

Incident periodical

Recent High Potential Incidents
Learnings and Recommendations
PCS Update
Communications

March 2023

Incidents occurred in December 2022 and January 2023

Coal Inspectorate



Resources Safety & Health
Queensland

1. Underground Incident – Lifting uncontrolled movement

- Fault finding of a fluid coupling and gearbox was being undertaken during commissioning of a conveyor belt
- The shaft mounted drive assembly was restrained at the torque arm, supported by a sling and chain block and a single, drive coupling bolt
- CMWs re-evaluated the job and decided to change to a higher rated chain block
- When changing to a higher rated chain block the drive coupling bolt has let go and the drive assembly toppled and rotated to the ground



Recommendations

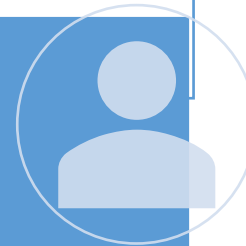
- Review equipment specifications to ensure equipment is fit for purpose e.g. lifting points provided for maintainable items
- Review Introduction of equipment to site, installation and commissioning processes
- Review lifting standard operating procedures and their application
- Ensure supervisors are appointed, have appropriate skills and competencies for tasks they supervise and they and assigned to tasks

Site Senior Executive



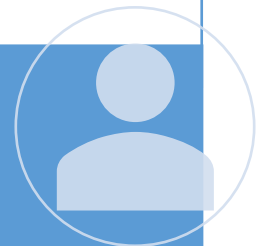
- Ensure risk assessments include appropriately qualified and competent CMWs; e.g. in this case persons with lifting experience
- Make sure CMWs are trained and competent in fault finding plant they are assigned
- Make sure work plans, including installation and commissioning procedures are adequate, available and communicated to relevant CMWs

Supervisors & ERZCs



- Follow site SOPs, JSA and change management procedures
- If you need help to solve the problem, stop and ask the supervisor or ERZC for help
- Be aware of the line of fire
- Ensure that all of your body parts are out of the line of fire

Coal Mine Workers



2. Surface Incident – HME collision

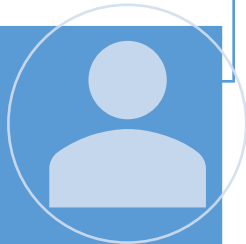
- While conducting floor clean-up for an excavator, a dozer has reversed and collided with a queued rear dump truck.
- The dozer was working perpendicular to the dig face
- The rear dump truck entered the active mining area, stopped and waited to be loaded
- Whilst the dozer was reversing to start a push towards the face, the dozer has made contact with the stationary dump truck
- The truck access stairs were damaged



Recommendations

- Review site operating procedures on dumps and dig faces
- Establish and implement effective controls that minimise the risk of collisions
- Consider implementing higher order controls such as collision avoidance
- Consider segregation and delineation of plant work areas
- Ensure the mines SHMS provides monitoring for effective application of risk control measures

Site Senior Executive



- Regularly audit dump & dig face operating standards for compliance with site procedures
- Work with CMWs to ensure they have full understanding and appreciation of positive communication and situational awareness
- Take corrective action if the SHMS risk control measures are not being effectively applied by CMWs

OCE and Supervisors



- Follow site operating procedures on dumps and dig faces
- Maintain situational awareness and positive radio communications, including confirmation of radio calls

Coal Mine Workers



3. Underground Incident – Frictional ignition

- A frictional ignition occurred on a longwall face
- When cutting from the maingate to the tailgate the shearer operator noticed an orange glow from the shearer drum
- Upon inspection he noticed a flame at the roof level behind the drum
- Two coal mine workers used fire hoses to douse and extinguish the flame
- The area was quarantined and a fire watch maintained



Recommendations

- Review permit to mine processes and procedures pay particular attention to review friction ignition triggers including the presence of:
 - Frictional ignition rock
 - Methane in or adjacent the cutting horizon and drainage status
 - Geological structures such as faults and jointing
- Frequency of cutter pick inspections and change out requirement
- Water spray requirements and maintenance
- Ensure the CMWs are trained and competent in identifying and reacting to frictional ignition triggers

Site Senior Executive



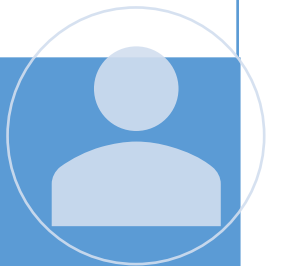
- Monitor conditions for likelihood of frictional ignition
- Ensure all relevant CMWs are familiar with frictional ignition potential and actions required
- Make sure cutting picks and sprays are maintained within the sites operating standards

ERZCs and supervisors



- Maintain awareness of potential frictional ignition indicators
- Report any operational changes and follow TARP requirements
- Maintain picks and sprays as required by site standards

