

Appendix - CNOC VICE Review Baseline - February 2025

Contents

SECTION 1 – ALL PERSONNEL WORKING AROUND MOBILE EQUIPMENT ARE TRAINED, COMPETENT, AUTHORISED, INFORMED, ALERT AND SITUATIONALLY AWARE.	1
SECTION 2 - MOBILE EQUIPMENT IS FIT FOR USE, KEY SYSTEMS ARE FUNCTIONING.....	37
SECTION 3 – OPERATING ENVIRONMENT: THE OPERATING ENVIRONMENT FOR MOBILE EQUIPMENT IS SATISFACTORY, HAZARDS ARE IDENTIFIED AND MANAGED.....	54
SECTION 4 - MOBILE EQUIPMENT INTERFACES WITH PEDESTRIANS AND OTHER VEHICLES ARE WELL MANAGED.....	64
SECTION 5 - SYSTEM OPTIMISATION: THERE IS A WHOLE OF SYSTEM OVERVIEW OF ACTIVITIES THAT DELIVER SAFE AND PRODUCTIVE OUTCOMES, WHEN NECESSARY, MODIFICATIONS ARE MADE.....	79

Section 1 – All personnel working around mobile equipment are trained, competent, authorised, informed, alert and situationally aware.

This group of business inputs focuses on ensuring:

- Operators in control of mobile equipment are trained, competent, authorised and situation aware.
- People who routinely work around mobile equipment are trained, competent, authorised and situation aware.
- People who are visitors to locations where mobile equipment operates are authorised, supervised and situation aware
- Mobile equipment operational requirements (task assignment) are effectively communicated by supervisors to the workforce
- Mobile equipment operations are monitored and adjusted to remain safe and productive e.g. credible failure modes that can compromise alertness and situational awareness are identified and managed

Table 1 – Coronado Global, Curragh North Open Cut Mine VICE Review Baseline – Personnel with Comments, Opportunities for Improvement and Related Queensland Legislation

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
BI-CDA.03 There is an appropriate and up-to-date training management system	A process should be in place for delivering and maintaining competency-based training to provide skilled personnel for all roles on site.	<p>The training management system:</p> <ul style="list-style-type: none"> • Matches skills to roles e.g. through a training needs analysis • Presents information that is appropriate for the audience • Confirms requirements for safe and productive operations • Assesses competency e.g. through written and practical tests • Requires ongoing maintenance of skills for operational, design, planning, and leadership role holders <p>PLN-001 Safety and Health Management Plan - S7 Mine Training Scheme <i>The Mine Training Scheme describes the systems in place to ensure that all CMW's at</i></p>	<ul style="list-style-type: none"> • Appropriately qualified trainers deliver well-structured training. • Regular refresher training and self-learning activities are planned and executed to maintain currency of skills for all personnel on site <p>RIIVEH201-ASQ Operate Light Vehicle Assessment - typical module requiring demonstrating of trainer oversight, achieved and confirmation of understanding of theory.</p> <p>OFI-002 Improve rollout of SOP changes</p> <p>Workshop participants discussed potential improvements to how changes to standard operating practises (SOPs) are communicated and</p>	<ul style="list-style-type: none"> • Reports are generated from the training management system to confirm employee competence and skill levels. • Audits and challenge tests are conducted to confirm standards of skill development and maintenance are in place. <p>Assurance - Coronado Global Resources (Australia) Business Level Standard (BLS) CGRA BLS-018 V1.0 S1 Purpose <i>The purpose of this Assurance Business Level Standard (BLS-018 Assurance Business Level Standard) is to describe the Assurance System processes to verify</i></p>	<p>CMHSA - 042 SSE to consider risks, required controls, and monitoring to continuously improve</p> <p>CMSHR 038.1-2 First aid</p> <p>CMSHR 064 Providing personal protective equipment</p> <p>CMSHR 065 PPE - Standard operating procedure</p> <p>CMSHR 071 Maintenance inspections to be conducted by a competent person</p> <p>CMSHR 082 (2) (b - i) (3) - Training Needs Analysis required that covers SHMS, deployed plant, inspections, and high risk tasks</p> <p>CMSHR 083 - No persons to be on site unless Inducted (or in training)</p> <p>CMSHR 084 Refresher training</p> <p>CMSHR 085.1-2 Coal mine worker not to carry out task unless competent</p> <p>CMSHR 085.3 Tasks can be conducted as part of training or in an Emergency</p> <p>CMSHR 096(b) Minimising the risk in carrying out manual handling tasks</p>

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		<p><i>Curragh have the appropriate Training, Competence and Authorisation to complete tasks and activities safely...</i></p> <p>SMS-021 Mine Training Scheme V8.3 - S3 Scope This scheme outlines responsibilities and guidelines for the training, tuition and assessment of all Coal Mine Workers (CMW) working at or visiting the Coronado Curragh Complex operations. Generally - covers induction, training and assessment process (different persons), sequence of training (apply then under direct supervision then general supervision then competent), and recognition of prior learning process.</p> <p>CGRA BLS-006 Training - Requires sites to establish Training Needs Analyses, use reputable providers, include key points in Inductions (Company overview, statutory obligations, site risks and required controls, PPE, and common measures for safe work). For new-to-site equipment a first competent person process to maintain standards of understanding.</p> <p>OFI-004 Review and improve general operator training including spatial awareness Currently workshop participants report that operator training does not provide consistent instruction and competency verification for operating in wet weather, spatial awareness at night, etc. Many site vehicle interaction incidents confirm a lack of operator understanding about where the vehicles are placed relative to obstructions, other vehicles, and pedestrians. Improving operator situational awareness and</p>	<p>understanding is confirmed. Currently when SOPs changes are made, there are potential issues from inconsistent communication of the change to the workers on crew. Review the approach to communicating SOP changes and develop a consistent and effective way of passing any changes on to operators and confirming their practical understanding. Consider using visual references that illustrate the change with practical examples and also reinforce all SOP requirements. Taking this approach can assist with achieving a consistency in understanding and operational practice across the multiple contractor workgroups working under the Coronado North Curragh Mine SOPs.</p> <p>OFI-006 Review site processes for authorising site maintainers and technicians. Workshop participants discussed differences in training, site authorisation, and confirmation of competencies for site technicians and maintainers. It was recognised that each contractor group applies their own company and site processes and performance metrics i.e. there are variations in process. Review how Coronado, as the SSE for CNOC Mine, authorises maintainers to work at site, focus on confirming that required SSE outcomes for a competent maintainer are delivered as well as meeting associated company processes.</p> <p>OFI-007: Confirm that the</p>	<p><i>that Operations have effectively developed, implemented, and are maintaining responsible health and safety practices, including the effectiveness of their Safety and Health Management Systems (SHMS). S6 Training and Qualifications requires auditors to be appropriately qualified and understand training management systems. Appendix 1 requires audits of the TMS on a 3-year cycle.</i></p>	

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		<p>competence in estimating distances can decrease the frequency of vehicle interaction incidents.</p> <p>Review and identify improvements to training modules and training practises for mobile equipment operators. Use site incident experience to focus the review and consider the benefits of improving operator spatial and situational awareness, night driving, and wet weather operations etc.</p> <p>OFI-023 Review style and effectiveness of training modules</p> <p>Workshop participants discussed the style and effectiveness of training modules and support information. It was agreed that the most effective resources are short and graphically visual with diagrams and pictures. An example discussed was the style and content of current training and references for walkways around mobile equipment, and go lines can be improved with graphics. While people learn in different ways, using a consistent visual format that is audience appropriate should be cornerstone of training modules and reference information.</p> <p>Review style and format of training modules and reference information. Identify topics and information that can be improved with improved graphics. Consider digitisation and animation opportunities.</p>	<p>specification and application of vehicle interaction controls for maintainers across workgroups.</p> <p>Workshop participants questioned if there were application variations in maintenance related vehicle interaction control practices between different workgroups including authorisation and processes for moving equipment in and out of workshops, use of spotters, workshop parking, field maintenance practices etc.</p> <p>The accountability for vehicle interaction controls during site maintenance practices rests with the site SSE. The SSE meets their accountabilities through site SOPs, authorisation processes, and periodic reviews.</p> <p>Consider a review of vehicle interaction controls that apply specifically to maintainers and technicians that confirms:</p> <ul style="list-style-type: none"> • The site level and SSE authorised requirements are practical and can be applied i.e. is there adequate detail to develop consistent performance measures that can apply across workgroups. • The alignment between site level SSE authorised requirements and contractor workgroup procedures, work instructions, practices, outcomes, and performance measures. • Workgroup performance metrics that deliver a consistent and disciplined application of site vehicle interaction controls relevant to maintainers and 		

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BI-CDA.09.01 Fit for work processes with specific advice on self-management	Operating sites should develop and maintain processes that support personnel to be both fit for work and to maintain a healthy work-life balance.	<p>Personnel are trained in how to manage shift work and other workplace demands. The training covers site requirements for:</p> <ul style="list-style-type: none"> • Managing and reporting impairment e.g. caused by fatigue, medication, illness etc. • Impairment screening e.g. alcohol and other drug screening • Mental health and wellness goals <p>SMS-010 CNOC Fatigue V4.7 - The purpose of this Curragh procedure is to endeavour to: 1. Ensure that Curragh meets its obligations to Coal Mine Workers, visitors and the community to carry out its activities safely. 2. Ensure that Curragh takes all reasonable steps to minimise Fatigue-related risk through comprehensive education and training. 3. Provide a safe working environment at Curragh by taking all reasonable steps to control the workplace hazards associated with Fatigue. 4. Actively promote a culture among all Coal Mine Workers on the Curragh site that it is unacceptable to commute outside of their current individual Journey Management Plans, or to commence or continue work where a Coal Mine Worker is potentially unsafe due to Fatigue. Generally covers requirements for identifying fatigue, training CMW to react to fatigue, task and work area designs. Notes specific fatigue tools of Journey Management Plans, FFW declaration (for managing hours on site), and personal fatigue guidelines. At S14 Covers allowance for worker napping (SMS-010A) and escalation if poor personal preparation for work is a repeated occurrence.</p>	<p>technicians.</p> <p>Training and assessment carried out to schedule. Health and wellness self-management information is provided. Routine reinforcement of site impairment management expectations and processes.</p> <p>BLS-011-FRM-4 Fitness for Work - Roster Fatigue Assessment - provides calculation sheets for available rosters and grades worker's roster by sleep opportunity, work environment, and task factors.</p> <p>BLS-011-FRM-01 Restrictions Management Plan - formal recording of any physical or medical restrictions on tasks and work-times that a CMW can perform.</p> <p>BLS-011-FRM-02 FFW Medical Declaration - form for capturing the medications that workers are taking that are on the notify list.</p> <p>BLS-011-FRM-03 FFW Individual Journey Management Plan - Formal process to capture car pooling, allowable travel hours, and additional controls for a CMW to put in place for safe travel to or from site, or when on company business.</p>	Confirmation that fit for work training and awareness is completed to schedule and that work area references are available. Fatigue monitoring technology, incident reviews.	<p>CMHSA - 039 Obligations of persons generally</p> <p>CMSHR 010.1(b) Prepare a draft standard operating procedure</p> <p>CMSHR 039 Consumption of alcohol</p> <p>CMSHR 040 Carrying out an activity, or entering a place, while under the influence of alcohol</p> <p>CMSHR 041 Safety and health management system for alcohol</p> <p>CMSHR 042.1 SHMS to consider responses to fatigue, stress or drug usage effects</p> <p>CMSHR 042.2 Provide about personal fatigue for persons at the mine</p> <p>CMSHR 042.3 Providing protocols for other physical and psychological impairment</p> <p>CMSHR 042.4 Drug consumption or ingestion for persons</p> <p>CMSHR 042.5 Consulting a cross-section of workers by the site senior executive</p> <p>CMSHR 042.6-7A Developing fitness for work provisions</p> <p>CMSHR 143 Heat stress</p>

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		<p>SMS-011 Physical and Psychological Impairment V2.2 <i>S2 Purpose This procedure: Provides practical guidance on detection and action where impairment is suspected; Provides a safe working environment by controlling the workplace hazards associated with personnel affected by physical and psychological impairment</i> The process described is one of detection->medical centre review->medical practitioner consultation and ongoing support for the affected CMW (including through support from an external Employee Assistance Provider (EAP)). Relevant personnel are trained in requirements.</p> <p>SMS-012 Alcohol and Other Drugs, V2.2 - <i>S2 Purpose This procedure identifies and controls risks associated with the consumption of alcohol and other drugs at Curragh. Requirements for all CMW and visitors to attend site with a BAC of 0.00 and includes the steps for testing and training for use on site.</i></p> <p>CGRA BLS-011 Fitness for Work V1.0 - Refers to CMW Health Scheme and how sites are to react to assessment reports. Reinforces Drugs and Alcohol, Personal Fatigue, Physical and Psychological Impairment, and Injury Management with processes to monitor and react to identified conditions.</p> <p>OFI-026 Review and update site health and lifestyle training and support materials. Workshop participants confirmed that additional self-management advice about balancing health, lifestyle, and work commitments can assist the Curragh North workforce. Providing practical information about approaches that</p>			

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		<p>assist individuals to make appropriate personal choices and can include diet, sleep and rest, commuting, alcohol and other drug choices, medication management, health support etc.</p> <p>Mine shift rosters are challenging and a lack of rest and general lifestyle choices can lead to fatigue and impairment outcomes in the short-term and poor health and personal issues in the medium to long-term.</p> <p>Review current site health and lifestyle training and support materials. Benchmark against good practice for remote mining operations, consider seeking expert input. As required update site processes emphasising processes for self-management to meet work requirements.</p> <p>OFI-084 Investigate the benefits of introducing operator alertness monitoring technology</p> <p>Workshop participants confirmed that there are comprehensive site fatigue and impairment management resources and processes in place to manage the hazards arising from continuous operations with 12 hour shift rosters. These site resources include advice and support for self management.</p> <p>While the site fatigue management and impairment processes align with industry good practice, the effectiveness of these administrative controls for managing fatigued or impaired operators is limited.</p> <p>Benchmark with other surface operations and consider investigating the benefits of introducing operator alertness monitoring technology.</p>			
<p>BI-CPA.03.01 Trained, Competent and Authorised Mobile</p>	<p>All workers who operate mobile equipment at the mine are trained and</p>	<p>All workers who operate mobile equipment at the mine (and other workers who routinely interact with</p>	<p>Mobile equipment operator training is delivered to schedule. Where applicable</p>	<p>Training status reports. Skills matrix reviews and updates.</p>	<p>CMHSA - 039A Additional Obligations of Persons CMHSA - 042 SSE to consider risks, required controls, and monitoring to continuously improve</p>

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Equipment Operators	assessed for competency for operating defined equipment type, identifying and managing operating environment and vehicle interaction hazards.	<p>vehicles e.g. maintainers) are trained and assessed for competency covering site and role relevant aspects including:</p> <ul style="list-style-type: none"> • Understanding requirements for authorisation to operate equipment and to be in a work area (supervisor or mining official clearances) • Completion of pre-start inspections • Correct operating techniques (including communications required for starting and moving, identifying and maintaining no-go zones around mobile equipment etc.); appropriate brake and retarder use during equipment operation • Equipment load limits - weight and dimensions • Site requirements for loading and unloading covering: Load security and stability based on site conditions and requirements; Vehicle stability precautions to be taken when raising trays, tubs, or buckets and tipping loads e.g, identifying loads types that can hang up e.g. when transporting clays; Securing of loads; • Proper movement of people: wearing seatbelts; not transporting passengers in buckets, trays etc.; ensuring that passengers wear seatbelts or other restraints • Preparation before servicing and maintenance, including: Electrical isolation of equipment; cleaning of all mud or loose 	<p>training is supported by use of equipment simulators - to safely confirm competency in emergency and unwanted situations such as mechanical or electrical faults, fire, emergency stop, over-speed, sticky loads, etc.)</p> <p>RIIVEH201-ASQ Operate Light Vehicle Assessment - typical module requiring demonstrating of trainer oversight, achieved and confirmation of understanding of theory.</p> <p>OFI-020 Review driving at night training for LV operators Workshop participants discussed driving at night training components for light vehicle operation in production areas.</p> <p>They identified an inconsistent and incomplete understanding by LV drivers about changes to heavy vehicle sight lines and visibility during darkness. Review and update site training and practical assessment for light vehicle operators so that it includes night driving on site.</p>	<p>Routine audits of the training management system are commissioned and reviewed by senior personnel.</p> <p>Assurance - Coronado Global Resources (Australia) Business Level Standard (BLS) CGRA BLS-018 V1.0 S1 Purpose <i>The purpose of this Assurance Business Level Standard (BLS-018 Assurance Business Level Standard) is to describe the Assurance System processes to verify that Operations have effectively developed, implemented, and are maintaining responsible health and safety practices, including the effectiveness of their Safety and Health Management Systems (SHMS). S6 Training and Qualifications requires auditors to be appropriately qualified and understand training management systems. Appendix 1 requires audits of the TMS on a 3-year cycle.</i></p> <p>OFI-097 Review Heavy Mobile Equipment Login Process Workshop participants discussed the comprehensive training, competency and authorisation processes that apply for site mobile equipment operators from all contractor companies and workgroups. The discussion included the site process for logging in and operating heavy mobile equipment (HME). They had questions about two potential application gaps;</p>	<p>CMSHR 065 PPE - Standard operating procedure</p> <p>CMSHR 072 (d) - Develop and implement a procedure for carrying persons in mobile plant</p> <p>CMSHR 072 (e) - Develop and implement a procedure for lifting plant</p> <p>CMSHR 075 (2) - Seat belts to be worn when fitted</p> <p>CMSHR 076 - SOP required for using mobile plant</p> <p>CMSHR 082 (1 & 2) (a) - Induction training for Workers and other Persons</p> <p>CMSHR 084 Refresher training</p> <p>CMSHR 085.1-2 Coal mine worker not to carry out task unless competent</p> <p>CMSHR 085.3 Tasks can be conducted as part of training or in an Emergency</p> <p>CMSHR 095 Maintaining hygienic work environment</p> <p>CMSHR 096(b) Minimising the risk in carrying out manual handling tasks</p> <p>CMSHR 133 Discharging loads</p>

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		<p>material; travelling to maintenance location or parking fundamentally stable</p> <ul style="list-style-type: none"> • Identification and management of infrastructure hazards e.g. HV powerlines • Use of refuelling equipment and refuelling procedures • Park-up procedures to achieve fundamental stability • Identification and reporting of poor road conditions such as substandard delineation, windrows or bund heights, road surface, obstructions etc. • Tyre management including preventing and dealing with tyre heating and managing flat tyres • Identifying and responding to mechanical and electrical faults while driving • Constraints for operating around pedestrians • Precautions for use of remote controlled equipment • Responding to unintended equipment operations or movements • Site emergency requirements • Prevention of and response to tyre fires including activating the fire suppression system • Responding to events that impact on tyre and vehicle integrity (e.g. contact with debris, etc.) <p>PLN-001 Safety and Health Management Plan - S7 Mine Training Scheme <i>The Mine Training Scheme describes the systems in place to ensure that all CMW's at</i></p>		<ol style="list-style-type: none"> 1. Is the site authorisation process linked to HME log-in permissions so that personnel with expired authorities cannot operate equipment? 2. Are personnel using a general training identity to log in and operate HME, and is this being monitored and aligned to expectations? <p>Review and confirm that the HME log-in process meets design expectations. Work with a cross sectional team to compare design with actual practice. Consider frequency of use for generic logins e.g. for training, and confirm if an expired authorisation status prevents log-in and HME operation. Explore how performance monitoring and reporting can be improved.</p>	

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		<p><i>Curragh have the appropriate Training, Competence and Authorisation to complete tasks and activities safely...</i></p> <p>SMS-021 Mine Training Scheme V8.3 - S3 Scope This scheme outlines responsibilities and guidelines for the training, tuition and assessment of all Coal Mine Workers (CMW) working at or visiting the Coronado Curragh Complex operations. Generally - covers induction, training and assessment process (different persons), sequence of training (apply, then, under direct supervision, then, general supervision, then, competent), and recognition of prior learning process.</p> <p>CGRA BLS-006 Training - Requires sites to establish Training Needs Analyses, use reputable providers, include key points in Inductions (Company overview, statutory obligations, site risks and required controls, PPE, and common measures for safe work). For new-to-site equipment a first competent person process to maintain standards of understanding.</p> <p>SOP-017 Using Mobile Plant - Mine Traffic Rules - multiple sections address the requirements for Vehicle Operators and cover the nominated scenarios and requirements for training.</p> <p>OFI-004 Review and improve general operator training including spatial awareness Currently workshop participants report that operator training does not provide consistent instruction and competency verification for operating in wet weather, spatial awareness at night, etc. Many site vehicle interaction incidents confirm a lack of</p>			

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		<p>operator understanding about where the vehicles are placed relative to obstructions, other vehicles, and pedestrians. Improving operator situational awareness and competence in estimating distances can decrease the frequency of vehicle interaction incidents.</p> <p>Review and identify improvements to training modules and training practises for mobile equipment operators. Use site incident experience to focus the review and consider the benefits of improving operator spatial and situational awareness, night driving, and wet weather operations etc.</p> <p>OFl-070 Review Opportunities to consistently apply site traffic management standards and measure performance</p> <p>Workshop attendees discussed variations in applying vehicle interaction controls and operating approaches between workgroups at Curragh North Mine. They noted that while the Coronado SOPs apply to all workgroups:</p> <ul style="list-style-type: none"> • Some SOPs that are not specific enough about performance requirements and how performance is measured. This allows variations in how standards are interpreted and applied in the same areas by different workgroups. • There are different performance requirements by area e.g. between the Mine Industrial Area (MIA) and Mine Operational Area (MOA) for positive communications, road construction for gradient and ramp speed, heavy vehicle access, escorting requirements etc. <p>At an operational level this can result in different workplace layout</p>			

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		<p>standards between OCEs and conflicting directions confuse supervisors. A non-standard approach also inhibits the introduction of consistent performance measures and digital technology such as Collision Avoidance Systems. Leverage the knowledge and capability of the contractor support companies to review Curragh SOPs. Consider developing</p> <ul style="list-style-type: none"> • Visual specification details and references • Illustrate the performance standard required using examples • Review and develop performance measures that support the consistent delivery of site standards across all workgroups. 			
<p>BI-CPA.04.01 General features by vehicle type - information prepared for operators</p>	<p>General features and information organised by vehicle type, are documented and communicated to vehicle operators.</p>	<p>Training modules for vehicle operators includes relevant information and key safety features for the vehicles in use on the site. The information is provided in a format that is audience appropriate and available as a reference in the work area.</p> <p>Learning Material - Komatsu 930E-5 Rigid Haul Truck (undated no ref) - Provides information on pre-use checks, general machine specifications, isolation point, key gauges and normal positions, emergency features (access, steer and brake), cabin features, and machine operation.</p> <p>Workshop Discussion Prompt - Should training modules be more site specific than just the OEM provided Operator and Maintenance manuals?</p>	<p>Training and assessment of vehicle operators about the general features of the vehicle they are operating.</p> <p>Training Management System - Site personnel complete competency based training which is tracked and loaded into the LMS by Peter Ryan and team.</p> <p>OFI-052 Develop visual information for mobile equipment operators covering equipment types in use.</p> <p>Workshop participants discussed and confirmed that only generic information is provided about mobile equipment operation and features. At site there is a wide range of equipment types and models in use. Consider updating information for operators for each vehicle type in use covering blind</p>	<p>Confirmation that work area references are available. Initial and refresher training assessment outcomes. Records of topics covered at inductions, training, pre-shift meetings, etc.</p> <p>Training Management System - TNA output available for supervisors and superintendents. Expiring competencies trigger requirement for renewal. Workers can track their status on MobiliseMe.</p>	<p>CMSHR 070 Access to and Egress from plant should be safe and regularly checked / maintained</p> <p>CMSHR 072 (d) - Develop and implement a procedure for carrying persons in mobile plant</p> <p>CMSHR 072 (g) - Develop and implement a procedure for towing</p> <p>CMSHR 073 - SOP for Pre-use inspections of mobile plant</p> <p>CMSHR 077 - Provide warnings if sight lines limited</p> <p>CMSHR 078 Isolating and tagging procedures</p> <p>CMSHR 082 (2) (b - i) (3) - Training Needs Analysis required that covers SHMS, deployed plant, inspections, and high risk tasks</p> <p>CMSHR 085.3 Tasks can be conducted as part of training or in an Emergency</p> <p>CMSHR 090 Ladders, steps and elevated walkways</p> <p>CMSHR 092 Working at heights</p> <p>CMSHR 149 Develop PHMPs for principal hazards UG</p>

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<p>BI-CPA.04.02 Sight lines and blind spots by vehicle type - information prepared for vehicle operators</p>	<p>Mobile equipment sight lines and blind spot information, by vehicle type, is documented and communicated to vehicle operators.</p>	<p>Training modules include specific information on operator vision limits and sight lines for the vehicles in use. The information is provided in a format that is audience appropriate and available as a reference in the work area.</p> <p>Training Management System - <i>No specific blind spot awareness packages are available.</i></p> <p>Workshop Discussion Prompt - <i>Should there be a blindspot awareness package prepared for all workers?</i></p>	<p>spots, key operating and safety features, emergency protocols etc. Provide the information in a visual format that is audience appropriate and can be used as a reference in the work area with a copy in the vehicle. Explore digital options for sharing information.</p> <p>Training and assessment for people who operate mobile equipment covers sight lines and blind spots. Mobile equipment operators are aware of vehicle sight lines and blind spots by vehicle type and this information is regularly reinforced.</p> <p>OFI-018 Review and improve mobile equipment blind spot and sight line training and awareness</p> <p>Workshop participants discussed and confirmed that the understanding and knowledge that operators and the people who work around mobile equipment have of blind spots and sight lines is uneven. This may be leading to inadvertent breaches of site protocols and assumptions about short-cuts e.g. parking maintenance vehicles within 50 m.</p> <p>Consider developing or updating information on blind spots and sight lines covering all of the equipment in use at site.</p> <p>Provide the information in a visual format that is audience appropriate and can be used as a reference in the work area with a copy in the vehicle. Explore digital options for sharing information. Once developed, review training, rules reinforcing, and awareness processes</p>	<p>Confirmation that work area references are available. Records of topics covered at inductions, training, pre-shift meetings, near miss reviews etc.</p> <p>Interaction monitoring with by-exception reporting from vehicle cameras and collision avoidance technology.</p>	<p>CMSHR 077 - Provide warnings if sight lines limited</p>

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			<p>including how understanding is confirmed. Increase in-field monitoring that standards are being maintained. Also, when Collison Avoidance System Technology is being considered by site, explore if digital monitoring of equipment parking distances can be included in the process.</p> <p>OFI-020 Review driving at night training for LV operators</p> <p>Workshop participants discussed driving at night training components for light vehicle operation in production areas.</p> <p>They identified an inconsistent and incomplete understanding by LV drivers about changes to heavy vehicle sight lines and visibility during darkness.</p> <p>Review and update site training and practical assessment for light vehicle operators so that it includes night driving on site.</p>		
<p>BI-CPA.04.03 Vehicle lights and markings requirements - information prepared for operators</p>	<p>Site standards for vehicle lights and markings to improve vision from and visibility of mobile equipment are documented and communicated in a style that is appropriate for the audience.</p>	<p>Training modules include specific information on site standards for vehicle lights and markings. The information is provided in a format that is audience appropriate and available as a reference in the work area.</p> <p>Supervisors, vehicle operators, and maintainers routinely check that lights and markings meet site standards, are operating, and are visible.</p> <p>Multiple Training Documents - Text only description of lights on the vehicle.</p> <p>CSP-048-CCV-03-02 Mobile Equipment - Vehicle Safety & Operations - CCV does not specifically require checking of lights and vehicle markings - although some have comments around this point.</p> <p>Workshop Discussion Prompt - Should CCVs, training modules,</p>	<p>Training and assessment for supervisors, mobile equipment operators, and maintainers covers minimum site standards for vehicle lights and markings. Training and assessment includes identifying vehicle types by lighting and markings, prestart check processes, defect reporting, and repair prioritisation.</p> <p>OFI-008 Review site standards and processes for mobile equipment selection and introduction to site</p> <p>Workshop participants discussed the application of site standards for onboarding mobile equipment. They identified some inconsistencies in applying standards for lights and vehicle markings and confirmed how</p>	<p>Vehicle operator, maintainers and co-workers are assessed on their understanding of minimum site standards for vehicle lights and markings. Confirmation that work area references are available. Mobile equipment prestart checks confirm that vehicle lights and markings meet minimum standards before the equipment is operated. Maintenance and service records confirm that:</p> <ul style="list-style-type: none"> • light failures detected during operations are identified and repaired • lights and markings are inspected during planned maintenance. 	<p>CMSHR 072 (f) - Develop and implement a procedure for marking lifting plant</p> <p>CMSHR 096(a) Controlling access to, and working in, confined spaces</p> <p>CMSHR 144 Lighting</p>

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		<p><i>and other site documented requirements include specific checks needed for lights and vehicle markings?</i></p>	<p>this can result in additional operating hazards e.g. vehicle misidentification during positive communication. Review site processes and standards applied for mobile equipment selection and site use approval across contractor and company workgroups. Confirm that site standards are adequate and the processes for their application are effective. Review how performance is monitored. Include lights and vehicle markings in the review. Update site personnel on the review outcomes and expected standards.</p>		
<p>BI-CPA.04.05 Alarm and vehicle information panel expected response - information prepared for Operators</p>	<p>Expected responses to vehicle alarms and information displays are documented by vehicle type and communicated to vehicle operators.</p>	<p>Vehicle operator training modules include required responses to vehicle alarms and information panel indicators for each vehicle type in use. Training is based on good operating practice and includes real world scenarios covering:</p> <ul style="list-style-type: none"> • Understanding, acknowledging, and responding to OEM alarms and notifications • Understanding, acknowledging, and responding to installed technology alarms and notifications e.g. collision avoidance, fatigue monitoring, autonomous haulage etc. • Managing abnormal tyre situations • Reacting to overload alarms and conditions • Slowing and parking in an appropriate location • Notifying emergency services • Equipment shutdown • Activation of fire suppression system 	<p>Before operating unsupervised, vehicle operators are assessed as being competent in responding to alarms and information panel indicators, for each type of vehicle that they operate. This includes details of the site process for seeking further maintenance advice. Reference information is available and regularly reinforced.</p> <p>RIIMPO208-ASQ Operate Support Equipment - General - Assessment V2.0 31/03/2023 - Practical Assessment, Point 1 -Locate and interpret all procedures for fires, accidents, and emergencies</p> <p>Workshop Discussion Prompt - Should formal and supervisor assessment of operator skills cover off on understanding of alarms, warning devices (gauges and lights), and specific responses?</p> <p>OFI-033 Review and update vehicle alert and alarm</p>	<p>Confirmation that references are available in vehicles. Vehicle operator training and assessment records. Vehicle operation monitoring with by-exception reporting alarm and indicator panel reporting. By exception incident reviews.</p>	

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		<ul style="list-style-type: none"> • Use of fire extinguishers, and • Exiting the machine including using an alternate means of egress <p>The information is provided in a format that is audience appropriate and available as a reference in the vehicle.</p> <p>Multiple Training Modules - Modules provide information on indications of equipment faults, emergency conditions, and required responses.</p>	<p>information for operators Workshop participants confirmed that vehicle information covering responses to alerts and alarms is not available in some haul trucks and not usually provided for light vehicles. This leads to an inconsistent operator responses to equipment and installed technology messages, alerts, and alarms. This inconsistency can result in emergencies e.g. equipment fires, unwanted vehicle interactions, and equipment damage. Review the quality of training and reference information prepared for mobile equipment operators about expected responses to vehicle information panels and installed technology messages, alerts, and alarms. Confirm that each vehicle model and type is covered and that reference information is available. Consider the practicality of providing OEM and third-part technology manuals in vehicles or providing links for operator use.</p>		
<p>BI-CPA.04.06 Tyre hazard awareness for all personnel.</p>	<p>Tyre hazards and their controls are documented and communicated to all personnel, based on their role.</p>	<p>Awareness and training information provides information on tyre hazards and their controls covering:</p> <p>Mobile Equipment Operations</p> <ul style="list-style-type: none"> • Reinforcing equipment operations that extend tyre life • Tyre maintenance area access • Tyre and wheel assembly pre use inspections and defect reporting • Emergencies, including: Managing electrical storms; High voltage - 	<p>Tyre hazard and control material is prepared for a range of organisational roles. There is training and assessment for mobile equipment operators on tyre management including emergency response. General tyre hazardous awareness information is part of site and operating area inductions. Awareness material on tyre hazards and their controls is documented and used for pre-shift and safety meetings etc.</p>	<p>Vehicle operator training and assessment confirms that tyre hazard management and controls are well understood and applied for general operations and in emergencies. Induction and awareness records confirm that all personnel are aware of tyre hazards and their controls appropriate to their role.</p>	

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		<p>emergency response; Equipment fires; Quarantine park up areas; Tyre pad access; Tyre pre use inspections and defect reporting</p> <p>Awareness and training material is illustrated with information about actual incidents and is based on organisational role.</p> <p>AURHTJ103LM Remove, Inspect and Refit Heavy Vehicle Wheel and Tyre Assessmblies, Learning Material V1.0 13/11/2023 - General Responsibilities of an Operator at Pg 9 covers key points to check around tyre condition.</p>	<p>Workshop Discussion Prompt <i>- Is sufficient information provided for vehicle operators and others around medium and heavy vehicle tyre hazards?</i></p> <p>OFI-012 Review Tyre Hazard Training and Awareness by Role Workshop participants discussed and confirmed that while general site and company tyre awareness training is undertaken, the information provided is sorted by site role. This means that some of the training and awareness information provided is not relevant for particular roles. It also means that important information by role is being diluted. This includes during general operations and in emergency situations. Review tyre hazard awareness training and provide information that is role relevant. For example</p> <ul style="list-style-type: none"> • All personnel - provide hazard information as part of site and operating area inductions covering tyre bay access restrictions and general emergency response • Mobile Equipment Operators - prestart inspections, equipment operation, specific emergency response for fires, lightning strikes, tyre faults, vehicle access to tyre maintenance areas etc. <p>OFI-013 Review and Update Tyre Handling Performance Requirements Workshop participants discussed site tyre and rim service and maintenance</p>		

