as an enforceable undertaking under section 216 of the *Work Health and Safety Act 2011*

Signed Lee Shearer
Lee Shearer
Position Deputy Secretary Deputy Secretary
Department of Planning and Environment

Dated at Maitland this 25th day of Sept 2018

ATTACHMENT 1

(This attachment is incorporated in and considered part of this WHS undertaking for the purposes stated herein, and are enforceable terms given under Section B of the undertaking by Mangoola Coal.)

MANGOOLA COAL WHS UNDERTAKING INITIATIVES

Mangoola has identified four key areas to deliver improvements to health and safety to its workers, the industry and the broader community. These initiatives are detailed below.

1. Incident Report (Report Initiative)

Overview

- 1.1. Mangoola Coal believes that important health and safety lessons can be learnt from the Incident and that sharing these learnings with the broader industry will promote awareness and provide guidance to the industry and its workers. This ultimately may assist in preventing similar incidents from occurring in the future. This initiative will also provide some guidance to the industry on key legal compliance considerations.
- 1.2. Mangoola Coal proposes to engage the Maintenance Technology Institute (MTI) within the Department of Mechanical Engineering at Monash University to undertake an assessment and prepare a report on the Incident, including providing recommendations.
- 1.3. The recommendations will then be reviewed from a legal compliance, preventive maintenance and knowledge sharing perspective.

Initiative

- 1.4. In consultation with appropriate stakeholders, review the Incident and undertake an assessment including:
 - (a) On the Liebherr 9250 excavator, undertake a vibration, stress monitoring program engineering analysis and fatigue life assessment of the relevant structures that interface with personnel i.e.: operator cabin, cabin access walkway and machine access structures (includes cabin and access systems mounting bolts).
 - (b) Determine if any equipment operational factors, deficiencies of current system contributed to equipment structure failure.
- 1.5. Prepare a report providing any recommendations to assist in preventing a reoccurrence of the Incident. The report's scope will include:
 - (a) Recommendations to:
 - (i) Address the main cause of or contributing factors to the failure.
 - (ii) Repair or retrofit the cabin mountings with appropriate levels of structural integrity and safety factors.
 - (iii) Address any operator, maintenance or organisational factors that are found to have contributed to the incident.
 - (iv) Provide a risk management strategy for the industry to prevent similar failures, including:
 - (1) Periodic maintenance inspections with clearly defined criteria to respond to any defects observed;
 - (2) Periodic non-destructive testing; and

WHS undertaking

- (3) Ongoing stress and vibration measurements over a period to ensure safety of the repaired or retrofitted system of personal interface attachments.

1.6. Compliance and assurance.

- (a) Once the report has been prepared, a legal review and assessment of the report and recommendations will be obtained from external legal representatives with expertise in health and safety legislation to provide compliance mapping.
- (b) Compliance mapping will identify relevant aspects of the health and safety legislation applicable to mines and will be able to be used to provide recommended guidance to the industry as to the key legal compliance considerations when undertaking similar activities.

Deliverables

1.7. **Final report** including recommended strategies prepared by MTI and compliance and assurance to be made available to the regulator and the industry, and published on Mangoola Coal's website.

1.8. **Legal review and assessment** to be included as an addendum to the final report and made available in accordance with 1.6 above.

2. Educational video (Video Initiative)

Overview

2.1. Mangoola Coal would like to share the safety lessons learnt from the Incident with workers and the broader industry. Mangoola Coal believes that an effective way to share safety information is through an educational video.

Initiative

2.2. Mangoola Coal will develop an educational video of the incident that will aim to:

- (a) raise awareness of the fatigue issues associated with mobile plant;
- (b) share relevant safety lessons; and
- (c) share recommendations.

2.3. The video will be incorporated into the course content of the Education Initiative (detailed below).

2.4. The educational video will be developed in consultation with and will be made available to the regulator.

Deliverables

2.5. The educational video will be an animated video (or similar) and will be approximately 1 - 2 minutes in length.

2.6. The educational video will be distributed through:

- (a) The Education Initiative (approximately 110 participants); and
- (b) The regulator (who may choose to make the video available to the wider industry).