Coal Mine Workers



4. Surface incident – Falling object

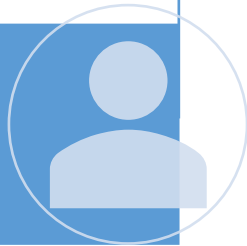
- CMWs were removing the LHS rear strut from a rear dump truck
- The strut was held by slings attached a forklift Jib attachment
- The bottom pin had been removed and the CMWs were in the process of removing the top pin
- A CMW was using a slide hammer to knock out the top pin
- As the pin has moved the strut has dropped out of alignment causing the slide hammer to move and contact the fitter in the RHS of the face



Recommendations

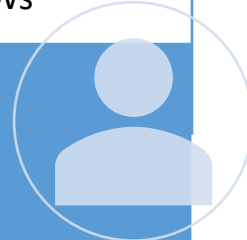
- Review standard operating procedures for maintaining plant, including lifting procedures and provision of jigs and tooling
- Ensure your CMWs are appropriately trained in risk management processes
- Ensure CMWs with sufficient knowledge and understanding of actual hazards of the task are involved in the risk assessment
- Implement risk assessment review processes to improve quality of risk management

Site Senior Executive



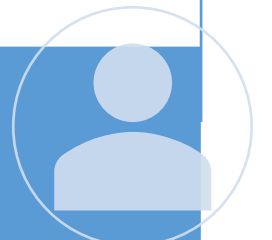
- Make sure tasks are appropriately planned and risk assessed prior to work being commenced. Considerations should include:
 - Risk assessed safe work procedures
 - Ensure all steps in the task are identified and risk assessed
 - Provision of appropriate tools, jigs and lifting equipment
 - Positioning of plant to enable access with appropriate equipment
- Monitor tasks being undertaken. Ensuring changes to planned work methods are identified and risk assessed.
- Monitor and review risk assessments for completeness and coach CMWs

Supervisors



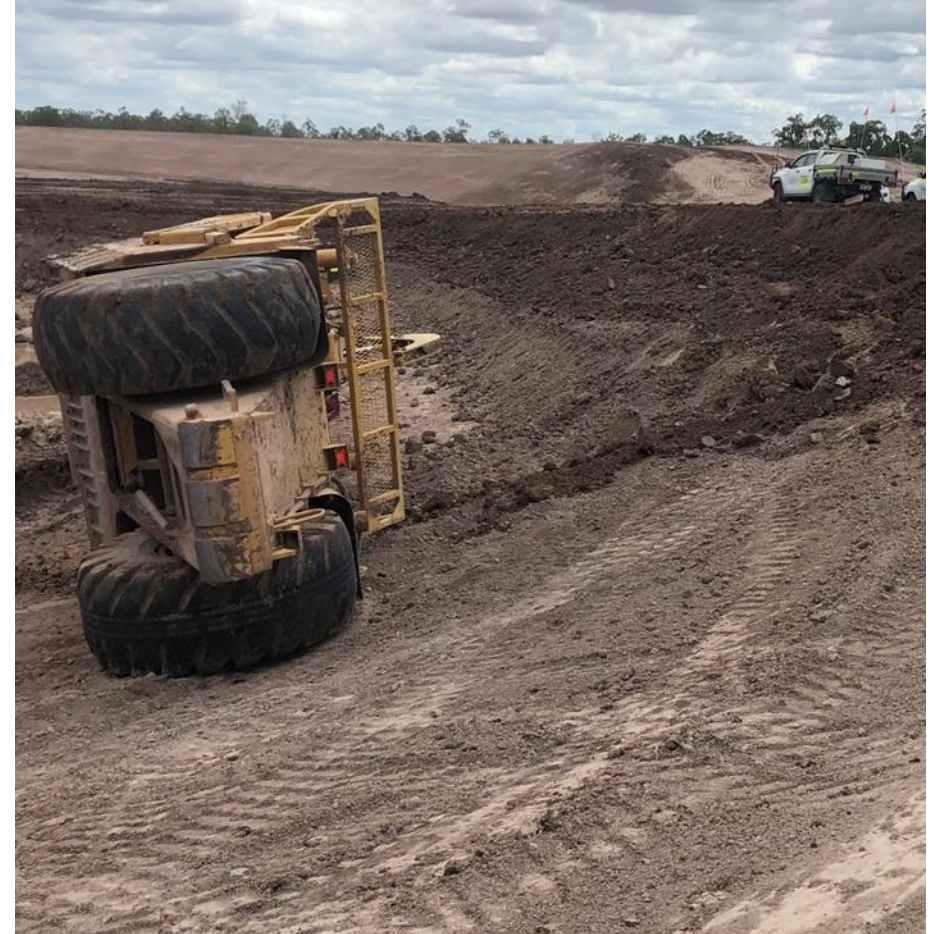
- Before commencing work, make sure the job has been planned, risk assessed and the necessary tools and procedures are available for use. Make sure environmental issues such as access is suitable for the task
- If the work has not been appropriately planned stop the job and discuss with your supervisor
- Where changes to the planned procedure are required or identified, ensure the changes are risk assessed as per site processes before proceeding