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			<p>processes. They raised issues about how jacking points for removing wheel assemblies are defined in procedures noting an inconsistency between what is documented and actual practice in the tyre bay. Tyre and rim management is specialist mine site function that manages significant hazards. Generally tyre fitters are supervised by maintenance personnel without specialist knowledge. If the documented requirements do not align with actual practice then performance monitoring is ineffective.</p> <p>Review site tyre and rim management documentation and practices. Benchmark against Industry Good practice e.g. RM Tyre and Rim Management CFw and EMESRT animations. Align work as documented with work as done and establish performance measures.</p>		
<p>BI-CPA.04.10 Site specific travelling speed information prepared for vehicle operators</p>	<p>Site travelling speeds by vehicle type are documented and communicated in a style that is appropriate for the audience.</p>	<p>Training modules for vehicle operators include specific information on travelling speeds by vehicle type for all relevant scenarios. Training should be assessed to ensure that personnel understand vehicle speed expectations:</p> <ul style="list-style-type: none"> • At crests • On curves and at intersections • In restricted or congested areas (where vision aids or spotters should be considered) • When towing • When loaded (and adjusting for different types of load) • When conditions change (slippery, rough, spillage, loss of sight lines, etc.) 	<p>Training and assessment of vehicle operator understanding of safe travel speeds by vehicle type for a range of scenarios and conditions. Mobile equipment operators are aware of travel (and operating) speeds and this information is regularly reinforced.</p>	<p>Vehicle operator training and assessment records. Confirmation that work area references are available. Vehicle operation monitoring with by-exception speed reporting. By exception incident reviews.</p> <p>Critical Control Verification FH03 Mobile Equipment (BLS-004 FH03-CCV-02-FH03) - 4 monthly check on the conduct of Pre-Starts, interviews with Drivers/Operators, inspection of working area, HME equipment check status (in-date ItS sticker), understanding of speed requirements.</p> <p>August Speed Checks and</p>	<p>QLDDCMR 16.01 - Signs shall be installed throughout the road network</p>

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		<p>The training information is provided in a format that is audience appropriate and available as a reference in the work area</p> <p>Multiple Training Modules - Address key aspects of speed (e.g. ramp speeds for haul trucks, etc.)</p> <p>Induction materials - Operating speeds in various locations addressed in induction materials.</p> <p>SOP-017 Using Mobile Plant - Mine Traffic Rules - S5.11 Speed Limits LMHV and HME describes the speed limits, and S5.3 Drive to Conditions, references the use of TARP levels to respond to adverse conditions.</p>		<p>PPT Summary of Vehicle Safety and Operations CCV - Speed checks are taken on a regular basis and reviewed as part of CCV activities for LV operations.</p> <p>OFI-067 Review and align installed technologies for consistent travel speed alerting and performance monitoring At Curragh North Mine there is a misalignment of outputs from installed fleet management technologies. Thiess use the IVOLVE system while MaxMine is used by other contractors. The different mining fleets share haul roads and workshop participants report issues with different travelling speeds in the same location that has resulted in frustration and unplanned vehicle interactions. Review how the MaxMine system can be upgraded so that there is in-cab notification travelling speed based on geofenced location. This will align site operations and avoid conflicts with the Thiess fleet that applies the travel speed information available. Also review opportunities to leverage the installed technology for performance monitoring and reporting e.g. by exception speed limit exceedance reporting.</p>	
BI-CPA.04.11 Site clearance requirements and processes for accurately estimating distances - information prepared for Operators	Site clearance requirements are documented and communicated in a style that is appropriate for the audience.	<p>Training modules for vehicle operators and personnel who routinely work around mobile equipment includes specific information on required separation distances and clearances:</p> <ul style="list-style-type: none"> • For each phase of the 	Training and assessment confirms that vehicle operators understand site clearance and separation distance requirements for all operational scenarios and conditions.	<p>Vehicle operator training and assessment records.</p> <p>Confirmation that work area references are available.</p> <p>Vehicle operation monitoring and reporting using proximity detection technology.</p>	QLDDCMR 19.00 - Requirements for locations with overhead structures

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		<p>operational work cycle</p> <ul style="list-style-type: none"> • During maintenance and service activities. <p>Specific information examples usually include using road delineators to calibrate following distances, and site practices for positioning near dig units, dumping, interactions with dozers, dumping into hoppers, road works, parking, when to use spotters (operating in restricted spaces), etc.</p> <p>The information is provided in a format that is audience appropriate and available as a reference in the work area.</p> <p>PLN-005 PHMP - Mobile Equipment Incidents S4.5 Safe Operations of Vehicles and when in Vicinity of Vehicles - requirement for spotters when reversing in congested areas.</p> <p>OFI-004 Review and improve general operator training including spatial awareness</p> <p>Currently workshop participants report that operator training does not provide consistent instruction and competency verification for operating in wet weather, spatial awareness at night, etc.</p> <p>Many site vehicle interaction incidents confirm a lack of operator understanding about where the vehicles are placed relative to obstructions, other vehicles, and pedestrians. Improving operator situational awareness and competence in estimating distances can decrease the frequency of vehicle interaction incidents.</p> <p>Review and identify improvements to training modules and training practises for mobile equipment operators. Use site incident experience to focus the review and consider the benefits of improving</p>	<p>Training and assessment confirms that personnel who work around mobile equipment understand all relevant site clearance and separation distance requirements.</p> <p>RIIMPO337-LM Learning Materials - conduct Articulated Haul Truck Operations Positioning (pg36)</p> <p><i>50m Rule – A separation distance of 50 metres shall be maintained between all vehicles when travelling on roads used by surface mining equipment (SME). When following SME, position the vehicle in the field of view of the SME operator’s mirrors.</i></p> <p>OFI-009 Improve hopper demarcation, visual aids, and lighting, then update training modules</p> <p>Workshop participants discussed the loading of material into hoppers and identified opportunities to install in-field visual aids around the hoppers and improve training.</p> <p>The current lack of visual aids, lighting and warning signs at hopper combined with inconsistent levels of training create vehicle interaction hazards and cause production losses e.g. hoppers become choked stopping feed caused by over filling due to dump truck and loader operators not seeing the red light.</p> <p>Review hopper management and consider enhancements that enhance vehicle interaction controls and production. Update operator training.</p>	<p>By exception incident reviews.</p> <p>Note - proximity detection not available at CNOC.</p>	

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BI-CPA.04.12 Give way requirements information prepared for mobile equipment operators and pedestrians	Site give way, and right of way requirements are documented and communicated in a style that is appropriate for the audience.	<p>operator spatial and situational awareness, night driving, and wet weather operations etc.</p> <p>Training modules include specific information on site give way and right of way requirements. The information is provided in a format that is audience appropriate and available as a reference in the work area.</p> <p>Workshop Discussion Prompt - <i>Learning modules reviewed do not have specific guidance around requirements for giving way - as everything relies on following QLD Road Rules on site. Should site include training and assessment requirements around expected behaviours at intersections and where traffic flows cross?</i></p> <p>OFI-092 Review mine design requirements and confirm requirements for segregated roadways Workshop participants discussed site road design standards for segregating Heavy Vehicles (HV) from Light Vehicles (LV). They were unaware of design requirements for LV segregation, where practical, in site standards. Segregating LVs from HVs is a consistently reliable vehicle interaction control. Its deployment depends on mine layout, forward planning, and commitment of resources. Review the cost benefits from constructing and operating segregated roadways on site. Identify where they can add value, consider contractor position. Develop a design approach with decision criteria for construction. Present a case for management approval.</p>	<p>Training and assessment records confirm that vehicle operators and personnel who work around mobile equipment understand site give way requirements for vehicle interactions relevant to their role.</p> <p>At a minimum this includes understanding site give way requirements for:</p> <ul style="list-style-type: none"> • Right of way • Hierarchy of vehicles • Intersection approach speeds • Intersection spacing requirements 	<p>Vehicle operator training and assessment records.</p> <p>Confirmation that work area references are available.</p> <p>Vehicle operation monitoring and reporting using proximity detection technology and geofencing records.</p> <p>By exception incident reviews.</p>	
BI-CPA.04.13 Minimum requirements for parking in any situation -	Site requirements for parking in any situation are documented and	Training modules for vehicle operators include site specific parking requirements for all	Training and assessment confirms that vehicle operators understand:	Vehicle operator training and assessment records. Confirmation that work area	

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<p>information prepared for operators</p>	<p>communicated in a style that is appropriate for the audience.</p>	<p>scenarios covering:</p> <ul style="list-style-type: none"> • Confirming that a parked vehicle is always fundamentally stable e.g. through the use of wheel chocks, ditches, trenches or wheels turned towards the wall • Entering and leaving defined parking locations • Parking to minimise interactions with other vehicles • Servicing, maintenance, and breakdown situations in operating areas • Parking in mobile equipment emergencies e.g. fires or potential fire situations <p>The information is provided in a format that is audience appropriate and available as a reference in the work area.</p> <p>Workshop Discussion Prompt - <i>Training modules and the PHMP all refer to a fundamentally stable state position for parking - but there are no specific requirements for this to be achieved (some mention of drains and humps - but not much more than this). Is there a requirement for more specific information and examples to be included in training resources for site?</i></p>	<ul style="list-style-type: none"> • How to park mobile equipment so that it is fundamentally stable • Minimum site requirements for parking for in all scenarios and conditions. <p>RIIMPO-338-ASQ Conduct Rigid Haul Truck Operations Assessment - Q52 confirming understanding of which brakes to be applied when parking. Practical Module 5 (Q13) confirm safe and level area or designated parking area and park appropriately.</p> <p>RIIMPO304-LM Conduct Wheel Loader Operations V2.0 12/4/2023 - Park up Procedure covers key point to achieve a fundamentally stable park (including test for unit rolling). Parking guidance also includes requirements for parking in the event of a breakdown.</p> <p>OFI-056 Review Site Parking Standards and their application</p> <p>Workshop participants confirmed inconsistencies in the application of site parking standards. For example spoon drains or parking humps are not consistently available for parking areas in work locations. They also noted that the standards for parking areas are not regularly audited for compliance and were unaware of a process to for confirm that newly built parking areas meet standards before being handed to operations. There was also discussion on restricted parking availability in some locations</p> <p>Substandard parking area construction and limited</p>	<p>references are available. Workplace inspections of parking practices. Vehicle operation monitoring and reporting using proximity detection technology. By exception incident reviews.</p> <p>SOP-049-FRM-04 Mining Area Shift Safety Inspection Checklist - Supervisor - 1.b <i>(Go Line) Is the v-drain/hump for parking fundamentally stable maintained and adequate? 1.f (Go Line) - Equipment parked at least 5 metres apart 3. Waste Dump 3.c Bunds in place for LV parking and 5. Loading area 5.b checks for bunds in place for LV parking.</i></p>	

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			<p>availability can result in roll-aways and parking in the wrong location e.g. in heavy vehicle blind spots, in positions that compromise pedestrians etc. Review site parking area design standards, update if required. Confirm that there is a process for handover that has a construction commissioning check that confirms 'as built' meets design requirements. Consider parking requirements and demands by working group, location, and vehicle type. Review performance monitoring processes to confirm that vehicle operators are meeting site standards.</p> <p>OFI-058: Improve parking elements of training modules The workshop participants confirmed that Curragh North training and awareness materials and assessment tools do not reinforce parking vehicles in a fundamentally stable state. A lack of understanding of fundamentally stable parking requirements can lead to vehicle runaways from parked positions. Update all learning materials that applies to wheeled equipment on site. Confirm that fundamentally stable parking is described and illustrated consistently.</p> <p>OFI-053: Extend parking performance expectations to all vehicle categories. Workshop participants discussed site standards, expectations, training, and reinforcement covering parking of mobile equipment. There are some good documented examples of expected standards e.g. for wheeled</p>		

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<p>BI-CPA.04.20 Sight lines and blind spots - information prepared for people who work around vehicles.</p>	<p>Sight line and blind spot information, by vehicle type, is documented and communicated to personnel who work around mobile equipment.</p>	<p>Training modules include specific information on operator vision limits and sight lines for the vehicles in use. The information is provided in a format that is audience appropriate and available as a reference in the work area.</p> <p>SMS-021 Mine Training Scheme CNOC, V8.3 9/3/22 - Appendix 3 Light Vehicle Training ... <i>The candidate must spend at least one hour in a haul truck (to be captured in their training log) and demonstrate an understanding of HME visibility and blind spots.</i></p> <p>OFI-023 Review style and effectiveness of training modules Workshop participants discussed the style and effectiveness of training modules and support information. It was agreed that the most effective resources are short and graphically visual with diagrams and pictures. An example discussed was the style and content of current training and references for walkways around mobile equipment, and go lines can be improved with graphics. While people learn in different ways, using a consistent visual format that is audience appropriate should be cornerstone of training modules and reference information.</p> <p>Review style and format of training</p>	<p>loaders. The approach for communication parking expectations does not extend to all vehicle types, locations, and situations e.g. haul truck fire Review existing good practice examples and extend to all vehicle categories and circumstances e.g. go line, parking areas, in pit, for emergency etc.</p> <p>Training and assessment for people who work around mobile equipment covers limits on vision, from the equipment operator position. Personnel who interact with mobile equipment are aware of vehicle sight lines and blind spots by type and this information is regularly reinforced.</p> <p>Multiple Training Modules Including Rigid Haul Truck Practical Assessment ...<i>Is aware of blind spots/obstructions from the cabin...</i></p> <p>OFI-020 Review driving at night training for LV operators. Workshop participants discussed driving at night training components for light vehicle operation in production areas. They identified an inconsistent and incomplete understanding by LV drivers about changes to heavy vehicle sight lines and visibility during darkness. Review and update site training and practical assessment for light vehicle operators so that it includes night driving on site.</p>	<p>Confirmation that work area references are available. Records of topics covered at inductions, training, pre-shift meetings, near miss reviews etc. Interaction monitoring with by-exception reporting from vehicle cameras and collision avoidance technology.</p> <p>Workshop Discussion Prompt - Blind spot understanding is not called up as an item to check for in CCV and Supervisor Audits. Should it be?</p>	

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		modules and reference information. Identify topics and information that can be improved with improved graphics. Consider digitisation and animation opportunities.			
BI-CPA.05.01 Skilled and experienced personnel are accountable for maintaining mobile equipment	All workers who maintain mobile equipment are trained, competent and authorised for the tasks that they carry out.	<p>Mobile equipment maintainers are trained and competent for the tasks that they undertake, including:</p> <ul style="list-style-type: none"> Preparation for works: Understanding and accessing work orders and checklists; preparing and receiving permits for activities such as hot work live work, or confined space entry; Isolation of energies Monitoring, inspecting, checking and measuring for: Temperature of components; V-belts; pre- and post-maintenance; testing (normally) pressurised components; safety related devices (isolation points, brakes, steering, load carrying members, etc.) Replacing, repairing, or adjusting: Hoses; restraints and brackets; specific equipment in safety or operational systems; fire suppression systems; fuel systems; brake and steering components; fitting of energy restraint components such as lagging, heat shields, sound insulation, guards, etc. Identifying and reacting to any defects identified. <p>Interview Comments by Engineering Departments - Qualified trades workers are selected and deployed on site - and are given area and equipment</p>	<ul style="list-style-type: none"> Mobile equipment maintainer competency training is delivered to schedule. Maintainers complete work orders based on their skills and training and site supervision requirements. Identified defects are repaired or referred to maintenance planners, and if serious lead to the machine not being put back into service until repairs are completed. <p>OFI-006 Review site processes for authorising site maintainers and technicians. Workshop participants discussed differences in training, site authorisation, and confirmation of competencies for site technicians and maintainers. It was recognised that each contractor group applies their own company and site processes and performance metrics i.e. there are variations in process. Review how Coronado, as the SSE for CNOC Mine, authorises maintainers to work at site, focus on confirming that required SSE outcomes for a competent maintainer are delivered as well as meeting associated company processes.</p> <p>OFI-007: Confirm that the specification and application of vehicle interaction</p>	<ul style="list-style-type: none"> Training, competency, and skills status reports. Equipment reliability metrics, defect analysis and by exception incident reports. <p>OFI-016 Review the value-add of a QA step after mobile equipment maintenance. Workshop participants discussed the benefits of having a quality assurance (QA) sign-off step following maintenance, as part of equipment handover to operations. They confirmed range of site practices even across the same contractor. The primary approach reported is that the hand over pivots on the judgement and sign-off of the fitter who undertook the maintenance. It was also noted that not all OEM references and manuals are referenced in procedures and work instructions. Consider the value-add of a consistent and measurable maintenance QA step before equipment is handed back to operations. Confirm that OEM references and manuals are available for maintainers on site.</p>	<p>CMHSA - 039A Additional Obligations of Persons CMSHR 066 (2) (a-b) - Brakes must be maintained and regularly tested CMSHR 066 (2) (c) - Records of brake tests must be controlled and accessible CMSHR 071 Maintenance inspections to be conducted by a competent person CMSHR 072 (b) - Develop and implement a procedure for recovering plant after an accident CMSHR 088 Cutting, drilling or excavating near a concealed service CMSHR 088A Asbestos material installed in buildings and plant CMSHR 088B Asbestos, other than asbestos material installed in buildings and plant CMSHR 098 Reporting and rectifying defects</p>

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		<p>familiarisation training. Multiple Learning Materials for Equipment Training - OEM provided Maintenance and Operation manuals included in training resources.</p>	<p>controls for maintainers across workgroups. Workshop participants questioned if there were application variations in maintenance related vehicle interaction control practices between different workgroups including authorisation and processes for moving equipment in and out of workshops, use of spotters, workshop parking, field maintenance practices etc. The accountability for vehicle interaction controls during site maintenance practices rests with the site SSE. The SSE meets their accountabilities through site SOPs, authorisation processes, and periodic reviews. Consider a review of vehicle interaction controls that apply specifically to maintainers and technicians that confirms:</p> <ul style="list-style-type: none"> • The site level and SSE authorised requirements are practical and can be applied i.e. is there adequate detail to develop consistent performance measures that can apply across workgroups. • The alignment between site level SSE authorised requirements and contractor workgroup procedures, work instructions, practices, outcomes, and performance measures. • Workgroup performance metrics that deliver a consistent and disciplined application of site vehicle interaction controls relevant to maintainers and technicians. 		
BI-CPA.08.02 Equipment	Site standards for PPE, high	Requirements for personnel	Information on the minimum	By exception reporting, and	CMSHR 064 Providing personal protective equipment

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and PPE standards for entering operational areas - information prepared for all personnel	visibility clothing, lights, communication equipment, alerting devices, and other items required in operational areas are documented and communicated in a style that is appropriate for the audience.	<p>visiting or working in operating areas are documented in a style that is appropriate for the audience. They provide details and illustrations covering minimum standards for PPE, high visibility clothing, lights, communication equipment, alerting devices, and other items required in operational areas.</p> <p>Multiple Training Modules - Requirements for wearing and maintaining PPE included in training resources.</p> <p>SOP-006 Personal Protective Equipment - Details requirements for protective and high-visibility clothing in working areas on site.</p>	<p>PPE and equipment standards before entering operational areas is provided at inductions and during training. Information detailing standards is communicated to all employees, contractors, and visitors.</p> <p>Multiple Training Modules - Include requirements for appropriate PPE to be worn while operating equipment and when present in the working areas of the site (also covered in the Induction packages).</p> <p>OFI-054 Review PPE holdings and compliance</p> <p>Workshops participants discussed situations when required PPE for coal mine workers is not available and there is a delay before reissue. Working in operating areas without meeting minimum site PPE standards, particularly for hi-vis clothing, can result in vehicle operators failing to see pedestrians.</p> <p>Review how PPE is issued to workgroups at site. Confirm that sufficient stocks are available to meet expected demands. Also consider how required PPE standards are communicated and maintained.</p>	investigation of circumstances where minimum PPE and equipment standards are breached.	<p>CMSHR 065 PPE - Standard operating procedure</p> <p>CMSHR 091 Noise</p> <p>CMSHR 096(c)(iii) Protecting persons from harmful electromagnetic radiation</p> <p>CMSHR 096(c)i Protecting persons from abrasive blasting and high pressure chemical and mechanical cleaning</p> <p>CMSHR 096(cii) Protecting persons from cutting and welding in a confined, wet or dusty location</p>
BI-CPA.09.01 Site fatigue management processes are comprehensive and optimise work rosters	Site fatigue management processes are comprehensive and designed to support employees.	<p>Site fatigue management processes include:</p> <ul style="list-style-type: none"> • Education and awareness packages for shift workers • Optimum shift roster design • Hours of work and rest requirements including travel time • Additional work hours management • Advice and support for supervisors to remove fatigued persons from the 	<p>Compare industry good practice to current site approaches covering:</p> <p>Work Hours Policy</p> <p>Develop working-hours policy for daily work hours, maximum average weekly hours, total hours over a three-month period, and managing commutes and work-related travel.</p> <p>Managing Work Rosters</p> <ul style="list-style-type: none"> • Design working hours and rosters to provide 	<p>Site fatigue management awareness and training is being completed to schedule.</p> <p>Site hours worked tracking systems send reports and identify exceedances.</p> <p>DAMSTRA System - provides reports and raises warnings when recorded time on site exceeds set parameters.</p>	<p>CMSHR 042.1 SHMS to consider responses to fatigue, stress or drug usage effects</p> <p>CMSHR 042.2 Provide about personal fatigue for persons at the mine</p>

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		<p>workplace e.g. prestart fitness for work judgments,</p> <ul style="list-style-type: none"> Fatigue call ups during shift <p>SMS-010 CNOC Fatigue V4.7 - Includes requirements for determining impacts of rosters.</p> <p>OFI-079 Consider deploying operator alert system technology.</p> <p>Workshop participants discussed the deployment of operator alert system (OAS) Technology at other mines. They confirm that when the technology is operationally integrated, then it provides an additional and reliable control for managing operator fatigue. In some cases, it can assist individuals to identify and manage underlying health issues. The consequences of a fatigued mobile equipment operator falling asleep at work can be catastrophic. Without a technology monitoring approach, site leaders have little visibility on the effectiveness on site fatigue management processes other than self-reporting and incident investigations.</p> <p>Benchmark the application of commercially available technology with other Australian operations. Make the business case of how it can be deployed to complement and enhance existing site fatigue management approaches.</p>	<p>for adequate sleep opportunity (considering time for eating, washing, personal commitments etc.).</p> <ul style="list-style-type: none"> Make sure that there is enough time in a break for a minimum of six hours sleep Set the number of consecutive days that can be worked. Adopt a forward rotation roster systems for shift work (day-evening-night). Avoid quick shift changeovers such as finishing at 11 am and starting again at 7 am. Avoid starting or finishing shifts between 10 pm and 6 am. As far as possible maintain predictable shift rosters and provide adequate notice of changes. Allocate shift and night workers consecutive days off to allow for at least two full nights rest including some weekends. <p>Hours of Work</p> <ul style="list-style-type: none"> Ensure that workers have and take adequate and regular breaks so that they can rest, eat, and rehydrate. Ensure adequate lunchroom and ablution facilities. Control the length of shifts - increase resourcing, control overtime especially unscheduled overtime. 		

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			<ul style="list-style-type: none"> • Put in place overtime restrictions when people already work 12 hour shifts. • Control the length of shifts to 14 hours, except for exceptional circumstances. • Control emergency call outs, shift swapping and overtime to ensure at least two consecutive nights sleep before and after commencing roster to allow for recovery. • Limit use of standby and on-call duties. • Ensure that responding to emergencies does not result in excessive hours. • Except for emergencies, give at least 24 hrs notice before changing someone from day shift. • Consider alternatives for personnel who have difficulties adjusting to working hours and shift patterns. <p>Commuting and Travel</p> <ul style="list-style-type: none"> • Use journey planning to manage long commutes and travel requirements. • Provide alternative transport options at end of overtime and shift work to relieve commuting burden. <p>Work Demands</p> <ul style="list-style-type: none"> • Schedule safety critical work outside low body clock periods (i.e. between 2 am and 6 am). • Structure shifts and 		

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			<p>work plans so that demands are highest towards the middle of the shift and decrease towards the end.</p> <ul style="list-style-type: none"> • Adequate multiskilling across crews to allow for fatigue relief. • Provide adequate resources to cover breaks for operators of equipment that is in service continually. <p>Shift and Night Work;</p> <ul style="list-style-type: none"> • Keep sequential night shifts to a minimum. • Avoid overtime allocations after afternoon or night shifts. • Include rest periods in the work schedule and allow time for controlled sleeping and napping if necessary. <p>Monitor Performance</p> <ul style="list-style-type: none"> • Monitor actual time worked against the allocated roster to identify if excessive hours are being worked. <p>BLS-011-FRM-4 FFW Roster Fatigue Assessment - Provides guidance for Superintendents and Supervisors to confirm the CMW deployed have the optimum sleep opportunity.</p> <p>BLS-011-FRM-03 FFW Individual Journey Management - Helps supervisors and workers plan for travel to and from site, and when on company business off-site.</p>		
<p>BI-CPA.10 Task expectations are well communicated and reinforced over the work</p>	<p>Task performance expectations are clearly communicated at task allocation and then</p>	<p>Each shift there is a process to allocate tasks and reinforce task relevant mobile equipment interaction controls.</p>	<p>Pre-shift meetings, and as required, communications are logged and monitored for quality and effectiveness.</p>	<p>Records from pre-shift meetings and other relevant communications. Communication logs with</p>	<p>CMSHA 274 Coal mine worker permitted to refuse tasks or retreat if exposed to danger</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
shift.	reinforced over the shift.	<p>There is further communication during the shift as tasks or conditions change. Where appropriate, visual information (photographs, maps of roadways, etc.) are used.</p> <p>SOP-049 Safety Inspections & Checking and Examining Work Areas V6.1 27/8/2021 - S4.2 OCE Inspection Reports requires all OCE reports to be included in the pre-shift meeting for the incoming crew.</p> <p>OFI-061 Improve shift-to-shift handover processes on site. Workshop participants confirmed variable standards between different groups for preparing and handing over information between shift supervisors There is no site standard template available in use and the quality and quantity of information is inconsistent even for items relevant to every production workgroup e.g. roadworks, in-pit maintenance, OCE reports etc. Incorrect or incomplete information transferred between supervisors can lead to hazards in the operation not being recognised and controlled by incoming operators. Confirm minimum standards for handovers. Consider developing a standard template for shift supervisor transfer notes. Review the use of digital technology options e.g. for consistent messages that can be pushed to all relevant workgroups before handovers and used to aggregate multiple handover logs.</p>	<p>Inspections and Interviews - Pre-shift meetings delivered by supervisors observed by RM included information specific instructions for work crews.</p> <p>OFI-047 Review the effectiveness of site approaches for delivering toolbox talks. Identify opportunities for improvement, including providing adequate question and answer opportunities. Workshop participants discussed the effectiveness of site tool box talks. Sometimes delivery is reported as being a straight presentation with limited opportunity for questions and answers. If the audience is unable to question the material presented then this can lead to two suboptimal outcomes:</p> <ul style="list-style-type: none"> • The audience may misunderstand key points from the information presented and then make incorrect decisions • The presenters and line managed assumptions on understanding may be incorrect can lead to gaps in understanding of key information. <p>Review the effectiveness of site approaches for delivering toolbox talks. Identify opportunities for improvement, including providing adequate question and answer opportunities.</p> <p>OFI-050 Review hazard and control communications with work crews Workshop participants discussed the challenges of running effective prestart meetings that communicate</p>	<p>individuals.</p> <p>SOP-049-FRM-01 Supervision Verification Audit Form - Superintendent - Oversight and checklist for confirming that supervisor conduct all required inspections, communication, and hand-overs.</p> <p>OFI-010 Consider making camera feeds available to improve performance monitoring. Supervisors and open cut examiners (OCE) spend many hours per shift in the field monitoring performance. Currently OCEs and supervisors review performance by observing operating practices and inspecting the operating environment condition at close proximity and from available lookouts. Review how area camera feeds can be used by OCE and supervisor to complement this process, particularly as a reliable way to monitor workgroup interaction performance. Consider also the opportunity to use Artificial Intelligent (AI) technology to detect and amplify performance drift based on camera feed analysis.</p>	

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			<p>operational and safety information and performance expectations that reinforce individual and workgroup norms. At Curragh North the prestart meeting provides the only daily opportunity to communicate to a workgroup and discuss relevant hazards and their controls. Shift prestart meetings have to be efficiently transactional and also cover production elements e.g. assigning equipment etc. The current prestart sequence means that there can be shift long delays for sharing new information from a meeting across other workgroups e.g. for road works, changes to intersections, broken down equipment. and other short-term changes. Workshop participants also noted that there are always production drivers covering 'time to the first load.'" Workshop participants also noted the challenges of crew size, supervisor experience and effectiveness, employee turnover, and production pressures that have to be managed. Review the effectiveness of preshift meetings, consider developing performance measures and improve support for supervisors. Consider augmenting shift prestart meetings with hazard and control information e.g. SOP reviews, incident case studies that can be used during stoppages e.g. during wet weather.</p>		
<p>BI-CPV.08 Protocols for site induction and operating areas access</p>	<p>Induction processes for people using the road network are in place and applied at operating sites.</p>	<p>Induction training and underlying procedures and rules cover:</p> <ul style="list-style-type: none"> • Site access including access to nominated 	<p>All personnel at and visitors to operating sites undertake inductions and these are recorded. Inductions clearly</p>	<p>Regular inspections and personal hazard awareness records are made - with non-conformance corrected or</p>	<p>CMHSA - 042 SSE to consider risks, required controls, and monitoring to continuously improve CMSHA - 043 - Obligations of Contractors to conform with HSMS and train employees</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>areas, such as working face areas, stockpiles, reclaim areas, workshops and other high traffic locations</p> <ul style="list-style-type: none"> Escorting requirements including vehicle communication protocols, permission to travel and general warning requirements Incident reporting and emergency response Person Protective Clothing and Equipment (PPE) requirements Seat belts and other in-vehicle restraints are worn when fitted Strict requirements to never modify safety equipment Handheld mobile phones and other personal electronic devices (PEDs) are never used when operating mobile equipment (and guidance on the presence of detection devices on these items) Handheld mobile phones are never used when working around mobile equipment <p>SOP-017 Using Mobile Plant - Mine Traffic Rules V6.5 - Has sections covering all the noted points S4 Curragh Traffic Areas for access, S5.1 for Escort Operators, multiple sections note required response and reference to PLN-005 for incidents, S8 for rules around changes, Mobile Phones and Devices managed as per BLS-010 Security (at S8 only allows devices which will not cause a risk of interaction).</p> <p>SOP-006 Personal Protective Equipment V7.6 - S3.1 Standard Requirements notes High Visibility</p>	<p>communicate minimum site standards.</p> <p>Curragh Site Familiarisation Doc Ref 1021 V2.10 12/6/2024 - Is an assessment tool for confirming that CMW are familiar with the CNOC area and site traffic flows. Also confirming checks (pg 3) for mobile plant and machinery interactions in HME/LV Workshop, Field Maintenance, Lube Bay, CN Workshop, CN Tyre Bay</p> <p>OFI-074 Review Site Access Controls Uncontrolled site access between North and South Curragh operations in the Curragh complex may lead to unplanned and unwanted vehicle interactions. Workshop participants discussed differences between operator understanding of vehicle interaction protocols for different vehicle types on the main access road into Curragh North Operations. They discussed how these differences might cause unwanted vehicle interactions e.g. between transport floats and light vehicles, and when transporting materials e.g. in situations when waste from the preparation plant has to be transported to the CNOC mine. Review the understanding and application of vehicle interaction protocols for site access. Upgrade current access protocols if required.</p>	<p>escalated as appropriate. Periodic reviews of site access logs confirm all personnel have required inductions</p>	<p>CMSHR 072 (c) - Develop and implement a procedure for assembling and maintaining plant CMSHR 072 (h) - Develop and implement a procedure for servicing mobile plant CMSHR 075 (2) - Seat belts to be worn when fitted CMSHR 082 (1 & 2) (a) - Induction training for Workers and other Persons CMSHR 083 - No persons to be on site unless Inducted (or in training)</p>

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		<p>and reflective tape requirements.</p> <p>OFI-075 Review Site Induction Processes Current site inductions are completed online. Workshop participants discussed how effective this process is to present information and confirm understanding both generally and specifically for understanding the application of vehicle interaction controls. They were concerned that successfully answering questions in a site induction does not demonstrate a practical understanding of how and when vehicle interaction controls apply and can lead to unwanted interactions at site e.g. pedestrians around the workshop. Review site induction practises, consider including a face-to-face step to confirm understanding of vehicle interaction controls for visitors and new starters who will be working around mobile equipment.</p> <p>OFI-078 Consider reducing the number of drivers with operating area authorisation Workshop participants discussed light vehicle access permissions and confirmed that gaining authorisation to drive light vehicles in restricted operational areas is straightforward with limited oversight. Many site personnel have authorisation to drive light vehicles in operational areas. For surface mining, the most significant fatality mechanism (pathway) is a collision between a heavy vehicle and a light vehicle. A reliable control is to reduce the number of vehicle interactions between light vehicles and heavy mobile equipment and the decision demands on drivers. The simplest control is to limit the number of light vehicles in</p>			

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		<p>operational areas. Other controls include stopping heavy vehicle movements when light vehicles are on operating circuits, or segregation including light vehicle only access roads.</p> <p>Review and confirm the current number of drivers with light vehicle authorisations to drive in operational areas. Consider how many licences are required for operational efficiencies and assess the impact of reducing the number of authorisations to decrease the number of light vehicles in operating areas.</p>			
<p>BI-CRA.11.01 Supervisors and trainers provide clear performance management expectations by role</p>	<p>Performance expectations for safe and productive outcomes are documented and communicated to all personnel.</p>	<p>Performance requirements are detailed by role and are used for training and competency assessments.</p> <p>Supervisors continually review, reinforce performance expectations.</p> <p>Performance management processes provide feedback that supports safe and productive behaviours and corrects unsafe and non-productive behaviours.</p> <p>BLS-001 Leadership and Accountability - Outlines the CARE (Collaboration, Accountability, Respect and Excellence) values of Coronado with good performance recognised and poor performance addressed.</p> <p>CGRA BLS-002 Organisational Roles and Responsibilities - S6 Managers and Supervisors participate in the FELT leadership program which includes addressing any performance issues by CMW.</p> <p>OFI-042 Review the design and application of site performance management processes. Each contractor and Coronado Global Mining have their own (commend or correct) performance management processes in place. Workshop</p>	<p>Employee training and assessment confirms understanding of site performance expectations for:</p> <ul style="list-style-type: none"> • Obeying site rules • Following site procedures • Responding to instructions • Meeting site standards • Reporting and responding to safety issues <p>CSP-049 Life Saving Rules - Sets minimum requirements for general worker actions and behaviours and includes information on performance management expectations around these rules.</p> <p>OFI-069 Confirm site performance expectations align their performance management application. Workshop participants confirmed that supervisors and trainers from different contractors and business units interpret site performance expectations and apply performance management (commend or correct) processes inconsistently.</p>	<p>Training system and employee records confirm that all personnel understand the site performance expectations that are relevant to their role.</p> <p>Leader Interview - Formal processes in place to record and monitor CMW performance to optimise compliance with safety and operational requirements.</p>	<p>CMHSA - 039A Additional Obligations of Persons CMSHA - 069 Display of reports and directives</p>

