Life Saving Rules - Standard

HSE-STD-100060

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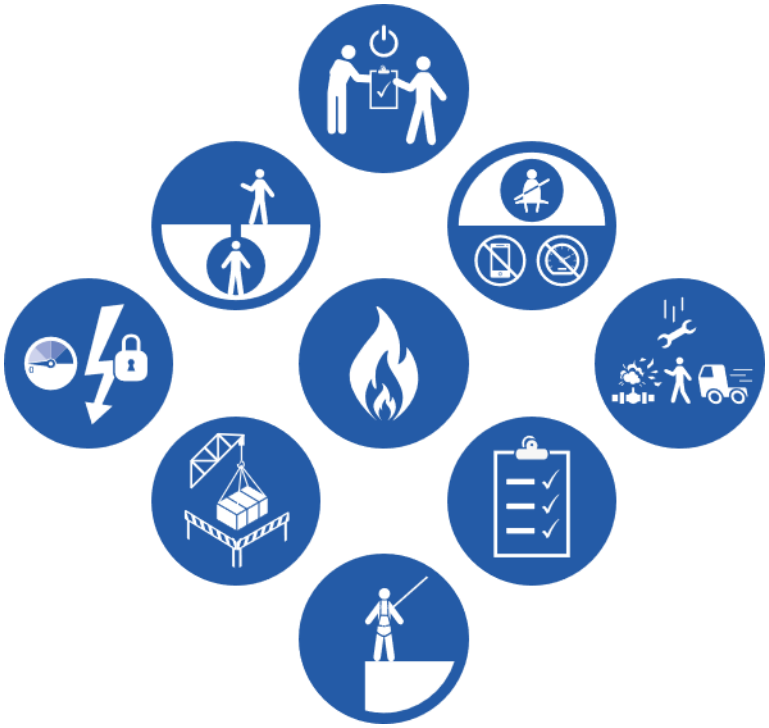


Content

Foreword

Welcome to Wood's Life Saving Rules Standard in support of our Life Saving Rules.

This standard is an integral part of our Shield and compliance is a condition of employment within Wood.

Having effective safety standards that can be applied across the whole business are essential to support Wood's values of care, commitment, and courage.

The purpose of this document is to provide a consistent way in which safety is managed across our business so that everyone under Wood's responsibility goes home safe every day. It additionally provides guidance on meeting the safety elements of the HSSE&S Management System Standard HSE-STD-100051.

The safety standards define a minimum set of requirements and apply across the whole of Wood.

As a minimum standard, it is important that each business line also has arrangements to identify any other relevant local and national regulations that must be enacted.

Having effective safety standards that can be applied across the whole business are essential to support Wood's core values of care, commitment, and courage.

1. **Providing clear direction on how we must plan, organise, and implement Life Saving Rule measures.**
2. **Drive consistency in managing common hazards which hurt our people.**
3. **Embedding this standard in a structured and systematic manner is crucial for continuous safety improvement.**

Compliance and effectiveness with this standard will be assessed and monitored through internal audits, and businesses impacted by this standard must include compliance and effectiveness verification as part of their annual operational assurance programme at the business unit level.

Introduction

Wood has adopted the IOGP (International Association of Oil and Gas Producers) simplified set of Life-Saving Rules to provide workers in our global business with the actions to take to protect themselves and their colleagues from hazards in critical risk areas.

The nine Life Saving Rules focus on the activities which, through rigorous data analysis, have been shown to most likely result in fatalities. Each rule consists of an icon and simple life-saving actions individuals must take to prevent a work-related fatality.

Everyone is responsible for raising the Shield

Compliance with our Life-Saving Rules is a condition of employment within Wood and must be followed at all times. They must also be complied with by Wood's contractors, sub-contractors and relevant third-party organisations where Wood's management system is deployed.

The Life Saving Rules are an integral part of the Shield and are supported by a set of Safety Standards and behaviour-based **Safety Essentials.**

The Essentials apply to all nine rules but also to our everyday activities. These six safety essentials must be always adhered to before commencing and during any task.

The Life Saving Rules are an integral part of the Shield; that is, how we protect our company, communities, colleagues, and ourselves through the simple and consistent mindset of Prepare, Engage, and Intervene.

Workers, supervisors, and managers have the:

Commitment to prepare

Care to engage

Courage to intervene

- **Always take care**
- **Follow the rules**
- **Do a risk assessment**
- **You must intervene**
- **Manage any change**
- **Wear the correct PPE**

Implementing the Life Saving Rules

It is important that the Life Saving Rules are understood by all individuals, their supervisors, and their leaders and that Wood management create the conditions necessary to enable everyone to follow the rules. The Life Saving Rules apply to all Wood direct and indirect employees, Wood contractors and subcontractors, third-party vendors, and Wood personnel involved in joint venture projects

Successful implementation of the rules requires the following, as a minimum:

- A commitment that work does not start until all individuals involved in the task are correctly prepared and know the hazards and control measures, have received a pre-task briefing engagement, and understand when to intervene. These shall be standard elements of all Wood work crew's Safety Shield
- A commitment that work does not start until all individuals involved are aware of and can confirm they know and can follow the Life Saving Rules that are relevant to that work
- A requirement that works is not conducted without a pre-job risk assessment and a safety discussion, such as a toolbox talk/tailgate talk, appropriate for the level of risk
- Wood has produced a set of safety standards in line with the Life Saving Rules to ensure workers understand their responsibilities
- People are trained and competent for the work they conduct
- Equipment is fit for purpose, properly maintained, and in working condition
- Before work starts, there are emergency response plans in place, suitable and sufficient resources available, and which are periodically drilled/tested
- Everyone is aware of the 'stop work authority' to intervene or stop work without adverse consequences if they are in any doubt about the safety of an activity
- Senior management commitment is essential to the successful roll-out of the Life Saving Rules and shall consider the following:
- Addressing the application of the Life Saving Rules through periodic safety tours of worksites
- Understanding the safety performance across your sphere of influence to locate areas where support and intervention may be required
- Within your area of responsibility ensure a risk assessment is conducted of your business activities and determine how these align with our Life Saving Rules
- A discussion with the leadership of both Wood and relevant contractors/sub-contractors to ensure commitment to implement the Life-Saving Rules
- Ensure implementation, use, and compliance of the Life-Saving Rules are owned by line management and supported by HSE professionals
- Ensure all potential breaches of Life Saving Rules are fully investigated and confirmed breaches are subjected to the Wood just and fair culture process

Purpose & Scope

This standard is **a visible demonstration of our commitment to the Wood Shield.**

They define a minimum set of requirements to:

- Promote consistency in the way we manage safety across our global operations
- Prevent injury to workers and others who may be affected by our activities
- Minimise losses through damage to the plant (e.g., facility/installation) and equipment

This safety standard is an integral part of the Wood HSSE&S management system. They support our Wood HSSE&S Management System Standards and Life Saving Rules.

This standard is mandatory and apply to all Wood businesses. They are also intended to act, where appropriate as a performance benchmark for the management of Wood's suppliers, subcontractors, and relevant third-party organisations.

The safety standards may not provide full compliance with legal and other HSSE&S requirements. Businesses must therefore identify and comply with any local and national legal requirements as well as other safety requirements (e.g., required by clients, insurers, and recognised industry standards).

Roles & Responsibilities

These standards do not allocate specific requirements to job roles. Businesses themselves must assign the necessary accountabilities, responsibilities, and authorities to enable the requirements of the standard to be met.

Roles and responsibilities are defined in Wood Policy for HSSE&S Roles and Responsibilities Standard HSE-STD-100074. These standards are primarily designed to:

- Support the Wood Life Saving Rules
- Set a minimum requirement for high-risk activities
- The 9 Wood Life Saving Rules are illustrated below.

Helping people follow the rules

Life Saving Rules, when consistently applied, prevent fatalities. Simply communicating the rules and then holding people accountable for following them is not enough for effective implementation.

To enable individuals to follow the Life Saving Rules, we need first to provide the right conditions.

- Everyone needs to know the rules, understand their values, and understand what following the Rules means to their role
- Wherever our business operates, we must have the right safety tools and equipment in place (e.g., certified anchor points for working at height, vehicles equipped with seatbelts, etc.)
- A clear expectation set and supported from the top of our organisation that work must not start unless the rules can be followed, and these must be visible to the workforce
- Everybody understands the 'stop work authority' and is continuously encouraged to intervene if they observe a potential breach of a Life-Saving Rule, or any other unsafe activity. Proactive intervention may be the last opportunity to prevent an injury or fatality

If a Life-Saving Rule is not followed, it will be recorded as an incident (Ref. HSE-PRO-110314) and investigated to determine the immediate and root cause of learning and improve workplace conditions, whether it resulted in an undesirable consequence or not.

Wood has a role in positively reinforcing an open reporting culture, i.e., for self-reporting errors and peer-to-peer interventions, while responding appropriately where cases of 'non-reporting' are found. The intent is to understand what conditions and environment meant that a rule was not followed and drove people to do what they did so that lessons can be identified, applied, and learned.

If a Life-Saving Rule is not followed, despite Wood providing all the necessary enabling conditions, then the Just and Fair Culture (Ref. HSE-PRO-100500) will apply. This may be applied to the individual or to those responsible for providing the enabling conditions. However, Wood acknowledges such occasions are rare and shall always follow our due processes for dealing with such matters.

Compliance with the Life Saving Rules begins with its introduction to the workforce and requires ongoing reinforcement to drive integration and conformance with a dynamic global workforce. Wood businesses must use available tools within their management systems to continuously improve conformance to the Life Saving Rules.

Bypassing Safety Controls

Safety critical equipment is an item of equipment, a structure or instrumentation system that acts as a barrier (or part of a barrier) whose purpose is to prevent or limit the consequences of a major incident, including business loss.

If it becomes necessary to disable/bypass a critical safety system or piece of equipment, all persons involved in the operation must be made aware so that the affected equipment is not operated or, if operated, is operated with full knowledge of its limitations.

Obtain authorisation before overriding or disabling safety controls

- **I understand and use safety critical equipment and procedures which apply to my task**
- **I obtain authorisation before:**
  - **disabling or overriding safetyequipment**
  - **deviating from procedure**
  - **crossing a barrier**

Safety-critical controls include:

- Equipment (such as fire and explosion protection and mitigation systems, guards, interlocks, alarms, and safety-critical monitoring equipment) whose purpose is to prevent a fatality or other major accident

  Procedures that, if not performed correctly or at the right time, could result in a fatality or other major accident

Please review Ref: Bypassing Safety Control Standard HSE-STD-110019

Bypassing Safety Controls

1.0 Bypassing Safety Controls

The purpose of this chapter is to evaluate and mitigate risk for all occurrences where safety-critical equipment is bypassed and to ensure the bypass is performed in a controlled manner.

Businesses must establish and maintain a procedure for bypassing safety controls and document their bypassing processes to demonstrate compliance with Bypassing Safety Control Standard HSE-STD-110019.