3. Human and Organisational Factors Education Project (Education Initiative)

Overview

- 3.1. Human and organisational factors play a large role in safety related incidents across the mining industry, particularly in relation to incidents involving maintenance human and organisational factors.¹
- 3.2. Mangoola Coal believes that understanding and managing human, as well as organisational factors in a maintenance environment is critical for all engineers and maintainers at every level of a mine's maintenance department. Mangoola Coal believes that an opportunity exists to enhance the capabilities of its workers in this area, starting with its apprentices and extending to its other maintenance workers.

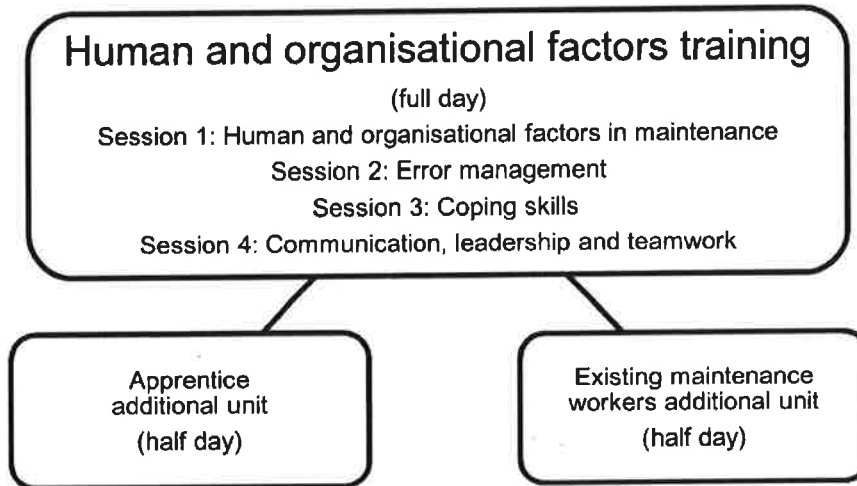
Initiative

- 3.3. Mangoola Coal will develop and implement a training program titled "*Human and Organisational Factors in Maintenance*". The training will support the identification and appropriate control of core hazards and risks that workers will be exposed to in the workplace.
- 3.4. The training program will:
 - (a) Be provided to maintenance personnel at Mangoola Coal.
 - (b) Provide participants with an understanding of human and organisational factors in maintenance.
 - (c) Include an individual diagnostic report to be completed and analysed for each worker, utilising the Situational Safety Awareness (**SSA**) Assessment methodology (or similar).
 - (d) Increase knowledge and competencies in understanding human and organisational factors and training for managing human factor elements in maintenance.
 - (e) Include the educational video developed in the Video Initiative.
 - (f) Include additional tailored units for specific work groups at Mangoola Coal including:
 - (i) apprentices; and
 - (ii) maintenance workers ("maintenance workers" includes all Mangoola Coal tradespersons, engineers, supervisors, planning co-ordinations, superintendents, and managers involved in maintenance activities at Mangoola Coal).

¹ Please find further information on human and organisational factors in mines here:

<https://www.resourcesandgeoscience.nsw.gov.au/miners-and-explorers/safety-and-health/topics/human-factors>

Training structure



3.5. The core training will be provided to all maintenance workers at Mangoola Coal in the following format:

Session 1: Human and Organisational Factors in Maintenance:

- a) Human and organisational Factors Overview.
- b) SSA model.
- c) Individual SSA Diagnostic Report.

Session 2: Error Management:

- a) Types of Errors / Error Analysis.
- b) Error producing Conditions in Maintenance.
- c) Error Management Strategies.

Session 3: Coping Skills:

- a) Fatigue Management.
- b) Stress, Workload and Time Pressure.
- c) Impact of Alcohol and Drugs.

Session 4: Communication, Leadership and Teamwork:

- a) Barriers to Effective Communication in Maintenance.
- b) Strategies for Effective Communication in Maintenance.
- c) Barriers to Effective Leadership in Maintenance.
- d) Strategies for Effective Leadership in Maintenance.
- e) Barriers to Effective Teamwork in Maintenance.
- f) Strategies for Effective Teamwork in Maintenance.

Asset development

3.6. The training program will include the development of the following (or similar) assets:

- (a) Pre-course reading material (including the SSA pre-course assessment).