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		<p>participants discussed inconsistent application of the process between companies and between supervisors. The discussion covered how the supervisors and superintendents who apply the processes can be better supported to deliver consistent outcomes. They noted that some of the most important vehicle interaction controls are people dependent and are based ongoing judgment and continuous good decisions of mobile equipment operators. These frontline decision are informed by training on the practical application of site standards. Appropriate performance monitoring with short cycle feedback is required to maintain the reliability of people dependent vehicle interaction controls. Review line manager performance training and support processes. Develop vehicle interaction control examples as part or training to reflect the importance of following site rules and reporting hazards etc. Confirm the task level limitations (decision rights) and permissions required to deviate from site standards. Consider developing performance feedback to operators that supports self-monitoring.</p>	<p>A range of interpretations of site expectations for vehicle interaction controls can lead to variable behaviours and potential conflicts of operating practices. Define site performance expectations, communicate using real-world scenarios and examples. Confirm the process with all contractors and business units and align performance management approaches applied.</p>		
<p>BI-CTA.12.01 Pre-commencement and periodic medicals for mobile equipment operators</p>	<p>Pre-employment and periodic medicals confirm that personnel meet position requirements.</p>	<p>Personnel who operate mobile equipment have pre-commencement and periodic medicals to confirm that they can safely and productively carry their assigned tasks. Medicals are carried out by appropriately trained personnel with oversight from a physician. Medical assessments include all regulatory requirements. CGRA BLS-011 Fitness for Work V1.0 - S4 Highlights conformance</p>	<p>For relevant positions, the site hiring and selection process includes a requirement for a medical assessment. Medicals are completed before position offers are made. A senior site manager has the accountability for the site process for organising and managing the results of employee periodic medicals. Medical assessments meet all regulatory requirements.</p>	<p>Reviews confirm the site process is being applied. Reviews confirm that the site process meets records management and privacy standards. Multiple Employee Records - Include details of training conducted and successful completion of CMWHS examinations by an Approved Medical Adviser.</p>	<p>CMSHA - 062 Implement a HSM System that incorporates risk management elements and practices CMSHR 036 Visitors' self-escape CMSHR 039 Consumption of alcohol CMSHR 040 Carrying out an activity, or entering a place, while under the influence of alcohol CMSHR 041 Safety and health management system for alcohol CMSHR 042.3 Providing protocols for other physical and psychological impairment CMSHR 046 Health assessment CMSHR 047 Employer's responsibility for health assessment</p>

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		<p>with the QLD Coal Mine Workers' Health Scheme which requires Appointed Medical Advisers to physically examine and functionally review all staff and CMW on site.</p>	<p>OFI-026 Review and update site health and lifestyle training and support materials. Workshop participants confirmed that additional self-management advice about balancing health, lifestyle, and work commitments can assist the Curragh North workforce. Providing practical information about approaches that assist individuals to make appropriate personal choices and can include diet, sleep and rest, commuting, alcohol and other drug choices, medication management, health support etc. Mine shift rosters are challenging and a lack of rest and general lifestyle choices can lead to fatigue and impairment outcomes in the short-term and poor health and personal issues in the medium to long-term. Review current site health and lifestyle training and support materials. Benchmark against good practice for remote mining operations, consider seeking expert input. As required update site processes emphasising processes for self-management to meet work requirements.</p>		<p>CMSHR 048 Reviewing health assessment report CMSHR 048A Conflicting health assessment reports CMSHR 049 Monitoring for workers' exposure to hazards CMSHR 050 Records about health assessment CMSHR 143 Heat stress</p>

Section 2 - Mobile Equipment is fit for use, key systems are functioning

This group of business inputs focuses on ensuring:

- Fit-for-purpose mobile equipment is selected for use
- Equipment is maintained to be operationally safe and productive
- Support equipment e.g. radio communications is fit-for-purpose and remains in service
- Equipment failures during operations are notified and managed

Table 2 – CN CNOV VICE Review Baseline – Equipment related business inputs with comments, opportunities for improvement, and related QLD Legislation

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
BI-EDA.22.01 Specifications for operator displays	Appropriately consistent operator displays provide the information necessary for safe and productive outcomes.	<ol style="list-style-type: none"> 1. Site specifications for mobile equipment operator displays are confirmed with OEMs, and third-party suppliers and consider: Operator size range (anthropometrics); Operating conditions e.g. lighting levels, background noise; Communicating routine machine status information (gauges, warning lights, etc.); Key controls including those related to abnormal and emergency situations 2. Display specifications required information about critical safety related systems, including: Speed; Pressure of pneumatic or hydraulic brake systems health; Brake circuit charging pressure; Parking brake applied; Steering Function health (hydraulic); Temperature of key components, and; Vision aids (cameras, proximity, etc.); Pressure in hydrostatic drives if service braking is hydrostatic; Temperature of oil-immersed brakes; Fire suppression system operating pressures; 3. Other display specifications for additional information, such as: <ol style="list-style-type: none"> a. Electrical system health: battery charge; on-machine sensor status; warning lights (illuminating during start-up); System voltage b. Consumable status: Fuel level; Hydraulic reservoir level; Engine oil pressure; Hydraulic oil temperature; Cooling water temperature; Hydraulic transmission temperature; Transmission oil pressure; Engine oil temperature; Hydraulic oil 	<p>Mobile equipment is assessed and approved for use by a competent person following the Introduction to Site processes.</p> <p>All vehicles in operating areas meet site requirements for consistent operator displays.</p> <p>The details of equipment being used are listed in asset registers.</p> <p>OEM provided asset documentation is added to Plant Safety File.</p> <p>Maintenance planners review introduction to site records and add work orders for the maintenance of key systems.</p> <p>SOP-024 Maintaining Hygienic Work Environment V4.2 20/6/2021 - S4.1.5 Work Areas and Work Stations consider the space between items and allowances for emergency evacuation including promoting ergonomic body positions.</p> <p>Workshop Discussion Prompt - Should there be a more formal approach to the fitting of after-market systems inside HME and LV operator cabins?</p>	<p>Operator training and feedback on displays by equipment model and type. Introduction to Site documentation and records.</p> <p>OEM provided documentation covering display details are part of the Asset Plant Safety File and inform operator training. Maintenance reviews and investigations e.g. failure to act on vehicle alarm.</p> <p>Interviews - Operator Displays are included in Maintenance Work Orders</p>	

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		<p>pressure</p> <p>c. General operating information: Running time or distance travelled meter; Service hour meter; Slope indicator</p> <p><i>Note: where there is more than one driving position, the display should be similar at each.</i></p> <p>Key Source References:</p> <ul style="list-style-type: none"> • Section 4.7 of ISO 19296 Mining - Mobile machines working underground - Machine Safety First edition 2018-11 • Each display shall be marked by clear symbols in accordance with ISO 6405-1 and ISO 6405-2. <p>CGRA BLS-014 Engineering V1.0 - S5 Design and Manufacture to consider ergonomics of equipment in Selection, Risk Assessments, Inspections, and RAMBO Design reviews.</p> <p>OFI-035 Confirm site standards for operator displays and general cabin ergonomics.</p> <p>Workshop participants discussed cabin ergonomics and confirmed that a range of installation standards for third-party screens for mobile equipment in use at site.</p> <p>Inconsistent placement of operator displays for information transfer can lead to errors in operator decision making e.g. information not received. It can also result in installed displays restricting emergency access and egress. Other issues can include actuating fire suppression systems if the actuator position varies.</p> <p>Consider developing a cabin layout standard for each type of equipment in service. Benchmark against other surface mining operations, seek input from OEM and third-party technology suppliers.</p>			
<p>BI-EDA.29.01 Mobile equipment operator interfaces consider ergonomics and cognitive loading</p>	<p>Information provided by screens, control panels, alerts, alarms, and other installed devices assists mobile equipment operators to deliver safe and productive outcomes.</p>	<p>There is a site process that considers cab ergonomics when installing screens, control panels, alerts, alarms, and other devices that:</p> <ul style="list-style-type: none"> • References site and company standards • References industry standards e.g. AS 2359.5 - Symbols for operator controls and other displays • Considers good practice industry research • Consults with experienced operators, maintainers, and technicians • Reviews and adjusts, as required, based on outcomes from installation pilots <p>The site process also reviews changes in cognitive load for mobile equipment operators covering:</p>	<p>The site process is applied when selecting, trialling, and installing screens, control panels, alerts, alarms, and other devices.</p> <p>SOP-024 Maintaining Hygienic Work Environment V4.2 20/6/2021 - S4.1.5 Work Areas and Work Stations consider the space between items and allowances for emergency evacuation including promoting ergonomic body positions.</p> <p>Workshop Discussion Prompt - Should there be more involvement of operational personnel when considering systems inside HME and LV operator cabins?</p>	<p>Records of the site process being applied.</p> <p>Logs and records that demonstrate the installed device and interface is being used as designed.</p> <p>Operator feedback.</p>	<p>CMSHR 092 Working at heights</p> <p>CMSHR 096(b) Minimising the risk in carrying out manual handling tasks</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<ul style="list-style-type: none"> • The additional cognitive load of newly installed or activated interfaces • The cumulative load when combined with other screens, control panels, alerts, alarms, and devices • The range of operating environments and circumstances that are relevant for the device or interface • How the expected outcomes will be delivered e.g. improvements in situational awareness, operator decision making, and performance • Related potential failure modes and their controls <p>CGRA BLS-014 Engineering V1.0 - S4 Asset Management Systems includes requirements around selection with a need to identify potential risks, required controls, identification of safety critical systems, and generation of maintenance strategies. S5 Design and Manufacture to consider ergonomics.</p> <p>OFI-035 Confirm site standards for operator displays and general cabin ergonomics. Workshop participants discussed cabin ergonomics and confirmed that a range of installation standards for third-party screens for mobile equipment in use at site. Inconsistent placement of operator displays for information transfer can lead to errors in operator decision making e.g. information not received. It can also result in installed displays restricting emergency access and egress. Other issues can include actuating fire suppression systems if the actuator position varies. Consider developing a cabin layout standard for each type of equipment in service. Benchmark against other surface mining operations, seek input from OEM and third-party technology suppliers.</p>			
<p>BI-EPA.26 Fit-for-purpose equipment selection and Introduction to Site processes</p>	<p>Equipment selected for site use is fit-for-purpose and delivers safe and productive outcomes - meeting all site requirements for worker ergonomics, control integrity, matched technology (to site), equipment performance and operating environment constraints.</p>	<p>Sites have an equipment selection process that involves maintainers and operational personnel in a team review (Risk Assessment format) and uses asset specifications when:</p> <ul style="list-style-type: none"> • Purchasing new or used equipment • Transferring equipment to site • Hiring equipment • Assessing contractor equipment <p>Equipment specifications ensure that mobile equipment assets meet site production and operating environment demands (including</p>	<p>Senior managers including representatives of operations and maintenance approve equipment selection recommendations. A rigorous introduction to site process checks that received mobile equipment meets site requirements before it is permitted to operate. This includes ensuring that site requirements are met for:</p> <ul style="list-style-type: none"> • Safety related systems including: 	<p>Maintenance strategies confirm the status of all mobile equipment and associated infrastructure systems. Safety related components/checks are addressed with additional rigour (e.g. proof test requirements) with status reports available to senior personnel. Equipment specifications are regularly reviewed, and if required after significant incidents.</p> <p>CGRA BLS-014 Engineering V1.0 - S11</p>	<p>CMSHA - 044 Tolerable level of risk to be achieved by the design of all plant and information passed on CMSHA - 058A Additional requirements for management of</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>provision of systems for monitoring location (including geofencing), communicating and visibility/sight lines). The specifications also cover the use of ancillary equipment such as forklifts, scissor lifts, elevating work platforms etc. and considers suitability for the operating environment (stability, use of quick detach systems, character of the material being transported, temperature ranges, etc.)</p> <p>Equipment specifications include allowance for all safety related functions such as energy constraint (guarding), removal of energy (isolation), and protection against unwanted operation. Information on equipment use limitations from the OEM should be provided to the operators/maintainers with training modules that also check for understanding.</p> <p>CGRA BLS-014 Engineering V1.0 - S4 Asset Management Systems includes requirements around selection with a need to identify potential risks, required controls, identification of safety critical systems, and generation of maintenance strategies.</p>	<p>Brakes; Steering; Control and warning and alarm systems that meet requirements (including technology solutions); Warning devices are in place to detect fatigue, use of mobile phones or personal electronic devices, and other site required systems; Radios or communication systems matching site requirements; Integrity of lifting and load moving components</p> <ul style="list-style-type: none"> • Visibility and demarcation: Head lights; Running lights; Indicators; Vehicle identification numbers that are clear and visible • General operability: Running gear e.g. tyres; Remote control technologies with associated fail safes to prevent unintended operation; Noise and fume generation matched to site requirements; Other components meeting site requirements for surfaces (cleanliness, coatings, external FRAS), strength, and confirming it is matched to site engineering and maintenance capabilities • Maintenance information and work orders are confirmed to be in place for the incoming items of equipment as required with information included in site information management systems (plant safety files). <p>CGRA BLS-014 Engineering V1.0 - S9 Introduction to Site Operations SHMS are to include procedures and tools to ensure that plant, equipment, and structures procured, installed, and commissioned are authorised or otherwise approved to commence operations. Plant, equipment, and structures must be inspected and approved by a competent person who must record the inspection and findings on appropriately constructed checklists. A copy of the approval for the plant, equipment or structure must be</p>	<p>Maintenance indicates requirements for appropriately qualified personnel to conduct inspections, make repairs, and arrange for supplies of components and consumables.</p>	<p>surface mines CMSHR 008.2(a) Notification of safety and health issues CMSHR 066 - Braking system specification requirements CMSHR 066 (2) (a-b) - Brakes must be maintained and regularly tested CMSHR 066 (2) (c) - Records of brake tests must be controlled and accessible CMSHR 067 Machine guarding or fencing CMSHR 069 Pre-start warning should be fitted to plant CMSHR 072 (e) - Develop and implement a procedure for lifting plant CMSHR 074 - Protective Cabins for Mobile Plant CMSHR 081 Action to be taken if certified equipment does not meet certification requirements or is likely to create an unacceptable level of risk CMSHR 096(a) Controlling access to, and working in, confined spaces CMSHR 096(b) Minimising the risk in carrying out manual handling</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
			<p><i>maintained in the Asset Management System against the relevant Asset Number (see section 13. Documentation).</i></p> <p>OFI-008 Review site standards and processes for mobile equipment selection and introduction to site Workshop participants discussed the application of site standards for onboarding mobile equipment. They identified some inconsistencies in applying standards for lights and vehicle markings and confirmed how this can result in additional operating hazards e.g. vehicle misidentification during positive communication. Review site processes and standards applied for mobile equipment selection and site use approval across contractor and company workgroups. Confirm that site standards are adequate and the processes for their application are effective. Review how performance is monitored. Include lights and vehicle markings in the review. Update site personnel on the review outcomes and expected standards.</p> <p>OFI-025 Review site equipment selection and onboarding processes. Workshop participants discussed situations where stakeholders e.g. operators and maintainers have not had input into the site equipment selection process. A lack of input from knowledgeable and experienced stakeholders in selecting and onboarding new equipment can result in potential operational, servicing, and maintenance issues being missed or under-examined. It also delays constructive consultation, and explanations of the reasons behind selection e.g. cost and performance drivers, company agreements with particular OEMs, contractor deploying spare equipment etc. and planning to manage potential issues e.g. workshop access for larger equipment, spares inventories, service agreements etc.</p>		<p>tasks CMSHR 136 Engine shutdown and fire suppression</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
			Review processes for equipment selection and onboarding, confirm that there is a step requiring consultation with site stakeholders. Confirm measures and monitor performance.		
BI-EPA.30.01 Mobile equipment is speed limited	If required, mobile equipment is reliably speed limited.	<p>Where site speed limit governing of mobile equipment is required, specifications are set considering:</p> <ul style="list-style-type: none"> • Equipment type • Equipment application e.g. a tractor unit used in an underground man hauler may have a higher speed than a tractor unit configured as a forklift • Location (operating environment) <p>Tamper proof and tamper evident requirements PLN-005 CNOG PHMP Mobile Equipment Incidents - speed limits mentioned in multiple locations but no reference to engineered limiting of speed Interviews - Indications were speed is constrained by gear selection and reinforced in training modules. OFI-071 Review site speed control improvement and enhancement options. Workshop participants identified that site speed constraints are currently determined by gear selection and this is reinforced in training modules. Speed limiting as an engineering control is not used at site, but there are in vehicle monitoring systems in place and used by contractor Mining Pro. However, this control implementation is dependent on the decisions made of equipment operators. Review options for monitoring and reinforcing site speed controls using technology e.g. Geo fencing with required speed advice, wide use of in vehicle monitoring with automatic analysis and by exception reports etc.</p>	<p>Speed limiting of mobile equipment that meets site requirements is confirmed at each step of the:</p> <ul style="list-style-type: none"> • Site specify, purchase, delivery, acceptance, commissioning, and the introduction to site checks • In mobile equipment safety files • During maintenance and servicing <p>Workshop Discussion Prompt - Is there merit in extending the application of speed limited equipment to site?</p>	<p>Site speed limiting specifications are in place and applied and captured in mobile equipment safety files. Equipment prestart checks and defect reports By exception - speed limiter compromises detected during periodic maintenance are reported and investigated</p>	
BI-EPA.30.05 New to site mobile equipment meets specifications for vehicle lights, signage, and markings.	All vehicles in operating areas meet site specifications for lights, signage, and markings.	<p>The Introduction to Site process confirms that mobile equipment specifications for:</p> <ul style="list-style-type: none"> • Reversing and head lights • Running lights • Indicators • Identification numbers • Supporting documentation • Maintenance and servicing requirements details <p>Apply when:</p> <ul style="list-style-type: none"> • Purchasing new or used equipment 	<p>Mobile equipment is assessed and approved for use following the Introduction to Site processes. All vehicles in operating areas meet site requirements for:</p> <ul style="list-style-type: none"> • Reversing and head lights • Running lights • Indicators • Identification numbers • Supporting documentation of conformance for plant safety 	<p>Mobile equipment approval for site use records for mobile equipment. Maintenance records e.g. replacement of non-standard components post mobile equipment deployment. By exception reporting of non-conformance of operating mobile equipment. Regular mobile equipment operational and maintenance audit findings.</p>	<p>CMSHR 072 (f) - Develop and implement a procedure for marking lifting plant CMSHR 144 Lighting</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<ul style="list-style-type: none"> Transferring equipment to site Hiring equipment Assessing contractor equipment <p>SOP-017 Using Mobile Plant - Mine Traffic Rules - S9 Vehicles and Mobile Equipment - Lighting Requirements, covers the different colour, spacing and type of lights required on vehicles.</p> <p>SOP-016 Checking Mobile Plant - S4.3 Safety Feature Checks include confirmation of lights, identification call-signs and accesses. S9 Vehicle Site Identification Number requires legibility of numbers from >50m and at S15 need high-viz markings and flags (for LVs).</p>	<p>dossiers</p> <ul style="list-style-type: none"> Maintenance and servicing requirements <p>Multiple Pre-Start Checks - Include confirmation of functionality of lights and visibility of unit numbers and vehicle identification decals.</p> <p>OFI-091 Review Site Vehicle Marking Standards</p> <p>Workshop participants confirmed that there is mobile equipment operating on site with inadequate visible signage for plant numbers. This makes it hard to make out the numbers to achieve positive communications.</p> <p>Failing to be able to make effective POS comms can lead to unwanted vehicle interactions. Note defects in vehicle markings identified and reported during prestarts do not always result in issues being corrected.</p> <p>Review site standards for onboarding and approving equipment for site.</p>		
BI-EPA.31.01 Maintenance of safety and operational systems on mobile equipment	Safety and operational systems on mobile equipment are maintained to a schedule and repaired when they breakdown. Mobile equipment with compromised safety and operational systems does not operate.	<p>Maintenance strategies in place for all mobile and related plant based on OEM requirements for inspections, replacement and lubrication of components. Work on safety systems includes proof testing where appropriate e.g. after maintenance on brakes and steering systems, for exhaust gas levels, emergency stop functions, etc. Faults detected at prestart checks and during operations are classified and prioritised for maintenance as a defect management process. Fault types where equipment should not be used and the process to follow in this situation are well defined.</p> <p>CGRA BLS-014 Engineering V1.0 undated - S11 Maintenance references skills required for maintainers and relevant safety (and operational) components which require inclusion in site maintenance strategies. S12 Forklifts, Telehandlers and Tyre Handlers call up additional requirements that should be in place for these high energy related machines.</p>	<p>Maintenance planners issue work orders for mobile plant in line with confirmed strategies, containing checklists, instruction, procedures, and guidance for records to be prepared and submitted on completion of the work order.</p> <p>Maintenance workers conduct work order tasks in line with site requirements (which may extend beyond OEM procedures). Completed work order records are returned to the maintenance planners for permanent storage.</p> <p>Senior engineering and operational personnel review records to confirm maintenance strategy meets site requirements.</p> <p>Interviews and Inspections - Engineering crews work through maintenance plans on equipment and coordinate with stores to access work packs with appropriate components for replacement.</p> <p>OFI-015 Review access to Blackrock and other relevant Content Management Systems.</p> <p>Workshop participants discussed situation where contractor site operators</p>	<p>Equipment availability metrics.</p> <p>Reports on maintenance work order close out are prepared by maintenance planners for review by senior personnel</p> <p>Metrics on the status of safety related work orders.</p> <p>Reviews and investigations after significant maintenance failures.</p> <p>BLS-004 FH03-CCV-02-FH03 Mobile Equipment - Vehicle Safety & Operations - CCV checks on vehicles to confirm status of maintenance records and vehicle condition.</p> <p>Interviews and Inspections - Completed work orders, flagged where additional faults (non-critical) were identified are returned to maintenance planners for inclusion in subsequent maintenance tasks on the machinery. Reports are prepared on the status of maintenance work orders for review by more senior site personnel.</p> <p>OFI-016 Review the value-add of a QA step after mobile equipment maintenance.</p> <p>Workshop participants discussed the</p>	<p>CMSHR 067 Machine guarding or fencing</p> <p>CMSHR 071 Maintenance inspections to be conducted by a competent person</p> <p>CMSHR 072 (e) - Develop and implement a procedure for lifting plant</p> <p>CMSHR 081 Action to be taken if certified equipment does not meet certification requirements or is likely to create an unacceptable level of risk</p> <p>CMSHR 088 Cutting, drilling or excavating near a concealed service</p>

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			<p>and maintainers who do not have a company email cannot gain Blackrock access.</p> <p>Without direct access, personnel either do not access the information or asked their respective health and safety function to provide print outs. Either outcome which ignores the latest information or delays access to it is sub-optimal.</p> <p>Review site strategy for proving access to Blackrock and other relevant systems so that:</p> <ul style="list-style-type: none"> • Personnel have access to required information • There is no delay in accessing information <p>OFI-017 Review and improve communications between maintenance and production</p> <p>Workshop participants discussed communications between maintenance and production e.g. on equipment availability. They confirmed that there is an inconsistent standard that depends on the companies and importantly on the different supervisors involved.</p> <p>Well maintained mobile equipment that is fit for use delivers consistent safety and productivity outcomes for mining organisations.</p> <p>Identify current good practice examples for communication between production and maintenance personnel, confirm which processes are effective, the standards and performance expected from stakeholders - supervisors, superintendents, and managers. Monitor performance.</p> <p>OFI-034 Confirm that maintainers and technicians have access to OEM and Third-Party Technology Manuals</p> <p>Workshop participants questioned if technicians and maintainers at site have access to original equipment manufacturer and third-party technology manuals and other reference information. They also discussed how a lack of access to information can lead to poor maintenance outcomes.</p>	<p>benefits of having a quality assurance (QA) sign-off step following maintenance, as part of equipment handover to operations. They confirmed range of site practices even across the same contractor. The primary approach reported is that the hand over pivots on the judgement and sign-off of the fitter who undertook the maintenance. It was also noted that not all OEM references and manuals are referenced in procedures and work instructions.</p> <p>Consider the value-add of a consistent and measurable maintenance QA step before equipment is handed back to operations. Confirm that OEM references and manuals are available for maintainers on site.</p> <p>OFI-094 Review Maintenance Performance Monitoring Processes</p> <p>There is limited monitoring and feedback to operators around the conduct of maintenance activities on site.</p> <p>Information on what has been completed effectively and what is a known issue rescheduled to a later maintenance service is not available.</p> <p>Lack of knowledge of the status of maintenance can lead to frustrations in conducting pre-starts and ultimately to unwanted vehicle failings during operations.</p> <p>Review maintenance performance management processes and consider how feedback to operators can be improved.</p>	<p>CMSHR 088A Asbestos material installed in buildings and plant</p> <p>CMSHR 088B Asbestos, other than asbestos material installed in buildings and plant</p>

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<p>BI-ERA.31.02 Inspection and maintenance of mobile equipment cabin integrity, restraints, access and escape, auto shutdowns and other relevant protective systems.</p>	<p>The protective systems and safety related components of on-site approved mobile equipment remain functional.</p>	<p>Maintenance strategies related to cabins, passenger restraints, access and egress, auto shutdown and other relevant protective systems are in place for all vehicles on site and include:</p> <ul style="list-style-type: none"> • Regular visual checks and inspections • Measurements (with tolerances) • Proof testing <p>Replacement of components based on OEM schedule, recommendations, and site duty requirements.</p> <p>CGRA BLS-014 Engineering V1.0 undated - S11 Maintenance references skills required for maintainers and relevant safety (and operational) components which require inclusion in site maintenance strategies. S12 Forklifts, Telehandlers and Tyre Handlers call up additional requirements that should be in place for these high energy related machines.</p>	<p>Confirm that maintainers and technicians have ready access to and are using OEM and Third-Party Technology Manuals and other relevant information in their work.</p> <p>Work orders for equipment on site are completed in a timely manner covering:</p> <ul style="list-style-type: none"> • Cabin integrity, • Restraints (including load carrying restraints), • Access and emergency egress • Auto shutdown and other relevant protective systems <p>Maintenance planners close out work orders when confirmed as completed and prepare regular status reports on work order status for equipment on site.</p> <p>Inspections and Interviews - Work packs and work-orders included cabin integrity, seat and seat belts, access and egress, and alarm or protection systems.</p> <p>OFI-036 Review how mobile equipment performance is reported and monitored at a site level.</p> <p>Multiple contractor groups provide support to Curragh North Open Cut Mine. There is a mix of how the equipment used by each contractor group is operated and maintained. This includes the use of different maintenance processes and support systems covering prestart checks and defect reporting, inspections, servicing, reactive and planned maintenance.</p> <p>The mine owner and operator (SSSE) of Curragh North Open Cut mine has overarching company and legislative obligations to maintain and operate mobile equipment that is fit for use. This approach requires performance measures that identify and correct systems issues before incidents occur. Given the multiple systems and workgroups involved in mobile equipment maintenance at site, setting and applying performance measures is neither straight forward nor simple.</p> <p>Review and confirm the minimum performance measures required at a mine operator level to meet company and</p>	<p>Equipment availability metrics. Reports on maintenance work order close out are prepared by maintenance planners for review by senior personnel Metrics on the status of safety related work orders. Reviews and investigations after significant maintenance failures.</p> <p>Multiple pre-start documents - Includes checks in the RED (do not use until repaired) area for safety related systems on equipment.</p> <p>OFI-094 Review Maintenance Performance Monitoring Processes</p> <p>There is limited monitoring and feedback to operators around the conduct of maintenance activities on site. Information on what has been completed effectively and what is a known issue rescheduled to a later maintenance service is not available. Lack of knowledge of the status of maintenance can lead to frustrations in conducting pre-starts and ultimately to unwanted vehicle failings during operations. Review maintenance performance management processes and consider how feedback to operators can be improved.</p>	<p>CMSHR 072 (e) - Develop and implement a procedure for lifting plant</p> <p>CMSHR 075 (1) - Vehicles to be specified with seat belts.</p> <p>CMSHR 092 Working at heights</p> <p>CMSHR 095 Maintaining hygienic work environment</p>

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			<p>legislative expectations and how they will be reported and monitored. Work with maintenance specialists from all contractor groups and identify the information required to report site performance. Consider how the required information can be harvested from their current maintenance systems or other sources. With a focus on safe and productive operations, consider performance measures that confirm the application of key maintenance processes from inspections, prestart checks and defect reporting and resolution, planned vs breakdown maintenance etc.</p>		
<p>BI-ERA.31.03 Inspection and maintenance of mobile equipment lights and markings</p>	<p>Mobile equipment in use always meets category standards for lights and markings.</p>	<p>Each category of mobile equipment has an approved standard for lights and markings. There are comprehensive site processes in place to apply and maintain this mobile equipment standard including:</p> <ul style="list-style-type: none"> • Selection • Site use approval • Inspection • Cleaning and washing • Defect reporting • Equipment stand down • Repairs • Planned maintenance including the replacement of components based on OEM schedule, recommendations, and site duty requirements. <p>CGRA BLS-014 Engineering V1.0 undated - S11 Maintenance references skills required for maintainers and relevant safety (and operational) components which require inclusion in site maintenance strategies - standards for lighting and signage required to be achieved.</p>	<p>Inspection, defect reporting, repair and maintenance processes that consider lights and marking for mobile equipment are consistently applied. Prestart checks include:</p> <ul style="list-style-type: none"> • Confirming functioning lights and indicators • Visible decals • Whip flags (e.g. for surface mining light vehicles) • Flashing lights (colour as specified) <p>Inspections and Interviews - Work packs and work-orders included lights, warning lights, horns etc., and equipment decals (markings).</p> <p>OFI-036 Review how mobile equipment performance is reported and monitored at a site level.</p> <p>Multiple contractor groups provide support to Curragh North Open Cut Mine. There is a mix of how the equipment used by each contractor group is operated and maintained. This includes the use of different maintenance processes and support systems covering prestart checks and defect reporting, inspections, servicing, reactive and planned maintenance.</p> <p>The mine owner and operator (SSSE) of Curragh North Open Cut mine has overarching company and legislative obligations to maintain and operate mobile equipment that is fit for use.</p>	<ol style="list-style-type: none"> 1. The current and approved standard for each category of mobile equipment details requirements for lights and markings. 2. Monitoring that prestart checks are being undertaken to required standard. 3. Equipment availability metrics include defect stand down information. 4. Reports on maintenance work order close out are prepared by maintenance planners for review by senior personnel. <p>Multiple pre-start documents - Includes checks in the RED (do not use until repaired) area for lights and markings on equipment.</p>	

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			<p>This approach requires performance measures that identify and correct systems issues before incidents occur. Given the multiple systems and workgroups involved in mobile equipment maintenance at site, setting and applying performance measures is neither straight forward nor simple.</p> <p>Review and confirm the minimum performance measures required at a mine operator level to meet company and legislative expectations and how they will be reported and monitored. Work with maintenance specialists from all contractor groups and identify the information required to report site performance. Consider how the required information can be harvested from their current maintenance systems or other sources. With a focus on safe and productive operations, consider performance measures that confirm the application of key maintenance processes from inspections, prestart checks and defect reporting and resolution, planned vs breakdown maintenance etc.</p>		
<p>BI-ERA.31.04 Inspection and Maintenance of Mobile Equipment alarms, monitors, cameras, and other warning devices.</p>	<p>Mobile equipment alarms, cameras and advice screens are functional during operations.</p>	<p>Each category of mobile equipment has an approved standard for alarms, cameras, advice screens, and other warning devices. There are comprehensive site processes in place to apply and maintain this mobile equipment standard including:</p> <ul style="list-style-type: none"> • Selection • Site use approval • Inspection and calibration • Proof testing • Cleaning and washing • Defect reporting • Equipment stand down requirements • Repairs and replacement • Planned maintenance including proof testing, component replacement based on OEM schedule, recommendations, and site duty requirements. <p>CGRA BLS-014 Engineering V1.0 undated - S11 Maintenance references skills required for maintainers and relevant safety (and operational) components which require inclusion in site maintenance strategies. S12 Forklifts, Telehandlers</p>	<p>Inspection, calibration, proof testing, defect reporting, repair, maintenance and other processes relevant to mobile equipment alarms, cameras, and in cabin monitors, and other warning devices are consistently applied.</p> <p>Prestart checks and infield calibration includes checking and reporting on the status of operator relevant alarms, cameras, advice screens, and other warning devices.</p> <p>Inspections and Interviews - Work packs and work-orders include functional checks on alarms, monitors, cameras and other warning devices.</p> <p>OFI-036 Review how mobile equipment performance is reported and monitored at a site level.</p> <p>Multiple contractor groups provide support to Curragh North Open Cut Mine. There is a mix of how the equipment used by each contractor group is operated and maintained. This includes the use of</p>	<ol style="list-style-type: none"> 1. The current and approved standard for each category of mobile equipment details requirements for alarms, cameras, advice screens, and other warning devices. 2. Monitoring that prestart checks are being undertaken to required standard. 3. Equipment availability metrics include defect stand down information. 4. Reports on maintenance work order close out are prepared by maintenance planner <p>Multiple pre-start documents - Includes checks in the RED (do not use until repaired) area for safety related systems on equipment.</p>	

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		<p>and Tyre Handlers call up additional requirements that should be in place for these high energy related machines. Alarms and cameras not specifically identified.</p>	<p>different maintenance processes and support systems covering prestart checks and defect reporting, inspections, servicing, reactive and planned maintenance.</p> <p>The mine owner and operator (SSSE) of Curragh North Open Cut mine has overarching company and legislative obligations to maintain and operate mobile equipment that is fit for use. This approach requires performance measures that identify and correct systems issues before incidents occur. Given the multiple systems and workgroups involved in mobile equipment maintenance at site, setting and applying performance measures is neither straight forward nor simple.</p> <p>Review and confirm the minimum performance measures required at a mine operator level to meet company and legislative expectations and how they will be reported and monitored. Work with maintenance specialists from all contractor groups and identify the information required to report site performance. Consider how the required information can be harvested from their current maintenance systems or other sources. With a focus on safe and productive operations, consider performance measures that confirm the application of key maintenance processes from inspections, prestart checks and defect reporting and resolution, planned vs breakdown maintenance etc.</p>		
<p>BI-ERA.31.08 Inspection and maintenance of mobile equipment key systems, brakes, steering, and wheel assemblies</p>	<p>Key mobile equipment systems and components such as brakes, electric drive propulsion elements, steering, and wheel assemblies do not fail without detection or warning.</p>	<p>Each category of mobile equipment has an approved standard for key systems and components.</p> <p>There are comprehensive site processes in place to apply and maintain this mobile equipment standard including:</p> <ul style="list-style-type: none"> • Selection • Site use approval • Inspection and calibration • Prestart checks • Reporting operator performance • Defect reporting • Equipment stand down requirements 	<p>Inspection, calibration, defect reporting, repair, maintenance, and other processes relevant to mobile equipment key systems are consistently applied.</p> <p>Mobile equipment prestart checks and in field testing check and report on the status of key systems.</p> <p>A defect reporting system is in place with clear guidance on the actions to be taken if mobile equipment key systems are compromised.</p> <p>Inspections and Interviews - Work packs and work-orders included brakes, steering</p>	<ol style="list-style-type: none"> 1. The current and approved standard for each category of mobile equipment details key system and component operational requirements. 2. Monitoring that prestart checks are being undertaken to the required standard and frequency. 3. Equipment availability metrics include defect stand down information. 4. Reports on maintenance work orders close out for key systems. 	<p>CMSHR 066 - Braking system specification requirements CMSHR 066 (2) (a-b) - Brakes must be maintained and regularly tested CMSHR 066 (2) (c) - Records of brake tests must be controlled and accessible</p>