1.1 Organisation – Prepare, Engage, Intervene

Businesses must ensure that all bypassing safety controls processes under the control of Wood, including short notice and emergency work, are properly prepared.

Is aware of their duty and responsibility to engage and intervene, if necessary, before work starts or during the activity.

The process considers the following:

Prepare:

- Assigning a named competent person accountable for the organisation and planning of bypassing safety controls
- Identification of safety control equipment and the cause and effect of bypassing such equipment
- Hazard identification, risk assessment and selection of control measures
- Preparation of a written method statement/activity hazard analysis
- A safe system of work to ensure that bypassing safety controls are conducted safely and effectively
- Allocate an appropriate level of supervision for workers conducting bypassing safety control activities
- Verify the competency of workers involved in both risk assessment and working on equipment
- Plan for emergencies and rescue
- Review HSSE&S HSSE&S Bypassing Safety Controls Standard for additional details

Engage:

- Identification of nearby systems and work equipment, and work groups which may be adversely affected by bypassing safety critical equipment
- Ensure everyone involved in the activity is aware and fully understand the authorisation process for bypassing safety controls and relevant procedures which apply to the task
- Use the Bypassing Safety Controls Field Level Inspection (HSE-FOR-110297) to evaluate conditions in our sites or plants.

Intervene:

- Workers must be reminded of the importance of using their Stop Work Authority

2.0 Competence

The named competent person assigned to meet the requirements of clause 1.1 must be qualified and competent (e.g., technical authority instrumentation, electrical process, etc.) in the management of short-duration, permanent and long-term bypasses of safety-critical equipment and systems.

2.1 Workers engaged in bypassing safety critical equipment and systems must be authorised and competent.

3.0 Safety critical controls/equipment

Safety critical controls and equipment is defined as any engineering device, control (safeguard), or system that is required to ensure a process or equipment is operated within designed safe operating limits or to prevent or limit the effects of a hazard with a high potential risk ranking. Please review in the Bypassing Safety Control Standard HSE-STD-110019 the main safety critical controls/equipment.

4.0 Safety critical equipment bypasses

Temporary Bypasses:

Safety critical equipment must only be temporarily bypassed for start-up, testing, maintenance, or repair. In the case of fire detection sensors, these may also be temporarily bypassed during hot work activities or flash photography, where such work may cause false equipment shutdown.

Bypasses on Isolated Equipment:

Safety critical equipment bypasses may be applied to process equipment that is positively isolated for long periods of time. In these cases, the bypasses are applied to prevent the shutdown of the equipment caused by process parameters that are normal during isolation but undesired when operational (i.e., low pressures, low levels, low flows etc). During the period of equipment isolation, the hazards that the safeguard is protecting

against may longer exist, or the risk is significantly reduced.

During this period, businesses must ensure the risk associated with the safeguard bypass in managed as follows:

- A bypass risk assessment is in place and focuses on potential impacts on equipment and processes that are still in operation (i.e., the bypass may affect more than the isolated equipment). It is not necessary to provide alternate safeguards for the bypasses safety critical equipment providing positive isolation is in place, and no additional hazards are identified
- The isolation certificate or lockout/tagout number must be recorded against each affected bypass safeguard within the bypass documentation
- The bypass must be reinstated, and the equipment safeguard tested before the isolation is removed. Reinstatement and testing of each affected safeguard must be recorded within the bypass documentation
- Where the bypass is required for extended periods of time (60+days), the related equipment/process and corresponding bypass safety critical controls shall be reviewed to ensure no equipment or process change have been implemented that could affect the safeguard(s) when they are returned to service

Equipment permanently out of service:

Businesses must ensure bypassed safety critical equipment for out-of-service equipment (i.e., isolated equipment which is permanently out of service and positively isolated from all other production process) must be labelled "Out of Service". It is not necessary to provide alternative safeguards for the bypassed safety critical equipment providing positive isolation is in place, and all hazards have been removed.

Permanent and Long-term Bypasses:

Long-term bypasses on in-service equipment that extend beyond 7 days must be managed as an engineering change within the Management of Change process.

The only exception to this is long-term bypasses on isolated equipment, which shall be managed through a site-specific procedure until the isolated equipment is returned to service.

Prohibited Bypasses:

Equipment safeguards as defined under local/ national regulations and/or by equipment manufacturer specifications for safe operation must not be bypassed, over-ridden or removed unless the equipment is undergoing maintenance. In this case, businesses must ensure lockout/tagout is used to ensure positive isolation of hazardous energy and all equipment manufacturer requirements are followed. Bypassing, isolating or removing process safeguards during upset/abnormal operating conditions in order to maintain production is strictly forbidden by Wood.

5.0 Risk assessment

Identify hazards, hazardous situations or specific events that may arise due to the bypass condition

Evaluate the risk associated with these hazards

Evaluate safeguards that reduce risk

Determine the level of risk after safeguards are applied and,

Establish if further safeguards are required to reduce the risk to an acceptable level

Members of the risk assessment team must be experienced with the process or operation being reviewed and shall be made up of representatives from the following teams: Operations, HSSE&S, Process Engineering, Process Controls, and Instrumentation

The risk assessment shall be reviewed and amended accordingly in response to any change.

6.0 Fire protection systems

Where water-based fire protection systems are installed, a fire protection impairment system must be implemented to manage bypasses and comply with local regulatory requirements.

The impairment system must comply with local/national regulatory requirements.

7.0 Alternate protection

Businesses must ensure alternate protection methods are specified and functioning for the duration of all bypassed safety critical equipment

Any bypass safety-critical equipment that does not have an alternate protection device must be continually monitored by a qualified person(s) at the location while the bypass is in place, if safe to do so.

8.0 Safety critical equipment bypass notification

The operations personnel who execute the bypass must notify all workers affected by the bypass when it is first executed and when it is removed. Notification may be verbal where appropriate and must also be included in all safe work permits issued for the affected equipment.

If the bypass extends beyond a shift change the oncoming shift must be verbally notified and this notification must be recorded in the shift log.

9.0 Testing requirements on return to service

All bypassed safety critical equipment must be tested for proper function on return to service and before removing any alternative safeguards. Successful safeguarding testing must be documented as part function on return

10.0 Safety critical bypass documentation

Site-specific safety critical equipment bypass documentation must incorporate all relevant information relating to the overall bypass management.

All safety critical equipment bypass documentation must be retained and accessible for review, audit, and approval where necessary.

11.0 Emergency preparedness

An emergency response plan must be in place before bypassing safety control and shall consider the Bypassing Safety Control Standard HSE-STD-110019.

Confined Space

Confined spaces have limited or restricted means for entry or exit and are not designed for continued occupancy, including, but not limited to, tanks, vessels, silos, storage bins, hoppers, vaults, pits, manholes, tunnels, equipment housings, ductwork pipelines, etc.

Serious injury can occur from hazardous substances or conditions within the confined space or nearby (i.e., lack of oxygen, explosive gas, poisonous air or isolation issues).

You must obtain authorisation before entering a confined space.

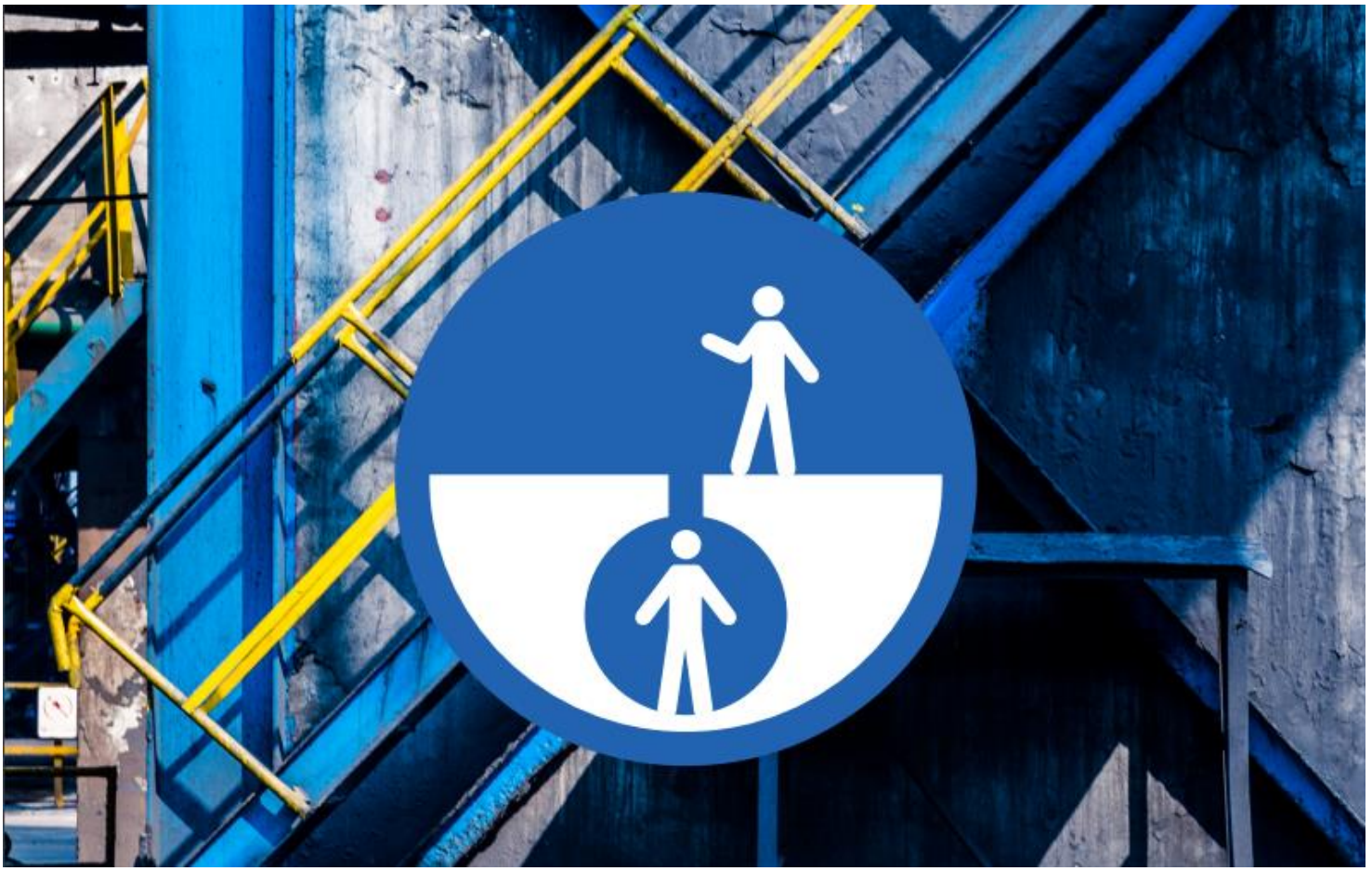
Obtain authorisation before entering a confined space

- **I confirm energy sources are isolated**
- **I confirm the atmosphere has been tested and is monitored**
- **I check and use my breathing apparatus when required**
- **I confirm there is an attendant standing by**
- **I confirm a rescue plan is in place**
- **I obtain authorisation to enter**

A confined space, such as a vessel, tank, pipe, cellar, or excavation, can contain explosive gas, toxic or asphyxiating atmosphere or other dangers such as energy releases, lack of oxygen, exposure to hazardous chemicals, things that can fall on you or crush you, or that you can fall from- Authorised access keeps you safe.