WHS undertaking

- (b) In-course materials.
- (c) Facilitator guide.
- (d) Participant workbook.
- (e) Course evaluation form.
- (f) Participation certificate

Training delivery

3.7. Timing: Delivery March / April 2019

3.8. Participants: minimum of approximately 110, comprising of the following:

A Crew.	Heavy A/C.	Apprentices.
B Crew.	Heavy B/D.	OEM Contractors.
C Crew.	Day Fitters.	
D Crew.	Staff.	

3.9. Session Organisation: Participants will be divided into 8 groups for delivery of the program:

Group 1: A Crew (plus 2 OEM Contractors).

Group 2: B Crew (plus 2 OEM Contractors).

Group 3: C Crew (plus 3 OEM Contractors).

Group 4: D Crew (plus 3 OEM Contractors).

Group 5: Heavy A/C (plus 3 Day Fitters).

Group 6: Heavy B/D (plus 2 Day Fitters).

Group 7: Apprentices.

Group 8: Staff.

3.10. Training to be developed and delivered by a specialist third-party consultant; Greg Quill and Associates.

Deliverables

3.11. The deliverables for the Education Initiative include:

- (a) One full day for core unit training.
- (b) Approximately one half day for additional unit targeted to specific workers.
- (c) Pre-reading material.
- (d) SSA assessment online, which will include an individual SSA assessment report and a quiz for each module listed above at 2.5.

3.12. Training to be delivered to a minimum of approximately 110 participants.

3.13. Participants will receive a "Human and Organisational Factors in Maintenance Workshop Participation" certificate upon successful completion of the training, including the SSA assessment.

WHS undertaking

- 3.14. The course materials developed, listed at 2.6 above, will be made available to the regulator, who in turn, may choose to make the materials available to the wider industry.

4. Community Donation Initiative (Community Initiative)

Overview

- 4.1. Merton Living is a retirement village located in Denman (**Merton Village**). Through initial consultation, Merton Village has identified to Mangoola Coal the need for a vehicle that can transport all of its residents, irrespective of their mobility. Currently there are no local transport options for residents in motorised wheelchairs, and vehicles need to be hired outside of the locality in order to transport these residents.
- 4.2. Merton Village's current wheelchair accessible vehicle is ageing and is no longer fit for purpose for all residents. For example, this vehicle cannot accommodate motorised or bariatric wheelchairs which are used by over half Merton Village's residents. This means that the medical and social needs of all residents are not being met. Mangoola Coal proposes to purchase a vehicle that meets these needs and donate it to Merton Village.

Initiative

- 4.3. In consultation with Merton Village, Mangoola Coal agrees to purchase a modified Honda Odyssey five door vehicle (or similar vehicle). The vehicle will be supplied by Saunders Motor Group (or other suitable retailer) with approved modification carried out by a suitably qualified third party, determined by the vehicle supplier, to the specifications provided by Merton Village.

Deliverables

- 4.4. Purchase and donation of a modified transportation vehicle at an estimated cost of \$79,490.

5. WHS undertaking initiatives

- 5.1. Mangoola Coal will establish a WHS Initiatives Steering Committee (**Steering Committee**) to oversee the governance of the WHS Initiatives implementation.
- 5.2. The Steering Committee's members will include:
 - (a) Mangoola Coal Maintenance Manager - to oversee the Report Initiative;
 - (b) Mangoola Health, Safety and Training Manager - to oversee the Education Program Initiative; and
 - (c) Mangoola Coal Environment and Community Manager - to oversee the Donation Initiative.
- 5.3. Mangoola Coal's Maintenance Manager will be appointed as Project Manager and will oversee the initiatives and be the contact person for the regulator in relation to the WHS undertaking.
- 5.4. External personnel will also be engaged to assist with the various components of the WHS Initiatives and will include:
 - (a) legal representatives with expertise in WHS law;
 - (b) MTI from within the Department of Mechanical Engineering at Monash University;
 - (c) Greg Quill and Associates Pty Ltd; and
 - (d) Saunders Motor Group, Freedom Motors Australia Pty Ltd.

6. Consultation

- 6.1. Broad consultation with key stakeholders will assist in identifying the key issues to be addressed and the most beneficial way to deliver these initiatives.