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		<ul style="list-style-type: none"> Repairs and replacement Planned maintenance and component replacement based on OEM schedule, recommendations, and site duty requirements. <p>Defect reports, alarms, and non-conforming actions of operators and maintainers are analysed to consider additional inspections and maintenance, further operator training, and performance monitoring.</p> <p>CGRA BLS-014 Engineering V1.0 undated - S5.3.2 Brake Integrity, S5.10.1 Trailer Braking Systems, S11.1 competencies for evaluating heavy vehicle brake systems, and S11.4 Brake Testing (max 6 months frequency) all require a clear focus on braking and steering systems.</p>	<p>and wheel assemblies (with additional tyre-fitting work provided at a dedicated tyre bay on site).</p> <p>OFI-036 Review how mobile equipment performance is reported and monitored at a site level.</p> <p>Multiple contractor groups provide support to Curragh North Open Cut Mine. There is a mix of how the equipment used by each contractor group is operated and maintained. This includes the use of different maintenance processes and support systems covering prestart checks and defect reporting, inspections, servicing, reactive and planned maintenance.</p> <p>The mine owner and operator (SSSE) of Curragh North Open Cut mine has overarching company and legislative obligations to maintain and operate mobile equipment that is fit for use. This approach requires performance measures that identify and correct systems issues before incidents occur. Given the multiple systems and workgroups involved in mobile equipment maintenance at site, setting and applying performance measures is neither straight forward nor simple.</p> <p>Review and confirm the minimum performance measures required at a mine operator level to meet company and legislative expectations and how they will be reported and monitored. Work with maintenance specialists from all contractor groups and identify the information required to report site performance. Consider how the required information can be harvested from their current maintenance systems or other sources. With a focus on safe and productive operations, consider performance measures that confirm the application of key maintenance processes from inspections, prestart checks and defect reporting and resolution, planned vs breakdown maintenance etc.</p>	<p>5. Incident analysis of component or key system failures that occurred without warning or detection.</p> <p>Multiple pre-start documents - Includes checks in the RED (do not use until repaired) area for brakes, steering and wheel assemblies on equipment.</p>	
BI-ERA.31.30 Selection, inspection, and	Operating sites deploy fit for purpose, effective, and	There is a site performance standard for site radios and other communication equipment	Prestart checks, defect reporting, radio channel allocation, signal coverage,	Maintenance planners close out work orders when completed and prepare	CMSHR 008.2(a) Notification of

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maintenance of radios and other communication equipment	reliable radios and other communication equipment.	<p>There are comprehensive site processes that define:</p> <ul style="list-style-type: none"> • Required communication equipment by equipment category • Required communication equipment for personnel who work around mobile equipment e.g. handheld devices • Assigned radio channels • Acceptable practices when communication equipment is faulty, out of range, or unavailable • Expected maintenance performance metrics <p>BLS-014 Engineering S5 Design requirements to include provision for permanently mounted two-way radios.</p> <p>Interviews and Inspections - functioning radios a clear requirement for all deployed plant on site.</p> <p>OFI-001 Review radio handset positioning in cabs and the training around channel changes.</p> <p>Workshop participants discussed how the positioning of radio hand sets in the cab and consistent practices for changing channels e.g. by button position can avoid the need to look away from the road when changing channels.</p> <p>Some operators have difficulty accessing the radio, changing the channel (particularly when there are many channels to choose from) and so are taking their eyes off the road when they reach out for the handpiece or change radio channels.</p> <p>Some operators have difficulty accessing the radio, changing the channel (particularly when there are many channels to choose from) and so are taking their eyes off the road when they reach out for the handpiece or change radio channels.</p>	<p>repair, maintenance, and other processes relevant to communications equipment are consistently applied.</p> <p>Interviews and Inspections - Workshop work orders included confirming functionality of communication systems.</p>	<p>regular status and performance reports for communications equipment. Work orders for equipment repair are completed in a timely manner.</p> <p>Multiple pre-start documents - Includes checks in the RED (do not use until repaired) area for radios and communication systems on equipment.</p>	safety and health issues
BI-ERA.32.01 Operator pre-start checks include safety and operational elements	Equipment operators carry our prestart checks to confirm equipment can be operated and work area hazards are identified and managed. Equipment that is compromised does not operate and work environment issues are addressed before commencing work.	<p>Equipment operators are competent and supported to carry equipment and work area prestart checks.</p> <p>Mobile equipment prestart checks include:</p> <ul style="list-style-type: none"> • Brakes including warning systems • Steering including warning systems • Tyres and other running gear • Conditions of vehicle - load carrying elements, guards and covers, lights and signage, hydraulic lines, and ground engaging tools • Access and egress (normal and emergency) in good condition and accessible • Communications (radios etc.) 	<p>Equipment operators are trained, competent and authorised to carry equipment and work area prestart checks before operating equipment.</p> <p>Prestart checklists are prepared for each type of equipment.</p> <p>Prestart equipment and work area checks are logged.</p> <p>There is a site defect reporting and management system.</p> <p>Multiple Assessment Tools - Assessment tools which accompany the training modules include a formal requirement to check both theory</p>	<p>Supervisors monitor the quality of operator prestart checks. Maintenance planners review prestart forms and raise work orders as required. Prestart records confirm that checks of work areas and key systems, including - communications, brakes, steering, tyres and running gear are completed.</p> <p>Interviews - Identified faults are reported through to the supervisor, maintenance planners and others to action any required repairs.</p> <p>OFI-040 Review and update monitoring of mobile equipment prestart quality.</p>	<p>CMSHA - 043 - Obligations of Contractors to conform with HSMS and train employees</p> <p>CMSHR 073 - SOP for Pre-use inspections of mobile plant</p> <p>CMSHR 095 Maintaining hygienic work environment</p> <p>CMSHR 098 Reporting and</p>

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		<ul style="list-style-type: none"> • Fire extinguishers and fire suppression system status, • Any attachments, e.g. buckets, jacks, lifting equipment, spare wheels etc. <p>Faults detected at prestart checks and during operations are classified:</p> <ul style="list-style-type: none"> • When equipment cannot continue to operate and how to manage repair or removal from work area • When equipment can continue to be operated (and communication of tolerable faults) <p>Work area checks include identifying and managing hazards from: Vehicle moving off; Obstacles; Road conditions; Road stability (presence of cracking or signs of slumping of, or onto roadway); Weather (rain, wind (dust), other threats), and; Vision and sight line restrictions</p> <p>Multiple Pre-Start Documents - Include checks in the RED area for safety and operational components</p> <p>Multiple Training (Learning Material) Modules - Pre-start checks outlined in the Learning Materials and cover key pass or fail criteria.</p>	<p>understanding as well as demonstrated practical skills for conducting pre-start checks.</p> <p>OFI-014 Review mobile equipment prestart processes as applied by different workgroups.</p> <p>Workshop participants discussed and confirmed that while there is an overarching site requirement, operator mobile equipment prestart checks vary across different workgroups. They also note production pressure (real or perceived) to have equipment working early in each shift e.g. first load by 0630. From time-to-time this results in situations where mobile equipment has left the go line before defects are detected e.g. faulty radios etc. Workshop participants discussed a need for a consistent site equipment prestart equipment performance standard before installing additional technology such as operator alert or collision alerting systems. Standardisation is also required before digitising prestart check processes.</p> <p>Review application of existing vehicle prestart processes, consider how to best balance production drivers, equipment health checks, defect reporting, and operator safety. Develop a roadmap to consistent site performance and the operational integration of digital technologies.</p>	<p>Workshop participants confirmed that there is an inconsistency in how mobile equipment prestart checks are monitored for quality and quantity. Some reasons discussed included operator training and competence, first load production pressures, nil consequences for sub-standard checks. Inconsistent and poorly executed pre-start checks can lead to mobile equipment operating with defects have not been identified or where hazards are not managed using the site fault classification process. Also without quality and quantity data, reviews and improvements to overall process design cannot be made.</p> <p>Review how performance monitoring of operator mobile equipment prestart checks can be improved. Establish system monitoring for daily outputs with quality and quantity outputs. Once reliable data is available review the application and design of the prestart processes covering training, application of defect classifications, defect response and repair times etc.</p>	<p>rectifying defects</p>
<p>BI-ERA.32.07 Prestart checks of radio and other communication devices</p>	<p>Prestart checks confirm that mobile equipment operators and people who work around mobile equipment can communicate.</p>	<p>Mobile equipment operators and personnel who work around mobile conduct prestart checks that confirm:</p> <ul style="list-style-type: none"> • Radios are working • Radios are set on the correct channel • Other communication devices are working and set up correctly (where relevant) <p>There is a well-defined site defect management process to manage faults in communications equipment before and during operations. It includes what to do when there is a fault.</p> <p>Multiple Pre-Start Documents - Include checks in the RED area for safety and operational components</p>	<p>Radio and other communication device users are trained in:</p> <ul style="list-style-type: none"> • Site call up and response standards • Managing faults and defects • Emergency calls • Equipment prestart checks <p>Multiple Assessment Tools - Assessment tools which accompany the training modules include a formal requirement to check both theory understanding as well as demonstrated practical skills for conducting pre-start checks.</p>	<p>Training record reviews. Prestart records confirm that checks are completed. Supervisors monitor and coach on the quality of operator prestart checks. Maintenance planners review prestart forms and raise work orders as required. As required investigations of communication faults.</p> <p>Interviews - Identified faults are reported through to the supervisor, maintenance planners and others to action any required repairs.</p> <p>OFI-040 Review and update monitoring</p>	<p>CMSHR 008.2(a) Notification of safety and health issues CMSHR 073 - SOP for Pre-use inspections of mobile plant CMSHR 098 Reporting and rectifying defects</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>Multiple Training (Learning Material) Modules - Pre-start checks outlined in the Learning Materials and cover key pass or fail criteria.</p>	<p>OFI-014 Review mobile equipment prestart processes as applied by different workgroups. Workshop participants discussed and confirmed that while there is an overarching site requirement, operator mobile equipment prestart checks vary across different workgroups. They also note production pressure (real or perceived) to have equipment working early in each shift e.g. first load by 0630. From time-to-time this results in situations where mobile equipment has left the go line before defects are detected e.g. faulty radios etc. Workshop participants discussed a need for a consistent site equipment prestart equipment performance standard before installing additional technology such as operator alert or collision alerting systems. Standardisation is also required before digitising prestart check processes. Review application of existing vehicle prestart processes, consider how to best balance production drivers, equipment health checks, defect reporting, and operator safety. Develop a roadmap to consistent site performance and the operational integration of digital technologies.</p>	<p>of mobile equipment prestart quality. Workshop participants confirmed that there is an inconsistency in how mobile equipment prestart checks are monitored for quality and quantity. Some reasons discussed included operator training and competence, first load production pressures, nil consequences for sub-standard checks. Inconsistent and poorly executed pre-start checks can lead to mobile equipment operating with defects have not been identified or where hazards are not managed using the site fault classification process. Also without quality and quantity data, reviews and improvements to overall process design cannot be made. Review how performance monitoring of operator mobile equipment prestart checks can be improved. Establish system monitoring for daily outputs with quality and quantity outputs. Once reliable data is available review the application and design of the prestart processes covering training, application of defect classifications, defect response and repair times etc.</p>	
<p>BI-ERA.32.11 Prestart checks of mobile equipment alarms and monitors</p>	<p>Prestart checks confirm that mobile equipment alarms, monitors and information panels are working.</p>	<p>Mobile equipment operators conduct prestart checks, or monitor equipment self-checks, to confirm alarms, monitors, and information panels are working. There is a well-defined site defect management process to manage faults before and during operations. It includes what actions to take based on fault type. Multiple Pre-Start Documents - Include checks in the RED area for safety and operational components Multiple Training (Learning Material) Modules - Pre-start checks outlined in the Learning Materials and cover key pass or fail criteria.</p>	<p>Mobile equipment operators are trained and competent in conducting and monitoring equipment prestart checks. This training includes:</p> <ul style="list-style-type: none"> • Alarm checks • Alarm response • Monitor and information panel check • Monitoring status and responding to monitor and information panel checks • Managing faults and defects during operations <p>Multiple Assessment Tools - Assessment tools which accompany the training modules include a formal requirement to check both theory understanding as well as demonstrated</p>	<ol style="list-style-type: none"> 1. Training record review confirm the currency of vehicle operator skills including alarm and other indicator prestart checks and meanings and expected response. 2. Prestart records confirm that checks are completed. 3. Supervisors monitor and coach on the quality of operator prestart checks. 4. Maintenance planners review prestart forms and raise work orders as required. 5. As required investigations of alarm, monitor, and information panel faults. <p>Interviews - Identified faults are reported</p>	<p>CMSHR 073 - SOP for Pre-use inspections of mobile plant CMSHR 098 Reporting and rectifying defects</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
			<p>practical skills for conducting pre-start checks.</p> <p>OFI-014 Review mobile equipment prestart processes as applied by different workgroups.</p> <p>Workshop participants discussed and confirmed that while there is an overarching site requirement, operator mobile equipment prestart checks vary across different workgroups. They also note production pressure (real or perceived) to have equipment working early in each shift e.g. first load by 0630. From time-to-time this results in situations where mobile equipment has left the go line before defects are detected e.g. faulty radios etc. Workshop participants discussed a need for a consistent site equipment prestart equipment performance standard before installing additional technology such as operator alert or collision alerting systems. Standardisation is also required before digitising prestart check processes.</p> <p>Review application of existing vehicle prestart processes, consider how to best balance production drivers, equipment health checks, defect reporting, and operator safety. Develop a roadmap to consistent site performance and the operational integration of digital technologies.</p>	<p>through to the supervisor, maintenance planners and others to action any required repairs.</p> <p>OFI-040 Review and update monitoring of mobile equipment prestart quality.</p> <p>Workshop participants confirmed that there is an inconsistency in how mobile equipment prestart checks are monitored for quality and quantity. Some reasons discussed included operator training and competence, first load production pressures, nil consequences for sub-standard checks. Inconsistent and poorly executed pre-start checks can lead to mobile equipment operating with defects have not been identified or where hazards are not managed using the site fault classification process. Also without quality and quantity data, reviews and improvements to overall process design cannot be made.</p> <p>Review how performance monitoring of operator mobile equipment prestart checks can be improved. Establish system monitoring for daily outputs with quality and quantity outputs. Once reliable data is available review the application and design of the prestart processes covering training, application of defect classifications, defect response and repair times etc.</p>	

Section 3 – Operating Environment: the operating environment for mobile equipment is satisfactory, hazards are identified and managed.

This group of Business Inputs focuses on the operational management of mobile equipment covering:

- Standards, rules, and expectations for operating environment design and construction.
- Work environment maintenance details covering- gradients, sheeting, drainage, lighting, signage, barriers, segregation etc.
- Work processes for managing changes in operating conditions.

Table 3 – CG CNOC VICE Review Baseline – Operating Environment business inputs with comments, opportunities for improvement, and related QLD Legislation

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
BI-LDA.41.01 Road design guidelines set minimum standards for the construction and maintenance of the road network	Site tailored road design standards support the delivery of safe and productive outcomes and are applied to construct and maintain haul roads, ramps, benches, loading and dumping areas, parking areas, access to service areas and other relevant infrastructure.	<p>The site road design specifications consider prevailing weather conditions, equipment in use, operator experience, available construction materials, tyre and equipment life, equipment maintenance, fuel usage, and productivity.</p> <p>Site road design guidelines provide tailored specifications for:</p> <ul style="list-style-type: none"> • Physical constraints: Width of pavements, sizes of roadways, linear and cross grades, and ramp size (guidance based on type of equipment in use and tasks undertaken); Curvature (both horizontal and vertical); pavement shape; materials for use in sub-grades, base-course, and running surfaces • Site specific requirements: Emergency stopping and run-off areas if required for long downhill sections of roadway; Surface / pavement material; Construction or mining of segregated roadways that separate heavy mobile equipment and light vehicles; Parking areas covering location, size, and delineation; Storage areas covering separation, segregation and access requirements; Workshops, fuel bays and battery charging locations (considering any introduced flammable liquids or gases, distances, and traffic flow requirements); Stockpiles; Access to bins or tip points (crushers, passes, etc.); Safety berms or windrows; Dump geometry (including tip heads); Roadways around infrastructure e.g. overhead HV lines; Line of sight for equipment operators (including orientation of UG portals, break-aways 	<p>Road networks (and excavations) are constructed following design guidelines and ‘as built’ is checked off against design before handover. Maintenance crews reference design guidelines during routine maintenance, repair e.g. after flooding and upgrades, to confirm that minimum standards are in place.</p> <p>Routine mine road housekeeping rapidly removes spillage, maintains good water drainage, repairs potholes, rutting and depressions.</p> <p>Workshop Discussion Prompt - SMS-032 references out to other documents (which appear unlinked - such as SOP-017 which has no Appendices in the 11/6/2024 version although it is meant to describe the roadway signage). Is there benefit in simplifying the mine design documentation and offering clearer guidance for operational deployment?</p> <p>OFI-76 Confirm site road designer qualifications</p> <p>Workshop participants confirmed that there are site requirements for road designer qualifications (RPEQ). There was some discussion about how designer qualifications are confirmed and updated as personnel change.</p> <p>Review site processes for confirming road designers have appropriate qualifications, are keeping road design standards current, and are periodically inspecting construction,</p>	<p>In date and approved site road design guidelines and supporting resources. Sign-off records of as built and as maintained against design standards. Work area inspections non-conformance reports and analysis. CAS technology heatmaps and reports. Monitoring of equipment operators reporting and resolution of debris and deterioration.</p> <p>Multiple Supervisor Inspections and CCV Records - Confirming checks being made of road conditions.</p> <p>Workshop Discussion Prompt - Would records from equipment used (e.g. strut pressure heat maps) be useful for informing design improvements?</p> <p>OFI-051: Review site Road Design standards for useability, assign accountabilities and monitor performance.</p> <p>There is a detailed site specification for the design and construction of mine roads that is aligned with regulator requirements. However, the mine design specifications are detailed across multiple related documents that may be missing important details. Mine roads as constructed and maintained do not reflect site performance standards and are below industry good practice e.g. for intersection design, camber, drainage, debris removal, signage etc.</p> <p>Review mine road design documentation, improve its useability and guidance for design, construction, sign-off and handover, and ongoing maintenance. Assign accountabilities and improve road standards. Consider developing hot spot</p>	<p>CMSHA - 045A</p> <p>Obligations of designers, constructors and erectors of earthworks</p> <p>CMSHR 093 Working near a body of water or other liquid</p> <p>CMSHR 099 Restricting access to parts of mine</p> <p>CMSHR 126 Plan of surface land</p> <p>CMSHR 127 Plans of surface services</p> <p>CMSHR 128 Specification for design and construction of mine roads</p> <p>CMSHR 139 Safety berms</p> <p>QLDDCMR 06.00 - Requirements for the design and construction of mine roads</p> <p>QLDDCMR 06.01 - Sub-grade must consist of materials that can support the weight of traffic</p> <p>QLDDCMR 06.02 - Sub-base should consist of materials capable of bearing weight of haulage traffic</p> <p>QLDDCMR 06.04 - Requirements for wearing or running surface construction</p> <p>QLDDCMR 06.05 - Requirements for the design of structures</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>and intersections, workshops, management of doors and ventilation screens, and longer haul roads)</p> <ul style="list-style-type: none"> • General road network features: Guideposts, delineators, roadway signage (beside or above roadway); Signs and barriers; Lighting (area and traffic control); The installation of one way block lights for intersections, long driveages and drifts; Location and requirements for installation of required infrastructure (pipes, cables, lighting, etc.) <p>Accountabilities are assigned for the complete road network life-cycle: Preparing designs; Processes to achieve as-built sign-off; Roadway inspections; Scheduled roadway maintenance; Interim repair works; Decommissioning or moving to alternate uses.</p> <p>SMS-032 Specification for Design and Construction of Mine Roads V7.1 26/3/2024 - Document aligned with QLD Regulator RS19 detailing requirements for the road network on site. Includes pavement widths, geometry, edge protections (windrows and bunds), and ancillary road features.</p> <p>OFI-028 Consider designing and constructing passing lanes for Light Vehicles</p> <p>An absence of light vehicle passing bays on access roads and operations has resulted in poor choices that do not meet site standards when light vehicle operators pass heavy mobile equipment.</p> <p>Travel speed differences have resulted in LV operators breaching clearance requirements when passing HME. The reliability of existing controls depends on the judgement and decisions made by LV operators.</p> <p>Consider the cost benefits of designing and constructing passing lanes for Light Vehicles on mine roads to complement and improve the consistency and reliability of site passing controls.</p>	<p>and assisting with handover acceptance.</p>	<p>reports based on haul truck strut pressures to direct maintenance resources. Note this can also assist with the management of whole body vibration for mobile equipment operators.</p>	<p>QLDDCMR 07.00 - Mine roads to be designed and constructed to accommodate the operating width of the largest vehicle regularly using the road</p> <p>QLDDCMR 08.00 - Primary and secondary roads to be constructed to ensure the surface shape of the roadway supports water run-off</p> <p>QLDDCMR 09.00 - Criteria for the design and construction of haul roads, primary access roads and secondary roads</p> <p>QLDDCMR 10.00 - Haul roads, primary access roads and secondary access roads to be designed and constructed with superelevation and/or speed restrictions on horizontal curves</p> <p>QLDDCMR 11.00 - Specifications grades must conform to when designing and constructing mine roads</p> <p>QLDDCMR 12.01 - Mine roads to be designed and constructed to address risk of a vehicle accidentally leaving the roadway</p> <p>QLDDCMR 12.02 - Mine roads to be constructed with adequate roadside drainage</p> <p>QLDDCMR 13.01 - Criteria to be followed for the design and construction of intersections</p> <p>QLDDCMR 13.02 - Appropriate traffic control</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
					<p>to be provided at intersections</p> <p>QLDDCMR 14.00 - Mine roads to be designed and constructed to ensure sight distance to objects or hazards on the roadway is greater than the required stopping distance</p> <p>QLDDCMR 15.00 - Specifications for the design and construction of safety berms and barricades</p> <p>QLDDCMR 15.01 - Considerations for the use of road centre dividers</p> <p>QLDDCMR 16.01 - Signs shall be installed throughout the road network</p> <p>QLDDCMR 17.00 - Road network shall be designed to provide separate roadways for MP and MV/LV</p> <p>QLDDCMR 18.00 - Roadside collision hazard risk elimination procedure</p> <p>QLDDCMR 19.00 - Requirements for locations with overhead structures</p>
BI-LDV.43 Road design guidelines specify minimum parking area requirements	Parking area designs are fit for purpose. Parking areas are constructed and maintained to meet site requirements.	<p>Parking area designs and construction include layouts for crib areas that segregate vehicle types, optimise traffic flows to avoid conflicts, protect infrastructure, and provide walkways at safe locations.</p> <p>CGRA BLS-FH03 Mobile Equipment - Fatal Hazard Protocol V1.0 - S5 Traffic Rules <i>...Designated parking areas for equipment by size that includes light vehicles to be parked in a location, and/or position that is separated from, and is clearly visible by operators of mobile equipment....Rules when vehicles and mobile equipment is to be left unattended (fundamentally stable), including broken /</i></p>	<p>Designs are executed by road construction crews - placing windrows and berms as required to segregate vehicle types, infrastructure and walkways.</p> <p>Supervisors direct and monitor the activities of road maintenance and construction crews.</p> <p>Learning Material - Komatsu 930E-5 Haul Truck (and other training modules) - Covers means of parking and parking brake functions.</p> <p>Workshop Discussion Prompt - Training modules do not uniformly</p>	<p>Commissioning and handover records confirming that 'as built' meets design requirements</p> <p>Supervisor inspection records.</p> <p>Inspections and Interviews - Parking areas are included in the survey pick-ups and are shown on mine aerial photographs and plans.</p> <p>BLS-004-FH03-CCV-03 Mobile Equipment - Management of Interactions V1.0 - Go line prompt covers park-up to minimise LMHV and HME interactions.</p> <p>OFI-057: Review parking area construction, handover, inspection,</p>	<p>CMSHA - 045A Obligations of designers, constructors and erectors of earthworks</p> <p>CMSHR 128 Specification for design and construction of mine roads</p> <p>QLDDCMR 18.00 - Roadside collision hazard risk elimination procedure</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p><i>stood down equipment and equipment undergoing maintenance.</i></p> <p>SMS-032 Specification for Design and Construction of Mine Roads V6.2 26/3/2024 - S3.2 Road Design Characteristics, ...provide for safe parking areas near the locations of circuit call up signs... S4.4 Safety Berm Guidelines - Operational Areas ...Parking Areas - must be separated from other vehicle traffic by suitable safety berm.</p> <p>OFI-056 Review Site Parking Standards and their application</p> <p>Workshop participants confirmed inconsistencies in the application of site parking standards. For example spoon drains or parking humps are not consistently available for parking areas in work locations. They also noted that the standards for parking areas are not regularly audited for compliance and were unaware of a process to for confirm that newly built parking areas meet standards before being handed to operations. There was also discussion on restricted parking availability in some locations</p> <p>Substandard parking area construction and limited availability can result in roll-aways and parking in the wrong location e.g. in heavy vehicle blind spots, in positions that compromise pedestrians etc.</p> <p>Review site parking area design standards, update if required. Confirm that there is a process for handover that has a construction commissioning check that confirms 'as built' meets design requirements. Consider parking requirements and demands by working group, location, and vehicle type. Review performance monitoring processes to confirm that vehicle operators are meeting site standards.</p>	<p><i>reinforce fundamentally stable parking requirements. Should they?</i></p> <p>OFI-024 Review the effectiveness and frequency of inspections of parking and other infrastructure walkways.</p> <p>Workshop participants discussed situations where degraded walkways e.g. in parking areas and around site infrastructure have remained unrepaired for long periods. If walkways are not regularly inspected and maintained then their effectiveness as a control in separating pedestrians from vehicles can be compromised e.g. bund protections cannot stop vehicles, pedestrians walk on roadways to avoid water and mud, pedestrian crossings are not identified by vehicle operators etc.</p> <p>Review the effectiveness and frequency of site infrastructure inspections, confirm that defects identified are captured and there is a process to track corrective action progress.</p> <p>OFI-053: Extend parking performance expectations to all vehicle categories.</p> <p>Workshop participants discussed site standards, expectations, training, and reinforcement covering parking of mobile equipment. There are some good documented examples of expected standards e.g. for wheeled loaders.</p> <p>The approach for communication parking expectations does not extend to all vehicle types, locations, and situations e.g. haul truck fire</p> <p>Review existing good practice examples and extend to all vehicle categories and circumstances e.g. go line, parking areas, in pit, for emergency etc.</p>	<p>maintenance, and audit process.</p> <p>Site parking area requirements are documented but they are not always constructed as per the design. Some of the parking areas at site seem to have been constructed without reference to design standards.</p> <p>It is understood that pickups are done by surveyors but the workshop attendees had no knowledge as to whether there is a review step that confirms correct construction and compliance to site standards.</p> <p>Poor parking area standards cause unwanted vehicle interactions e.g. roll-aways, unsighted parked vehicles, pedestrian hazards etc.</p> <p>Review the adequacy of site parking area designs and standards. Benchmark against industry good practice. Confirm the approval, construction, handover, inspection, maintenance, and audit process.</p>	
BI-LPA.42.04 Lighting, delineation and signs are installed and maintained to	There are minimum standards for the installation, inspection and maintenance of lighting, delineation, and signs that	Designs and construction requirements include standards for lighting of high traffic areas (e.g. around the mine infrastructure areas, vehicle (including remotely controlled)	Survey marks out the requirements for road network infrastructure to meet site requirements. Road construction crews place and	Survey records. As built plans with sign-off. Workplace inspections. By exception incident investigations.	CMSHR 072 (c) - Develop and implement a procedure for assembling and maintaining plant

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
standards that meet minimum site road design requirements.	assist vehicle operators maintain situational awareness.	<p>operating areas, dump edges, intersections, etc.) and signs to alert vehicle operators of road network requirements. Permanent signs are erected to provide warnings around fixed infrastructure and temporary signs or warning devices (traffic cones, barrier tape, etc.) are used around temporary work areas or road network hazards not yet repaired.</p> <p>PLN-005 PHMP - Mobile Equipment Incidents - S4.2 References the <i>Critical Control: Management of Interactions - Traffic signage and delineators are correctly installed and maintained.</i></p> <p>SOP-017 Using Mobile Plant - Mine Traffic Rules - Generally covers requirements for vehicle mounted lights.</p> <p>SOP-017-APP-01 Using Mobile Plant - Mine Traffic Rules - Signage V6.0 21/11/22 - provides guidance on delineation and signage with extensive information on the types of signs and cones used on site (as for other documents area lighting is not described).</p> <p>Workshop Discussion Prompt - <i>Is there a requirement for more clarity around area lighting for operating crews?</i></p>	<p>maintain permanent and temporary lighting, communication and information signage around the road network.</p> <p>Work crews place demarcation and warning signage around their work areas and nominated access routes. 'As built' is checked off against design by operations.</p> <p>CPS PLN 5.0 Survey Manual - S3.0 Field Responsibilities indicates pick-up by Survey on at least a weekly basis for all coal seams, highwalls, etc. General surveys are conducted by exception. At S3.6 Reference made to loading designs from Trimble into equipment.</p> <p>Workshop Discussion Prompt - <i>The Survey Manual is dated 2015 and appears to not include the extensive use of drones and supporting technology observed in September 2024 - should it be updated?</i></p> <p>OFI-044 Review and Improve site lighting delineation and signage standards.</p> <p>Workshop participants discussed a lack of clarity on speed signs and their placement. They also discussed general signage e.g. circuit boards together with an absence of as built plans for roads detailing signs, limited checking, and failing to perform detailed workplace inspections is contributing to poor sign discipline at site.</p> <p>Signage and other warnings when not present or incorrect can contribute to unwanted vehicle interactions.</p> <p>Review and improve processes for meeting, maintaining, and monitoring site standards for lighting, delineation and signage.</p>	<p>Critical Control Verification FH03 Mobile Equipment (BLS-004 FH03-CCV-02-FH03) - 4 monthly check on the conduct of Pre-Starts, interviews with Drivers/Operators, inspection of working area, HME equipment check status (in-date ItS sticker), understanding of speed requirements.</p> <p>OFI-081 Review how site road standards are monitored</p> <p>Workshop participants identified that the construction and maintenance of site roads including lighting, delineation and signs does not always align with site standards.</p> <p>The design, construction, handover, and maintenance of site roads is a key vehicle interaction control. While operators can adjust to non-standard conditions, the decision demands on them increase and this increases the likelihood of a mistake or error.</p> <p>Review and confirm how site roads are monitored to confirm that they meet site standards. Review and confirm the practicality and application of site processes for road construction, handover, and ongoing maintenance.</p>	<p>CMSHR 144 Lighting</p> <p>QLDDCMR 07.00 - Mine roads to be designed and constructed to accommodate the operating width of the largest vehicle regularly using the road</p> <p>QLDDCMR 13.01 - Criteria to be followed for the design and construction of intersections</p> <p>QLDDCMR 13.02 - Appropriate traffic control to be provided at intersections</p> <p>QLDDCMR 15.01 - Considerations for the use of road centre dividers</p> <p>QLDDCMR 16.01 - Signs shall be installed throughout the road network</p> <p>QLDDCMR 16.03 - High visibility bollards, berms or segregation barriers should be installed where vehicles interface with surface infrastructure</p> <p>QLDDCMR 20.00 - Considerations for lighting pollution</p>
BI-LPA.42.20 Infrastructure protection using barriers or warning devices.	Site infrastructure is protected from unplanned contact with mobile equipment.	When constructing roads near infrastructure, hazardous locations or work areas the documented requirements include placing windrows, bunds or physical barriers (designed to reduce injury threats if struck (i.e. rounded and/or frangible)) - and where these cannot be	Barriers and warning devices that protect site infrastructure from contact with mobile equipment are installed as designed. Protection types include physical barriers that prevent contact through	Records of as designed, installation of barriers and warning devices. Regular inspection and test records confirm performance requirements are being maintained.	QLDDCMR 06.05 - Requirements for the design of structures
				CPS-PLN-5.0 Survey Manual - Requires	QLDDCMR 12.01 - Mine roads to be designed and constructed to address