Businesses must determine if any work involving excavations or trenches creates confined space conditions and ensure necessary work authorisation and controls

Please review Ref Confined Space Entry Procedure HSE-PRO-110202



Confined Space

1.0 Confined Space

This chapter applies to any work within a confined space that is large enough for a person to enter wholly or partially (i.e., an enclosed or partially enclosed space, that is):

Not designed or intended for continuous human occupancy

Has limited means of access or egress and may become hazardous to a person entering it as a result of the presence or reasonably foreseeable presence of:

- Flammable or explosive atmospheres
- Harmful gas, fume, or vapour
- Inadequately protected electrical equipment
- Free-flowing solid or an increased level of liquid
- Excess or potential lack of oxygen
- Excessively high or low temperatures
- Any internal or external substance or material that has the potential to engulf the entrant
- Has an internal configuration that might cause an entrant to be trapped or asphyxiated?

Entrance into a confined space occurs when a person's head breaks the plane or opening of a confined space.

In certain cases, a client's confined space process may take precedence as defined in any agreed HSSE&S interface agreement.

Businesses must document their confined space processes to demonstrate compliance with Confined Space Entry Procedure HSE-PRO-110202.

Where it is reasonably practicable, entry of workers into a confined space must be avoided.

1.1 Organisation – Prepare, Engage, Intervene

Businesses must ensure that all confined space work under the control of Wood, including short notice and emergency work, is adequately prepared and that everyone is aware of their duty and responsibility to engage and intervene, if necessary, before work commencing or during the activity.

The process takes into account the following:

Prepare:

- Assigning a named competent person accountable for the organisation, planning and control of confined space working
- Hazard identification, risk assessment (i.e., job hazard analysis) and selection of control measures in accordance with 'Element 4 Risk Management' of the HSSE&S Management System Standard
- Preparation of a written method statement/activity hazard analysis
- Only authorised personnel allowed in Confined Space
- Evaluation of confined space by a competent person prior conducting work in it
- The competency of workers including a dedicated confined space entry attendant/sentry person
- Establish safe method of entering and exiting confined space
- Isolation of all potential hazardous energy sources and substances
- Potentially dangerous residues
- Risk associated with hazardous atmospheres
- Access to egress from the confined space
- Confined space is certified with written certification
- Allocation of an appropriate level of supervision for workers
- Planning for emergencies and rescue
- Review the Confined Space Procedure for additional details

Engage:

- Effective two-way communication for confined space entry
- Safe use of work equipment
- Conformation with Confined Space Entry Procedure HSE-PRO-110202
- Continuous monitoring for oxygen, flammable gases, and toxic air contaminants
- All entrants, attends and all involved fully understands the process, the potential hazards, and protective measures
- Appropriate PPE worn for Confined space
- Attendant keeps a record that is visible to all on the entry time and exit of each entrant working inside the confined space
- Attendants posted outside the barricade of confined space and warn any unauthorized personnel
- Others working in close proximity to confined space(s)

- Emergency response plan in place and communicated to affected employees
- Management of change where required
- Use the Confined Space Field Level Inspection checklist (HSE-FOR-110363) to review our sites or plants.

Intervene:

- Workers must be reminded of the importance of using their Stop Work Authority

1.2 Worker responsibility:

Workers must not enter a confined space unless:

- Authorised to do so by a responsible person (i.e., supervisor/area authority/person in charges)
- Conformation that energy sources are isolated
- Conformation the atmosphere has been tested and is continuously monitored
- Breathing apparatus when required has been checked
- A standby attendant/sentry is present
- A rescue plan is in place

2.0 Competence

2.1 The named competent person assigned to meet the requirements of clause 1.1 must be competent in confined space entry operations and activities, including:

- Types of hazards and control measures for confined space entry
- Identifying and verifying isolation requirements
- Role of the confined space entry attendant/sentry person
- Atmospheric monitoring

2.2 Workers engaged in confined space activities must be trained and competent in confined space entry.

2.3 Workers undertaking the role of attendant/sentry must be competent and have completed specific confined space attendant/sentry training.

2.4 Workers must be trained in the safe and proper use of work equipment (e.g., portable/personal gas monitors, breathing apparatus, access systems, etc.) used in connection with confined spaces.

3.0 Isolations

3.1 Confined spaces must be securely isolated from energy sources and ingress of substances by means of positive isolation. The isolation process must take into account the following:

- Identification of energy isolation requirements
- Isolation procedure(s) has been applied and followed
- Verification of isolations
- Lock out/tag out of isolations ensuring security against inadvertent removal
- Discharge of stored energy (e.g., pressure, voltage or potential energy)
- Monitoring the effectiveness of isolations

3.2 Isolations must be verified before work starts.

3.3 Isolation requirements for confined space entry must meet the requirements of Wood – Energy Isolation Procedure (HSE-PRO-110203)

4.0 Residues within confined spaces

4.1 Where there is a risk from dangerous residues (e.g., hazardous liquid, gas, fume, or vapour), the confined space, where reasonably practicable, must be cleaned and/or purged before entry.

4.2 Where a confined space cannot be cleaned before entry, then other control measures must be in place to remove the risk of dangerous residues.

5.0 Hazardous atmosphere

5.1 If there is a risk of a hazardous atmosphere being present in the confined space, atmospheric monitoring (e.g., gas detection testing) must be carried out:

- Before each entry (i.e., in order of oxygen, LEL, then toxins): and
- Continuously whilst workers are present in the confined space

5.2 Workers must evacuate the confined space immediately upon hearing a gas detection monitor alarm.

5.3 Gas detection devices must be tested and calibrated by a competent person before use in accordance with the manufacturer's instructions.

6.0 Access to and egress from confined spaces

6.1 A trained and competent confined space entry attendant/sentry person must be stationed outside the confined space entry point to control access.

6.2 A written log must be maintained by the confined space entry attendant/sentry person and include the following details:

- Name of attendant/sentry person
- Location and description of the confined space entry
- Name and date of workers entering and exiting the confined space

6.3 If it is identified within the risk assessment the requirement to monitor a worker's time in a confined space (i.e., potential exposure to excessive heat, cold etc.) the attendant/sentry will record this as time in/ time out within the written log.

6.4 The attendant/sentry person is not permitted to enter the confined space while entry operations are being conducted unless someone competent has relieved them of their duty of attendant/sentry.

6.5 No worker is permitted to enter a confined space without the attendant/sentry person being in place.

6.6 Clear signage indicating 'no entry', or ideally hard barricading, must be in place while the confined space is left unattended.

7.0 Communications

7.1 An effective communications system must be in place to enable continuous communications between the workers inside the confined space and the attendant/ sentry person outside the confined space and to summon help in an emergency.

7.2 Testing of the communications system(s) must take place prior to confined space entry, confirmation it is working once workers enter the space and periodically throughout the activity.

8.0 Inspection and maintenance

8.1 All work equipment used in connection with confined space entry (e.g., gas monitors, breathing apparatus, lighting, etc.) must be suitable for the proposed work activity and, where appropriate, be subject to:

Pre-use inspection by a competent person

Inspection after use and/or any adverse event and condition that may affect its effectiveness

8.2 Records of inspection and calibration must be retained and be accessible.

8.3 Any device or potentially damaged work equipment used in connection with confined space entry must be immediately removed from use for inspection by a competent person.

8.4 All confined space entry work must immediately stop until the defective equipment is repaired or new equipment is acquired.

9.0 Emergency preparedness and rescue

9.1 An emergency response plan must be in place before confined space work starts and must take into account the following:

- Foreseeable emergency situations relating to the nature of the confined space
- The size and type of the confined space including entry point
- Method of communication and how the alarm is raised
- The necessary emergency and rescue equipment, training and practice drills
- Role of the emergency services

9.2 Access and egress routes for confined spaces must be always kept clear and are adequate for evacuation in the event of an emergency

Driving

Everyone needs to take simple steps to reduce driving-related risks, whether you are a driver or a passenger. This includes cars, taxis, buses, trucks, cranes, forklift trucks, excavators, or any other moving vehicle engaged in company business.

Always wear a seat belt and ensure any passengers also wear seat belts.

When driving, do not use your mobile, do not drive under the influence of alcohol or drugs, and do not exceed speed limits.

Follow safe driving rules

- **I always wear a seatbelt**
- **I do not exceed the speed limit, and I reduce my speed for road conditions**
- **I do not use phones or operate devices while driving**
- **I am fit, rested, and fully alert while driving**
- **I follow journey management requirements**

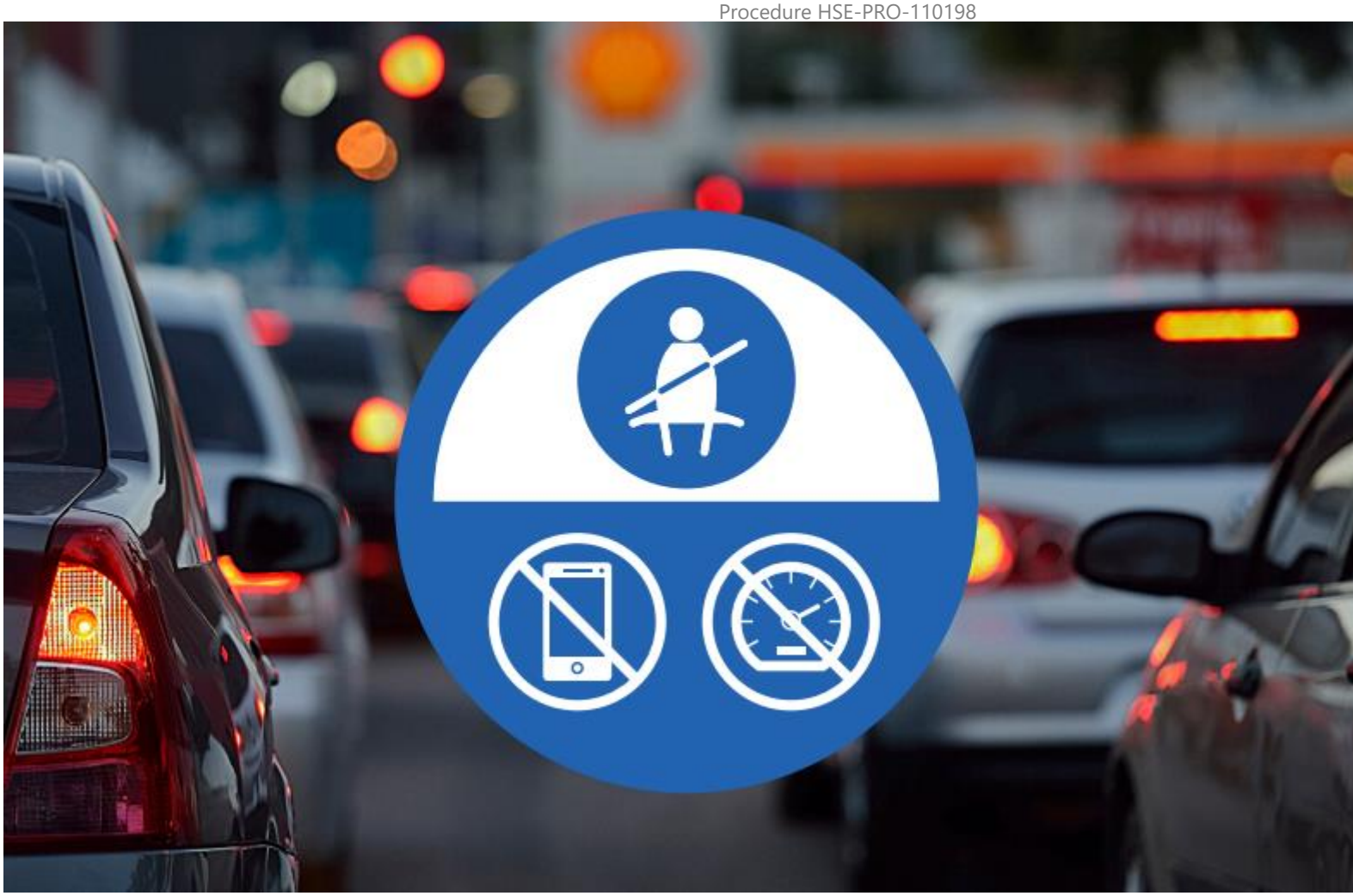
Additional guidance and reference:

