



Critical risk management

Field Guide

Introduction

We are often faced with situations that carry critical risks. It is our responsibility, both individually and collectively, to ensure that we take every possible measure to mitigate these risks. At GHD we treat safety as much more than a set of procedures. It is a core value and a shared responsibility, carrying with it expected behaviours that are embedded deep within our culture.

We are committed to providing a safe and healthy work environment for all our employees, clients and partners. This commitment extends beyond mere compliance with safety regulations. We strive to incorporate safety into every aspect of our work, from planning to execution.

We believe that every incident and therefore every injury, is preventable. We must all work together to identify potential hazards and take proactive measures to prevent accidents before they occur. The material in this guide provides the information needed to effectively manage critical risk activities at GHD and to check that expected controls are in place – every time. This process requires constant vigilance, ongoing education, and a commitment to learning from our mistakes.

I urge you to take personal responsibility for your own safety and the safety of those around you. Remember, no task is so important that it cannot be done safely.

Thank you for your dedication to safety and for making our organization a safer place to work.

Clayton Harrison

Enterprise Leader, HSEQ

Working at height



Training

Mandatory requirements for GHD personnel include:

- Construction induction as per jurisdictional requirements
- Locally recognised work at height (fall protection) training completed in the last 2 years when working at height using fall arrest equipment
- Locally recognised work at height supervisor (fall protection competent person) training completed in the last 2 years when supervising any work at height activity
- Locally recognised height safety equipment inspector training for anyone responsible for inspecting and tagging height safety equipment
- Relevant license for those operating or spotting EWP/aerial lifts
- First aid and CPR



Behaviours

GHD's expectations of those working at height are that:

- We **ALWAYS** have three points of contact when climbing ladders, stairs, plant etc.
- We **NEVER** work from ladders unless it is a platform ladder with edge protection
- We **ALWAYS** check that scaffold has been inspected and certified per local jurisdictional requirements (e.g., when over 4m) for use before using
- We **ALWAYS** consider overhead crush hazards when using EWP/aerial lifts including bucket trucks
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective

Working at height



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- Persons using fall arrest and fall restraint equipment are trained and competent in its use, inspection and maintenance requirements
- Fall arrest or fall restraint equipment has been inspected daily; and 6 monthly by a height safety equipment inspector (competent person)
- Rescue plans are in place when working in EWP including bucket trucks
- Scaffold, EWP and ladders are protected from moving plant
- Ground conditions are assessed prior to EWP operations
- Scaffold has been inspected and certified as per jurisdictional requirements
- Areas under the work area are demarcated to prevent unauthorized access or all tools have lanyards



Confined space entry



Training

Mandatory requirements for GHD personnel include:

- Construction induction as per jurisdictional requirements
- Formal jurisdictionally required training and competence when entering a confined space



Behaviours

GHD's expectations of those performing work involving confined space entry are that:

- We **ALWAYS** seek professional advice if we are unsure if a workplace is considered a confined space
- We **ALWAYS** verify necessary isolations are in place prior to entering a confined space
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- A confined space entry permit is in place prior to entering a confined space
- All persons working in or supervising a confined space entry activity are formally trained according to their role per local jurisdictional requirements
- A communications plan is in place and communication equipment is available and being used where required
- Emergency response and rescue plans are in place

Excavations and penetrations



Training

Mandatory requirements for GHD personnel include:

- Construction induction as per jurisdictional requirements
- Relevant license (for operators)
- Relevant training for person managing control of excavation works (e.g., excavation competent person) per local requirements



Behaviours

GHD's expectations of those performing excavation and penetration work are that:

- We **ALWAYS** treat services as live and maintain safe approach distances
- We **NEVER** enter an excavation >1.2m (4ft) deep without:
 - Adequate batter (sloping), benching, shoring (including shielding), and access and egress
- We **NEVER** allow mobile plant (heavy equipment) to enter the zone of influence of an excavation
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- Ground survey/service locating has been conducted for brownfield excavations/ penetrations (ground disturbances)
- Positive identification of known nearby services via low-risk methods (non-destructive digging including air knife, vac truck etc.) has been completed when working within its tolerance zone
- Services have been isolated (where practical)
- Spotter(s) are in place during critical parts of excavation
- No mobile equipment/plant is in the zone of influence of excavation
- Integrity (protective) measures (benching or battering /sloping or shoring/shielding) are in place where people are entering an excavation
- Adequate access and egress are in place where people are entering an excavation
- Barriers or barricades have been placed around excavations where determined by risk
- Safe egress/rescue plans are in place when people are entering an excavation

Hazardous substances



Training

Mandatory requirements for GHD personnel include:

- Construction induction as per jurisdictional requirements
- First aid and CPR



Behaviours

GHD's expectations of those conducting working with or around hazardous substances are that:

- We **ALWAYS** seek professional guidance when working with or in the vicinity of unknown hazardous substances
- We **ALWAYS** wear and maintain our PPE in accordance with manufacturer's instructions
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- Site controller has been consulted to identify any known/likely hazardous substance(s)
- A documented risk control strategy is in place for the relevant hazardous substance(s)
- All containers must be labeled, with labeling in a legible condition
- Hazardous substance(s) is used, stored, transported and disposed of in accordance with SDS or project waste management plan
- SDS is readily available (hard copy in remote locations)
- Emergency Response information is readily available