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		<p>placed (e.g. for overhead lines) then warning devices (over height alarms, cable balls, geo fencing etc.), or vision enhancing components (mirrors, translucent ventilation curtains etc.) are installed.</p> <p>Information is prepared on requirements and workers are trained in how to implement and adjust protection barriers and warning devices.</p> <p>Specification ES-006 11kV and 22kV Overhead Transmission Lines (undated) - S6.5 Protection required when crossing over roads (goal posts to warn over-height vehicles) and minimum clearance heights noted (10 metres which may be insufficient for crossing haul roads)</p> <p>Specification CS-007 Road Furniture, 15/9/2018 - Details requirements for the physical sizes of delineators, signage, guard rails, etc. Specification seems to be meant for use on public roads - is this in use at CNOC haul roads?</p>	<p>to warning/vision enhancing devices to enhance vehicle operator's situational awareness.</p> <p>Workers only remove or modify barriers in line with site requirements.</p> <p>Inspections and Interviews - key infrastructure (e.g. conveyors) are separated from HME movements and have berms protecting against inadvertent entry into the conveyor trace (corridor), other infrastructure protected by solid bollards and berms.</p> <p>OFI-046 Review site bunding practices</p> <p>Workshop participants discussed site bunding processes especially for high-risk areas. They identified that infrastructure protection in the McKellar yard is inadequate They also identified an issue with the site bund standards and practice where hazards are created from using larger rocks on the surface of the bund.</p> <p>Inadequate bunding can lead to vehicles crossing over or penetrating bunds i.e. not stopped through gaps, insufficient height and width etc. This is made more significant in areas where bunds are protecting pedestrians, environmental hazards (drop-offs etc.), and conflicting traffic flows.</p> <p>Implement a campaign to identify key bund problems and address them. Consider a rock size or smoothness criteria for construction and maintenance.</p>	<p>pick-up of all installed infrastructure.</p>	<p>risk of a vehicle accidentally leaving the roadway</p> <p>QLDDCMR 15.00 - Specifications for the design and construction of safety berms and barricades</p> <p>QLDDCMR 16.03 - High visibility bollards, berms or segregation barriers should be installed where vehicles interface with surface infrastructure</p> <p>QLDDCMR 19.00 - Requirements for locations with overhead structures</p>
BI-LPA.57.01 Mobile equipment operators follow road rules and adjust based on conditions and circumstances.	Mobile equipment operators follow road rules drive to conditions and circumstances.	<p>Mobile equipment operators follow road rules and adjust based on conditions and circumstances by:</p> <ul style="list-style-type: none"> • Decreasing speed • Increasing clearance distances • Stopping if required • Notifying or removing hazards (road conditions, spillage, etc.) <p>SOP-017 Using Mobile Plant - Mine Traffic</p>	<p>Ongoing briefings and checks that confirm that mobile equipment operators understand road rules and are aware of necessary operating adjustments based on conditions and circumstances.</p> <p>Multiple Training Modules - Indicate requirements for driving to conditions with theory and practical</p>	<p>Supervisor and despatch oversight. Supervisors and peers monitor vehicle operator performance. By exception hazard reporting and incident investigation.</p> <p>Critical Control Verification FH03 Mobile Equipment (BLS-004 FH03-CCV-02-FH03) - 4 monthly check on the conduct of Pre-Starts, interviews with Drivers/Operators,</p>	<p>CMSHR 089.1-2,5</p> <p>Workers exposure from dust</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>Rules - S5.3 Drive to Conditions, references the use of TARP levles to respond to adverse conditions.</p>	<p>assessments to confirm understanding.</p> <p>SOP-017-FRM-02 Traffic Management Plan (TMP) Form - indicates setting up specific guidance for intended traffic flows in an area, with required sign off and notifications to affected vehicle operators (CMW).</p> <p>Workshop Discussion Prompt - Training modules are not specific around the types of road conditions and required responses (using a "drive to conditions" requirement). Should there be specific examples for trainees?</p> <p>OFI-045 Review performance monitoring for application of road rules including adjustments to conditions and circumstances Workshop participants confirmed that how and where operators are adjusting their speed to conditions e.g. for dust is not consistent across site. There was also discussion of different travel speeds on the same haul roads between workgroups that are speed monitored and those that are not. Inconsistent travel speeds can lead to significant vehicle interactions (loss of control, dovetail collisions etc.) that are compounded by poor visibility. Review site and business speed standards. Include a review of speed monitoring including how condition adjustments are made. Improve performance consistency and align with critical control verification and other checks. Consider developing processes to provide operator performance feedback for self-monitoring and performance management.</p> <p>OFI-087 Review Site Speed Limits and Monitor Performance Workshop participants discussed an absence of consistent guidance for speed limits for the go line and on</p>	<p>inspection of working area, HME equipment check status (in-date Its sticker), understanding of speed requirements.</p> <p>OFI-068 Consider using radar speed detection in operational areas. Workshop participants confirmed that there are regular radar measurements of vehicle speeds on access roads. However, they confirm that the same approach is not in use in pit operations. Mobile equipment speed management relies on operator decisions to drive to conditions and maintain site road rules. Using radar speed checks confirms and reinforces that operators are making the right decisions in production areas. Consider applying a site-wide approach for speed monitoring using radar. Align this work with vehicle speed monitoring using technology installed on equipment.</p> <p>OFI-070 Review Opportunities to consistently apply site traffic management standards and measure performance Workshop attendees discussed variations in applying vehicle interaction controls and operating approaches between workgroups at Curragh North Mine. They noted that while the Coronado SOPs apply to all workgroups:</p> <ul style="list-style-type: none"> • Some SOPs that are not specific enough about performance requirements and how performance is measured. This allows variations in how standards are interpreted and applied in the same areas by different workgroups. • There are different performance requirements by area e.g. between the Mine Industrial Area (MIA) and Mine Operational Area (MOA) for positive communications, road construction for gradient and ramp speed, heavy vehicle access, escorting requirements etc. <p>At an operational level this can result in different workplace layout standards</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
			<p>different grades of ramp. Not providing guidance in high traffic areas and where vehicle runaway is possible can lead to unwanted vehicle interactions. Review the setting of speed limits for the go line and site ramps. Confirm communication and training processes, introduce performance monitoring</p>	<p>between OCEs and conflicting directions confuse supervisors. A non-standard approach also inhibits the introduction of consistent performance measures and digital technology such as Collision Avoidance Systems. Leverage the knowledge and capability of the contractor support companies to review Curragh SOPs. Consider developing</p> <ul style="list-style-type: none"> • Visual specification details and references • Illustrate the performance standard required using examples • Review and develop performance measures that support the consistent delivery of site standards across all workgroups. <p>OFI-010 Consider making camera feeds available to improve performance monitoring. Supervisors and open cut examiners (OCE) spend many hours per shift in the field monitoring performance. Currently OCEs and supervisors review performance by observing operating practices and inspecting the operating environment condition at close proximity and from available lookouts. Review how area camera feeds can be used by OCE and supervisor to complement this process, particularly as a reliable way to monitor workgroup interaction performance. Consider also the opportunity to use Artificial Intelligent (AI) technology to detect and amplify performance drift based on camera feed analysis.</p>	
<p>BI-LRA.42.02 Speed and operating environment parameter data send</p>	<p>Relevant equipment operating data is used to improve the design, construction, and maintenance of the operating environment.</p>	<p>Equipment operating data relevant to the design, construction, and maintenance of the operating environment is captured and transferred and may include:</p> <ul style="list-style-type: none"> • Speed • Travel paths • Engine performance • Loading • Others <p>Specifications for how equipment data related to the operating environment is aggregated, sorted, monitored, reported, and analysed are in place.</p>	<p>On-board systems monitor equipment usage, data is transferred via site infrastructure. The data is aggregated and sorted so that it can be used for performance monitoring, reporting, and analysis.</p>	<p>Accurate, timely, and tailored reports on operating environment impacts on equipment are provided to operators, supervisors, mine planners, maintenance personnel, training, and management. Reports are reviewed and performance drifts are identified and corrected. OFI-067 Review and align installed technologies for consistent travel speed alerting and performance monitoring At Curragh North Mine there is a misalignment of outputs from installed fleet management technologies. Thiess</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>Interviews with Operational and Engineering Leads - Some data is returned from equipment to generate usage reports and provide guidance on problem areas and operating practices. A key Coronado Global philosophy for equipment is that all monitoring and processing should be happening local to the machine.</p>		<p>use the IVOLVE system while MaxMine is used by other contractors. The different mining fleets share haul roads and workshop participants report issues with different travelling speeds in the same location that has resulted in frustration and unplanned vehicle interactions. Review how the MaxMine system can be upgraded so that there is in-cab notification travelling speed based on geofenced location. This will align site operations and avoid conflicts with the Thiess fleet that applies the travel speed information available. Also review opportunities to leverage the installed technology for performance monitoring and reporting e.g. by exception speed limit exceedance reporting.</p>	
<p>BI-LTA.56 Formal processes for managing changes in conditions</p>	<p>There are formal processes in place for managing changes in conditions that can compromise safe production.</p>	<p>Procedures in place for managing changes to normal mobile equipment operations covering:</p> <ul style="list-style-type: none"> • Electrical storms • High winds and raised dust • Reduced visibility (e.g. fog, mist, loss of area lighting) • Road pavement conditions (wet, damaged, etc.) • Compromised access controls, etc. <p>Also conditions which compromise normal road traffic operations such as:</p> <ul style="list-style-type: none"> • Limited access to working areas • Short term work plans increase vehicle movements and interaction intensity • External traffic movements e.g. escorting loads <p>Consider developing Trigger Action Response Plans for site relevant changes in conditions. Use graduated levels with required responses such as:</p> <ul style="list-style-type: none"> • Green Level. Threat is not present or can be well managed using routine processes and equipment. • Yellow Level (optional). Threat is present but not yet hazardous. This level is communicating situation detail, increasing awareness, and monitoring and communication changes. • Amber Level. Threat level has increased and can be managed through changes to processes and 	<p>Supervisors and workers are trained in developed TARPs and their competence is confirmed. Conditions beyond those expected trigger an appropriate response from sites escalating awareness and ceasing operations as appropriate. Significant (Amber and above) triggers are communicated to more senior personnel on site.</p> <p>RIIMPO337-LM Learning Material - Conduct Articulated Haul Truck Operations (and other similar modules) V1.0 17/1/23 - S-Adapt to Changing Conditions, describes considerations and issues that would require a change in how the vehicles are being operated.</p> <p>OFI-080 Review site processes for communicating alerts and information about operating conditions.</p> <p>Workshop participants noted that process for the timely communication of information on road network changes covering haul route intersections, road maintenance and construction, changes in road conditions e.g. slumps, parked vehicles, and general operating conditions e.g.</p>	<p>Training and awareness records. TARP levels and site responses are approved and in-date. Records of communications and notifications of Amber and Red levels, including with external parties as required.</p> <p>RIIMPO337-ASQ - Conduct Articulated Haul Truck Operations Assessment - Theory Q36 What are some conditions to consider regarding speed? Practical Obs 22 demonstrate driving to conditions.</p>	

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		<p>heightened vigilance of workers and supervisors.</p> <ul style="list-style-type: none"> Red Level. Threat is continuing to increase and workers (apart from any deployed to reduce the threat) are withdrawn to safe locations. <p>Multiple Documents - refer to changes in conditions and management of deteriorating road, visibility, or traffic levels.</p>	<p>congestion, and interactions with other workgroups can be improved. Productive and safe surface mining requires ongoing good decision making from mobile equipment operators of both light and heavy vehicles. Providing information about operational changes and advice on the expected response supports consistently good decision making.</p> <p>Review and confirm that communication processes for mobile equipment operators, supervisors, LV operators, drill and blast and other stakeholders covering changes in roads and intersections and other operating conditions is effective, consistent and comprehensive. Consider digital enhancements.</p>		

Section 4 - Mobile Equipment interfaces with pedestrians and other vehicles are well managed.

Mobile Equipment interfaces with pedestrians and other units are well managed

This group of business inputs focuses on ensuring that Mobile Equipment interfaces are well managed

- Pedestrians and mobile equipment
- Mobile equipment unit to unit
- There are Standards, rules, and expectations for safe and productive mobile equipment operations in all situations

Table 4 – CG CNOC VICE Review Baseline – Working Group Interfaces with comments, opportunities for improvement, and related QLD Legislation

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
BI-MDA.72.11 Escort Requirements	Vehicles and operators that are not approved for unrestricted site access, are escorted. Site escort requirements are clear and deliver safe and productive outcomes.	<p>Sites have a consistent, defined, and measurable escort process for managing access when:</p> <ul style="list-style-type: none"> • When vehicles are not approved for general site access • Vehicle operators who do not have required site permits or licences <p>The escort process defines:</p> <ul style="list-style-type: none"> • Where, and in what circumstances it applies • The experience and competency required before an escort is authorised • Who must be notified, how they are notified, and when they are notified • Communication requirements between the vehicles under escort and the escort • Equipment required e.g. radios, lights, Collision Avoidance Systems, flags, etc. • Approval steps and documentation requirements e.g. permits, gatehouse logs etc. <p>SOP-017 Using Mobile Plant - Mine Traffic Rules V6.5 - S5.1 requires escort operators to be trained, S6 Escort Rules nominates when an escort is required, requirements for Escort Driver to be qualified, make contact with the OCE and vehicles in the area, complete the escort checklist (also completed by operators of vehicle(s) being escorted).</p> <p>OFI-055 Review and update site vehicle escort requirements</p> <p>Workshop participants discussed site escort requirements and confirmed that there are two SOPs available. Currently the training of escort</p>	<p>The site escort process is applied, and vehicle operators being escorted are briefed on:</p> <ul style="list-style-type: none"> • Communication protocols • Travel separation distances • Restricted locations • Road conditions • Emergency protocols • Other site requirements • Parking and first movement requirements <p>Personnel who provide the escort are authorised and competent, and confirm that escorted vehicles are operated and parked in accordance with site requirements. Required site documents are completed.</p> <p>SOP-017-FRM-01 Escort Checklist - covers vehicle condition (including load sizes), working 2-way comms, induction or training of all personnel, refers to Oversize Transport SOP-015 if relevant.</p>	<p>Escort documentation. Authorisation records for personnel approved to act as escorts. Escort notification records. Supervisors and mobile equipment operators monitor performance of escorts and escorted vehicles.</p>	<p>CMSHR 072 (i) - Develop and implement a procedure for transport of heavy items</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>vehicle operators is ad hoc. There is no training and competency assessment for the personnel selected to act as escorts. Further, the process is inconsistent without completed records from the escort driver that:</p> <ul style="list-style-type: none"> • Confirm the escorted driver has been briefed e.g. covering following distances, travel route, expected hazards and their controls etc. • Log the activity and identifying any issues and improvement opportunities <p>Escort activities are an important vehicle interaction control. If the control design is inadequate or not applied, then it can cause significant vehicle interaction issues. Review the site site escort process, confirm required controls and training required to apply them consistently. Capture and analyse escorting records to confirm controls are applied and the escorted driver is briefed. Consider potential digital applications.</p>			
<p>BI-MDV.64.01 Road design guidelines specify walkway designs considering vehicle sight lines</p>	<p>Walkways are designed, constructed, and maintained to site standards.</p>	<p>Walkway design and construction follows site design requirements for protecting walkways near vehicle travel paths. These may include using:</p> <ul style="list-style-type: none"> • Windrows and bunds • Physical barriers • Pedestrian crossings • Under or over passes • Delineation of no-go and danger zones for pedestrians etc. <p>Vehicle sightlines and other features such as lighting and proximity alarms are considered when designing and constructing walkways.</p> <p>CSP-028 Barricades V3.2 25/4/2023 - Offers guidance on requirements for tags and visibility around the MOA.</p> <p>PLN-005 PHMP Mobile Equipment - S4.1 Design and Construction of Roads and Parking Areas ...<i>Pedestrian areas are designated, and where practicable, separated from vehicle interaction.</i> The Critical Control - Management of Interactions includes considerations for pedestrian and traffic areas. S4.3 Traffic Management - requires designated pedestrian areas separated from vehicles.</p> <p>OFI-021 Review the design standards, construction, and maintenance of site walkways.</p>	<p>Walkways are constructed and maintained to meet site requirements.</p> <p>Site design requirements are referenced before any walkway modifications are made e.g. new mobile equipment, facility use change etc.</p> <p>Multiple Training Modules - Includes requirements in the General Operational Safety for either stopping operations (HME) or slowing down and passing with extreme caution (LMHV).</p>	<p>Walkway commissioning and handover records confirming that 'as built' meets design requirements</p> <p>Housekeeping and facilities inspection records.</p> <p>Maintenance records.</p> <p>CCV CFH03 - Mobile Equipment / Vehicle Interaction - Has requirements for confirming designated pedestrian access around Go-Lines and confirmation that CMW are using designated pathways (pedestrian or vehicle).</p>	<p>CMSHR 128 Specification for design and construction of mine roads</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>Workshop participants confirmed that designated walkways around site workshops and parking areas are inconsistent. Lack of clear and designated walkways can lead to pedestrians being in the incorrect (or unexpected) positions. Review the design standards of walkways including demarcation and bunding requirements. Confirm processes for construction, maintenance, inspection and repair are adequate and can be measured. Monitor performance.</p> <p>OFI-022 Review the design standards, construction, and maintenance of Go Lines</p> <p>Workshop participants confirmed that Go Lines on site are inconsistent for Heavy Mobile Equipment park ups, light vehicle and pedestrian access. Inconsistency in the design HV parking areas (Go Line) can lead to confusion and unwanted vehicle interactions e.g. for service and maintenance staff who work across site. Review the design standards for heavy vehicle parking. Confirm processes for construction, maintenance, inspection and repair are adequate and can be measured. Monitor performance.</p>			
<p>BI-MDV.65.31 Clear requirements for loading and unloading of trucks by excavator or loader</p>	<p>Loading, transporting and dumping (unloading) of mobile equipment with bulk materials is safe and productive.</p>	<p>The loading system must be designed so that the vehicle cabin is prevented from being under a load that could exceed the maximum weight impact for the cabin or impact vehicle stability. Operational and safety requirements are specified in procedures and other documents and media e.g. instructional videos. They provide information to the operator about:</p> <ul style="list-style-type: none"> • Vehicle access • Vehicle loading, travelling and unloading (including waste) • Vehicle exit • Leaving the vehicle during loading • Emergency response <p>They include relevant change management thresholds such as:</p> <ul style="list-style-type: none"> • Changes in vehicle type • New operators <p>PLN-005 PHMP - Mobile Equipment Incidents - S4.4. Fit for Purpose Vehicles requires the load to be within operating limits</p> <p>SOP-015 Transport of Heavy Plant and</p>	<p>Engineering sign-off that the loading system and the vehicle in use meet are fit for use. Vehicle operators are trained and assessed in loading requirements, including emergency response. Supervisor oversight.</p> <p>RIIMPO301-LM - conduct Hydraulic Excavation Operations V2.0 3/4/2023 Section Loading - highlights requirement to work as a team and communicate movement and hazards. Section Loading Operation - requires operator to develop a plan and not overload the trucks. Methods for filling bucket and using different geometries (over-the-side, through-the-gate, double-side, drive-by) are explained. <i>Different geometries of loads in the truck are not explained - should they be?</i></p> <p>Workshop Discussion Prompt - The learning guides, CCV, Inspection SOP and other documents don't offer specific guidance on do's and don'ts for loading trucks. Should they?</p> <p>OFI-062 Review the adequacy of excavator</p>	<p>Equipment selection records. Training records. Supervisor inspection records of loading operations.</p> <p>SOP-049 Safety Inspections & Checking and Examining Work Areas Appendix 1 - OCE to inspect all areas where mining is taking place once a shift</p> <p>OFI-063 Consider how supervisor inspections can be combined to identify system level operating challenges</p> <p>Workshop participants discussed the effectiveness of supervisor inspections of loading operations. While they provide oversight of task execution in real-time and an opportunity to correct and improve performance, the information for the inspection does not seem to be fully leveraged. That is, inspection reports from knowledgeable and experienced personnel are not being aggregated and analyzed to identify ongoing</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>Supplies V6.3 1/12/2022 - S3.9 Requires load planning (and risk identification), notification of travel routes, and considering load stability over the load-travel-unload cycle.</p>	<p>and truck operator training for loading Workshop participants confirmed that training resources in use at site may be missing key information for excavator operators and truck operators about setting up for loading. This includes managing poorly blasted (blocky) materials. A misalignment between truck operators and excavators for truck setups can result in safety issues and drop in productivity such as:</p> <ul style="list-style-type: none"> • Excessive truck movements in and around the dig units • Unwanted vehicle interactions when moving into and out of queued positions • Large material can also contribute to eccentric loading of trucks (and problems with stability during truck movements). <p>Review the training resources and in pit observations and performance monitoring of excavator and truck loading operations. Confirm there are adequate levels of understanding of how site standards are applied. Include requirements for managing poorly blasted materials.</p>	<p>improvements to site processes. An example discussed was determining the cost benefits from increasing powder factor for blasting to reduce over-size material and minimise truck loading challenges. Ongoing challenging loading conditions make excessive decision and performance demands on excavator and truck operators. This can result in errors that cause unwanted vehicle interactions and equipment damage. Consider opportunities to leverage site inspections for analysis and performance improvements. Review digital technology options.</p>	
<p>BI-MDV.66.05 Positive communication protocol for passing or moving close to a vehicle</p>	<p>Passing of vehicles in operational areas is clear, applied and requires vehicle identification and positive communications.</p>	<p>There are site standards, processes, procedures, and work instructions, that detail communications requirements when passing vehicles. At a minimum these cover:</p> <ul style="list-style-type: none"> • Where and when passing is permitted • Radio (or other communications) call up protocols • Mobile equipment identification • Confirming that communication has been received <p>CGRA BLS-001 Leadership and Accountability V1.0 - S9 Life Saving Rules Definition, OLSR#3 Minimum Approach Distance - requires establishing Positive Communication using operational identification numbers between vehicles and before entering a work area. CGRA BLS-FH03 Mobile Equipment - Fatal Hazard Protocol V1.0 - S5 Traffic Rules which requires clear two-way communication for interactions between all vehicles, mobile equipment and pedestrians. OFI-028 Consider designing and constructing passing lanes for Light Vehicles</p>	<p>Training and Assessment in requirements for Positive Communications for passing a vehicle are included and reinforced in multiple training and awareness modules e.g. operator training and area inductions. Requirements are routinely reinforced and communicated at shift briefings covering:</p> <ul style="list-style-type: none"> • Active haul circuits and work areas. • Information on where passing is permitted. • Communications requirements. <p>OFI-027 Review standards for call signs and monitor performance. Workshop participants discussed radio chatter issues on the dig floor and how improving call sign standards can improve performance. Excessive radio chatter reduces the available bandwidth on radio channels and subsequently delays or prevents the application of positive communication identification as a key vehicle interaction control. Consider assembling a cross-representative workgroup to review current practice and identify call sign improvement opportunities,</p>	<p>Training system records confirm currency of skills. Supervisors and peers monitor vehicle operator radio calls and actions. Training records confirm the currency of vehicle operator understanding of communication requirements. Specified review period to retain competencies are stated and tracked. CCV-CFH03-Mobile Equipment/Vehicle Interaction - Requirement to Interview and Observe 3 CMW vehicle to vehicle interactions confirming 50 metre distance honoured and calling on entry and departure.</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>An absence of light vehicle passing bays on access roads and operations has resulted in poor choices that do not meet site standards when light vehicle operators pass heavy mobile equipment.</p> <p>Travel speed differences have resulted in LV operators breaching clearance requirements when passing HME. The reliability of existing controls depends on the judgement and decisions made by LV operators.</p> <p>Consider the cost benefits of designing and constructing passing lanes for Light Vehicles on mine roads to complement and improve the consistency and reliability of site passing controls.</p>	<p>particularly on dig floors. Consider performance monitoring enhancements.</p>		
<p>BI-MPA.62 Handover process between work crews</p>	<p>There is a formal handover process between work crews that records and communicates operational status.</p>	<p>There is a formal handover process between work crews that records and communicates:</p> <ul style="list-style-type: none"> • Progress to plan • Equipment status • Operating and work environment conditions, hazards, and controls in place • Interactions with other work groups or people • Any other current and anticipated issues <p>SOP-049 Safety Inspections & Checking and Examining Work Areas V6.1 27/8/2021 - S4.2 OCE Inspection Reports requires all OCE reports to be included in the pre-shift meeting for the incoming crew.</p> <p>CGRA BLS-007 Communication and Reporting V1.0 S5 Internal Communication requires information to be gathered and shared in a two-way communication meeting across all levels.</p> <p>Workshop Discussion Prompt - Coronado Global requirements for shift to shift supervision and planning were not noted to be specifically required in Management Plans - only being addressed in the Group Standard. Is this a requirement at CNOC - or is it addressed by the contracting groups conducting the works?</p> <p>OFI-061 Improve shift-to-shift handover processes on site.</p> <p>Workshop participants confirmed variable standards between different groups for preparing and handing over information</p>	<p>At the beginning of the work period, supervisors brief their work crews on relevant items. At the end of the work period, a log is prepared for the next work crew.</p> <p>Inspections and Interviews - Pre-shift meetings delivered by supervisors observed by RM included information from the outgoing supervisors and OCEs. These supervisors were also preparing plans for the next shift to execute on.</p> <p>OFI- 048 Review and improve pre-shift meeting process and execution.</p> <p>Workshop attendees identified a requirement for a better pre-start meeting environment along with more effective meeting format and content. The discussion developed from a content communication question that considered how Curragh North mine SOPs are communicated to the workforce.</p> <p>If mobile equipment operators miss information at their pre-start meetings, this lack of knowledge can result in unwanted vehicle interactions. If information content and meaning checks require asking your peer what the supervisor said then key points can be lost or diluted.</p> <p>Review the process, location, and execution of pre-start meetings across workgroups. Confirm site minimum standards and develop performance measures.</p> <p>OFI-050 Review hazard and control communications with work crews</p> <p>Workshop participants discussed the challenges of running effective prestart</p>	<p>Communications logs are completed and available for the next work crew. Prework briefings are delivered.</p> <p>SOP-049-FRM-01 Supervision Verification Audit Form - Superintendent - Oversight and checklist for confirming that supervisor conduct all required inspections, communication, and hand-overs.</p>	<p>CMSHA - 069 Display of reports and directives</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>between shift supervisors There is no site standard template available in use and the quality and quantity of information is inconsistent even for items relevant to every production workgroup e.g. roadworks, in-pit maintenance, OCE reports etc.</p> <p>Incorrect or incomplete information transferred between supervisors can lead to hazards in the operation not being recognised and controlled by incoming operators.</p> <p>Confirm minimum standards for handovers. Consider developing a standard template for shift supervisor transfer notes. Review the use of digital technology options e.g. for consistent messages that can be pushed to all relevant workgroups before handovers and used to aggregate multiple handover logs.</p>	<p>meetings that communicate operational and safety information and performance expectations that reinforce individual and workgroup norms. At Curragh North the prestart meeting provides the only daily opportunity to communicate to a workgroup and discuss relevant hazards and their controls. Shift prestart meetings have to be efficiently transactional and also cover production elements e.g. assigning equipment etc. The current prestart sequence means that there can be shift long delays for sharing new information from a meeting across other workgroups e.g. for road works, changes to intersections, broken down equipment. and other short-term changes.</p> <p>Workshop participants also noted that there are always production drivers covering 'time to the first load.'" Workshop participants also noted the challenges of crew size, supervisor experience and effectiveness, employee turnover, and production pressures that have to be managed.</p> <p>Review the effectiveness of preshift meetings, consider developing performance measures and improve support for supervisors. Consider augmenting shift prestart meetings with hazard and control information e.g. SOP reviews, incident case studies that can be used during stoppages e.g. during wet weather.</p>		
<p>BI-MPA.66.11 Expected routes by vehicle type are effectively communicated</p>	<p>All vehicle operators are aware of the routes that they are expected to travel on based on the vehicle type that they are operating e.g. segregated routes for light vehicles.</p>	<p>There are multiple communication processes that provide expected route information to vehicle operators including:</p> <ul style="list-style-type: none"> • Start of shift briefings • Start of work roster traffic updates • Maps and plans prepared (by surveyors or engineers) of the road network • Despatcher or supervisor advice • Scheduling software • Road signs <p>Multiple Training Modules - cover requirements for operating equipment on site, but do not offer specific guidance on traffic routes on site.</p> <p>Curragh Site Familiarisation Doc Ref 1021 V2.10 12/6/2024 - Is an assessment tool for confirming that CMW are familiar with the CNOC area and site traffic flows. Also confirming checks (pg 3) for mobile plant and</p>	<p>Ongoing briefings and checks that vehicle operators understand the road network and how they are expected to operate i.e. where they are and the direction that are to travel.</p> <p>Interviews and Inspections - Pre-shift meetings provide guidance on general working conditions and updates on activities occurring. General traffic information is provided in large scale plans and specifics appear to be dominantly via briefings from Supervisors.</p> <p>OFI-019 Consider implementing individual circuit traffic management plans</p> <p>Workshop participants confirmed that Traffic Management Plans (TMP), organised by individual circuits are not prepared.</p> <p>They confirmed situations where the absence of a specific up-to-date details about an operating circuit has resulted in operator misunderstandings and unplanned vehicle</p>	<p>Supervisor and despatch oversight. Supervisors and peers monitor vehicle operator performance. By exception hazard reporting and incident investigation.</p> <p>SOP-049-FRM-01 Supervision Verification Audit Form - Superintendent - Confirming checks made on how supervisors are planning, communicating and monitoring vehicle operators (and other CMW).</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>machinery interactions in HME/LV Workshop, Field Maintenance, Lube Bay, CN Workshop, CN Tyre Bay</p>	<p>interactions e.g. for carrying out in-field equipment services, adjustments for water damage etc. Traffic management plans (or their equivalent) are hierarchical dynamic resources that set standards for mine design, construction, maintenance, and operation. They also confirm the planning processes that manage workgroup interfaces. Their effectiveness at a circuit workflow and task level requires the communication and check for understanding of specific and up-to-date information. Review site processes for Traffic Management processes, evaluate the benefits of preparing and communication operating details by circuit. Develop performance standards and measures.</p>		
<p>BI-MPA.76 Safe and Productive Movement of Loads</p>	<p>Site load movements are well planned, and hazards are identified and managed.</p>	<p>There are site processes in place for planning and managing materials and equipment load movements covering: Load movements</p> <ul style="list-style-type: none"> • Identifying and managing complex or heavy load requirements (including downward forces (excavators and loaders)) • Equipment selection for loading and unloading - confirming the load is within the rated capacity of the vehicle or trailer (for towing) • Transport equipment selection - confirming the load is within the rated capacity and appropriate for the planned transport route • Load restraints • Transport routes consider interactions with other workgroups including travel speeds • Unloading locations and tip points are level, stable, and suited to the vehicle and load being unloaded or tipped, with edges and drop-offs adequately protected • Notifications and warning e.g. to operations • Barriers between the load and personnel in the transport vehicle • As required off-site transport permits <p>Hazardous materials transport</p> <ul style="list-style-type: none"> • Flammable liquids or explosives are transported in rated and approved 	<p>Personnel apply site processes to plan and execute safe and productive load movements. Personnel involved in the movement of loads understand their accountabilities and are authorised to apply site processes for:</p> <ul style="list-style-type: none"> • Identifying load weights • Equipment required for loading and unloading • Equipment required for transporting • Determining transport route constraints • Documentation, notification, communication, and warning • Identifying and managing other hazards <p>Multiple training modules - address requirements for loading bulk and specific materials and operating when loaded. OFI-086 Reinforce site load movement protocols Workshop participants report variable conformance with site processors for planning and executing safe and productive load movements. Unwanted vehicle interactions can occur due to poorly placed loads. Reinforce requirements for planning and executing safe and productive load movements.</p>	<p>Load movement plans are documented and logged. By exception equipment damage and incident investigation findings. Hazardous material movement audits. Transport equipment maintenance records e.g. barriers remain in place Multiple assessment tools - confirm understanding of the hazards and required controls around movement of loads.</p>	<p>CMSHR 072 (g) - Develop and implement a procedure for towing CMSHR 072 (i) - Develop and implement a procedure for transport of heavy items CMSHR 133 Discharging loads</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>vehicles</p> <ul style="list-style-type: none"> Site notification, communication, and warnings are deployed <p>CGRA BLS-FH03 Mobile Equipment - Fatal Hazard Protocol V1.0 - S4 General Requirements requires sites to develop guidance and procedures for managing estimating weight and stability, moving the load, and adjusting vehicle operations for abnormal loads.</p> <p>PLN-005 PHMP Mobile Equipment Incidents - S4 requires escorting of wide loads, loading within vehicle limits, and separation of loads from operators and passengers.</p> <p>SOP-017 Using Mobile Plant - Mine Traffic Rules - addresses safe movement of loads at S5.9 Load Carrying, S5.11 Speed Limits LMHV and HME, S6 Escort Rules, S8.9.1 Loaded Trucks (Parking) only for hot-seat change and in the event of a situation that prevents the requirement for emptying the load before parking up.</p> <p>OFI-087 Review Site Speed Limits and Monitor Performance Workshop participants discussed an absence of consistent guidance for speed limits for the go line and on different grades of ramp. Not providing guidance in high traffic areas and where vehicle runaway is possible can lead to unwanted vehicle interactions. Review the setting of speed limits for the go line and site ramps. Confirm communication and training processes, introduce performance monitoring.</p>			
<p>BI-MPV.61.01 Vehicle interactions are considered during short-term planning processes</p>	<p>Mobile equipment interactions and operating requirements are always considered when approving, planning, and scheduling work.</p>	<p>Short term planning processes consider interactions between workgroups and mobile equipment operating requirements when approving, planning, and scheduling work.</p> <p>SOP-017 Mine Traffic Rules, and PLN-005 PHMP for Mobile Equipment Incidents - are not clear on planning and scheduling requirements for short to medium term consideration of vehicle interactions.</p> <p>CPS PLN 6.0 Activities & Time Utilisation Model and CPS WI 2.72 Short and Mid-Term model - do not address pro-active considerations for vehicle interaction outcomes from any decisions made.</p>	<p>Technical planners and operational superintendents review skills of available operators and vehicle/work group interactions during planning.</p> <p>Supervisors issue instructions based on short term plans.</p> <p>Interviews and Observations - General planning is focussed on the geographical locations of intended mining blocks. This indicates an assumption that traffic flows will be managed at a contractor supervisor level in accordance with the higher level plans and rules.</p> <p>Workshop Discussion Prompt - <i>There may be occasions where scheduling of mining blocks</i></p>	<p>Performance is monitored referencing instructions from short term plans e.g. through supervisor inspections. Adjustments are made when required.</p> <p>OFI-031 Review processes for monitoring of short-term planning effectiveness Workshop participants discussed how site personnel meet production challenges and questioned if performance reviews considering the success or failure of short-term mining plans are held. They suggested that reviews would not only consider reaching production goals but also how well vehicle interactions have</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
			<p><i>leads to an increase in interaction hot spots (e.g. many vehicles arriving at the one intersection, difficult LMHV traffic paths through HME traffic flows, etc.) - should there be more consideration made in the planning and scheduling areas for the site?</i></p> <p>OFI-030 Review site short-term planning processes and confirm that vehicle interaction is considered.</p> <p>Workshop participants discussed how short-term term planning decisions required to meet monthly coal targets can lead to increased vehicle interaction intensities that include the construction of awkward intersection geometries.</p> <p>A focus on early access to coal in variation to the mine plan can result in tight mining conditions and non-standard road and intersection builds.</p> <p>Review site strategy and discipline to follow medium term operating plan.</p> <p>Consider introducing a formal step to confirm that vehicle interactions are considered during short-term variation decisions. This can include formal processes that should be triggered when overriding site standards and good practise as per the medium term operating plan.</p>	<p>been managed e.g. intersection construction, tightness of load areas, haul distances, managing sub-optimal blasts, shared haul roads, working adjacent to drill and blast, etc.</p> <p>However, without periodic reviews of short-term plans that go beyond meeting production numbers then site norms of scrambling to solve short-term problems can develop. Comprehensive short-term planning reviews identify and log any adaptations and compromises made to site processes and standards to meet goals. This can include impacts on long-term mine plan, increases in vehicle interaction intensity, managing contractor costs, maintaining overburden strip ratios etc.</p> <p>Consider formalising a site short-term and medium-term review process (monthly and quarterly) that considers all of the impacts of changes that are made to meet coal production demands. Include positive and negative impacts on vehicle interaction intensity and incident investigation findings.</p>	
<p>BI-MPV.64.01 Pedestrian working in operational area communication and operating protocols</p>	<p>There is an effective and applied communication protocol for managing interactions between pedestrians and mobile equipment.</p>	<p>Sites have consistent, defined, and measurable processes for managing interactions between pedestrians and mobile equipment. These define communication requirements based on the situation including:</p> <ul style="list-style-type: none"> • Approaching and accessing heavy vehicles • Working independently in an area where vehicles are operating • Working alongside a vehicle in the same workgroup • How to move past a vehicle when working underground or in a constricted space e.g. if pedestrians cannot move to a position of safety in a roadway, the vehicle must stop, the operator must acknowledge the pedestrian presence and allow the pedestrians to walk past the vehicle before continuing <p>They also confirm what communication equipment and signage is required for different</p>	<p>Training and assessment in requirements for working in operational areas as a pedestrian. Requirements are reinforced in area inductions and periodically at start of shift or similar briefings.</p> <p>Planners and supervisors identify workgroup interactions and confirm required communication before entry and during work. Permanent or mobile signs provide call up information</p> <p>Curragh North Open Cut Area Familiarisation - No mention of rules for pedestrians in working areas. Should there be?</p> <p>OFI-072 Review worker on foot communication and operating protocols</p> <p>Workshop participant discussions identified a gap in site requirements covering communication requirements for pedestrians working in operational areas. The Curragh North open cut familiarisation information and induction does not have rules for pedestrians in working areas.</p>	<p>Training records confirm that relevant personnel are competent e.g. maintainers, service personnel operators, supervisors.</p> <p>Supervisors monitor performance.</p> <p>Records of start of shift or similar awareness briefings.</p> <p>Collision avoidance system logs and reports on equipment and pedestrian interfaces.</p> <p>By exception hazard and incident reporting.</p>	