The driver and passengers shall take responsibility for each other's safety, including ensuring all occupants are wearing a seatbelt.

Fitness for duty means assuring that an individual can complete a task safely and without unacceptable risk to themselves or others. This includes not being under the influence of drugs and alcohol.

For Global Drug & Alcohol Policy see HRM-POL-100012

Please review Ref Driving and Land Transport Procedure HSE-PRO-110198



1.0 Driving

This chapter applies to all personnel operating any vehicle on Wood business, including Wood owned vehicles, hired, or leased vehicles or personal vehicles authorised for company business use.

Also apply to the behaviour of Wood employees who are passengers in vehicles when on Wood business.

The term vehicle includes cars, light vehicles, vans, pick-ups, motorcycles, trucks, mobile cranes, taxis, buses and all conventional highway or site-wheeled transportation.

While recognising the widely varying circumstances, taxis specifically fall under this scope; therefore, employees must consider the provisions of this document when using local taxi services.

Standards of road safety, which are defined in local road traffic law and codes of practice, are not repeated in this document, it is implicit throughout that all staff be aware of and comply with these local requirements. If, however, there is a conflict between this information and a relevant local/country law or client requirement, the more stringent must apply.

Businesses must document their driving processes to demonstrate compliance

1.1 Organisation – Prepare, Engage, Intervene

Businesses must ensure that all driving on Wood business is properly prepared and that everyone is aware of their duty and responsibility to engage and intervene, if necessary, prior to conducting or during a driving activity.

Prepare:

- Be approved and authorised to drive a Wood vehicle or for Wood business, including on a work site.
- Be driver-trained, drug and alcohol-free, rested, and physically and medically fit to drive safely.
- Complete a Journey Management Plan prior to starting your trip.
- Perform a 360 walk-around of the vehicle area and before reversing.
- Use a spotter where necessary.
- Review the Driving and Land Transport Procedure HSE-PRO-110198

Engage

- Take responsibility and remain focused while driving a vehicle.
- When driving, you shall be distracted-free. Utilize In-Vehicle Monitoring Systems (IVMS) to monitor driver performance.
- Complete Wood driving CBT's (awareness and/or standard) and, when applicable, a defensive driving course.
- Use the Driving Field Level Inspection checklist (HSE-FOR-110364) to review general compliance.

Intervene

- Restrict any Wood personnel from driving a Wood vehicle for Wood business if they have not met the approval and authorisation requirements to do so.
- Communicate the need to complete a Journey Management Plan, perform a 360 walk-around, and utilise spotters when necessary.

2.0 Risk assessment

2.1 Risks related to journeys must be identified and addressed upfront. In regions with heightened security risks or particularly arduous conditions a formal risk management plan, including emergency response provisions, must be in place.

2.2 Road journeys shall only be undertaken where necessary for achieving business objectives and after any safer options have been excluded (e.g., teleconference, rail, air, etc.).

2.3 When a road trip is necessary or unavoidable, risks must be assessed. The level of risk assessment and mitigation will vary and be relative to the risk exposure i.e., a regular, short, or routine journey might warrant only some personal thought as to the risks. In other circumstances, such as in regions with heightened security risks or particularly arduous conditions, the driver and their supervisor must put a journey management plan in place.

The journey management plan must ensure that:

- A formal pre-trip briefing is held and documented. This activity must include a review between the driver and supervisor of the planned route, stops, hazards, loads, the requirement for the driver to report on the completion of the journey and contingency plans for in route emergencies
- Appropriate means of communication between the driver and supervisor are available and a

communications protocol is agreed (e.g., phone call/email conformation on arrival)

- The route is clearly defined and mapped
- Potential driving hazards are identified in advance. e.g., terrain, time of day, weather, known danger routes, speed limits, wildlife, holidays (especially those which involve fasting or alcohol)
- Appropriate vehicles are assigned to the journey
- Only qualified and experienced drivers are assigned with current certification for the type of vehicle to be used
- Drivers are physically and mentally fit to drive
- Journey planning takes into account potential fatigue (e.g., the number of hours worked beforehand, and prior sleep shall be considered)
- Appropriate rest stops for food and drink intake shall be scheduled
- Vehicles are inspected before the journey begins
- All trips during the hours of dusk, dawn, and darkness or during times of reduced visibility are to be systematically reviewed for risk and may be subject to formal management approval before they commence. The risk assessment must consider the risk of the terrain, snow, dust, sand, smoke, fog, heavy rains, security risks, wildlife, and local driving practices
- In environments where the visibility of the vehicle can be problematic for other people (e.g., road users and pedestrians), and were permitted by local law, vehicles must drive with their lights always illuminated, unless specific risks (e.g., security) determine that such a practice is not recommended. This includes low-beam headlights, side marker lights, and taillights to ensure vehicles visible from all directions
- Adequate arrangements have been made for rescue/recovery in the event of a breakdown

3.0 Driver Requirements

3.1 All drivers must possess a valid driving/operator's licence (e.g., issued by a relevant public authority) for the class of vehicle being operated and inform their supervisor of any change to their license status.

3.2 Employees who frequently (e.g., more than once per week) drive on company business, such as field service personnel, sales personnel, etc.) must have a Wood local management accepted driver training and assessment within six months of commencing driving on Wood business (e.g., external in-class or online defensive driving courses and/or internal Wood driving e-learning awareness sessions).

3.3 Businesses shall consider a pre-hire screening process to review the driving records of prospected drivers where such is permitted by law.

3.4 Drivers must not operate vehicles unless appropriately rested and alert. Care must be taken in planning:

- Long journeys
- Journeys with early starts, which may mean reduced sleep beforehand
- Journeys following long-haul air travel
- Journeys following long/extended shifts at work sites
- Journeys starting in the evening
- Journeys during special periods (e.g., Ramadan or holidays etc.)

3.5 Businesses must take steps to ensure drivers are not excessively fatigued. The following table shows detailed best practices regarding driving times and rest breaks. Companies shall apply this guideline, suitably modified or simplified and in alignment with permitted local regulatory and industry standards to ensure effective application to target groups.

Driving time (Time behind the wheel)	Requirements
Maximum driving time between breaks.	Maximum driving time of 4.5 hours followed by a 30-minute break. However, it is recommended to have 15-minute break every 2 hours or more, where felt necessary.
Maximum driving hours within a rolling 24-hour period	In any 24-hour period, the maximum driving hours, excluding commuting time, is 10 hours. If you have a significant commute driving yourself to and from work (e.g., exceeding 1 hour in total in a day) consider the impact of this from a driving safety perspective. Consult with your line manager.

Maximum duty hours (Shift hours including breaks)	Requirements
Maximum duty hours within a rolling 24-hour period.	An employee cannot drive after 14 duty hours. * Activities included in Duty hours – Driving, loading, unloading, waiting, rest breaks, and any other work, including air travel. On completion of 14 duty hours, employees must have a continuous 8-hour break prior to driving again.

Note Reference table per IOGP Report 365 (Aug. 2020) - Land Transportations safety recommended practice, Section 3 Limitations relating to driving and duty hours - Table B3

3.6 Individuals who drive on Wood company business must inform their line managers immediately if they receive any endorsement on their license or develop any medical condition which could impair their ability to drive safely.

3.7 Where relevant, all vehicular movement must meet the requirements of Wood 'Line of Fire' chapter.

4.0 Pre-start checks

4.1 Vehicles must be fit for purpose and be maintained in safe working order in line with manufacturers' specifications and local legal requirements.

4.2 The following equipment shall be visually checked or summarily tested before every journey:

- Brakes including handbrake
- Tyre tread and pressure including spare wheel
- Lights, front and rear
- Windscreen wipers and windscreen washer fluid level
- Seatbelts fitted in all seats and functional
- Driver and passenger side mirrors
- Climate control (e.g., heater and/or air conditioning as appropriate to climatic conditions)
- Heated outside mirrors for cold weather climates (if fitted)
- Tyre changing equipment, including wrench and jack (e.g., capable of handling vehicle weight)
- Any vehicle tracking or monitoring device, where fitted, shall be operational
- Any trailer connection (e.g., hitch, chains, wiring, etc.) to ensure a secured load

4.3 Loose items which might cause injury in the event of an incident, must not be carried in the passenger compartment of any vehicle.

4.4 When driving in a personal vehicle for Wood business, the vehicle owner must have proof of adequate insurance coverage and if necessary, shall seek advice from the Insurance & Risk Management department. If a person's private motor insurance does not clearly specify that they can use the vehicle for company business, it is likely that they would not have insurance coverage.

5.0 Drugs and alcohol

5.1 No person will be permitted to drive any vehicle on company business while the influence of drugs or any other substance or medication that could impair their ability to drive safely.

Prescription or over-the-counter drugs must only be used as stated in the manufacturer's instructions or medical advice. Drivers shall discuss any doubts with their doctor in accordance with Wood 'Drugs and Alcohol Policy.

5.2 No person will be permitted to drive any vehicle on Wood company business whilst under the influence of alcohol or any other substance or medication that could impair their ability to drive safely.