Mobile plant and machinery



Training

Mandatory requirements for GHD personnel include:

- Construction Induction as per jurisdictional requirements
- Relevant license and/or certification (for operators)



Behaviours

GHD's expectations of those supervising or working around mobile plant and machinery are that:

- We **ALWAYS** establish positive communications with mobile plant operators before approaching plant
- We **NEVER** remove any guarding or disengage a safety feature
- We **NEVER** allow mobile plant to enter the zone of influence of an excavation
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- Effective system is in place to enable two-way communication between operators and other workers
- Plant and machinery pre-start checks have been completed and faults have been rectified
- Plant and machinery are operated by a licensed/certified person
- A traffic management plan is in place and/or exclusion zones have been demarcated to protect pedestrians
- Nearby assets have been identified and Safe Approach Distances have been established
- All nearby (affected) workers have been inducted and attended prestart
- Controls are in place to prevent plant from breaching Safe Approach Distances to overhead services

Remote and isolated work



Training

Mandatory requirements for GHD personnel include:

- First Aid Training or Remote First Aid Training if available
- CPR Training



Behaviours

GHD's expectations of those performing remote and isolated work are that:

- We **ALWAYS** take the time to thoroughly plan remote and isolated work
- We **NEVER** perform the following alone:
 - Confined space or cave/tunnel entry
 - Work at height
 - Work over, on or near water
 - Work in or near excavations >1.5m (5ft) deep
 - Working on energised electrical systems
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- Call in schedule is in place
- Remote area communication devices with at least one level of contingency
- Field Team has been trained in the use of navigation and communication devices they are using
- Project Journey/Emergency Management Plan in place
- Field Team has all required and fit-for-purpose equipment including:
 - clothing and PPE
 - vehicles
 - food and water
 - fuel
 - first aid equip and personal medication (e.g., epipens, etc. where required)
- Field Team and PM are receiving emergency feeds and updates (e.g., severe weather alerts, fire bans, bushfire/wildfire, flood, cyclone/hurricane, tornado alerts, etc.)

Vehicles and driving



Training

Mandatory requirements for GHD personnel include:

- Current and valid driving license for the class of vehicle
- 4WD training when operating a 4WD in an off-road environment
- Training as required for high-risk exposure groups (where identified by local region)



Behaviours

GHD's expectations of those driving vehicles are that:

- We **ALWAYS** adhere to relevant road laws
- We **ALWAYS** have a plan in place to deal with changes and delays
- We **ALWAYS** plan to arrive at our destination before we have worked 12 consecutive hours
- We are **ALWAYS** fit for work and take a break from driving every 2 hours or less
- We **ALWAYS** drive to conditions
- We **ALWAYS** ensure the engine is off before using any phone or device
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- Driver holds a valid license and has suitable experience to drive the vehicle
- Driver has received specialist driver training where required (e.g., 4WD when driving off-road)
- Vehicle has a 5star (A)NCAP rating (applicable to GHD hired and pool vehicles)
- Vehicle inspections have been completed (at least one in the past week)
- Documented plans are in place to manage high-risk journeys (as determined by PD)
- Available vehicle-equipped safety features are engaged
- Potential projectiles are secured

Working in a rail corridor



Training

Mandatory requirements for GHD personnel include:

- Rail-specific training as per jurisdictional requirements



Behaviours

GHD's expectations of those working in the rail corridor are that:

- We **ALWAYS** gain the client/operator's express permission before accessing a rail corridor
- We **ALWAYS** use designated walkways and paths where possible
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- A 3rd party/track protection party has been engaged to arrange and manage safe access to the rail corridor
- The GHD Project Director has assigned a suitably experienced person to lead the GHD Field Team
- All parties entering the rail corridor have the required client and jurisdictionally required training and authorisations
- A daily pre-work briefing has been conducted to confirm all parties understand the controls proposed

Working on, near or over water



Training

Mandatory requirements for GHD personnel include:

- First aid and CPR



Behaviours

GHD's expectations of those working on, near or over water are that:

- We **ALWAYS** check tidal and weather conditions routinely throughout the day when working in tidal or marine areas
- We **ALWAYS** seek PD approval before driving a vehicle into moving water >50mm (2") or unknown depth
- We **NEVER** work alone on, near or over water
- We **ALWAYS** stop work and escalate to the PD if critical controls cannot be implemented or are found to be ineffective



Critical control verifications (CCVs)

Critical control verifications include verifying that:

- Commercial vessels must be in charter
- Dive teams have both a Dive Plan and a documented safe work method
- Electrical equipment and leads must be:
 - Connected to an earth leakage safety switch or residual current device (RCD) / ground fault circuit interrupter (GFCI) if using main supply.
 - Physically prevented, as far as practicable, from falling into water
 - Protected from exposure to water unless specifically rated for that purpose
- Life-saving and resuscitation equipment is accessible on site
- Personal Floatation Devices (PFDs) must worn:
 - on vessels under 12m (40ft)
 - where working closer than 2m (6ft) to water where no edge protection exists
 - working near swift water
 - other situations identified in JSEA/JSA/SWMS

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