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		<p>situations on site, for example</p> <ul style="list-style-type: none"> • When personnel are working on the ground at least one member of the work party must be in possession of a two way radio or equivalent. • Standard radio (or other communications) call-up protocols are followed. • Signage alerting vehicle operators to the presence of work in an area. • Cap lamp signals when working underground. • Collision Avoidance System handshake or acknowledgements etc. <p>SOP-017 Using Mobile Plant - Mine Traffic Rules -S7.3 Separation - Pedestrians <i>Pedestrians must always give way to vehicles unless crossing at designated pedestrian crossings. S8.3 Access and Egress - pedestrians to give way to HME unless they are already on the go-line in which all HME remain stationary. S8.5 Approaching Equipment - if there are pedestrians within 50m the Operator must stand outside the cabin. S8.13 Hot Seat Changeover can only occur where there is a designated position for pedestrians. S8.15 Pedestrians TMP for Go Lines and Crib Huts to have designated walkways with signage.</i></p>	<p>A failure to consistently set and meet communication requirements for pedestrians working in operating areas creates an ongoing vehicle to pedestrian interaction hazard that is inadequately controlled.</p> <p>Update the NCOC area familiarisation to include rules around pedestrians in working areas. Confirm minimum communication requirements, barriers, permits, risk and control management. Review and update as required. Use practical examples to illustrate the application of standards.</p>		
<p>BI-MPV.64.02 Around vehicle inspection or use of spotters to identify hazards before and during movement</p>	<p>There are no unplanned vehicle to person or vehicle to vehicle contacts on first movement.</p>	<p>Before moving off from being parked or driving into locations with limited clearance, vehicle operators carry out an around vehicle inspection e.g. a HV walk around inspection. If required by site, horns are used to indicate vehicle operation e.g. once prior to starting the vehicle, twice before forward movement, three times before reversing.</p> <p>Where movement in constrained locations is required, a spotter is used by the operator (and nominated by a supervisor).</p> <p>SOP-017 Mine Traffic Rules - Spotters only identified as required for HV reversing in workshops and other areas near equipment.</p>	<p>Training and assessment in requirements for vehicle operators to conduct an around vehicle inspection prior to first movement after parking. Use of spotters and vision aids as required to manage operation in locations with restricted clearance.</p> <p>SOP-016-FRM-07 LMHV Pre-start Inspection Form - No requirement for a walk-around to be completed as part of checks (although this is needed to check all lights are functioning).</p> <p>OFI-011 Review use of spotters on site Workshop participants confirmed that site level SOP-017 Mine Traffic Rules includes information and rules for managing hazards when spotters are used to direct mobile equipment. However, they observed that the SOP-017 rules and information can be interpreted in many ways. They also confirmed that moving equipment in and around workshops was sometimes taking place without using spotters.</p>	<p>Supervisors monitor vehicle operator prestart check including around vehicle inspection. Area cameras provide records of vehicle operation that are regularly reviewed.</p> <p>BLS-004-CCV-03-FH03 Mobile Equipment - Management of Interactions - Includes requirements to confirm activities, understanding and training of CMW.</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
			<p>The use of spotters when moving equipment with blind spots is an established vehicle interaction control. While it is effective, using a spotter introduces a dynamic vehicle to pedestrian interaction hazard where consistent reliable performance depends on the judgment and actions of two people - the operator and the spotter. More reliable controls include a workplace layout where spotters are not usually required e.g. drive through service areas, defined parking areas, and maintenance scheduling that avoids parked up equipment awaiting maintenance.</p> <p>Review the use of spotters, confirm site requirements, update SOPs and establish a performance monitoring process.</p>		
BI-MPV.65.11 Same direction travelling and queuing separation protocols	Nil vehicle to vehicle contacts during travelling and queuing operations.	<p>Site requirements for separation between vehicles when travelling in the same direction, and when queuing, are clearly stated.</p> <p>SOP-017 Using Mobile Plant - Mine Traffic Rules S8.6 Following distance - 50 metres requires a separation between vehicles travelling in the same direction, and S8.10 Queuing Rules for Haul Trucks - which allows for 15 metre separation and describes how to progress or leave a queue for a dig unit.</p>	<p>Vehicle operators are trained and assessed on their understanding of required separation distances - including challenge testing and observation to confirm they are alert to road network features which provide additional guidance on how far they are from the vehicle in front.</p> <p>Multiple Training Modules (Learning Materials) - very brief mention of following road rules - no additional examples provided regarding separation and queuing requirements.</p> <p>OFI-059: Review conformance with site travelling and queueing separation protocols. Operator understanding of separation distances for travelling and queueing are not regularly challenged, tested, or monitored.</p> <p>The reliability of controls for maintaining separation distances through the load and dump cycle, including during queueing, depends on constant good decisions being made by mobile equipment operators.</p> <p>Review and confirm the adequacy of competence testing, auditing, critical control verification and oversight around travelling and queueing separation protocols. Consider developing performance measures, include a monitoring capability in future technology implementations for collision avoidance.</p>	<p>Training records confirm the currency of vehicle operator understanding of separation distances.</p> <p>Specified review period to retain competencies are stated and tracked.</p> <p>Supervisors monitor vehicle operator performance.</p> <p>Proximity detector logging and exception reporting.</p> <p>BLS-004-FH03-CCV-02-FH03 Mobile Equipment - Vehicle Safety & Operations - no specific requirement for observing separation and queuing behaviours. <i>Should there be more detail?</i></p>	
BI-MPV.65.12 Vehicle entering a work area positive communications protocol	All personnel operating vehicles remain alert and situationally aware when working in congested areas.	There are site standards, processes, procedures, and work instructions, that detail vehicle entry requirements to congested work areas e.g. when loading and dumping, or when accessing workshop areas	Training and Assessment in requirements for Positive Communications for Entering a Work Area requirements are included and reinforced in multiple training and awareness modules e.g. operator training and area inductions.	<ol style="list-style-type: none"> 1. Training records confirm the currency of vehicle operator understanding of communication requirements. 2. Specified review period to retain 	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>At a minimum, these detail:</p> <ul style="list-style-type: none"> • Work area delineation (where to stop and queue etc.) • Radio (or other communications) call up protocols • Identification • Confirming that communication has been received • Following signs and directions. <p>SOP-017 Using Mobile Plant - Mine Traffic Rules - S5.12 Positive Two-Way Radio Communication requires formal notification from HME operator before progressing closer than 50 metres.</p>	<p>Requirements are routinely reinforced and communicated at shift briefings covering:</p> <ul style="list-style-type: none"> • Active haul circuits and work areas • Information on the area owners and communications before entry. <p>Permanent or mobile signs are provided with call up requirements.</p> <p>Multiple Training Modules (Learning Materials) - notification requirement for entering a HME 50 metre zone for LMV - but no requirement for notification when HME approaching HME.</p> <p>Workshop Discussion Prompt - <i>Should the requirements for notifying of approach be included in HME training? Is it a common practice on site (even if not in the training modules)?</i></p> <p>OFI-027 Review standards for call signs and monitor performance.</p> <p>Workshop participants discussed radio chatter issues on the dig floor and how improving call sign standards can improve performance. Excessive radio chatter reduces the available bandwidth on radio channels and subsequently delays or prevents the application of positive communication identification as a key vehicle interaction control.</p> <p>Consider assembling a cross-representative workgroup to review current practice and identify call sign improvement opportunities, particularly on dig floors. Consider performance monitoring enhancements.</p> <p>OFI-073 Review Positive Communications requirements for HME operators when entering a work area</p> <p>Workshop participants questioned if Heavy Mobile Equipment (HME) includes specific requirements for two-way communication etiquette and positive communications requirements when vehicles are entering work areas.</p> <p>They noted the importance of positive communications as a vehicle interaction control and how inconsistent positive communications can lead to unwanted vehicle interactions. Review site requirements and confirm when HME operators are required to use positive communication protocols to acknowledge vehicles approaching and entering work areas.</p>	<p>competencies are stated and tracked.</p> <ol style="list-style-type: none"> Supervisors monitor vehicle operator performance. Supervisors and peers monitor vehicle operator radio calls and actions <p>Multiple CCV - Interviews and Observation of positive communication required - no clarity on notifying SSE on entry to a circuit.</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
BI-MPV.66.01 Road design guidelines specify minimum requirements for delineation	The design and installation of delineators assists mobile equipment operators to accurately estimate separation distances.	<p>Road designs and construction requirements include standards for the accurate spacing of delineators along the road network. Spacing guideposts are placed at distances relative to the distance required to be maintained between mobile vehicles. Site design requirements specific the use of reflector colours e.g. Use red reflectors on the left, white on the right.</p> <p>SOP-017 Mine Traffic Rules - Notes requirement for delineators - but with no specific guidance on placement.</p> <p>SMS-032 Specification for Design and Construction of Mine Roads - S4.8 Delineators and Guideposts provides guidance on height and placement of delineators (100m on straight and 50m at intersections) <i>Other sites use 50m spacing on delineators to provide a visual prompt for travelling distance. Is this worth considering for CNOC?</i></p>	<p>Road construction crews place and maintain delineators at required distances.</p> <p>Inspections and Interviews - Signage and delineation installed largely to conform with requirements.</p> <p>OFI-029 Review and improve site delineation practices</p> <p>Workshop participants confirmed that site delineation standard vary including the agreed distance between delineators. They agreed that the maximum distance between delineators should be 50 m. This distance provides a reliable definition of the road edge while assisting with drivers to estimate of following distances.</p> <p>Non standard spacing of road delineators can confuse mobile equipment operators on correct following distances during same-direction travel and road edge positions.</p> <p>Review site delineation design standards. Confirm site requirements e.g. installed and maintained at a consistent 50 metre spacing on longer runs and closer at intersections and around corners (e.g. chevron delineators). Review processes for installing, inspecting, and maintaining the standards.</p>	<p>Commissioning and handover records confirming that ‘as built’ meets design requirements</p> <p>Supervisor inspection records.</p> <p>BLS-004 FH03-CCV-01-Mobile Equipment - Road and Intersection Design & Construction - Requirement to check signage, boom gates and other safety components (but no specifics on delineation marker distances on site and around intersections).</p> <p>Workshop Discussion Prompt - Is there merit in considering requirements for Survey (drone scans) to provide reports on non-conforming delineation and windrows?</p>	<p>CMSHR 099 Restricting access to parts of mine</p> <p>CMSHR 128 Specification for design and construction of mine roads</p> <p>QLDDCMR 16.02 - Delineators to be provided to adequately define the edge of the running surface of a road</p> <p>QLDDCMR 16.03 - High visibility bollards, berms or segregation barriers should be installed where vehicles interface with surface infrastructure</p>
BI-MPV.68 Refuelling and Lubrication Practices	Refuelling and lubrication of mobile equipment is productive and safe.	<p>Operating sites have refuelling procedures that confirm requirements for:</p> <ul style="list-style-type: none"> • Mobile equipment refuelling system specifications • Operation of fuel and lubrication transfer systems • Refuelling and lubrication of vehicles, equipment and fixed plant - management of interactions between service vehicles and operating vehicles • Housekeeping in refuelling bays and requirements for inspection of fire suppression systems and fire extinguishers • Emergency procedures including spill response • Replacement or changing of fuel cells or storage tanks • For underground operations - refuelling outside refuelling bays <p>SOP-014 Servicing, Lubricating and Refuelling Mobile Plant V4.5 21/10/2022 - S3.4 Refuelling Plant and Equipment provides</p>	<p>Training and assessment for personnel responsible for refuelling and lubrication.</p> <p>Training and assessment for mobile equipment operators.</p> <p>Site refuelling and servicing infrastructure and equipment meets site standards.</p> <p>Multiple Training Modules - cover requirements for refuelling and address interaction, environmental, and fire prevention controls.</p> <p>OFI-064 Review the cost benefit for in-pit service bays for in-cycle servicing.</p> <p>Workshop participants report high levels of vehicle interactions on the go lines, particularly when in-pit refuelling operations are occurring at the same time as other vehicle movements. Having workers on the ground at the same time as HME vehicle movements are occurring leads to higher potential for an unwanted interaction. Review the provision of dedicated service bays for refuelling and shift servicing.</p>	<p>Housekeeping Inspections.</p> <p>Training system currency of refueller skills.</p> <p>Audits of site refuelling infrastructure and equipment.</p> <p>Approved and in-date emergency response plans and periodic exercises.</p> <p>OFI-066 Improve performance monitoring for in-pit refuelling</p> <p>Workshop participants confirmed that audits ad other performance reviews of in-pit refuelling practices are sporadic and may not be happening in any clear and obvious manner.</p> <p>Failure to get regular status information around key activities such as in-pit refuelling can lead to a drift in standards and ultimately unwanted vehicle interaction incidents and equipment fires. Review in-pit servicing performance monitoring, consider task logs, minimum audit requirements and make updates, as required.</p>	<p>CMSHR 072 (h) - Develop and implement a procedure for servicing mobile plant</p> <p>CMSHR 078 Isolating and tagging procedures</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>guidance on all the steps required and covers parking, control isolation (operator on ground), positive communication for start and end of refuelling.</p> <p>OFI-065 Review mining Pro training modules. Workshop participants raised an issue - Mining Pro training modules have removed requirements for vehicle operators to test and report operational functions during regular in-pit or in-cycle servicing.</p> <p>A lack of knowledge of operational function testing can lead to poorer quality pre-start checks that do not detect equipment failings that can lead to incidents.</p> <p>Review the decision for removing operational function testing in Mining Pro training modules.</p>			
<p>BI-MRA.72.01 Controlled Access to Operational Areas</p>	<p>Site access infrastructure controls are in place and permissions to enter operational areas are clear, applied, and well managed.</p>	<p>There are site standards, processes, procedures, work instructions, and specification to manage site and area access for personnel (including third parties), animals, and mobile equipment. These cover:</p> <ol style="list-style-type: none"> 1. Site operational areas, other locations, and circumstances where access controls are required e.g. blasting, autonomous mining, and other high consequence activities etc. 2. How these areas are delineated and identified e.g. sign posts, site maps, geo fencing, (boom) gates, barriers etc 3. Who is accountable for controlling access e.g. security or sentries for blasting 4. Specifications for any required physical infrastructure e.g. fences, permanent barriers, temporary barriers, light curtain interlocks, security gates, turnstiles etc. 5. Minimum standards for authorised access to a controlled area e.g. vehicle marking and lights, PPE, training and awareness, permitted persons (inspectors, etc.), notification requirements (in and out) etc. 6. How access standards are monitored e.g. regular inspections to confirm boundary, barrier and delineation performance integrity. 7. How access permissions are monitored e.g. access system reports 	<ol style="list-style-type: none"> 1. Training and assessment in applying relevant site access requirements are included and reinforced in multiple training and awareness modules for direct and indirect employees. 2. Fences and gates are included in site maintenance strategies and are regularly inspected and maintained 3. Security patrols confirm integrity of boundary and alert site personnel if entry is occurring or has occurred. 4. Sentries provide warning to approaching vehicles and notify workers inside perimeter if an entry is required to occur. 5. Security patrols, sentries and others complete inspection forms to confirm site requirements are being met. 6. Barriers to high consequence areas are installed and maintained to meet requirements. 7. Work area barriers are regularly inspected and maintained. <p>OFI-074 Review Site Access Controls Uncontrolled site access between North and South Curragh operations in the the Curragh complex may lead to unplanned and unwanted vehicle interactions. Workshop participants discussed differences between operator understanding of vehicle interaction protocols for different vehicle types on the main access road into Curragh North Operations. They discussed how these differences might cause unwanted vehicle interactions e.g.</p>	<ol style="list-style-type: none"> 1. Training and induction records are created and controlled in site information management systems. 2. Inspection records are created and reviewed by more senior personnel on site. 3. Access logs and reports are generated and maintained. 4. By exception reporting and investigation of access barrier failures. 5. Audits of high consequence site activities e.g. blasting, autonomous mining etc. <p>Workshop Discussion Prompt - No formal CCV in place around general access to site. Should there be?</p>	<p>CMSHR 093 Working near a body of water or other liquid CMSHR 099 Restricting access to parts of mine</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>8. The process for dealing with unauthorised access by direct and indirect employees and by third-parties or animals.</p> <p>Interviews and Inspections - Site fencing in place Chain Link near MIA and rural more generally. Permitted access controlled via DAMSTRA system.</p> <p>CS-006 Fencing - Specification covering requirements for fence installation. No specific guidance on where to install what type of fence.</p> <p>OFI-078 Consider reducing the number of drivers with operating area authorisation Workshop participants discussed light vehicle access permissions and confirmed that gaining authorisation to drive light vehicles in restricted operational areas is straightforward with limited oversight. Many site personnel have authorisation to drive light vehicles in operational areas.</p> <p>For surface mining, the most significant fatality mechanism (pathway) is a collision between a heavy vehicle and a light vehicle. A reliable control is to reduce the number of vehicle interactions between light vehicles and heavy mobile equipment and hence the decision demands on all drivers. The simplest mechanism to apply this control is through limiting the number of light vehicles in operational areas. Other controls include stopping heavy vehicle movements when light vehicles are on operating circuits, or segregation including light vehicle only access roads.</p> <p>Review and confirm the current number of drivers with light vehicle authorisations to drive in operational areas. Consider how many licences are required for operational efficiencies and assess the impact of reducing the number of authorisations to decrease the number of light vehicles in operating areas.</p>	<p>between transport floats and light vehicles, and when transporting materials e.g. in situations when waste from the preparation plant has to be transported to the North Curragh mine.</p> <p>Review the understanding and application of vehicle interaction protocols for site access. Upgrade current access protocols if required.</p> <p>OFI-090 Review Operational Area Access Infrastructure Workshop participants discussed the adequacy of infrastructure to manage site access including access to various operational areas. Unexpected vehicles or pedestrians in operating areas can lead to high consequence, unwanted vehicle interactions.</p> <p>Review protocols and infrastructure for limiting access to operational areas. Benchmark with other regional coal mining operations.</p>		

Section 5 - System Optimisation: there is a whole of system overview of activities that deliver safe and productive outcomes, when necessary, modifications are made

Vehicle Interaction management is well coordinated, practical and integrated with routine operational and business processes

This group of Business Inputs includes the system-level business inputs necessary for ongoing safe and productive use of mobile equipment. These focus on having a whole of system overview of activities and when necessary, making modifications. This includes:

- Operators in control of mobile equipment are trained, competent, authorised, alert and situationally aware.
- People who routinely work around mobile equipment are trained, competent, authorised, alert and situationally aware.
- Work environments are designed to be as error free as is practical.
- Ensuring that mobile equipment interactions are routinely reviewed during production planning and scheduling.
- Mobile equipment operations are monitored and adjusted to remain safe and productive.

Table 5 – CG CNOC VICE Review Baseline – Systems Optimisation with comments, opportunities for improvement, and related QLD Legislation

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
BI-SDA.81 Organisational structure, role requirements and reporting	All decision makers on site have clarity around the business input activities they are accountable and responsible for - and how they should be reporting on them	<p>The site requirements for achieving alignment with the business mission include:</p> <ol style="list-style-type: none"> 1. Establishing an organisational structure which nominates roles that are accountable and responsible for performance of required business inputs 2. The structure provides guidance on reporting lines and authority for different aspects of the business input activities 3. Accountable role holders have site (or broader) duties to coordinate execution or improvement, and report on the performance of required activities 4. Responsible role holders execute the required activities, report on the quantity and quality of execution, and recommend improvement opportunities 5. Role descriptions include required certification and qualification, and associated resources provide clarity for role holders on their role's requirements 6. Performance standards, aligned with role descriptions are developed and available to the senior leadership team <p>Work Health and Safety Policy, Coronado Global Resources, 16 Feb 2023</p>	<ol style="list-style-type: none"> 1. The business identifies site requirements through assessment of site issues with adoption and refinement of good practices to match prevailing conditions (including any statutory requirements) 2. Role structures based on RACI (responsible to the task, accountable for the business input requirements, consulted on implementation/change, and informed on performance) match the identified site requirements 3. Persons are formally appointed to the role (in a permanent or relief capacity), provided with the role description requirements and assessed, or trained and assessed, to confirm understanding 4. Activities are executed in line with prevailing site requirements including reporting on: performance; identifying and escalating problems; identifying improvements opportunities, and; mentoring other responsible role holders to lift standards <p>OFI-088 Confirm that required roles have been assigned in the site organisational structure The workshop participants were unclear if</p>	<ol style="list-style-type: none"> 1. Reports on business input execution are reviewed by accountable role holders and reported, as appropriate, to more senior personnel 2. Internal and external audits and inspections are commissioned, reviewed and acted upon by senior leadership 3. Non-conformances with role requirements are addressed through performance management processes 	<p>CMHSA - 026 Meaning of the term Supervisor CMHSA - 030.1 Put management and operating systems in place for each mine CMHSA - 030.2 (e) Review the effectiveness of risk control measures CMHSA - 033 - Nominated roles with responsibilities under the act CMHSA - 039 Obligations of persons generally CMHSA - 041.1(a-b) Obligation to ensure the acceptable risk of coal mine workers CMHSA - 041.1(c) Obligation to protect a person from higher than an acceptable level of risks (neighbouring Petroleum and Gas) CMHSA - 041.1(d-f) Appointed site senior executive must Implement system to achieve safety and health of persons at the mine CMHSA - 041.2 Obligation not to operate the coal mine without a safety and health management system for the mine CMHSA - 042 SSE to consider risks, required controls, and monitoring to continuously improve CMHSA - 163 Directives regarding levels of risk to be followed CMHSA - 47A - Obligations of</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>- Enabling document for the allocation of resources to support safe outcomes on site. Commits to practices, procedures, HSMS updates, training and supervision, culture support, provision of safe workplaces, and maintenance of these standards.</p>	<p>all of the documented organisational role requirements were being executed as required. Gaps in leadership and execution of required tasks can lead to hazards and issues emerging in the operation. Revisit site protocols for assigning site leadership team role requirements. Confirm performance measures.</p>		<p>company officers to provide oversight and apply resources CMSHA - 045A Obligations of designers, constructors and erectors of earthworks CMSHA - 046.1 Obligations of manufacturer or importer of a substance for use at a coal mine CMSHA - 049 Notices by holder CMSHA - 050 Notices by coal mine operator CMSHA - 051 Notice of management structure CMSHA - 053 Appointment of coal mine operator CMSHA - 054 Appointment of site senior executive CMSHA - 055 Develop and maintain a management structure for the coal mine and document the management structure CMSHA - 056 Appointment of supervisors CMSHA - 057 Appointment of another site senior executive during temporary absence CMSHA - 058 Other appointments during absences CMSHA - 058A Additional requirements for management of surface mines CMSHA - 058B Acting managers of surface mines CMSHA - 059 OCEs to be appointed CMSHA - 060 Requirement to appoint incumbent and relieving mine officials CMSHA - 061 Appointing ventilation officer for the mine and its duties and responsibilities CMSHA - 063 Identify, analyse and assess risk associated with principal hazards CMSHA - 065 Changes in management structure to be reported to an inspector CMSHA - 066 Management structure to be recorded in the mine record CMSHA - 067 A SSE for a coal mine</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
					to coordinate preparation and distribution of plans CMSHA - 070 Responsibility for protecting abandoned coal mines CMSHA - 092-099 Processes and Functions - site safety and health representatives CMSHA - 106 Site senior executive to tell site safety and health representatives about certain things CMSHA - 198 Notice of accidents, incidents, deaths or diseases CMSHA - 273.9&10 Notifying the inspector after the action is taken CMSHA 107 Site senior executive to display identity of site safety and health representatives CMSHA 140 Failure to help officer CMSHA 272A Children under 16 not to operate or maintain plant CMSHR 006 - Basic elements of a SHMS CMSHR 008.2(g) Giving notification of known hazards in and around a surface excavation CMSHR 010.1(b) Prepare a draft standard operating procedure CMSHR 012E Payment of safety and health fee CMSHR 012F Safety and health census to be given at the end of each quarter CMSHR 015.2 Accident investigation to involve people filling statutory roles CMSHR 017 Qualifications for appointment as electrical engineering manager CMSHR 019 Duty to give notice of proposed introduction of electricity CMSHR 043 Dealing with records and information about a person's fitness for work CMSHR 047 Employer's responsibility for health assessment CMSHR 063.1-3 Mine rescue plan must kept, show (location, access road, other infrastructure), and

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
BI-SDA.86.01 Risk and Control Management for Routine Tasks	Practical hazard identification, risk assessment, and control management processes are applied by task-level decision makers to safely and productively complete routine work.	<p>For routine tasks in standard work situations, the site has a documented process that that can be applied by all employees and contractors before and during their work to identify hazards, assess risks, and apply required controls. The process is well designed and supports workgroup members to manage minor variations in work steps or work settings. The process:</p> <ol style="list-style-type: none"> a. Describes the situations and thresholds for its application e.g. before beginning a new task. b. Supports an individual worker to identify hazards and confirm their controls using a checklist, task instruction, digital workflow, procedure, and other resources directly relevant to the work being undertaken. c. Supports a team to identify hazards and confirm their controls using a checklist, task instruction, digital workflow, procedure, and other resources directly relevant to the work being undertaken. d. Confirms when additional risk and control requirements must be applied, such as JSEA, permit processes and critical control verifications, for routine tasks with high potential consequences e.g. hot work, work in high voltage areas, process and equipment isolation, confined space entry etc. e. Confirms the site requirements for documenting or recording process steps e.g. permits, Take 5, Stop-Look-Assess-Manage (SLAM) forms, and digital workflows. f. Details how records are captured, monitored, and analysed. 	<ol style="list-style-type: none"> 1. Workgroup members and supervisors are trained, and competency assessed in application of site risk and control management processes for routine tasks in standard work conditions. 2. Workers understand thresholds and seek further guidance when identifying hazards, assessing risks, and implementing required controls for non-routine tasks and routine tasks in non-standard conditions. 3. Supervisors are trained, and competency assessed in coaching and assisting workgroups to apply site risk and control management processes. 4. Supervisors are trained, and competency assessed in reviewing how workgroups have applied site risk and control management processes. 5. Site records are kept 6. Senior leaders monitor the application of the site risk and control management processes including supervisor checks and reviews. 7. Periodic audits and reviews confirm that site processes for hazard identification, risk assessment, and control management are practical, applied, align with good practice, and meet legislative and company requirements. 8. Leaders consider opportunities for improvement arising from reviews, audits, incident investigations, employee 	<ol style="list-style-type: none"> 1. Performance reporting on the actual vs expected records of process being applied. 2. Training and competency records are generated and maintained for task-level decision makers. Records of field observations and inspections by supervisors and more senior personnel that confirm: Processes are understood and have been applied; Required controls are in place; Any follow-up actions are logged, monitored, and closed-out 3. Periodic reviews and audits of the design, application, and process outputs. 4. Quality analysis of task-level risk management records including improvement feedback to users. 5. As required post incident reviews. 	<p>sufficient CMSHR 063.4 Availability of a sufficient number of copies of the plan for emergency use CMSHR 100AD Requirements for site senior executive CMSHR 148 Ways of achieving an acceptable level of risk</p> <p>CMHSA - 030.2 (e) Review the effectiveness of risk control measures CMHSA - 030.2 (e-g) Investigate and analyse the causes of serious accidents and high potential incidents CMHSA - 039A Additional Obligations of Persons</p>

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		<p>Checklists, task instructions, digital workflows, procedures, and other relevant resources are: Designed by subject matter experts and authorised by an accountable senior person, and; Current and available for review and application e.g. through document and Information management systems.</p> <p>PLN-001 Safety and Health Management Plan - S6 Risk Management Level 1 - Pre-task hazard identification (STAR) for all tasks or when conditions change</p>	<p>feedback etc. and when required they assign appropriate corrective actions.</p> <p>OFI-49: Review site hazard identification and reporting KPIs Workshop attendees discussed and highlighted that North Curragh sets Key Performance Indicators (KPIs) for safety related activities including hazard identifications. Concerns were raised that major drivers for generating reports are to meet KPI numbers. This may mean that the information does not reflect actual hazards, status of controls, and their management in the operating environment.</p> <p>Excessive numbers of hazard reports on a wide range of issues driven by quantity KPI metrics can lead and misalignment of organisational response and focus leading to 'boy who cried wolf type outcomes.' Effective management of hazards requires an adequacy analysis that considers current control(s) design, the reliability of their application, the potential for enhancement e.g. through technology and digitisation.</p> <p>Review how site KPIs are set for hazard identification and other routine risk and control management tasks. Consider both quality and quantity metrics and how the reported information can be leveraged for improvement. Use the hazard reporting, incident, and other performance measures to prepare user requirements for technology and other digital solutions.</p>		
<p>BI-SDA.89 Emergency Preparedness</p>	<p>There should be a formal approach to emergency preparedness on site. It should include local response, emergency response through to crisis management.</p>	<p>There should be a formal approach to emergency preparedness on site. It should include local response, emergency response through to crisis management and may include formal liaison with external agencies.</p> <p>Specific response plans for foreseeable site emergencies e.g. traumatic injuries, entrapment, rescue from heights, fires, spills etc. are:</p> <ul style="list-style-type: none"> • Prepared • Resourced (equipment and personnel) 	<p>A senior site position is accountable for site emergency and crisis management response and recovery capability. Emergency response plans have a review cycle and are also reviewed after incidents. Emergency response information is available in the workplace in a format that is audience appropriate. Visitor inductions include emergency notification and evacuation requirements. Employees (direct and indirect) are trained in:</p>	<p>Capability reports for Emergency Responders, Employees, and Visitors.</p> <p>Reviews of emergency response drills.</p> <p>Maintenance reports on the status of site emergency response equipment.</p> <p>By exception incident reviews.</p> <p>OFI-089 Review and confirm Curragh complex emergency preparedness and capability. Workshop participants discussed</p>	<p>CMHSA - 031 Provide evacuation / retreat capabilities if the level of risk is unacceptable</p> <p>CMHSA - 041.1(d-f) Appointed site senior executive must Implement system to achieve safety and health of persons at the mine</p> <p>CMHSA - 47A - Obligations of company officers to provide oversight and apply resources</p> <p>CMSHA 223 Coal mine operator must be a party to a mines rescue agreement</p>

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		<ul style="list-style-type: none"> • Practiced and tested • Reviewed and improved • Maintained <p>At a minimum, site emergency response capability requires that:</p> <ul style="list-style-type: none"> • All personnel at site know how to notify a site emergency • All employees (direct and indirect) understand first-response actions after notification for fires, injuries, spills, and other foreseeable incidents • There are trained and competent emergency responders, supported with appropriate equipment, and who may be supported by external agencies • There are processes to notify and carry out emergency evacuations <p>Emergency Management CORONADO GLOBAL RESOURCES (AUSTRALIA) Business Level Standard (BLS) Document Number: CGRA BLS-017. This general standard describes the minimum requirements for Operations to establish and maintain an emergency capability and identify appropriate resources to provide effective emergency response to operational emergencies.</p> <p>PLN-001 Safety and Health Management Plan - Section 10 Emergency Response - Curragh maintains an emergency and crisis management capability for identified potential operational emergencies and; crises, developed from the Broad Brush Risk Assessment, and informed by legislation, industry standards, appropriate codes of practice and specialist advice.</p> <p>PLN-005-RA PHMP Risk Assessment Mobile Equipment Incidents The register has multiple vehicle interaction entries.</p>	<ul style="list-style-type: none"> • Emergency notification • First response - first aid, fire fighting etc. • Evacuation • Where relevant - the use of self-rescuers and refuge chambers <p>Emergency responders:</p> <ul style="list-style-type: none"> • Are trained and competent to manage foreseeable site emergencies • Have access to up to date plans, support materials, and navigation aids • Have access to adequate equipment to manage foreseeable emergencies <p>SMS-006 Managing Emergencies at the Mine. This comprehensive document details requirements and processes to manage emergency response for all activities associated with surface coal mining at the Curragh Complex, including vehicle interactions while meeting legislative requirements.</p>	<p>site emergency preparedness. They questioned the need for a review based on the recent operational separation between the north and south mines. Confirm that site emergency response across the Curragh complex is adequate and meets both company and legislative standards. The review should consider the logistics of moving volunteers e.g. availability of light vehicles.</p>	<p>CMSHR 008.1(a) Notification of Safety and Health Issues CMSHR 008.2(b) Prompt summoning of assistance CMSHR 008.2(c) Assistance from external entities CMSHR 035.1-2(a-c) General - SHMS to allow for Emergency Management CMSHR 035.2(d) General - carrying out emergency exercises CMSHR 035.2(f-g) General - surface mine and an underground mine CMSHR 036 Visitors' self-escape CMSHR 037.1(a-c) Fire - prevention, control and safety CMSHR 038.1-2 First aid CMSHR 149 Develop PHMPs for principal hazards UG</p>
<p>BI-SPA.82.11 Comprehensive fitness for work processes</p>	<p>Site requirements that all employees, contractors and visitors are fit for duty (unimpaired) while in the workplace.</p>	<p>There is an effective site fitness for duty approach that:</p> <ul style="list-style-type: none"> • Applies equally to all, influences positive behaviours, and assist people • Emphasizes self-management, individuality accountability, and shared responsibilities • Includes credible threat AOD 	<p>Training and awareness for all personnel on site fitness for work process and their responsibilities. Associated infrastructure for amenity, hygiene, meal breaks, and rest are provided.</p> <p>The application of BLS-011 Fitness for Work Business Level Standard is supported by: BLS-011-FRM-02_Fitness</p>	<p>A comprehensive fitness for work processes is in place and being applied. Screening reports. Employee assistance reports. Training and awareness sessions completed to schedule.</p>	<p>CMSHR 039 Consumption of alcohol CMSHR 040 Carrying out an activity, or entering a place, while under the influence of alcohol CMSHR 041 Safety and health management system for alcohol CMSHR 042.1 SHMS to consider responses to fatigue, stress or drug</p>