5.3 Drivers must not allow a passenger to consume drugs or alcohol while travelling in a vehicle during Wood company business.

Note: For the avoidance of doubt, Wood has zero tolerance for drug and alcohol driving – Individuals must not drink or be under the influence of drugs or alcohol when driving on Wood business.

6.0 Seat belts

6.1 All occupants of company-owned, leased, rented, or authorised personal vehicles used for business must use seat belts, front and rear, while in the vehicle. It is both the driver's responsibility, and that of any passengers to ensure everyone in the vehicle is wearing a seatbelt.

6.2 Driver and/or passengers must intervene if a fellow passenger is not wearing a seatbelt.

6.3 Drivers must not start vehicles until all passengers comply with these rules and are properly seated.

6.4 Wood personnel must use only those taxi, limousine, coach, mini-van, and bus services that provide seat belts for all passengers where such services are readily and safely available.

6.5 Wood personnel have an obligation to hire vehicles with seatbelts wherever possible.

6.6 Where no seatbelts are provided in public vehicles (e.g., transfer buses in airports) or more generally, on public transport, an exception to this will apply.

7.0 Speed limits

7.1 Drivers must always drive within the legal speed limits. This included variable limits and temporary limits at road works.

7.2 Drivers must take into account both road and environmental conditions (e.g., twisting rural roads, unfamiliar roads, weather/visibility, areas of high pedestrian activity and wildlife etc.).

7.3 Businesses must ensure sufficient time is allocated for road travel, ensuring no perceived pressure is placed on employees to travel at unsafe speeds or to exceed the speed limits.

8.0 Mobile phone use

8.1 There are many sources of driver distraction that reduce driving ability, none more than in-car technology use such as mobile phones or pagers, whether hands free or not. For the avoidance of doubt, all mobile phone/ pager use is prohibited whilst driving on Wood company business, including the use of hands-free equipment.

8.2 If a driver uses a smartphone as a global positioning system (GPS), it must be set and attached to a designated mobile phone holder before the start of any journey.

8.3 Mobile phones/pagers can be left on during a trip to alert the driver of any incoming calls. The driver shall safely leave the road and bring the vehicle to a complete stop in a safe location before initiating or returning a call/text. This also applies to radios used for two-way communication, including communication with base stations and other network-enabled devices.

8.4 The exception to clause 8.3 is for using two-way radios or 'Citizen Band' (CB) radios as part of convoy management or for use during emergencies. Radio use in these circumstances shall be kept to the minimum necessary to communicate and control the hazards and risks of the journey being undertaken.

8.5 Personnel must not knowingly initiate calls to colleagues who are driving. If it sounds as though the person who answers a call is driving, the caller shall confirm this and instruct the driver to call back later when it is safe to do so and immediately end the call.

9.0 Passengers

9.1 Wood personnel travelling as passengers shall intervene to ensure that the driver and fellow passengers comply with the provisions of this document.

9.2 The number of passengers must not exceed the manufacturer's specification for the vehicle.

9.3 Passengers must not distract the driver unless it is absolutely necessary (e.g., in the case of an emergency).

9.4 Employees are forbidden to ride on loads, fenders, running boards, sideboards, tailgates or with legs or feet hanging over sides of trucks, buses, etc.

9.5 No employee or other person is allowed to ride in the back of pickups, bed of dump trucks or on any piece of heavy equipment except where proper seating is provided.

9.6 No employee or other personnel are allowed to sit or rest under any vehicles or to rest directly in front of or behind the wheels of any vehicle.

9.7 Passengers must not consume drugs or alcohol while travelling in a vehicle during Wood company business.

10.0 Loads

10.1 This section applies to passenger vehicles carrying loads, medium size commercial vehicles (e.g., SUV's, pick-ups, vans etc.) and larger commercial vehicles. All vehicles shall be in compliance with the applicable country's road traffic legislation related to commercial road transportation.

10.2 Drivers must not exceed the manufacturer's recommended load or towing capacities and always properly secure any loaded materials. Large or heavy loads shall only be carried in a vehicle capable of carrying the load safely.

10.3 Loads shall be securely placed in the vehicle such that there is no possibility of injury or obstruction due to a shift of the load while the vehicle is in operation or being loaded/unloaded.

10.4 When the load extends beyond the sides, rear, or front of the vehicle, flags shall be placed on these extensions.

10.5 Businesses must adhere to local legislation and obtain permits for oversized loads where applicable.

10.6 Drivers shall adjust their speed to consider of the load being carried.

10.7 Employees loading/unloading vehicles shall use extreme caution when positioning themselves to avoid being hit in a load shift (e.g., never place yourself in the 'line of fire').

10.8 Personnel are not allowed on vehicles while loading/ un-loading except to attach/remove rigging and only when the load is stationary. A banksman may be used to direct the operation.

11.0 Reversing vehicles

11.1 Drivers may encounter scenarios where reversing a vehicle (i.e., backing a vehicle) may be necessary due to the design, intended traffic flow, parking areas, restricted or tight access or other facilities. To reduce the risks associated with reversing a vehicle, the following precautions must be taken into account and considered:

Walk around the vehicle before reversing to ensure no obstructions are present

Seek assistance from a flagman/spotter if you are unsure, it is safe to begin reversing

If equipped, utilize in-vehicle electronic aids such as cameras or proximity sensors, but do not consider them a substitute for checking all mirrors and windows

Always comply with local driving policies and procedures (e.g., reverse parking where applicable)

12.0 Environmental impact

12.1 Consideration shall be taken towards reducing the impact on air quality, carbon emissions, and fuel consumption created by idling a vehicle's engine while stationary.

13.0 Re-fuelling

13.1 Before re-fuelling a vehicle, the engine must be turned off, and all posted warning signs must be followed.

14.0 Personal protective equipment

14.1 Certified safety helmets must be worn by riders and passengers of motorcycles, quads, and other similar types of motorised vehicles.

14.2 No person will be permitted to operate a such motorised vehicle on company business unless agreed by senior management and appropriate personal protective equipment is worn.

15.0 Reporting and recording

15.1 All driving related vehicle events must be reported to the driver's supervisor and entered into Wood – Corporate Analysis and Incident Reporting System (CAIRS). All incidents involving a third party must be dealt with in accordance with requirements of the law.

15.2 The priority must be the care of any injured person(s) and the safety of all concerned at the scene. In all cases, names, addresses, and insurance details shall be exchanged. Where any doubt exists or if either party requests it, local law enforcement must be called.

15.3 All vehicle incidents must be investigated in accordance with Wood - Reporting, Recording and Investigation of Incidents Procedure (HSE-PRO-110314) and actions taken depending on the results of the investigation.

Energy Isolation

To keep you safe we use isolations to separate you from danger. By securely disabling machinery or equipment, we thereby prevent the risk of inadvertent start-up or the release or transmission of hazardous energy while performing activities such as servicing and maintenance.

Verify isolation and zero energy before work begins

- **I have identified all energy sources**
- **I confirm that hazardous energy sources have been isolated, locked, and tagged**
- **I have checked there is zero energy and tested for residual or stored energy**

Additional guidance and reference

Energy isolation separates people from hazards such as electricity, pressure, and energised equipment. Energy isolations also provide protection from potential energy sources e.g., positioning valves to prevent tanks from filling with material due to gravity.

Also, stored energy (e.g., hydraulic, or pneumatic power) shall also be dissipated before work starts.

Please review Ref Energy Isolation Procedure HSE-PRO-110203

1.0 Energy Isolation

This chapter applies to any work which requires the isolation of a potential energy source conducted by or on behalf of a Wood business.

1.1 Organisation - Prepare, Engage, Intervene

Businesses must ensure that all isolation(s) work under the control of Wood, or which can impact Wood personnel, including short notice and emergency work is adequately prepared, that everyone is aware of their duty and responsibility to engage and intervene, if necessary, prior to work commencing or during the activity.

The process takes into account the following:

Prepare:

- Assigning a named competent person accountable for the organisation and planning of isolations
- Define the work scope and identify equipment that is potentially impacted by the activity
- Machinery and equipment isolation requirements (e.g., all potential hazardous energy sources)
- Hazard identification, risk assessment/job hazard analysis, and selection of control measures in accordance with HSSE&S Risk Management Standard (HSE-STD-100063).
- A safe system of work to ensure that isolations are conducted safely and effectively
- The management and control of locked open/closed valves, safety, and environmentally critical devices
- Preparation of a written method statement/activity hazard analysis
- Preparation of a site-specific written energy control used for each piece of equipment
- De-energising of stored energy
- Provision of locks, tags, and key controls to help identify and control isolations
- Verification and monitoring of isolations
- The workers' competency in the isolation process (e.g., mechanical isolations, high and low voltage isolations, instrument isolations etc.)
- Allocation of an appropriate level of supervision for workers conducting isolations
- De-isolation for testing
- Machinery and equipment reinstatement following a repair, service, or maintenance activity
- Developing a list of all authorised and affected employees
- Planning for emergencies and rescue
- Review the Ref Energy Isolation Procedure HSE-PRO-110203

Engage:

- Full understanding and awareness of the importance of energy isolation
- Effective communication for isolation, among all involved
- Safe use of work equipment
- Conformation with this standard
- Use the Energy Isolation Level Inspection checklist (HSE-FOR-110365) to review compliance in our sites, operations, or plants.

Intervene:

- Workers must be reminded of the importance of using their Stop Work Authority

1.2 Design – eliminating or reducing risk

Design processes must take into account the following:

The foreseeable need to ensure positive isolation on equipment for any repairs, service, or maintenance activity during its life cycle.

Eliminate or reduction of the risk of exposure to hazardous energy sources through safety by design

1.3 Worker responsibility

1.3.1 Workers must not conduct, alter, or remove an isolation/tag unless authorised to do so by a responsible person.

1.3.2 Workers conducting isolations must ensure all work equipment used during isolation(s) are correctly certified and rated.

1.3.3 All isolations must be verified, and a zero-energy test completed prior to work commencing.

2.0 Competence

2.1 Workers engaged in isolation/de-isolation activities including those involved in the organisation, planning, authorisation, verification, inspection and supervision must be competent to do so.

The competent person designated to comply with the requirements of the Energy Isolation Procedure HSE-PRO-110203.

3.0 Isolation process

3.1 An isolation of an energy system cannot proceed unless the method of isolation and discharge of stored energy are agreed upon and executed by a competent person(s).

3.2 All isolation points must be clearly and unambiguously as well as identified on the LOTO permit by a competent person.

3.3 Actuated valves must only be used as part of an isolation if the fail-safe condition is closed and all motive power (e.g., electricity, air, steam, hydraulic fluid) to the valve has been physically disconnected from the actuator. In instances where a valve needs to be in a fail-safe open condition (i.e., to release pressure to bleed points) this does not form part of the isolation.