Coal Mine Workers



5. Surface Incident – HME rollover

- A single engine open bowl scraper working on a new tailings dam wall construction travelled over the edge and rolled over towards the inside of the wall
- The operator was able to exit the cab and was treated by on-site ERT for back and neck pain
- QAS transported the coal mine worker to Hospital for assessment
- Since this incident a further three scraper rollovers have been reported to the Coal Mines Inspectorate



Recommendations

- Identify and implement critical controls to minimise the risk of scraper rollovers
- Ensure civil designs and work methods to be used are well within the machine operating capabilities
- Ensure machine site operating limits take into account abnormal factors such as increased batter angles, accumulations of uncompacted material, changes in material type and moisture
- Review training and appointments of scraper operators. Incorporate training and assessment on scraper loss of control situations

Site Senior Executive



- Ensure all risk management controls to minimise risk of rollover are implemented
- Ensure operators are trained and understand machine operating limitations
- Undertake periodic physical checks of grades and batter angles to ensure they are within specified machine limits
- Monitor environmental conditions e.g. wet, slippery batters and risk assess changes to operation plans as required

OCEs and Supervisors



- Operate in accordance with site operating procedures and limits for scrapers
- Maintain awareness of changing operating conditions such as grade angles, wet and slippery conditions slippery grade angles. Stop and reassess operations when changes outside operating limits are observed

Coal Mine Workers



6. Surface Incident – Finger crush

- Surface drilling rig operations were being undertaken
- Whilst positioning the Cavins Slip onto the table the Cavin Slips have tilted forward crushing the CMW's finger between the Slip and the drill rod
- The CMW required hospitalisation and overnight observation
- The investigation identified:
 - Inadequate risk management, missing lifting lugs/handles, gloves not worn
 - Inadequate slinging arrangements & handling technique
 - Improvements required to remove hands from pinch points
 - Inadequate defect reporting



Recommendations

- Ensure the SHMS defect management system is easy for CMWs to access and use
- Make sure the defect management system includes feedback to CMWs on actions taken to rectify reported defects
- Complete audits of risk management processes used such as JSAs, SLAMs to ensure they meet site standards
- Initiate audits of equipment where manual handling tasks are undertaken and evaluate methods that reduce the risk of injury by applying higher order controls

Site Senior Executive



- Audit CMWs reporting of defects on equipment and assist them to use the reporting system effectively
- Provide timely feedback on defect rectification work
- Regularly conduct machine inspections with CMWs to help them identify defects
- Support CMWs to improve the standard of JSAs, and SLAMs being undertaken
- Audit lifting tasks

OCEs and Supervisors



- Report defects using the correct defect management process at your mine.
- Take the time to consider and address all risks involved in all steps of a job being undertaken
- Comply with site PPE rules

Coal mine workers



Practising Certificate Scheme Update

- There are now over 1000 coal mine workers registered for the Practising Certificate Scheme
- The scheme is currently still voluntary but will become mandatory once the required legislation passes parliament
- Prior to the scheme becoming mandatory anyone registering gets the first five year period free and any activities performed will count in the first year when it does become mandatory (up to one year)
- You can only add activities that you have undertaken since registering
- Be sure to enter the correct details when registering including the name on your Certificate of Competency and the certificate number

[BOARD OF EXAMINERS](#)

[REGISTER FOR THE SCHEME](#)

Letters from the Chief Inspector of Coal Mines

- [Failure to meet the required number of respirable dust samples as stipulated in RS 14](#)
- [Implementation of Bol Recommendations for surface operations](#)
- [Diesel guideline exposure limit reduction](#)
- [Removal of QMD approvals](#)
- [Obligations for maintaining rescue capability at an underground coal mine](#)

Recognised
Standards

Periodicals

*Coal Mining Safety
and Health Act 1999*

Safety Notices

RECENT SAFETY NOTICES CONCERNING DOZERS

Safety Alert 420

Bulldozer drops into a void above a conveyor feed valve point

Safety Bulletin 208

Bulldozer rollover events

Safety Alert 424

Dozers entrapped in stockpile voids above feed valves

OTHER RECENT SAFETY NOTICES

Safety Bulletin 209

High speed bearing fires on underground loaders

Safety Bulletin 210

Review the silica exposure risk and associated controls when encountering stone

Safety Alert 425

Fall of equipment and persons into a stope void

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