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		<p>(alcohol and other drugs) impairment screening processes and consequential discipline</p> <ul style="list-style-type: none"> Recognizes and responds to the multiple reasons why people may be impaired at work covering fatigue, stress, intoxication, and workplace stressors e.g. hot working conditions Supports supervisors to remove impaired persons from workplaces and then deal with the reason for impairment Minimizes inconvenience to the majority, while delivering required business outcomes <p>BLS-011 Fitness for Work Business Level Standard - This comprehensive business level standard includes these elements: Coal Mine Workers Health Scheme; Drugs; Alcohol; Prescribed and Non-prescribed Medication; Personal fatigue; Physical and psychological impairment; and Injury management</p> <p>OFI-079 Consider deploying operator alert system technology. Workshop participants discussed the deployment of operator alert system (OAS) Technology at other mines. They confirm that when the technology is operationally integrated, then it provides an additional and reliable control for managing operator fatigue. In some cases, it can assist individuals to identify and manage underlying health issues.</p> <p>The consequences of a fatigued mobile equipment operator falling asleep at work can be catastrophic. Without a technology monitoring approach, site leaders have little visibility on the effectiveness on site fatigue management processes other than self-reporting and incident investigations. Benchmark the application of commercially available technology with other Australian operations. Make the business case of how it can be deployed to complement and enhance existing site fatigue management approaches.</p>	<p>for Work – Restricted Management Form; BLS-011-FRM-02_Fitness for Work-Medical Declaration; BLS-011-FRM-03 Individual Journey Management Plan; BLS-011-FRM-04 Fitness for Work - Roster Fatigue Assessment - a comprehensive resource; SMS-011 Physical and Psychological Impairment; SMS-012 Alcohol and Other Drugs (This procedure identifies and controls risks associated with the consumption of alcohol and other drugs at Curragh)</p>		<p>usage effects CMSHR 042.2 Provide about personal fatigue for persons at the mine CMSHR 042.3 Providing protocols for other physical and psychological impairment CMSHR 042.4 Drug consumption or ingestion for persons CMSHR 042.6-7A Developing fitness for work provisions CMSHR 087 Bathrooms, toilets and dining facilities</p>
BI-SPA.83.02 Supervisor	Leadership and supervisory expectations	There is a supervisor development and appointment pathway. Reference company	Supervisors apply their leadership and supervisory skills to deliver safe and	Supervisor appraisals completed to schedule.	CMHSA - 026 Meaning of the term Supervisor

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performance requirements	of supervisors are documented, communicated, and performance is routinely assessed.	<p>supervisory and leadership models are in place and available for ready reference by supervisors.</p> <p>Leadership Skills reinforced:</p> <ul style="list-style-type: none"> • Motivates and builds the team • Safety and productivity leadership - emphasising safe production without undue pressure or coercion of workers • Judgment and timely decision making • Understanding of company requirements <p>Supervisory Skills:</p> <ul style="list-style-type: none"> • Planning and communication • Delegation • Conflict management • Delivering outcomes and maintaining standards • Employee performance management • Employee appraisal and development <p>BLS-001 Leadership and Accountability This Business Level Standard describes the minimum leadership, culture, and accountability requirements for Coronado Global Resources (Australia) and its Operations. It includes C.A.R.E. values, role expectations and Felt Leadership covering: Layered audits; Critical Control Observations; Planned Task Observations; Safety Interactions; Section 10.1 outlines breaches to life saving rules</p> <p>BLS-002 Organisational Roles and Responsibilities defines the roles and responsibilities attributed to each management level in the Organisation. It includes statutory positions, Coal Mine Workers, Site Safety and Health Representatives, risk and control owners.</p> <p>OFI-042 Review the design and application of site performance management processes. Each contractor and Coronado Global Mining have their own (commend or correct) performance management processes in place. Workshop participants discussed inconsistent application of the process between companies and between</p>	<p>productive outcomes.</p> <p>Line managers support the supervisors who report to them.</p> <p>Functional roles such as Human Resources and Safety assist supervisors with information and support.</p> <p>SOP-049-FRM-01 Supervision Verification Audit Form - Superintendent - is used to assess supervisor capability</p> <p>OFI-041 Review and improve supervisor performance management on site Supervisor skills were discussed and inconsistencies in the application of employee performance management processes (commend and correct) were noted. This applies to both periodic performance reviews and as required. Reviews are reported as being ad hoc and are captured in different ways e.g. using of iAuditor and SharePoint. There have been issues with information being lost, overwritten etc. There is also an absence of supervisor support e.g. understanding preferred personal leadership style and adapting based on the situation.</p> <p>Many vehicle interaction controls in mining are people dependent and require effective supervision with performance feedback. Poor or ineffective supervision can lead to slipping standards and result in performance drops e.g. unwanted vehicle interactions.</p> <p>Review and implement a good practise model for employee performance management. support. Consult with contractors and confirm how site expectations can be consistently met by applying their supervisor development and support processes. Consider training and development for supervisors, recording processes and support.</p> <p>OFI-050 Review hazard and control communications with work crews Workshop participants discussed the challenges of running effective prestart meetings that communicate operational and safety information and performance expectations that reinforce individual and workgroup norms. At Curragh North the</p>	<p>Supervisor development plans are prepared and implemented.</p> <p>There are records and evidence that supervisor are applying their skill e.g. completed employee appraisals, task reviews, inspections, performance management commend or correct records, daily planning, prestart meetings, review of operational logs etc.</p>	<p>CMHSA - 030.2 (a-d) Identifying, avoiding, and monitoring level of risk and critical controls</p> <p>CMHSA - 039 Obligations of persons generally</p> <p>CMSHA - 056 Appointment of supervisors</p> <p>CMSHA - 059 OCEs to be appointed</p> <p>CMSHR 082 (2) (b - i) (3) - Training Needs Analysis required that covers SHMS, deployed plant, inspections, and high risk tasks</p>

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		<p>supervisors. The discussion covered how the supervisors and superintendents who apply the processes can be better supported to deliver consistent outcomes. They noted that some of the most important vehicle interaction controls are people dependent and are based ongoing judgment and continuous good decisions of mobile equipment operators. These frontline decision are informed by training on the practical application of site standards. Appropriate performance monitoring with short cycle feedback is required to maintain the reliability of people dependent vehicle interaction controls.</p> <p>Review line manager performance training and support processes. Develop vehicle interaction control examples as part or training to reflect the importance of following site rules and reporting hazards etc. Confirm the task level limitations (decision rights) and permissions required to deviate from site standards. Consider developing performance feedback to operators that supports self-monitoring.</p>	<p>prestart meeting provides the only daily opportunity to communicate to a workgroup and discuss relevant hazards and their controls. Shift prestart meetings have to be efficiently transactional and also cover production elements e.g. assigning equipment etc. The current prestart sequence means that there can be shift long delays for sharing new information from a meeting across other workgroups e.g. for road works, changes to intersections, broken down equipment. and other short-term changes. Workshop participants also noted that there are always production drivers covering 'time to the first load." Workshop participants also noted the challenges of crew size, supervisor experience and effectiveness, employee turnover, and production pressures that have to be managed.</p> <p>Review the effectiveness of preshift meetings, consider developing performance measures and improve support for supervisors. Consider augmenting shift prestart meetings with hazard and control information e.g. SOP reviews, incident case studies that can be used during stoppages e.g. during wet weather.</p>		
<p>BI-SPA.83.03 Supervisors have management and HR support when applying performance management approaches</p>	<p>Competent supervisors are supported when they apply site performance management processes.</p>	<p>Accountabilities are clearly defined in site performance management processes. This includes details about how managers and support personnel such as human resources or industrial relations advisors are expected to support supervisors.</p> <p>OFI-042 Review the design and application of site performance management processes.</p> <p>Each contractor and Coronado Global Mining have their own (commend or correct) performance management processes in place. Workshop participants discussed inconsistent application of the process between companies and between supervisors. The discussion covered how the supervisors and superintendents who apply the processes can be better supported to deliver consistent outcomes. They noted that some of the most</p>	<p>Site performance management processes are documented and current and approved by senior managers. Supervisors are trained and supported when they apply site performance management processes to:</p> <ul style="list-style-type: none"> • Recognise and reward good performance • Coach for performance improvement • Manage ongoing inadequate performance and non-conformance • Respond to significant operating breaches <p>SOP-049-FRM-01 Supervision Verification Audit Form - Superintendent - is used to assess supervisor capability</p> <p>OFI-041 Review and improve supervisor</p>	<p>Review personnel records to confirm that performance management processes are applied routinely and consistently by supervisors to:</p> <ul style="list-style-type: none"> • Recognise and reward good performance • Coach for performance improvement • Manage ongoing inadequate performance and non-conformance • Respond to significant operating breaches 	

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		<p>important vehicle interaction controls are people dependent and are based ongoing judgment and continuous good decisions of mobile equipment operators. These frontline decision are informed by training on the practical application of site standards. Appropriate performance monitoring with short cycle feedback is required to maintain the reliability of people dependent vehicle interaction controls.</p> <p>Review line manager performance training and support processes. Develop vehicle interaction control examples as part or training to reflect the importance of following site rules and reporting hazards etc. Confirm the task level limitations (decision rights) and permissions required to deviate from site standards. Consider developing performance feedback to operators that supports self-monitoring.</p>	<p>performance management on site Supervisor skills were discussed and inconsistencies in the application of employee performance management processes (commend and correct) were noted. This applies to both periodic performance reviews and as required. Reviews are reported as being ad hoc and are captured in different ways e.g. using of iAuditor and SharePoint. There have been issues with information being lost, overwritten etc. There is also an absence of supervisor support e.g. understanding preferred personal leadership style and adapting based on the situation. Many vehicle interaction controls in mining are people dependent and require effective supervision with performance feedback. Poor or ineffective supervision can lead to slipping standards and result in performance drops e.g. unwanted vehicle interactions.</p> <p>Review and implement a good practise model for employee performance management. support. Consult with contractors and confirm how site expectations can be consistently met by applying their supervisor development and support processes. Consider training and development for supervisors, recording processes and support.</p> <p>OFI-069 Confirm site performance expectations align their performance management application. Workshop participants confirmed that supervisors and trainers from different contractors and business units interpret site performance expectations and apply performance management (commend or correct) processes inconsistently. A range of interpretations of site expectations for vehicle interaction controls can lead to variable behaviours and potential conflicts of operating practices. Define site performance expectations, communicate using real-world scenarios and examples. Confirm the process with all contractors and business units and align performance management</p>		

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<p>BI-SPA.86 Hazard and incident reporting and response processes are in place, effective, and well used.</p>	<p>The site has an effective and well used hazard and incident response and reporting process which avoids placing workers at risk of injury.</p>	<p>There is an effective site hazard and incident reporting processes that:</p> <ul style="list-style-type: none"> • Can be applied by all personnel, including contractors and visitors. • Aligns with the site emergency response and notification process (such as provision of first aid). • Allows personnel to efficiently report and resolve work area problems including allowances for not working if there is a threat to health or safety, or a potential to cause environmental or community harm. • Captures information for investigation, reporting and trend analysis. <p>BLS-019 Incident Reporting and Investigation - This comprehensive Business Level Standard describes the incident management process required at Coronado Operations and includes good practice approaches along with business and legislative requirements. It is supported by site based reporting systems.</p> <p>OFI-085 Consider refreshing site hazard reporting processes, Workshop participants discussed situations where hazards are not rectified to any determined timeline because there are competing priorities and focus on production. they also report situations where hazards have not been reported due to a fear of reprisal. The process for providing feedback on completed hazards is inadequate so personnel are not informed when issues have been resolved or corrected. Incomplete or absent hazard reporting can lead to persistent unresolved issues in work environments that compromise vehicle interaction controls. Review or refresh the hazard and incident reporting process, pay attention to promoting hazard reporting and providing follow-ups on the status of reported hazards.</p>	<p>approaches applied.</p> <p>Personnel on site:</p> <ul style="list-style-type: none"> • Are trained in site processes for incident and hazard identification, reporting and control. The training includes guidance on when to cease work and also when to preserve an incident scene. • Identify any hazard present is reacted to by removing or isolating the hazard (ceasing work as required) • Report any incident which occurs. 	<ul style="list-style-type: none"> • Reviews are made on the quantity and quality of hazard and incident reports. • Tracking of corrective actions. • Time to complete incident investigations is tracked and reported on. • Timing and quality of feedback to personnel who reported hazards or incident is tracked and reported on to senior personnel on and off site. <p>OFI-039 Review the effectiveness of hazard reporting feedback Workshop participants confirmed that there is comprehensive incident and hazard reporting process in place at Curragh North Opencut Mine. Workshop participants discussed how the process can be improved. They noted that after reporting hazards, there is negligible feedback about hazard resolution and the quality of the reporting (accuracy, timeliness, etc.). This lack of feedback discourages future hazard reporting i.e. people do not see the value of their efforts. Review site hazard and incident reporting process. Consider the how effective the feedback steps are i.e. to the person making the report and their workgroup covering status, progress, actions taken, quality of report etc.</p> <p>OFI-49: Review site hazard identification and reporting KPIs Workshop attendees discussed and highlighted that North Curragh sets Key Performance Indicators (KPIs) for safety related activities including hazard identifications. Concerns that reports were being generated to meet KPI numbers and this information does do not reflect actual hazards and their</p>	<p>CMHSA - 030.2 (e) Review the effectiveness of risk control measures CMHSA - 030.2 (e-g) Investigate and analyse the causes of serious accidents and high potential incidents CMSHA - 068 Mine record CMSHA - 069 Display of reports and directives CMSHA - 198 Notice of accidents, incidents, deaths or diseases CMSHA 200 Site not to be interfered with without permission CMSHA 201 Action to be taken in relation to site of accident or incident CMSHR 008.2(g) Giving notification of known hazards in and around a surface excavation CMSHR 008.2(h) Notification of known hazards in an ERZ to the ERZ controller CMSHR 015.1 A coal mine's safety and health management system must provide for the following CMSHR 015.2 Accident investigation to involve people filling statutory roles</p>

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				<p>management in the operating environment. Excessive numbers of hazard reports on a wide range of issues driven by quantity KPI metrics can lead and misalignment of organisational response and focus leading to 'boy who cried wolf type outcomes.' Effective management of hazards requires an adequacy analysis that considers current control(s) design, the reliability of their application, the potential for enhancement e.g. through technology and digitisation. Review how site KPIs are set for hazard identification and other routine risk and control management tasks. Consider both quality and quantity metrics and how the reported information can be leveraged for improvement. Use the hazard reporting, incident, and other performance measures to prepare user requirements for technology and other digital solutions.</p>	
<p>BI-SPA.87 Planned Inspections and Task Observations</p>	<p>Planned inspections and task observations assess and provide timely feedback about the effectiveness and efficiency of performance standards (work as documented) as they are applied in the workplace (work as done).</p>	<p>Planned inspections and task observations assess and provide timely feedback about the effectiveness and efficiency of performance standards (work as documented) as they are applied in the workplace (work as done). The site processes for inspections and task observations have these elements:</p> <ul style="list-style-type: none"> • Inspections and task observations are scheduled and assigned to site roles, and consider the work intensity and exposure of workers to harm (including checks on work environments, workers performing tasks alone or in remote locations, and work group interactions), • Minimum competence and experience requirements, based on inspection or task observation type, are detailed, • Reference to available information e.g. checklists, aide memoirs detailing expected standards and performance requirements, 	<p>Senior site personnel confirm that scheduled inspections and task observations match schedule and quality expectations. Site Inspection and Task Observations processes are applied to:</p> <ul style="list-style-type: none"> • Assess operating conditions, • Review work practices, • Confirm the status of plant and equipment status, • Identify effects from changes in materials and process • Confirm the close out of remedial actions • Evaluate management performance • Analyse the effectiveness and efficiency of workflows from approval, through planning, scheduling, resourcing, and task execution <p>Critical Control Verification FH03 Mobile Equipment (BLS-004 FH03-CCV-02-FH03) - 4 monthly check on the</p>	<p>Inspection and task Observation reports meet site performance expectations for quantity and quality. There is a process that manages defects, non-conformances, and other performance issues identified from inspections and task observations. These are assessed and where necessary remedial actions with due by dates are assigned. Performance reports track remedial action status. Trend analyses reports that identify drift from expected performance. OFI-063 Consider how supervisor inspections can combined to identify system level operating challenges Workshop participants discussed the effectiveness of supervisor inspections of loading operations. While they provide oversight of task</p>	<p>CMHSA - 030.2 (a-d) Identifying, avoiding, and monitoring level of risk and critical controls CMHSA - 030.2 (e-g) Investigate and analyse the causes of serious accidents and high potential incidents CMHSA - 030.2 (f) Potential adverse effects arising from residual risk CMHSA - 042 SSE to consider risks, required controls, and monitoring to continuously improve CMHSA - 47A - Obligations of company officers to provide oversight and apply resources CMSHA - 045A Obligations of designers, constructors and erectors of earthworks CMSHR 035.2(e) 35 General - auditing and reviewing the emergency exercises CMSHR 094 Checking and examining work areas CMSHR 141 Safety inspections</p>

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		<ul style="list-style-type: none"> There is process for performance reporting, identifying defects, and assigning remedial actions, Outputs from multiple inspections and task observations monitored for performance drift trends. <p>Task Observations provide additional information about:</p> <ul style="list-style-type: none"> Training effectiveness, Task assignment and performance expectations, Procedures and task instructions, Employee engagement and contributions. <p>Site Planned Inspections:</p> <ul style="list-style-type: none"> Assess the application of methods and practices performance standards in a systematic and organised way, Confirm that people have the resources required to complete their work safely and productively, in an appropriate work environment, Identify and deal with potential problems and issues before losses occur, Identify effects of changes, Identify equipment defects, Confirm the status of remedial actions. <p>BLS-001 Leadership and Accountability This Business Level Standard describes the minimum leadership, culture, and accountability requirements for Coronado Global Resources (Australia) and its Operations. It includes C.A.R.E. values, role expectations and Felt Leadership covering:</p> <ul style="list-style-type: none"> Layered audits Critical Control Observations Planned Task Observations Safety Interactions <p>Section 10.1 outlines breaches to life saving rules</p> <p>BLS-002 Organisational Roles and Responsibilities defines the roles and responsibilities attributed to each management</p>	<p>conduct of Pre-Starts, interviews with Drivers/Operators, inspection of working area, HME equipment check status (in-date ItS sticker), understanding of speed requirements.</p> <p>OFI-024 Review the effectiveness and frequency of inspections of parking and other infrastructure walkways. Workshop participants discussed situations where degraded walkways e.g. in parking areas and around site infrastructure have remained unrepaired for long periods. If walkways are not regularly inspected and maintained then their effectiveness as a control in separating pedestrians from vehicles can be compromised e.g. bund protections cannot stop vehicles, pedestrians walk on roadways to avoid water and mud, pedestrian crossings are not identified by vehicle operators etc. Review the effectiveness and frequency of site infrastructure inspections, confirm that defects identified are captured and there is a process to track corrective action progress.</p> <p>OFI-037 Review and extend the site critical control verification processes. Workshop participants report that senior contractor managers are not included in site level critical control verifications. Currently these are completed by the Coronado leadership team. In mid 2025, the 2024 amendment of Queensland Mining regulations to include Critical Controls comes into force so there are legislative drivers to review site processes for the effective management of critical controls, including those relevant to vehicle interaction management. Consider extending the site level critical control verification process to involve contractor leaders, also consider the benefits of capturing and reporting current contractor control verification activities. Confirm minimum requirements to meet legislative requirements and update site processes. Consider apply digital approaches for</p>	<p>execution in real-time and an opportunity to correct and improve performance, the information for the inspection does not seem to be fully leveraged. That is, inspection reports from knowledgeable and experienced personnel are not being aggregated and analyzed to identify ongoing improvements to site processes. An example discussed was determining the cost benefits from increasing powder factor for blasting to reduce over-size material and minimise truck loading challenges. Ongoing challenging loading conditions make excessive decision and performance demands on excavator and truck operators. This can result in errors that cause unwanted vehicle interactions and equipment damage. Consider opportunities to leverage site inspections for analysis and performance improvements. Review digital technology options.</p> <p>OFI-83: Review options for analysing critical control verifications and other field observations. Critical control verifications are carried out routinely at North Curragh by senior managers. This is a positive activity that focuses on preventing serious incidents. While verification activities are monitored and maintained, there is little analysis and feedback on findings beyond the immediate fixes required at a task level. Consider options for aggregating critical control verifications to assist with understanding the effectiveness of control design and implementation.</p>	<p>QLDDCMR 21.00 - Audits and inspections of mine roads</p>

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		level in the Organisation. It includes statutory positions, Coal Mine Workers, Site Safety and Health Representatives, risk and control owners.	capturing and reporting field activities.		
BI-SPA.88 Change and Risk Management Process	Applied and effective change management processes, incorporating comprehensive risk and control management steps, assist senior manager decision-makers to deliver safe and productive outcomes for the business.	<p>There is a defined change and risk management process that:</p> <ul style="list-style-type: none"> • Confirms the reason and goals • Engages stakeholders and communicates reasons as a business case (risk and rewards) • Uses good practice project management approaches to develop a plan with a schedule and outcomes. • Includes and references inputs from subject matter and technical experts in the project plan. • Where appropriate, the plan and associated work program are reviewed and formally analysed using a facilitated group process involving subject matter and technical experts, site leaders, workers, designers, suppliers, and other stakeholders. • Applies risk and control management processes that support the work program by identifying hazards, considering relevant loss experiences, assessing risks including critical risks and confirming their controls. • Gains senior manager approval to resource and execute the plan. • Monitors and evaluates progress to plan • Continues to communicate with stakeholders. • Adapts and adjusts to hazards and controls based on work program schedule. • Confirms and delivers the operating processes, procedures, equipment, infrastructure, risk and control management processes required after the change is fully implemented. • Recognises milestones and celebrates success. <p>The level of effort and rigour applied to the</p>	<p>Senior managers identify when thresholds for applying the change and risk management process are crossed such as:</p> <ul style="list-style-type: none"> • New technology implementations • A change in work process e.g. moving from development to production, transitioning from surface to underground mining, changes in traffic flows • The introduction of new equipment types • Scale up of workforces • Significant workforce changes e.g. use of contractors • Significant operational changes in infrastructure e.g. for road network layouts • Opening of new operating areas • Significant onsite capital works • Regulated and periodic review triggers for existing risk analyses supporting site controls <p>Accountability for applying the process is assigned to a role e.g. project manager. The level of effort and rigour applied to the hazard identification, risk assessment, and application of controls during change management considers situation complexity, the range of potential outcomes, and the likelihood of a loss of one or more required operating states.</p> <p>PLN-005-RA Risk Assessment PHMP Mobile Equipment Incidents - The purpose/objective of this risk assessment is to identify, analyse and assess the risks associated with vehicle/mobile equipment interactions at Curragh Mine operations, in particular single and multiple fatality events. This risk assessment will form the basis for the development of the Vehicle PHMP, with further analysis to identify the Critical Controls via the Bow-tie methodology and the associated verification requirements.</p> <p>PLN-001 Safety and Health</p>	<p>Reports on change and risk management activities are reviewed by maintenance planners, technical services and engineering personnel. Process change reports are reviewed by the relevant Manager. Changes are authorised by an accountable supervisor or manager who confirm that the change has been:</p> <ul style="list-style-type: none"> • Assessed over a representative period and under a variety of operational conditions. • Included in all relevant processes including training, maintenance, documents and future specifications. • Communicated to all relevant stakeholders including the Regulator when applicable • Detailed on relevant plans, process maps, schematic diagrams, documents and procedures. <p>OFI-039 Review the effectiveness of hazard reporting feedback. Workshop participants confirmed that there is comprehensive incident and hazard reporting process in place at Curragh North Opencut Mine. Workshop participants discussed how the process can be improved. They noted that after reporting hazards, there is negligible feedback about hazard resolution and the quality of the reporting (accuracy, timeliness, etc.). This lack of feedback discourages future hazard reporting i.e. people do not see the value of their efforts. Review site hazard and incident reporting process. Consider the how effective the feedback steps are i.e.</p>	<p>CMHSA - 030.1 Put management and operating systems in place for each mine CMHSA - 030.2 (a-d) Identifying, avoiding, and monitoring level of risk and critical controls CMHSA - 030.2 (e) Review the effectiveness of risk control measures CMHSA - 030.2 (f) Potential adverse effects arising from residual risk CMHSA - 039A Additional Obligations of Persons CMHSA - 041.1(a-b) Obligation to ensure the acceptable risk of coal mine workers CMHSA - 041.1(d-f) Appointed site senior executive must Implement system to achieve safety and health of persons at the mine CMHSA - 042 SSE to consider risks, required controls, and monitoring to continuously improve CMHSA - 163 Directives regarding levels of risk to be followed CMSHA - 043 - Obligations of Contractors to conform with HSMS and train employees CMSHA - 044 Tolerable level of risk to be achieved by the design of all plant and information passed on CMSHA - 045A Obligations of designers, constructors and erectors of earthworks CMSHA - 049 Notices by holder CMSHA - 050 Notices by coal mine operator CMSHA - 051 Notice of management structure CMSHA - 052 Notice about exploration activities CMSHA - 053 Appointment of coal mine operator CMSHA - 058 Other appointments during absences CMSHA - 062 Implement a HSM</p>

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		<p>hazard identification, risk assessment, and application of controls during change management considers situation complexity, the range of potential outcomes, and the likelihood of a loss of one or more required operating states.</p>	<p>Management Plan - S6 Risk Management Level 3 - Qualitative risk assessment (WRAC) for new or changes to equipment, process or operation, including shutdowns and projects. Underpins SOP's; Level 4 - -- Principal and Fatal Hazard risk management (BBRA), Bowtie and other Semi Quantitative processes, for the establishment / confirmation of Principal and Fatal hazards, establishing critical controls and SHMS requirements.</p> <p>S6.1 Broad Brush Risk Assessment A BBRA is conducted at intervals to ensure that advancement of the coal mine, and / or other major activities have not resulted in additional or changed Principal or Fatal Hazards. The BBRA includes identifying plausible risk events for each of the Principal and Fatal Hazards.</p> <p>OFI-093 Review Site Managements of Change Processes.</p> <p>Workshop participants discussed how changes are captured as part of the site management of change process and are tracked using FPE. They identified some situations where the process has not been applied.</p> <p>Failure to identify and track changes can lead to hazards arising due to unexpected or unwanted equipment or roadway conditions.</p> <p>Revisit the change management process to make it more streamlined and suited to working with the situation on site.</p>	<p>to the person making the report and their workgroup covering status, progress, actions taken, quality of report etc.</p>	<p>System that incorporates risk management elements and practices</p> <p>CMSHA - 062A Additional requirement for coal mining operation for incidental coal seam gas</p> <p>CMSHA - 063 Identify, analyse and assess risk associated with principal hazards</p> <p>CMSHA - 064 Review of principal hazard management plans and standard operating procedures</p> <p>CMSHA - 065 Changes in management structure to be reported to an inspector</p> <p>CMSHA - 069 Display of reports and directives</p> <p>CMSHA - 070 Responsibility for protecting abandoned coal mines</p> <p>CMSHA 103 Site senior executive not to restart operations until risk at an acceptable level</p> <p>CMSHR 006 - Basic elements of a SHMS</p> <p>CMSHR 010.1(b) Prepare a draft standard operating procedure</p> <p>CMSHR 010.3 SOPs to be developed using a risk management approach</p> <p>CMSHR 037.1(d) Fire - identify all potential fire hazards at the mine</p> <p>CMSHR 042.5 Consulting a cross-section of workers by the site senior executive</p> <p>CMSHR 068 (1) Change Management SOP to be in place</p> <p>CMSHR 068 (2) (a-b) Change Management Records should be controlled</p> <p>CMSHR 068 (2) (c) Risk Management should consider changes to plant</p> <p>CMSHR 096(c)(iii) Protecting persons from harmful electromagnetic radiation</p> <p>CMSHR 096(ci) Protecting persons from abrasive blasting and high pressure chemical and mechanical cleaning</p>

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<p>BI-SPA.88.02 Site change management processes apply to changes in road networks and traffic flows</p>	<p>Applied and effective change management processes are used when there are changes in road networks and traffic flows.</p>	<p>Changes to road networks and traffic flow adjustments follow a defined change management process that:</p> <ul style="list-style-type: none"> • Confirms the scope • Identifies potential impacts for mobile equipment and personnel • Confirms how hazards will be controlled e.g. signs, barriers, etc. • Communicates relevant information to personnel <p>OFI-077 Review and consider the value of adopting a vehicle hierarchy approach at Curragh North Mine. Curragh North mining operations currently deploy a road rules approach to set intersection priorities. Workshop participants discussed the benefits of changing to a priority or vehicle hierarchy based approach. They noted that the most probable pathway to vehicle interaction fatalities at site is a collision between a heavy vehicle and a light vehicle. Vehicle hierarchy approaches have been successfully deployed across mining and deliver both production and safety efficiencies. Light vehicles always give way to heavy vehicles and loaded vehicles have priority. Consult stakeholders and consider the value of adopting a vehicle hierarchy approach at Curragh North Mine.</p>	<p>When change management thresholds for modifying the road network or traffic flows are crossed, supervisors apply relevant parts of the site change management process.</p> <p>OFI-080 Review site processes for communicating alerts and information about operating conditions. Workshop participants noted that process for the timely communication of information on road network changes covering haul route intersections, road maintenance and construction, changes in road conditions e.g. slumps, parked vehicles, and general operating conditions e.g. congestion, and interactions with other workgroups can be improved. Productive and safe surface mining requires ongoing good decision making from mobile equipment operators of both light and heavy vehicles. Providing information about operational changes and advice on the expected response supports consistently good decision making. Review and confirm that communication processes for mobile equipment operators, supervisors, LV operators, drill and blast and other stakeholders covering changes in roads and intersections and other operating conditions is effective, consistent and comprehensive. Consider digital enhancements.</p> <p>OFI-060: Improve change management as applied to on-site traffic changes COM and TMP for intersection changes etc. are sometimes poorly</p>	<p>New performance standards controls are communicated and implemented. Traffic modifications, new hazards and their controls are logged and communicated to shift crews.</p>	<p>CMSHR 096(cii) Protecting persons from cutting and welding in a confined, wet or dusty location CMSHR 100AD Requirements for site senior executive CMSHR 148 Ways of achieving an acceptable level of risk QLDDCMR 07.00 - Mine roads to be designed and constructed to accommodate the operating width of the largest vehicle regularly using the road</p> <p>CMSHA - 045A Obligations of designers, constructors and erectors of earthworks</p>

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			<p>communicated. For example, a new TMP with an intersection change may not be passed on between work crews. Further, some supervisors are unaware of their requirements to communicate, report and manage changes that are required. Lack of knowledge of changes to the road network and required traffic flows can lead to operating errors and unwanted vehicle interactions.</p> <p>Review and improve the adherence to site change management requirements, particularly around input changes issued and authorised by supervisors. Consider how information is communicated across multiple affected workgroups.</p>		
<p>BI-SPA.90 Effective incident reporting, and corrective action closeout.</p>	<p>Incident investigation is a business improvement process for identifying and solving issues that can compromise site safety and productivity.</p>	<p>Sites have formal approach for incident reporting, investigation and determining corrective actions. The approach is effective at a site level while meeting company and regulatory requirements for incident reporting, scene preservation, and management.</p> <p>Incident reports include what happened, loss potential, why it happened, likelihood of recurrence and provide a business case for corrective actions.</p> <p>CGRA BLS-019 Incident Reporting and Investigation V1.0 S1 Purpose - The purpose of this Incident Reporting and Investigation Business Level Standard (BLS-019 Incident Reporting and Investigation Business Level Standard), is to describe the incident management process for Operations to adopt in accordance with business and legislative requirements Requires a response to all incidents, with more significant investigation of serious (or potentially serious) incidents. More serious (and notifiable) incidents are investigated applying an ICAM approach. Roles are described for an Investigation Owner (commissions and reviews analysis), ICAM Team Leader (guides process and prepares reports) and ICAM participants (contribute to analysis).</p> <p>PLN-001 Safety and Health Management Plan S9 Incident Management - Curragh maintains a management culture that</p>	<p>The site incident investigation approach and supporting processes:</p> <ul style="list-style-type: none"> • Set the investigation scope. • Confirm training requirements for personnel leading investigations. • Detail incident report contents e.g. what happened, its loss potential, why it happened, the likelihood of recurrence and making the business case for corrective actions. • Describe the process for senior manager review and approval of corrective action recommendations and opportunities for improvement. • Explain how site information feedback about the incident, investigation findings, and corrective actions. • Document the thresholds for externally reporting investigation findings e.g. within a company, to regulators, and OEM relevant information if equipment design has contributed to an incident. <p>OFI-003 Review the site incident investigation process and confirm that lessons learned are communicated and understood.</p> <p>Workshop participants discussed how visits by work crews to incident scenes can improve understanding and on-ground input to investigations and</p>	<p>Incident management process is in place and personnel know how to apply it.</p> <p>Senior management records of</p> <ul style="list-style-type: none"> • Incident investigation reviews • Approval of corrective actions and opportunities for improvement <p>Assignment of approved corrective actions</p> <p>Progress tracking of corrective actions</p> <p>Periodic analysis of incident patterns including</p> <ul style="list-style-type: none"> • Who makes the reports. • Causes. • Incident location and time. • Equipment involved. • Corrective actions types. • The adequacy of any emergency response. 	<p>CMHSA - 030.2 (e) Review the effectiveness of risk control measures</p> <p>CMHSA - 030.2 (e-g) Investigate and analyse the causes of serious accidents and high potential incidents</p> <p>CMHSA - 031 Provide evacuation / retreat capabilities if the level of risk is unacceptable</p> <p>CMSHA - 068 Mine record</p> <p>CMSHA - 198 Notice of accidents, incidents, deaths or diseases</p> <p>CMSHA 198A Requirement to give primary information</p> <p>CMSHA 200 Site not to be interfered with without permission</p> <p>CMSHR 015.1 A coal mine's safety and health management system must provide for the following</p>