3.4 Isolations requirements must be included in a safe system of work, and all isolation requirements requested and recorded must include the following information as a minimum:

- Isolation control certificate/lock-out tag-out permit number
- Source of energy to be isolated (e.g., mechanical, electrical, instrumentation)
- Controlling PTW number
- The work scope for which the energy isolation is required
- Name, signature, and date of ICC/LOTO permit generator
- Isolation details
- Sanction to test if applicable
- Approval to isolate (e.g., name, signature, date, and time) by recognised authority
- Approval to de-isolate (e.g., name, signature, date, and time) by recognised authority

3.6 Isolation details referenced must include the following information:

- Isolation number
- Equipment description
- Subsystem (if applicable)
- Isolation method (e.g., locked, tagged, spade/spectacle plate, removal etc.)
- Isolation status (e.g., normal, isolated, de-isolated)
- Isolated by – name
- Isolation verified by – name
- Isolation date and time
- Criticality of the isolation (e.g., lock open/lock close double isolation etc.)

The isolation process must consider all the requirements set out in the Energy Isolation Procedure HSE-PRO-110203.

4.0 Mechanical isolation

Where reasonably practicable businesses must ensure a positive isolation is in place prior to any break in activity commencing.

Identify the mechanical isolation actions needed in section 1.4 of the Energy Isolation Procedure HSE-PRO-110203 and Appendix 1.

5.0 Electrical isolation

5.1 The general workflow by which an isolation will be progressed is based upon the following seven key steps for electrical safety:

1. Clearly identify the work location
2. Disconnect and secure against reconnection (i.e., including downstream-back-feeds from generators etc.)
3. Protect against other live parts
4. Take special precautions when close to bare conductors
5. Check the installation is de-energised (i.e., dead)
6. Carry out earthing and short-circuiting (i.e., secondary earthing is important as we often must rely on our client's equipment being adequately rated)
7. Issue a permit to work, including isolation/de-isolation certificate.

5.2 Businesses must ensure workers are supplied with and wear appropriate protective clothing suitable for the task.

Personal protective equipment requirements must take into account the following:

- Safety glasses/full face shield
- Long sleeve cotton shirt/pants
- Flame resistant and non-synthetic clothing
- Leather/insulating gloves
- Leather safety shoes/boots
- Arc flash protection as applicable
- Insulating mats, safety rescue hooks, and barriers

6.0 Isolation for confined space entry

6.1 Businesses must ensure any task involving a confined space entry is securely isolated from energy sources and ingress of substances. Confined space entry must have positive isolation (see Appendix 1 of the Energy Isolation Procedure HSE-PRO-110203).

7.0 De-isolation

7.1 On completion of work, removal of isolation locks and tags, de-isolation for test/commissioning of machinery or equipment must be performed with the same controls as used during the isolation, locking, and tagging process

7.2 As long as the lock removal process has been approved and followed, isolation locks and tags must only be removed by the person who applied them. If this is not practicable the following lock removal process as follows is approved:

7.3 Where applicable a check must be undertaken to ensure there is no build-up of pressure, or potential energy from rotation or structure movement behind the isolation point.

7.4 Conformation of plant integrity must be recorded before the removal of isolations.

8.0 Extended isolation

8.1 Businesses must ensure a clear record is kept of any isolation, which is to remain in place after work is complete.

8.2 Extended isolations must be subject to a formal risk assessment/job hazard analysis and may also be subject to a Management of Change requirement.

8.3 Extended-term isolations must be positively isolated and be marked on relevant P&ID's.

9.0 Breaking Containment

Identify the Breaking containment actions that need to be taken in section 1.9 of the Energy Isolation Procedure HSE-PRO-110203, including:

- Plant Preparation (Prepare)
- Breaking Containment execution and contingency planning (Engage & Intervene)

10.0 Emergency preparedness and rescue

10.1 An emergency response plan must be in place before work starts.

10.2 Only trained and competent personnel to carry out rescue operations of an incapacitated worker(s) exposed to hazardous energy.

10.3 Before work starts, all personnel involved in the planning and execution of isolations/de-isolations must be briefed on action to be taken in the event of an emergency.

Hot Work

Hot work is particularly hazardous in an area that potentially contains hydrocarbons or flammable materials.

Identify and control ignition sources.

Confirm flammable material has been removed or isolated and you have obtained authorisation before starting any hot work.

Always confirm a gas test has been completed and ensure gas will be continually monitored if conducting hot work in a hazardous area.

Control flammables and ignition sources

- **I identify and control ignition sources**
- **Before starting any hot work:**
  - **I confirm flammable material has been removed or isolated**
  - **I obtain authorisation**
- **Before starting any hot work in a hazardous area, I confirm:**
  - **A gas test has been completed**
  - **Gas will be monitored continually**

Hot work includes any work that creates an ignition source performed in an area that potentially contains hydrocarbons or flammable materials.

Ignition sources are open flames or sources of heat that could ignite materials in the work area, such as welding, grinding, smoking, torching, (un)loading of hazardous materials, internal combustion engines, chemical reactions, batteries, etc.

Hazardous areas are defined as 'any place in which an explosive atmosphere may occur in quantities such as to require special precautions to protect the safety of workers

Please review Ref Hot Work Procedure HSE-PRO-110205

Hot Work

1.0 Hot Work Standard

This chapter applies to all hot work operations conducted by or on behalf of a Wood and managed contractor operations globally, which could potentially ignite flammable and combustible materials in the work area.

Find below the minimum requirements for hot work operations, which create heat, sparks and/or hot slag under the control of Wood regardless of any other less stringent process to prevent:

- Injury to people
- Damage to safety and environmentally critical equipment

1.1 Organisation - Prepare, Engage, Intervene

Businesses must ensure that all work under the control of Wood, including short notice and emergency work is properly prepared, and that everyone is aware of their duty and responsibility to engage and intervene, if necessary, before work commences or during the activity.

The process takes into account the following:

Prepare:

- Assigning a named competent person accountable for the organisation, planning, and control of hot work activities
- Identification of any relevant procedures to be followed during work execution, where applicable
- Identify hazards, risk assessment/job hazard analysis and selection of control measures in accordance with HSSE&S Risk Management Standard (HSE-STD-100063)
- Identify machinery, process, and equipment isolation requirements (e.g., all potential hazardous/flammable energy sources)
- Make sure there is a safe system of work to ensure that hot work and any required isolations are conducted safely and effectively by competent people.
- Identify risk associated with hazardous atmospheres
- Identify a written method statement/activity hazard analysis
- Consider the competency of workers including a dedicated fire watch person
- Allocation of an appropriate level of supervision for control of hot work operations
- Consider the personal protective equipment
- Consider the impact on operational equipment including contractors, subcontractors, and third parties
- Plan for emergencies and rescue

Engage:

- Effective communication at toolbox/tailgate talks
- Use the Hot Work Field Level Inspection checklist (HSE-FOR-110298)
- Safe use of work equipment
- Conformation with this standard
- Others working in close proximity to hot work activities
- Effective management of change

Intervene:

- Remind workers of the importance of using their Stop Work Authority

2.0 Competence

2.1 The named competent person assigned to meet the requirements of clause 1.1 must be competent in the hot work process, including:

- Identifying hot work activities that require a safe system of work (i.e., work authorisation standard, isolation standard, confined space standard etc.)
- Types of hazards and control measures for hot work activities
- Identifying supporting certificates that must accompany a permit to work

2.2 Workers engaged in undertaking hot work activities must be trained and competent.

2.3 Workers must be trained in the safe and proper use of work equipment used in connection with hot work.

2.4 Workers undertaking the role of a fire watch must be competent and have completed specific fire watch training.

3.0 Hot work site preparation

3.1 Prior to hot work commencing the following conditions shall be verified:

- Combustible materials have been removed or adequately protected by shielding or other protective means

- Consideration shall be given to spark containment techniques (i.e., pressurised habitats, hide enclosures etc.), which lessen the distance sparks are able to travel freely
- A fully charged and operable fire extinguisher appropriate for the type of potential fire must be available for use if required
- Appropriate shielding to prevent individuals from passing by being affected by the activity
- Sewer openings, ducts, and drains within a 10.5mtr (35ft) of the point of hot work shall be sealed with impervious material. Where sealing is insecure or impractical, other methods must be implemented to prevent sparks from entering

3.2 The location of the hot work relative to combustible and flammable materials and classification areas (i.e., areas in which flammable gases or vapours are or might be present) will determine the need for a fire watch.

3.3 Any other control measures required in accordance with site/location requirements (e.g., fire hose (charged or uncharged)).

3.4 Businesses must ensure an assessment is conducted concerning simultaneous operations (SIMOPS) before hot work commencing.

3.5 In the event that critical safety equipment has to be overridden or disabled (fire detection systems), businesses must meet the requirement of Wood Bypassing Safety Controls Standard.

4.0 Fire Watch

4.1 Businesses must ensure an individual is assigned the responsibility to fire watch by monitoring the hot work and surrounding area for incipient fires and changing conditions.

A fire watch shall be required when the hot work will be performed:

In a hazardous area or an area that could potentially ignite hydrocarbons or flammable materials

Where safety controls (i.e., fire alarms, suppressions systems, etc.) have been overridden or disabled due to the hot work activity

4.2 The fire watch must be trained and competent to perform the following duties:

Verify that fire protection equipment (e.g., appropriate fire extinguisher, fire blanket, fire hose etc.) is in place and ready for use if required

4.3 If it is identified within the risk assessment, the fire watch may be required to remain in the hot work area for a period of up to 30mins after hot work has ceased to detect and extinguish possible smouldering fires.

5.0 Hazardous atmosphere

5.1 If there is a risk of a hazardous atmosphere being present during hot work, atmospheric monitoring must be carried out by Authorised Gas Testers:

- Before hot work starts (i.e., in order of oxygen, LEL then toxins): and
- Continuously whilst hot work activities take place

5.2 Workers must stop hot work immediately on hearing a gas detection monitor alarm.

6.0 Work authorisation

6.1 Businesses must ensure where a permit to work is required to conduct hot work activities, all requirements must meet Wood – Work Authorisation Standard.

7.0 Isolations

7.1 Make sure Isolation requirements for hot work meet the requirements of Wood – Energy Isolations Procedure HSE-PRO-110203

8.0 Confined space

8.1 If hot work is conducted within a confined space, all requirements must meet Wood–Confined Space Entry Procedure HSE-PRO-110202

9.0 Personal protective equipment

9.1 Businesses must ensure workers are supplied with and wear appropriate protective clothing for the task.

Personal protective equipment (PPE) requirements must take into account the following:

- Eye and face protection
- Flame-resistant and non-synthetic clothing appropriate for the hot work activity
- Appropriate hand and foot protection
- Arc flash protection for workers in close proximity to hot work as applicable

10.0 Inspection and maintenance

10.1 Retain records of inspection and calibration and make them accessible

10.2 Immediately remove any device or potentially damaged work equipment used in connection with hot work and have this inspected by a Competent Person for inspection by a competent person.