WHS undertaking

6.2. In relation to the WHS undertaking and initiatives, Mangoola will consult with the following:

- (a) WHS Committee including HSRs; and
- (b) a representative from Merton Village.

6.3. Consultation will be undertaken through the following methods:

- (a) WHS Committee including HSRs and team talks; and
- (b) direct contact with a representative from Merton Village.

7. WHS Project Final Report

7.1. Mangoola Coal will provide a final report on the WHS Initiative outcomes to the regulator, which will include details on the Project Deliverables as outlined in each initiative above.

8. WHS Project Staging and Timeframes for Delivery

Component	Timeframes
Report Initiative	
Review of Incident and assessment of Excavator	Within 3 months of WHS undertaking acceptance.
Installation and calibration of monitoring instrumentation	Within 6 months of WHS Undertaking acceptance.
Modelling and analysis	Within 8 months of WHS undertaking acceptance.
Final report prepared	Within 10 months of WHS undertaking acceptance.
Compliance and assurance legal review and assessment completed	Within 12 months of WHS undertaking acceptance.
Final report made available and published on Mangoola Coal's website	Within 14 months of WHS undertaking acceptance.
Video Initiative	
Development of video	Within 8 months of WHS undertaking acceptance.
Provision of video to regulator	Within 9 months of WHS undertaking acceptance.
Delivery of video as part of Education Initiative	Within 10 months of WHS undertaking acceptance.
Education Initiative	
Program development	Within 3 months of WHS undertaking acceptance.
Materials development	Within 5 months of WHS undertaking acceptance.

WHS undertaking

Program delivery	Within 10 months of WHS undertaking acceptance.
Community Initiative	
Confirm vehicle specifications and sourcing requirements with Merton Village.	Within 3 months of WHS undertaking acceptance.
Purchase vehicle for Merton Village.	Within 6 months of WHS undertaking acceptance.
Final report of WHS undertaking initiatives	
Draft report provided to regulator for comment.	Within 16 months of WHS undertaking acceptance.
Final Report submitted to the regulator.	Within 18 months of WHS undertaking acceptance.

8.1. For the purposes of section 8, "WHS undertaking acceptance" means; the date on which this WHS Undertaking is signed by the regulator or the regulator's delegate.

9. Costs

9.1. Mangoola Coal will spend the minimum amounts in relation to the following components of the WHS Project:

Component	Minimum cost (incl GST)
Report Initiative	\$195,000
Video Initiative	\$12,000
Education Initiative	\$84,720
Community Initiative	\$79,490
Total minimum cost	\$371,210

10. Variations

10.1. Any proposed variations to any aspects of the initiatives or the WHS undertaking must be approved by the Steering Committee and will not take effect unless accepted in writing by the regulator.



Attachment 2

Public Notice of regulator's acceptance of undertaking

Notice of acceptance of a WHS undertaking under Part 11 of the Work Health and Safety Act 2011

On 10 October 2016, during normal coaling operations, the cabin and cabin riser of an excavator dislodged and tipped off the side of the excavator, coming to rest against the excavator's tracks.

The Department of Planning and Environment investigated the incident and subsequently alleged that Mangoola Coal Operations Pty Ltd contravened the Work Health and Safety Act 2011 (WHS Act) by failing to comply with a health and safety duty under section 19(1) of the WHS Act.

This notice has been placed under the terms of a WHS undertaking and acknowledges acceptance of an undertaking, that is enforceable under the WHS Act, from Mangoola Coal Operations Pty Ltd, ACN 127 535 755.

The undertaking requires the following actions:

- Engage the Maintenance Technology Institute within the Department of Mechanical Engineering at Monash University to undertake an assessment and prepare a report on the incident, including providing recommendations. The final report will be made available to the regulator and the industry, and published on Mangoola Coal's website.
- Develop and share an educational video on the excavator incident and safety lessons with workers and the broader industry. The video will be made available to the regulator.
- Develop and implement a Human Factors in Maintenance training program to all maintenance workers and staff at Mangoola Open Cut. The course materials developed will be made available to the regulator and to industry.
- Purchase and donate a modified vehicle for the transport of residents with mobility issues at Merton Living's retirement village in Denman.

The full undertaking and general information about enforceable undertakings is available at www.resourcesandenergy.nsw.gov.au