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		<p><i>promotes the recognition, response, reporting and investigation of incidents, including near misses. Operational incident systems include site relevant response measures, recording and notification requirements, and investigation processes. Investigations include root cause analysis methodology relevant to the actual or potential incident consequence, whichever is higher. Appropriate corrective actions are to be implemented, and applicable findings and information from actual or potential incidents are to be shared across the site.</i></p>	<p>practical corrective actions. Incident investigations that determine causes and consequential control improvements do not involve enough people with operational experience about work is done can result in missing underlying causes and recommending impractical corrective actions. Examples include assigning major causes to 'operator did not follow procedures' with a corrective action of 'reemphasise requirements at the next toolbox talk' do not usually deliver lasting performance improvements based on understanding and applying required controls in defined circumstances. Include work crew representatives in incident investigations and preparing the lessons learned processes. Where practical consider communicating lessons learned to relevant workgroups at the incident scene. Alternatively, prepare and use visual aids (e.g. intersections drawn on whiteboards to dynamically demonstrate the incident) to communicate and answer 'what if questions. inspections to improve the incident review process.</p>		
<p>BI-SPV.81.05 Clear accountabilities for managers, superintendents, and supervisors in site relevant road design guidelines and traffic management plans</p>	<p>Site road design guidelines and traffic management plans identify specific accountabilities by organisation position.</p>	<p>Site road design guidelines and traffic management plans confirm site performance requirements and assign accountability for their delivery to an organisation position. Competent senior managers, line managers, engineers and technical workers, and supervisors understand their responsibilities and accountabilities to:</p> <ul style="list-style-type: none"> • Develop and maintain roads and supporting infrastructure that meet site, company, and regulatory design standards and requirements. • Anticipate, identify, prevent, and mitigate compromises to roads and supporting infrastructure • Develop, communicate, and maintain effective traffic management plans. <p>Operational accountabilities for road design are assigned to Critical Control</p>	<p>There are formal processes and design references that are applied by competent and experienced line managers to:</p> <ul style="list-style-type: none"> • Develop, maintain, review, and update the site traffic management plan (or equivalent) • Maintain existing roads and supporting infrastructure. • Develop new roads and supporting infrastructure. <p>The design references set site performance standards and consider site, company, and regulatory design standards and requirements.</p>	<p>Traffic management plans are applied and maintained. Site inspection and reporting processes confirm that new and existing roads and supporting infrastructure meet site performance expectations, for example:</p> <ul style="list-style-type: none"> • Supervisors monitor road construction and maintenance crews to confirm their activities meet site requirements • Superintendents and planners schedule operations for safe and productive traffic management outcomes • Mine planners consider future vehicle interaction hazards and reliable controls 	<p>CMHSA - 030.2 (a-d) Identifying, avoiding, and monitoring level of risk and critical controls CMHSA - 041.1(d-f) Appointed site senior executive must Implement system to achieve safety and health of persons at the mine CMHSA - 042 SSE to consider risks, required controls, and monitoring to continuously improve CMSHA - 045A Obligations of designers, constructors and erectors of earthworks CMSHR 094 Checking and examining work areas QLDDCMR 06.00 - Requirements for the design and construction of mine roads</p>

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		<p>Owner and Fatal hazard Owners. Critical control verifications are routinely completed using these and other forms.</p> <ul style="list-style-type: none"> • BLS-004 FH03-CCV-03- Mobile Equipment – Management of Interactions • BLS-004FH03-CCV-02- FH03Mobile Equipment–Vehicle Safety & Operations • BLS-004 FH03-CCV-01- Mobile Equipment - Road and Intersection Design & Construction • CSP-048-CCV-03-02 Mobile Equipment-Pedestrian Interaction - Vehicle Safety & Operations <p>As per Queensland Coal Mining legislation both Open Cut Examiners and Industry Health and Safety representatives routinely inspect operations, record their findings, and pass the information to management for action.</p> <p>OFI-070 Review Opportunities to consistently apply site traffic management standards and measure performance</p> <p>Workshop attendees discussed variations in applying vehicle interaction controls and operating approaches between workgroups at Curragh North Mine. They noted that while the Coronado SOPs apply to all workgroups:</p> <ul style="list-style-type: none"> • Some SOPs that are not specific enough about performance requirements and how performance is measured. This allows variations in how standards are interpreted and applied in the same areas by different workgroups. • There are different performance requirements by area e.g. between the Mine Industrial Area (MIA) and Mine Operational Area (MOA) for positive communications, road construction for gradient and ramp speed, heavy vehicle access, escorting requirements etc. <p>At an operational level this can result in</p>			

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		<p>different workplace layout standards between OCEs and conflicting directions confuse supervisors. A non-standard approach also inhibits the introduction of consistent performance measures and digital technology such as Collision Avoidance Systems.</p> <p>Leverage the knowledge and capability of the contractor support companies to review Curragh SOPs. Consider developing</p> <ul style="list-style-type: none"> • Visual specification details and references • Illustrate the performance standard required using examples • Review and develop performance measures that support the consistent delivery of site standards across all workgroups. <p>OFI-043 Improve supervisor understanding and execution of their accountabilities.</p> <p>Workshop participants discussed traffic management accountabilities and the supervisor actions that they drive. They noted that even if clear accountabilities and requirements are documented for managers, superintendents, and supervisors in the procedures and processes that make up the site Traffic Management Plan, they are not being consistent and visibly delivered at the coal face.</p> <p>A lack understanding and/or failure to apply site standards to consistently perform key supervisor tasks can increase the likelihood and consequence of unwanted vehicle interactions e.g. hazards on roads, non-standard intersections, not maintaining following distances, incorrect watering of roads, inadequate positive communications.</p> <p>Workshop attendees flagged that most supervisors only receive detailed training around meeting legislated requirements - with limited exposure to additional technical, and associated non-technical skills not being covered. The training is largely theoretical with limited practical examples.</p> <p>Review the level of training and amount of</p>			

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BI-SPV.81.10 Clear accountabilities for designers, surveyors, engineers, and planners in site relevant management plans	Site mine and road design guidelines and execution plans identify specific accountabilities for designers, engineers, and planners.	<p>information on supervisor obligations and their accountabilities. Identify ways that training and resources can be made more readily available to all supervisors.</p> <p>Site mine and road design guidelines and execution (e.g. traffic) management plans confirm site performance requirements and include specific accountabilities for designers, engineers, and planners. Designers, Surveyors, Engineers, and Planners reference and apply relevant site management plans (for stability, road design and traffic management) to provide for safe and productive operations. Designers, Surveyors, Engineers, and Planners manage and allocate resources to:</p> <ul style="list-style-type: none"> • Develop and maintain work areas, roads and supporting infrastructure that meet site, company, and regulatory design standards and requirements. • Develop, maintain, review, and update the site management plans (as required). <p>Consultant Comment - confirm accountabilities for road design between mine owner and contractors.</p> <p>OFI-092 Review mine design requirements and confirm requirements for segregated roadways</p> <p>Workshop participants discussed site road design standards for segregating Heavy Vehicles (HV) from Light Vehicles (LV). They were unaware of design requirements for LV segregation, where practical, in site standards.</p> <p>Segregating LVs from HVs is a consistently reliable vehicle interaction control. Its deployment depends on mine layout, forward planning, and commitment of resources.</p> <p>Review the cost benefits from constructing and operating segregated roadways on site. Identify where they can add value, consider contractor position. Develop a design approach with decision criteria for construction. Present a case for management approval.</p>	<p>Designers, surveyors and engineers generate designs by applying site requirements and, as required, conducting risk assessments for new locations or requirements.</p> <p>Short term planners trained and assessed in mine design guidelines and develop plans according to the guidelines. Issued designs are formally reviewed and marked as approved to mine or construct. Traffic management is considered at each process step.</p>	<p>Regular planning meetings review traffic management. Design plans and related instructions are signed off by competent accountable personnel confirming that relevant road design and traffic management requirements are being met. Mine planners consider future vehicle interaction hazards and reliable controls.</p> <p>OFI-081 Review how site road standards are monitored</p> <p>Workshop participants identified that the construction and maintenance of site roads including lighting, delineation and signs does not always align with site standards. The design, construction, handover, and maintenance of site roads is a key vehicle interaction control. While operators can adjust to non-standard conditions, the decision demands on them increase and this increases the likelihood of a mistake or error.</p> <p>Review and confirm how site roads are monitored to confirm that they meet site standards. Review and confirm the practicality and application of site processes for road construction, handover, and ongoing maintenance.</p>	<p>CMHSA - 47A - Obligations of company officers to provide oversight and apply resources</p> <p>CMSHA - 044 Tolerable level of risk to be achieved by the design of all plant and information passed on</p> <p>CMSHA - 045A Obligations of designers, constructors and erectors of earthworks</p> <p>CMSHA - 067 A SSE for a coal mine to coordinate preparation and distribution of plans</p> <p>CMSHR 058 Accuracy of plans and information</p> <p>CMSHR 059 Survey grid system</p> <p>CMSHR 062 Plans of highwall mining underground excavation</p> <p>CMSHR 063.1-3 Mine rescue plan must kept, show (location, access road, other infrastructure), and sufficient</p> <p>CMSHR 063.4 Availability of a sufficient number of copies of the plan for emergency use</p> <p>CMSHR 066 (2) (a-b) - Brakes must be maintained and regularly tested</p> <p>CMSHR 066 (2) (c) - Records of brake tests must be controlled and accessible</p> <p>CMSHR 090 Ladders, steps and elevated walkways</p> <p>CMSHR 097 Monitoring and recording deformation of natural and artificial structures</p> <p>CMSHR 126 Plan of surface land</p> <p>CMSHR 127 Plans of surface services</p> <p>CMSHR 128 Specification for design and construction of mine roads</p> <p>QLDDCMR 06.00 - Requirements for the design and construction of mine roads</p> <p>QLDDCMR 06.03 - Requirements for base course construction</p> <p>QLDDCMR 07.00 - Mine roads to be</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
					<p>designed and constructed to accommodate the operating width of the largest vehicle regularly using the road</p> <p>QLDDCMR 08.00 - Primary and secondary roads to be constructed to ensure the surface shape of the roadway supports water run-off</p> <p>QLDDCMR 12.01 - Mine roads to be designed and constructed to address risk of a vehicle accidentally leaving the roadway</p> <p>QLDDCMR 12.02 - Mine roads to be constructed with adequate roadside drainage</p> <p>QLDDCMR 14.00 - Mine roads to be designed and constructed to ensure sight distance to objects or hazards on the roadway is greater than the required stopping distance</p> <p>QLDDCMR 17.00 - Road network shall be designed to provide separate roadways for MP and MV/LV</p>
<p>BI-SPV.82.01 Traffic Management Plan consultation and communication</p>	<p>Operators and other involved personnel contribute to the safe and productive use of mobile equipment at site.</p>	<p>The site has a formal consultation and communication approach that includes the development and maintenance of a traffic management plan.</p> <p>The process:</p> <ul style="list-style-type: none"> • Involves knowledgeable and experienced personnel in planning • Informs all personnel about their responsibilities and expected actions • Engages with all personnel as part of any updating of the plan, technology selection or introduction of new processes • Gathers information about concerns, hazards, incidents, and other matters related to safe and productive operations <p>Work Health and Safety Policy Coronado Global Resources Inc. as reviewed by the Board on 16 February 2023. Purpose ...In order to meet these safety objectives and achieve this commitment, the Company has adopted a safety risk management framework designed to identify and assess safety risks to ensure that suitable</p>	<p>The traffic management plan is signed off. Operators, and other personnel who work around mobile equipment:</p> <ul style="list-style-type: none"> • Are trained about formal and informal processes for health and safety consultation and communication at site. • Participate in traffic management planning and review processes including equipment changes, layout changes, and process changes. • Contribute to mobile equipment incident reviews • Workers/operators report hazards, incidents and other concerns to supervisors and more senior site personnel as required <p>Supervisors routinely communicate and reinforce Traffic Management Plan requirements for:</p> <ul style="list-style-type: none"> • Maintaining vehicle interaction controls • Reporting hazards and incidents <p>Curragh North Open Cut PLN-001 Safety and Health Management Plan version</p>	<p>The site Traffic Management Plan is current, signed by a senior manager, and has a process for formal consultation and communication with operators and other personnel who work around mobile equipment.</p> <p>Contribution measures such as:</p> <ul style="list-style-type: none"> • Incident and hazard reporting records related to mobile equipment • Records of training, awareness, and employee feedback sessions - content, attendance, and participation • Records of reviews that involve operators and other personnel who work around mobile equipment e.g. job safety analyses, task observations, change management reviews etc. <p>Interviews with operators and other personnel who work around mobile equipment confirm knowledge</p>	<p>CMSHA - 068 Mine record</p> <p>CMSHR 008.1(a) Notification of Safety and Health Issues</p> <p>CMSHR 010.2 Final SOP to be accurate and reflect input from all personnel involved</p> <p>CMSHR 076 - SOP required for using mobile plant</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>measures are identified, implemented and reviewed so far as is reasonably practicable. In doing so, the Company recognises the importance of consultation and ongoing promotion of safety awareness and individual commitment and responsibility to safety on the part of all people involved in our operations, including contractors and other business partners.</p> <p>Coronado Coal Mine Operator Safety and Health Policy (undated)</p> <p>OFI-077 Review and consider the value of adopting a vehicle hierarchy approach at Curragh North Mine.</p> <p>Curragh North mining operations currently deploy a road rules approach to set intersection priorities. Workshop participants discussed the benefits of changing to a priority or vehicle hierarchy based approach. They noted that the most probable pathway to vehicle interaction fatalities at site is a collision between a heavy vehicle and a light vehicle. Vehicle hierarchy approaches have been successfully deployed across mining and deliver both production and safety efficiencies. Light vehicles always give way to heavy vehicles and loaded vehicles have priority.</p> <p>Consult stakeholders and consider the value of adopting a vehicle hierarchy approach at Curragh North Mine.</p>	<p>3.6 4.2 Communication and Consultation Curragh has a range of communication processes to ensure that CMW's are informed of hazards in their work areas: have access to, and are familiar with, relevant SHMS documents. CMW's will be informed of the following matters: Hazards; Significant changes in site / work area conditions; The commencement of significant activities; Changes that impacts on work methods; Incidents;</p> <p>Any matters affecting the safety and health of CMW's must be communicated to CMW's, at Curragh these communications may be in the form of elements of: Pre-start meetings; Toolbox talks; Site Alerts and other notices; Incident information.</p> <p>Curragh requires that there are adequate avenues for CMW's to raise and resolve safety issues by raising issues with Supervisors and other Leadership, raising issues at pre-start and toolbox meetings, and providing for a Site Safety Committee to ensure that safety matters, including safety initiatives and improvements, affecting the wider Curragh community can be recommended and actioned.</p> <p>Doc No 2018 Appointment – Site Safety & Health Representative</p> <p>OFI-019 Consider implementing individual circuit traffic management plans</p> <p>Workshop participants confirmed that Traffic Management Plans (TMP), organised by individual circuits are not prepared.</p> <p>They confirmed situations where the absence of a specific up-to-date details about an operating circuit has resulted in operator misunderstandings and unplanned vehicle interactions e.g. for carrying out in-field equipment services, adjustments for water damage etc. Traffic management plans (or their equivalent) are hierarchical dynamic resources that set standards for mine design, construction, maintenance, and operation. They also confirm the planning</p>	<p>about Site Traffic Management plan responsibilities and key processes.</p>	

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
			<p>processes that manage workgroup interfaces. Their effectiveness at a circuit workflow and task level requires the communication and check for understanding of specific and up-to-date information.</p> <p>Review site processes for Traffic Management processes, evaluate the benefits of preparing and communication operating details by circuit. Develop performance standards and measures.</p> <p>OFI-082 Consider periodic state of the nation interactions across North Curragh Mine Complex</p> <p>Workshop participants noted that different contract organisations have different ways and briefing their employees. It was also noted that Coronado currently does not do state of the nation briefings.</p> <p>State of the nation briefings from mine operators to all work groups including contractors are routinely carried out at other operations. They provide consistent messaging and allow discussions and questions from all employees.</p> <p>Consider the value of having periodic state of a nation briefings for all personnel at North Curragh mine. Typical frequency is every 3 to 4 months. Processes can be benchmarked from other operations and this should include how questions are responded to and followed up.</p>		
<p>BI-SPV.98.01 There is a documented site Traffic Management Plan</p>	<p>There is a documented and current site Traffic Management Plan that assigns accountabilities and details the processes required for safe and operationally integrated outcomes when working with mobile equipment.</p>	<p>There is a site process for developing, implementing, and maintaining a traffic management plan (TMP) or equivalent that:</p> <ul style="list-style-type: none"> • Documents the safe and productive outcomes required when working with or around mobile equipment • Includes requirements covering travel to and from the site (journey management) and addresses health and hygiene considerations for site rest and comfort areas • Identifies the situations and circumstances, where working with or around mobile equipment can result in fatalities, injuries and 	<p>The Traffic Management Plan details the site processes:</p> <ul style="list-style-type: none"> • That ensure that people who operate or work around mobile equipment are trained, competent and authorised. • That govern how fit-for-purpose mobile equipment is selected and approved for site use. • For managing pedestrian and mobile equipment interactions and mobile equipment to mobile equipment interactions. • That guide knowledgeable and experienced people through the design, construction, and maintenance of the operating 	<p>The TMP is reviewed, updated, and confirmed as being fit-for-purpose by senior management:</p> <ul style="list-style-type: none"> • After high potential mobile equipment incidents • Before significant operational changes e.g. engagement of contractors, opening of new production areas, deployment of new equipment etc. • Before the introduction of new technology e.g. mobile equipment operator fatigue monitoring, proximity detection systems etc. • Periodically – at least 	<p>CMSHR 010.1(b) Prepare a draft standard operating procedure CMSHR 010.1(e) Include final standard operating procedure in the mine's safety and health management system CMSHR 072 (g) - Develop and implement a procedure for towing CMSHR 076 - SOP required for using mobile plant CMSHR 129 SOP for Maintaining and Watering Mine Roads CMSHR 138 SOP for operating on dumps / stockpiles CMSHR 149 Develop PHMPs for principal hazards UG QLDDCMR 06.03 - Requirements</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>incidents (assessing hazards and risks)</p> <ul style="list-style-type: none"> • Details the business and operational processes that prevent or mitigate the development of these potentially harmful situations and circumstances • Confirms how the status of these business and operational processes is monitored • Describes how these business and operational processes are maintained and improved <p>Curragh North Open Cut Mine PLN-005 Principal Hazard Management Plan – Mobile Equipment Incidents (version 16 May 2024) is equivalent of the site Traffic Management Plan (TMP). This PHMP applies to:</p> <ul style="list-style-type: none"> • All movements of vehicles, mobile plant and equipment at Curragh • All employees, contractors, and visitors <p>It references Standard Operating Procedure (SOPs) and other site documents for identifying and controlling the mobile equipment risks that may arise and forms part of Curragh’s Safety and Health Management System (SHMS). These related documents are referenced and when combined, they deliver the equivalent of a Site Traffic Management Plan</p> <ul style="list-style-type: none"> • Coronado Work Health and Safety Policy • PLN-005-RA Risk Assessment • PLN-001 Safety and Health Management Plan • PLN-002 Broad Brush Risk Assessment • BLS-004 Risk Management (details the processes for the identification and monitoring of fatal hazard Critical Controls) • SMS-032 Specification for Design and Construction of Mine Roads • SOP-009 Recovering Fixed and Mobile Plant • SOP-013 Safety of Persons when Plant is being Towed 	<p>environment for mobile equipment.</p> <p>The TMP also confirms there is adequate capability and a plan for managing mobile equipment emergencies involving:</p> <ul style="list-style-type: none"> • Trauma first aid • Freeing trapped or pinned personnel • Rescue from heights • Equipment fires • Equipment contacts with powerlines • Equipment struck by lightning <p>The TMP also documents how relevant external to site expectations are met for:</p> <ul style="list-style-type: none"> • Regulatory and legal obligations • Company requirements • International Standards and good practice <p>1. HST Area Hardstand and Carpark Scope of Works - provides an example of considerations given on site for projects. <i>This document does not have specific guidance on intended traffic movements during construction, should it?</i></p>	<p>annually</p> <p>Reviews are triggered by the following events:</p> <ul style="list-style-type: none"> • A site or external accident or incident directly related to the document contents. • A legislated change directly related to the document contents. • Requirements from directives issued orally or as Mine Record Entry’s by the Department of Natural Resources and • Mining inspectors or Industry Safety and Health Representatives or Site Safety and Health Representatives directly • related to the document contents. • A change required by Coronado directly related to the document contents. • A change required by the SSE directly related to the document contents. • The passing of a review date on the document as per BLS-005 Controlled Documents and Records. 	<p>for base course construction QLDDCMR 20.00 - Considerations for lighting pollution</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<ul style="list-style-type: none"> • SOP-014 Servicing, Lubricating and Refueling Mobile Plant Curragh North Open Cut • SOP-015 Transport of Heavy Plant and Supplies • SOP-016 Checking Mobile Plant • SOP-017 Using Mobile Plant - Mine Traffic Rules • SOP-036 Spoil Dumps and Excavated Faces • SOP-037 Maintaining and Watering Mine Roads. • SOP-041 Using Plant Near Electricity • SOP-042 People and Equipment Working On and Around Stockpiles and Reject Dumps • CSP-025 People and Equipment Working around Dragline <p>Other relevant documents include:</p> <ul style="list-style-type: none"> • SMS-021 Mine Training Scheme providing site-specific training for coal miners as required by s82 of the Coal Mining Safety and Health Regulation. • CSP-026-TARP-001 Mine Access Roads - Inclement Weather TARP invoked where weather events change road surfaces • SMS-006 Managing Emergencies at the Mine • BLS-019 Incident Reporting and Investigation <p>OFI-038 Provide real world examples of the application of the site traffic management plans and processes. During the work as documented mapping a Scope of Works (SOW) covering HST Hardstand and Car Park was reviewed and noted as a good practice project document. However, the document did not consider traffic management during construction. Workshop discussions confirmed that traffic management during project work and road maintenance work is generally adequate. This gap illustrates an opportunity to practically demonstrate the practical application of site traffic management standards for road work to manage</p>			

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		<p>hazards from both project and maintenance. Developing this resource can confirm expected site performance standards.</p> <p>Consider developing reference resources based on real examples of how site traffic management processes and standards were applied for construction works and during road maintenance.</p> <p>OFI-070 Review Opportunities to consistently apply site traffic management standards and measure performance</p> <p>Workshop attendees discussed variations in applying vehicle interaction controls and operating approaches between workgroups at Curragh North Mine. They noted that while the Coronado SOPs apply to all workgroups:</p> <ul style="list-style-type: none"> • Some SOPs that are not specific enough about performance requirements and how performance is measured. This allows variations in how standards are interpreted and applied in the same areas by different workgroups. • There are different performance requirements by area e.g. between the Mine Industrial Area (MIA) and Mine Operational Area (MOA) for positive communications, road construction for gradient and ramp speed, heavy vehicle access, escorting requirements etc. <p>At an operational level this can result in different workplace layout standards between OCEs and conflicting directions confuse supervisors. A non-standard approach also inhibits the introduction of consistent performance measures and digital technology such as Collision Avoidance Systems.</p> <p>Leverage the knowledge and capability of the contractor support companies to review Curragh SOPs. Consider developing</p> <ul style="list-style-type: none"> • Visual specification details and references • Illustrate the performance standard required using examples 			

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		<ul style="list-style-type: none"> Review and develop performance measures that support the consistent delivery of site standards across all workgroups. <p>OFI-077 Review and consider the value of adopting a vehicle hierarchy approach at Curragh North Mine.</p> <p>Curragh North mining operations currently deploy a road rules approach to set intersection priorities. Workshop participants discussed the benefits of changing to a priority or vehicle hierarchy based approach. They noted that the most probable pathway to vehicle interaction fatalities at site is a collision between a heavy vehicle and a light vehicle. Vehicle hierarchy approaches have been successfully deployed across mining and deliver both production and safety efficiencies. Light vehicles always give way to heavy vehicles and loaded vehicles have priority.</p> <p>Consult stakeholders and consider the value of adopting a vehicle hierarchy approach at Curragh North Mine.</p>			
<p>BI-SRA.82 Consultation and communication</p>	<p>Multiple processes are in place to support effective health and safety communications between and across all organisational levels.</p>	<p>Multiple processes are in place to support effective two-way health and safety communication between and across all organisational levels, including:</p> <ul style="list-style-type: none"> Consultative hazard identification and control management processes at operational, task and individual levels (risk assessments, job safety analysis, and personal task checklists (risk analyses)). Start of shift meetings and information boards addressing: Relevant operational information (general and from the preceding shift); Reinforcing task level hazard identification and control requirements; Promoting discussions and feedback on safety, health and operational matters, as required; Relevant external information to inform site workers of hazards and required controls. Representative committees with nominated worker representatives 	<p>Health and safety consultation and communication processes are in place that:</p> <ul style="list-style-type: none"> Are accessible and understood by everybody, including contractors, and people who are culturally or linguistically diverse Are part of routine communications e.g. during tool-box talks, start of shift meetings, presentations, surveys and feedback forms, workplace observations Where necessary include formal structured processes such as health and safety committees supported by worker representatives e.g. in large complex workplaces or team based risk analyses <p>These consultation and communication processes:</p> <ul style="list-style-type: none"> Provide information about workplace changes and any external notifications workers 	<ul style="list-style-type: none"> Records from training, assessment, induction, and other meetings confirm that all personnel are aware of the site health and safety consultation and communication processes are maintained in site information management platforms. Meeting and communication records include details on items and issues discussed. Records of communication are collected, stored and accessed based on site document (information) control and privacy requirements. Internal and external audits monitor the quality and quantity of hazard, incident and other reports to supervisors and more senior site personnel, as required. 	<p>CMHSA - 030.1 Put management and operating systems in place for each mine</p> <p>CMHSA - 030.2 (e-g) Investigate and analyse the causes of serious accidents and high potential incidents</p> <p>CMHSA - 042 SSE to consider risks, required controls, and monitoring to continuously improve</p> <p>CMHSA - 163 Directives regarding levels of risk to be followed</p> <p>CMSHA - 062 Implement a HSM System that incorporates risk management elements and practices</p> <p>CMSHA - 063 Identify, analyse and assess risk associated with principal hazards</p> <p>CMSHA - 064 Review of principal hazard management plans and standard operating procedures</p> <p>CMSHA - 067 A SSE for a coal mine to coordinate preparation and distribution of plans</p>

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		<p>reflecting operating site structure, are established and monitor processes, performance, and progress against improvement plans and respond to incidents on and off site.</p> <p>Work Health and Safety Policy Coronado Global Resources Inc. as reviewed by the Board on 16 February 2023 Purpose ...In order to meet these safety objectives and achieve this commitment, the Company has adopted a safety risk management framework designed to identify and assess safety risks to ensure that suitable measures are identified, implemented and reviewed so far as is reasonably practicable.</p> <p>In doing so, the Company recognises the importance of consultation and ongoing promotion of safety awareness and individual commitment and responsibility to safety on the part of all people involved in our operations, including contractors and other business partners.</p> <p>Coronado Coal Mine Operator Safety and Health Policy (undated)</p>	<p>should be informed of</p> <ul style="list-style-type: none"> • Communicate health and safety performance including progress against plans • Share information about issues and incidents • Reinforce health and safety hazards and their controls • Gather information about concerns, practical hazard management, and other matters relating to safe and productive operation • Allow workers to participate in workplace planning and review processes such as: Improvement planning and tracking; Incident reviews; Planning for workplace layout and process changes; Changes to equipment and plant in use <p>Curragh North Open Cut PLN-001 Safety and Health bPlan version 3.6</p> <p>4.2 Communication and Consultation</p> <p>Curragh has a range of communication processes to ensure that CMW's are informed of hazards in their work areas: have access to, and are familiar with, relevant SHMS documents. CMW's will be informed of the following matters:</p> <ul style="list-style-type: none"> • Hazards • Significant changes in site / work area conditions • The commencement of significant activities • Changes that impacts on work methods • Incidents <p>Any matters affecting the safety and health of CMW's must be communicated to CMW's, at Curragh these communications may be in the form of elements of:</p> <ul style="list-style-type: none"> • Pre-start meetings • Toolbox talks • Site Alerts and other notices • Incident information <p>Curragh requires that there are adequate avenues for CMW's to raise and resolve safety issues by raising issues with</p>		<p>CMSHA - 068 Mine record</p> <p>CMSHA - 069 Display of reports and directives</p> <p>CMSHA - 069A-B Training and assessment records and distribution</p> <p>CMSHA - 092-099 Processes and Functions - site safety and health representatives</p> <p>CMSHA - 106 Site senior executive to tell site safety and health representatives about certain things</p> <p>CMSHA - 273.9&10 Notifying the inspector after the action is taken</p> <p>CMSHA 105 Protection of site safety and health representatives performing functions</p> <p>CMSHA 107 Site senior executive to display identity of site safety and health representatives</p> <p>CMSHA 275 Personnel permitted to make representations to the Inspectorate</p> <p>CMSHR 006 - Basic elements of a SHMS</p> <p>CMSHR 008.1(a) Notification of Safety and Health Issues</p> <p>CMSHR 008.1(b) Notification of issues - emergencies</p> <p>CMSHR 008.2(a) Notification of safety and health issues</p> <p>CMSHR 008.2(h) Notification of known hazards in an ERZ to the ERZ controller</p> <p>CMSHR 010.1(a) Consult with a cross-section of the mine's coal mine workers</p> <p>CMSHR 010.1(c) Prepare the final standard operating procedure</p> <p>CMSHR 010.1(d) If the coal mine workers do not agree with the draft standard operating procedure</p> <p>CMSHR 010.2 Final SOP to be accurate and reflect input from all personnel involved</p> <p>CMSHR 015.1 A coal mine's safety and health management system must provide for the following</p> <p>CMSHR 015.2 Accident</p>

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			<p>Supervisors and other Leadership, raising issues at pre-start and toolbox meetings, and providing for a Site Safety Committee to ensure that safety matters, including safety initiatives and improvements, affecting the wider Curragh community can be recommended and actioned.</p> <p>OFI-047 Review the effectiveness of site approaches for delivering toolbox talks. Identify opportunities for improvement, including providing adequate question and answer opportunities.</p> <p>Workshop participants discussed the effectiveness of site tool box talks. Sometimes delivery is reported as being a straight presentation with limited opportunity for questions and answers. If the audience is unable to question the material presented then this can lead to two suboptimal outcomes:</p> <ul style="list-style-type: none"> • The audience may misunderstand key points from the information presented and then make incorrect decisions • The presenters and line managed assumptions on understanding may be incorrect can lead to gaps in understanding of key information. <p>Review the effectiveness of site approaches for delivering toolbox talks. Identify opportunities for improvement, including providing adequate question and answer opportunities.</p> <p>OFI-032 Review the effectiveness of site consultation and communication processes.</p> <p>Workshop participants discusses inconsistencies for site consultation and communication processes. These variations include how the same information is presented, discussed for relevance with checks for understandings, and if feedback is captured and applied.</p> <p>The two way flow of information and knowledge Coronado Global through to the operational workers is restricted and moderated by use of contractor workgroups. Also discussed was the</p>		<p>investigation to involve people filling statutory roles</p> <p>CMSHR 042.5 Consulting a cross-section of workers by the site senior executive</p> <p>CMSHR 068 (1) Change Management SOP to be in place</p> <p>CMSHR 082A - Records of training to be kept</p>

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			<p>willingness of new-to-industry and labour hire personnel to share information. Relevant information is not always accessible e.g. some coal mine workers do not have access to the BlackRock information system. Other examples discussed include how hazard sheets are completed, communicated and remain accessible for coalmine workers. There limited safety committee meetings and information is not being shared across all site operations.</p> <p>Review site consultation and communication processes to confirm that all stakeholders and contract workers have the opportunity to be involved in health and safety improvements e.g. for vehicle interaction control improvements. Confirm that company and regulatory expectations are met.</p> <p>OFI-082 Consider periodic state of the nation interactions across North Curragh Mine Complex</p> <p>Workshop participants noted that different contractor organisations have different ways and briefing their employees. It was also noted that Coronado currently does not do state of the nation briefings.</p> <p>State of the nation briefings from mine operators to all work groups including contractors are routinely carried out at other operations. They provide consistent messaging and allow discussions and questions from all employees. Consider the value of having periodic state of a nation briefings for all personnel at North Curragh mine. Typical frequency is every 3 to 4 months. Processes can be benchmarked from other operations and this should include how questions are responded to and followed up.</p>		
<p>BI-SRV.83.02 Senior management review, update, and confirm the Traffic Management Plan as being fit-for-purpose</p>	<p>Senior managers periodically confirm that the site Traffic Management Plan (or equivalent) is fit-for-purpose.</p>	<p>The Traffic Management Plan is reviewed, updated, and confirmed as being fit-for-purpose by senior management:</p> <ul style="list-style-type: none"> • After high potential mobile equipment incidents; • Before significant operational changes e.g. engagement of contractors, opening of new 	<p>Traffic Management Plan reviews are prepared by Technical and Operational superintendents and reviewed by relevant stakeholders representing Survey, Engineering, Maintenance, Development, Services, and other relevant sections. The review process also involves inputs from knowledgeable and experienced</p>	<p>Routine operational reports confirm that the road network has been constructed and is being maintained to standard. By exception incident reporting. Formal reviews of the Traffic Management Plan to confirm if the site performance requirements are</p>	<p>CMSHA - 043 - Obligations of Contractors to conform with HSMS and train employees</p>

BI Name	BI Expectation	Specify	Implement	Monitor	Related QLD Legislation
		<p>production areas, deployment of new equipment etc.</p> <ul style="list-style-type: none"> • Before the introduction of new technology e.g. mobile equipment operator fatigue monitoring, proximity detection systems etc. • Periodically - at least annually. <p>Curragh North Open Cut Mine PLN-005 Principal Hazard Management Plan – Mobile Equipment Incidents (version 16 May 2024) is equivalent of the site Traffic Management Plan (TMP). This PHMP applies to:</p> <ul style="list-style-type: none"> • All movements of vehicles, mobile plant and equipment at Curragh • All employees, contractors, and visitors <p>It references Standard Operating Procedure (SOPs) and other site documents for identifying and controlling the mobile equipment risks that may arise and forms part of Curragh’s Safety and Health Management System (SHMS). These related documents are referenced and when combined, they deliver the equivalent of a Site Traffic Management Plan.</p> <p>OFI-070 Review Opportunities to consistently apply site traffic management standards and measure performance</p> <p>Workshop attendees discussed variations in applying vehicle interaction controls and operating approaches between workgroups at Curragh North Mine. They noted that while the Coronado SOPs apply to all workgroups:</p> <ul style="list-style-type: none"> • Some SOPs that are not specific enough about performance requirements and how performance is measured. This allows variations in how standards are interpreted and applied in the same areas by different workgroups. • There are different performance requirements by area e.g. between the Mine Industrial Area (MIA) and Mine Operational Area (MOA) for positive communications, road 	<p>operators, supervisors and health and safety committee members.</p>	<p>being met. Reviews also consider alignment between site performance requirements and</p> <ul style="list-style-type: none"> • Industry good practice • Regulatory requirements • Company standards <p>Reviews are triggered by the following events:</p> <ul style="list-style-type: none"> • A site or external accident or incident directly related to the document contents. • A legislated change directly related to the document contents. • Requirements from directives issued orally or as Mine Record Entry’s by the Department of Natural Resources and • Mining inspectors or Industry Safety and Health Representatives or Site Safety and Health Representatives directly • related to the document contents. • A change required by Coronado directly related to the document contents. • A change required by the SSE directly related to the document contents. • The passing of a review date on the document as per BLS-005 Controlled Documents and Records. 	

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		<p>construction for gradient and ramp speed, heavy vehicle access, escorting requirements etc.</p> <p>At an operational level this can result in different workplace layout standards between OCEs and conflicting directions confuse supervisors. A non-standard approach also inhibits the introduction of consistent performance measures and digital technology such as Collision Avoidance Systems.</p> <p>Leverage the knowledge and capability of the contractor support companies to review Curragh SOPs. Consider developing</p> <ul style="list-style-type: none"> • Visual specification details and references • Illustrate the performance standard required using examples • Review and develop performance measures that support the consistent delivery of site standards across all workgroups. 			