10.3 All hot work must immediately stop until the defective equipment is repaired or new equipment is acquired.

Line of Fire

There is a great deal of equipment used at work, much of which can be hazardous. Working in the 'line of fire' of moving objects, vehicles, pressure releases, and dropped objects is unsafe as this can impact you.

Keep yourself and others out of the line of fire by positioning yourself in a safe zone.

Establish and obey barriers and exclusion zones.

Take action to secure loose objects and report potential dropped objects.

Keep yourself and others of the line of fire

- **I position myself to avoid:**
  - **moving objects**
  - **vehicles**
  - **pressure releases**
  - **dropped objects**
- **I establish and obey barriers and exclusion zones**
- **I take action to secure loose objects and report potential dropped objects**

Other rules focus on specific activities, whereas this rule is intended to raise personal awareness of a struck-by and caught-in-between hazards. Line of fire hazards are not always obvious (e.g., underground, and overhead powerlines, pipelines, objects under pressure, stored energy, lines under tension, poorly supported excavations, shifting cargo, and moving equipment).

At all times, individuals need to continually monitor their surroundings and position themselves to avoid being in the line of fire. This includes ensuring they are visible to vehicle drivers and equipment operators.

1.0 Line of Fire

This chapter applies to all moving objects, vehicles, pressure releases, and dropped objects conducted by or on behalf of a Wood business, which could inadvertently come in contact with a person, equipment, or structure.

In certain cases, a client's process for controlling the movement and energisation of equipment may take precedence as defined in any agreed HSSE&S interface agreement. The minimum requirements for moving objects, vehicles, potential pressure releases and dropped objects under the control of Wood regardless of any other less stringent process in order to prevent:

Injury to people

Damage to safety and environmentally critical machinery and equipment

Businesses must document their process concerning the segregation of people from the hazards associated with movement and energisation of equipment, pressure releases and dropped objects to demonstrate compliance with this standard.

1.1 Organisation - Prepare, Engage, Intervene

Businesses must ensure that all work under the control of Wood, including short notice and emergency work, is properly prepared and that everyone is aware of their duty and responsibility to engage and intervene, if necessary, before work commencing or during the activity.

The process takes into account the following:

Prepare:

- Assigning a named competent person accountable for the organisation, planning, and control of all movement and energisation of equipment
- Identification of any relevant procedures to be followed during work execution, where applicable
- Eliminating or reducing the risk of dropped objects
- Hazard identification, risk assessment/job hazard analysis, and selection of control measures in accordance with 'Element 4 Risk Management' of the HSSE&S Management System Standard
- Segregation of people and operating/moving vehicles (i.e., designated traffic routes, designated walkways, etc.)
- Identification of potential pressure releases in equipment that may affect the safety of workers
- Work equipment (including vehicles) required to conduct safe operations
- Vehicle management plan/traffic control plan
- Allocation of an appropriate level of supervision for control of vehicle/plant operations
- The competency of workers in accordance with section 2
- Personal protective equipment
- Impact on contractors, subcontractors, and third parties
- Planning for emergencies and rescue

Engage:

- Effective communication at toolbox/tailgate talks
- Safe use of work equipment
- Conformation with this standard
- Effective management of change
- Use the Line of Fire Field Inspection Checklist (HSE-FOR- 110366) for review compliance

Intervene:

- Workers must be reminded of the importance of using their Stop Work Authority

1.2 Worker responsibility

1.2.1 Workers must not move or operate work equipment unless authorised to do so by a responsible person.

1.2.2 Workers must not move or operate work equipment unless they are qualified, certified, and competent in its use.

1.2.3 Workers must always consider how to prevent dropped objects when using tools or portable equipment at height.

1.2.4 Workers must never cross a barrier controlling a restricted zone unless authorised to do so by the person in charge.

1.2.5 Workers must avoid working in the 'line of fire' of moving, energised and pressurised equipment and must always position themselves in a safe area in relation to potential dropped objects.

1.2.6 Workers must make sure they are seen by drivers and operators of moving vehicles (e.g., wearing of high visibility vests, making eye-to-eye contact with the driver/ operator, etc.).

1.2.7 If the flagman/spotter will not be seen during the movement/operation of vehicles, then verbal

communication (i.e., radio contact) must be maintained throughout the process.

1.3 Supervisor responsibility

1.3.1 Where there are no physical barriers segregating workers and moving/energised equipment, the supervisors must ensure a flagman/spotter is present during the movement of equipment.

1.3.2 The supervisor must ensure signalling methods and communications are agreed on and understood by everyone involved in the task.

1.3.3 Supervisors must ensure that restricted access to areas posing a danger to workers and that barriers and exclusion zones are put in place.

1.3.4 Supervisors must ensure only authorised personnel work in a restricted/exclusion zone.

1.3.5 Supervisors must ensure that areas, where moving/ energised equipment operates, are properly lit and all personnel wear high-visibility clothing.

1.3.6 Where there is a risk of being struck by a dropped/ falling object supervisor must ensure that access to that area is:

- Prevented by a physical barrier, which is clearly marked with prominent notices; or
- Enforced by a safety sentry

2.0 Competence

2.1 Workers engaged in the movement or energisation of equipment must be qualified, certified, authorised, and competent.

2.2 Workers must be adequately trained in the safe use of work equipment.

2.3 Workers undertaking the role of flagman/spotters must be competent.

2.4 Businesses must ensure all movement and energising of equipment under the control of Wood are supervised by a competent person.

3.0 People and vehicle segregation

3.1 Businesses must ensure, where reasonably practical, the segregation between people and moving/energised equipment.

3.2 When developing a workplace vehicle traffic management plan/traffic control plan, businesses must take into account the following:

- Provide a separate route for pedestrians and cyclists
- Create a one-way system (i.e., reducing the need for vehicles to reverse)
- Introduce speed limits
- Signs, signals, and road markings, illuminated or reflective if driving is likely to be carried out in poor weather conditions, low light or at night
- Designated areas for loading and unloading
- Entrance and exits to nearby buildings (i.e., avoiding pedestrians encroaching into traffic routes)
- The requirement to use flagman/spotters when moving/energising equipment
- The requirement to wear personal protective equipment (i.e., high visibility vests etc.)
- Workers engaged in the movement or energisation of equipment must be qualified, certified, authorised and competent.

3.3 Where pedestrian/vehicle segregation is not possible, businesses must introduce control measures to ensure the safety of pedestrians (e.g., vehicle lights, barriers, signs etc.).

3.4 Pedestrian crossings must be available and clearly marked.

3.5 Businesses must consider erecting mirrors where sharp or blind bends cannot be avoided.

3.6 Businesses must ensure the workplace have suitable and sufficient lighting, particularly in area where:

- Vehicles manoeuvre, or pedestrians and vehicles circulate and cross
- Loading and unloading takes place

4.0 Vehicles reversing

4.1 Where there is a requirement for vehicles to reverse, businesses must take into account the following:

- Ensure barriers are erected to prevent vehicles from entering pedestrian zones
- Plan and clearly mark designated reversing areas
- Keep people away from reversing areas and operations
- Install equipment on vehicles to help the driver and pedestrians (i.e., reversing alarms, flashing beacons and proximity-sensing devices)
- The use of a flagman/spotter

5.0 Flagman/spotter

5.1 Where the movement or operation of vehicles and equipment poses a risk to workers, pedestrians, other vehicles, damage to process equipment (e.g., potential release of hazardous energy), a flagman/spotter must accompany the vehicle to act as a guide to the vehicle driver/operator.

5.2 A flagman/spotter must be trained and competent.

5.3 Flagman/spotter(s) must be clearly visible to drivers at all times (i.e., wearing a specific flagman/spotter high visibility vest). If the vehicle driver loses visible contact with the flagman/spotter, they must bring the vehicle to an immediate stop until visibility has been resumed.

5.4 The flagman/spotter must always stand in a safe position and never position themselves or allow any other person to stand in the 'line of fire' to moving or energised equipment.

6.0 Parking

6.1 Parking areas must be clearly indicated and where appropriate separate areas for commercial and private vehicles.

6.2 Drivers/operators must not leave vehicles unattended without ensuring the vehicle is in a safe position and location.

7.0 Loading and unloading

7.1 When identifying loading and unloading areas, businesses must take into account the following:

- The area shall be clear of traffic and people not involved in the activity
- The area is on level ground and segregated from other work areas
- The area is clear of overhead cables, pipes or other obstructions
- At no point is anyone permitted to position themselves under a suspended load

7.2 Businesses must identify a safe place where drivers can wait throughout the loading and unloading process.

7.3 If any part of the load requires securing/releasing, the loading and unloading process must cease until the securing/releasing is complete and the driver returns to the safe place.

7.4 Businesses must ensure measures are taken to prevent vehicles from being driven off during either the loading or unloading process.

8.0 Members of the public

8.1 If members of the public have access to workplaces where vehicles operate, businesses must take into account the following:

- Control pedestrian access
- Separate people from vehicles
- Control vehicle movement
- Monitor activities on-site

9.0 Work equipment

9.1 A competent person must confirm that work equipment meets the recognised industry standard for the particular equipment and is suitable for its intended use.

9.2 Businesses must ensure vehicles are maintained in a good working order and any devices such as flashing beacons function properly per manufacturers' specifications.

10.0 Dropped/falling objects prevention and mitigation

10.1 Control measures must be put in place to prevent injury from dropped/falling objects by:

- Preventing objects and materials from falling
- Preventing people from being struck by any falling object or material

10.2 Where there is a risk of being struck by a dropped/falling object, then access to that area must be:

- Prevented by a physical barrier, which is clearly marked with a prominent notice and/or
- Enforced by a safety sentry

10.3 Conduct regular potential dropped object sweeps around the worksite.

10.4 The requirements of Wood Working at Height HSE-(PRO-110200) must be met to prevent dropped falling objects.

10.5 Report all potential dropped objects immediately.

11.0 Emergency preparedness and rescue

11.1 An emergency response plan must be in place before work starts and must take into account the following:

- The number of people required to undertake a rescue
- Foreseeable emergency situations
- Rescue procedures, people, and equipment

- Role of emergency services

Safe Mechanical Lifting

Lifting operations need to be planned and performed by competent personnel using certified equipment. Working or walking immediately under a suspended load is strictly prohibited.

To protect people around suspended loads and any mechanical lifting operations access shall be controlled through physical barriers and exclusion zones.

Always plan lifting operations and control the area.

Plan lifting operations and control the area

- **I confirm that the equipment and load have been inspected and are fit for purpose**
- **I only operate equipment that I am qualified to use**
- **I establish and obey barriers and exclusion zones**
- **I never walk under a suspended load**

Additional guidance and reference:

Lifting operations need to be planned and performed by competent personnel using certified equipment.

To protect people around suspended loads and any mechanical lifting operation, access shall be controlled through physical barriers and exclusion zones.

When mechanically lifting people (e.g., man riding, man baskets, personnel transfer, mobile elevated work platforms), Wood businesses shall provide equipment which is designed and certified specifically for lifting people

Please review Ref HSSE&S Safe Mechanical Lifting Standard HSE-STD-110021

1.0 Safe Mechanical Lifting

This chapter applies to any lifting operation, including where a person could knowingly or inadvertently work, stand, or walk under a suspended load (excludes office lifts and rig floors).

In certain cases, a client's process for lifting operations may take precedence as defined in any agreed HSSE&S interface agreement. This chapter represents the minimum requirements for undertaking a lifting operation under the control of Wood regardless of any other less stringent process in order to prevent:

Injury to people while conducting a lifting operation

Damage to safety and environmentally critical machinery and equipment while conducting lifting operations

Damage to safety and environmentally critical machinery and equipment from falling objects

Businesses must document their lifting operations processes to demonstrate compliance.

1.1 Organisation - Prepare, Engage, Intervene

Businesses must ensure that all lifting operations including short notice and emergency work are properly prepared and that everyone is aware of their duty and responsibility to engage and intervene, if necessary, before work commencing or during the activity.

The process must take into account the following:

Prepare:

- Assigning a named competent person accountable for the organisation, planning and control of lifting operations
- Hazard identification, risk assessment/job hazard analysis and selection of control measures in accordance with 'Element 4 Risk Management of the HSSE&S Management System Standard. Sequencing of working to ensure that lifting operations can be conducted safely
- Work equipment required to conduct safe lifting operations
- Preparation of a written method statement/activity hazard analysis/lift plan
- Allocation of an appropriate level of supervision for lifting operations
- The competency of workers in accordance with section 2
- Consideration of adverse events and conditions that may impact safe lifting operations
- Planning for emergencies and rescue
- Review the HSSE&S Safe Mechanical Lifting Standard HSE-STD-110021 for additional details

Engage:

- Effective communication at toolbox/tailgate talks
- Safe use of work equipment
- Appropriate management of change
- Use the Safe Mechanical Lifting Field Inspection checklist (HSE-FOR-110367) to evaluate compliance

Intervene:

- Workers must be reminded of the importance of using their Stop Work Authority

2.0 Competence

2.1 The named competent person assigned to meet the requirements of clause 1.1 must be competent in lifting operations and activities including:

- Lift categorisation
- Type of lifting equipment and accessories required to complete a safe lift
- Types of hazards and control measures for lifting operations
- Safe lifting practices
- Identification and understanding of potential dropped object hazards

2.2 Workers engaged in lifting operations must be competent.

2.3 Workers must be adequately trained in the safe use of work equipment (i.e., crane, forklift truck, telehandler, mobile elevated work platform (MEWP) etc.) used for lifting operations.

2.4 Businesses must ensure lifting operations under the control of Wood are supervised by a competent person.

3.0 Lift plans

3.1 Businesses must ensure a system is in place for lift plans' development, issue, and authorisation.

3.2 Businesses must ensure a competent person develops lift plans and as a minimum take into account the following:

- Load and weight to be lifted

- Size, shape, centre of gravity and available lift points
- Lifting equipment and accessories being used
- Lift direction and travel (e.g., over sensitive areas)
- Lifting and lowering of personnel, if applicable
- Environmental conditions (e.g., ground load bearings, level/solid surfaces, weather etc.)
- Control measures applicable to the level/category of risk associated with the lift
- Identification of the lifting exclusion zone and the signage and barriers required

3.3 The lift plan must be reviewed and discussed by the work party before the lift takes place, which must include the following:

- Lifting activity and scope of work
- Lift equipment and configuration of lifting accessories
- Roles and responsibilities of individuals involved in the lift (e.g., crane/forklift truck/telehandler/MEWP operators, banksman, load handler etc.)
- Means of communication (e.g., radio, hand signals)
- Risks and control measures associated with the task
- Actions to be taken in the event of an emergency

3.4 The risks and control measures referenced in clause 3.3 must take into account but not limited to the following:

- Strictly no working, standing, or walking under suspended loads
- Visibility of banksman etc. (i.e., high visibility vest)
- Attaching/detaching and securing of loads (e.g., dropped object, spinning/swinging load)
- Location (e.g., lifting, and lower area) and avoiding 'line of fire.'
- Overload of equipment and potential collision with personnel or other structures or equipment
- Pre-use checking of equipment and accessories
- Environment conditions (e.g., ground load bearings, level/solid surfaces, weather, etc.)
- Pre- and post-use checking of equipment and accessories

4.0 Lifting people

4.1 Lifting equipment that is designed for lifting/lowering people (i.e., transfer basket, platform, hoist, elevator, MEWP etc.), must include the following as a minimum:

- Transfer basket must be clearly marked that it is designed for lifting/lowering people
- Clearly display the maximum number of people/weight that can be lifted/lowered
- Compliant with manufacturer's specifications and instructions
- Local/national legislation
- Wood and client standards, procedures, and guidance

4.2 A reliable means of communication must be in place between all parties involved in the lifting operation when people are being lifted/lowered.

4.3 Where relevant, the requirement of Wood - Working over or close to water standard must be applied.

5.0 Work equipment

5.1 A competent person must confirm that:

- Work equipment meets a recognised industry standard and is suitable for its intended use
- There is traceability of lifting equipment and lifting accessories back to the manufacturer
- Work equipment used is of sufficient strength and suitable to lift the load

6.0 Marking of lifting equipment

6.1 Businesses must ensure a system is in place (e.g., colour coding) to identify portable and fixed lifting equipment (e.g., shackles, slings, chain hoists, overhead cranes, hoists, trolley beams, pad eyes davits, utilities winch etc.) and such equipment has been inspected and deemed fit for use by a competent person at periods not exceeding 6 months or at a time agreed by a responsible person based on local/national legislation.

6.2 Businesses must ensure that lifting equipment and accessories for lifting have permanently legible identification markings (e.g., unique identification number, safe working load - SWL) as prescribed by the manufacturer.

7.0 Lifting equipment control register

7.1 Businesses must ensure a lifting equipment control register is compiled and completed for the issue and return of all lifting equipment and accessories. The register must record and include the following details:

- Date of issue
- Description of equipment
- Safe working load (SWL)
- Equipment identification number

- Area/location of work
- Issuers name
- Users name and signature
- Date of return and by whom
- Condition of equipment on return

7.2 The lifting equipment control register must be maintained by a competent person and be accessible.

8.0 Dropped/falling object prevention and mitigation

8.1 Control measures must be put in place to prevent injury from dropped/falling objects by:

- Preventing objects and materials from falling
- Preventing people from being struck by any falling object or material

8.2 Businesses must ensure workers are made aware of the risks and potential outcomes of dropped/falling objects and provide them with the means by which they can minimise that risk.

8.3 Selection of control measures for the prevention of dropped objects must take into account the following:

- All items related to work at height must be appropriately secured
- Unnecessary items, including personal items, are not carried aloft
- All tools and equipment required to be used at height or could potentially become a dropped object due to the location (e.g., on ground level in close proximity to a trench, culvert, etc.) must be adequately secured with a lanyard to either the user (e.g., tool bag or belt) or to the workplace (e.g., attachment points to enable the tool to be used effectively)
- Loose items in pockets
- Use of containment netting
- Head protection is worn and secured with a chin strap or other retention device
- 8.4 The throwing, dropping, or tipping of objects or material from a height that have the potential to cause injury to a worker or damage to equipment is prohibited.

8.5 Tools, materials, and equipment being used at height must be lowered and raised in a secure and controlled manner.

8.6 Where there is a risk of being struck by a dropped/falling object, then access to that area must be:

- Prevented by a physical barrier, which is clearly marked with prominent notices
- Enforced by a safety sentry

8.7 Businesses must ensure work site(s) are regularly inspected, precautions are taken to prevent objects from being dropped or falling, and that barriers and signage are in place and adequate.

8.8 The requirements of the Wood - Working at Height Standard must be met to prevent falls from height during lifting operations.

9.0 Storage of portable lifting equipment

9.1 Businesses must provide suitable secure storage for all portable lifting equipment (e.g., shackles, slings, chain hoists, level hoists etc.), lifting equipment must be, kept clean, dry, and sheltered away from chemicals, moisture, abrasives, and direct sunlight.

9.2 Work equipment used for lifting operations must be issued from and returned to a designated secure area.

9.3 Businesses must provide a dedicated secure quarantine area for removal of and storage of defective lifting equipment.

10.0 Inspection and examination

10.1 All work equipment used for lifting operations must, where appropriate, be subject to:

- Pre- and post-use inspection by a competent person
- Inspection after any adverse event and condition that may affect its effectiveness
- Inspection at pre-determined intervals (e.g., colour code system)
- Inspection in accordance with manufacturer's instruction and legal requirements

10.2 Any defective or suspect work equipment must be immediately removed from use and inspected by a competent person, who shall determine if the work equipment is deemed fit for purpose or is to be destroyed.

An independent specialist contractor must undertake 10.3 A thorough examination of all lifting equipment at agreed intervals or in accordance with local or national legislation.

10.4 Results of inspection and thorough examination must be recorded as applicable, including:

- Name, position and company conducting the inspection/thorough examination

- Location, description and serial/identification number of the work equipment being inspected/examined
- Date and time of the inspection/examination
- Details of any issue that presents an HSSE&S risk
- Details of action taken or planned to deal with those HSSE&S risks

10.5 Records of all inspections, thorough examinations and maintenance must be retained and readily accessible.

10.6 All work equipment used for lifting operations must be maintained by a competent person, maintenance must take into account the following:

- Manufacturer's instructions
- Frequency of use
- Location and environmental factors, which could affect the equipment
- Wood standards, procedures and guidance
- Recognised industry standards for maintenance of equipment type

10.7 All work equipment used for lifting operations involved in an incident and/or accident must undergo a thorough examination before being returned to use.

10.8 In the event of an incident where lifting equipment may be required to be quarantined (i.e., removed from service), this will be determined by a competent person.

11.0 Ground conditions

11.1 When using portable lifting equipment (e.g., crane, forklift truck, telehandler, mobile elevated working platforms etc.), businesses must ensure a competent person conducts a ground check in relation to equipment loading and ground bearing capabilities.

11.2 Ground check requirements must be as per equipment manufacturer guidelines.

11.3 Ground conditions must be regularly monitored during the lifting operation.

12.0 Emergency preparedness and rescues

12.1 An emergency response plan must be in place before work starts and must take into account the following:

- The number of people required to undertake a rescue
- Foreseeable emergency situations relating to lifting operations (e.g., failure of lifting equipment, falling loads, workers being crushed by a moving load or lifting equipment)
- Rescue procedures, people and equipment
- Role of emergency services

Work Authorisation

Permit to work is a formal system used to control certain types of work that are potentially hazardous. The permit to work specifies the work to be done and the precautions to be taken to ensure that work is completed safely and efficiently.

Permit to work procedure involves a systematic documented process of requesting, review, authorise and identifies potential conflicting activities being carried out by front-line workers.

Addition guidance reference:

Work with a valid permit when required

- **I have confirmed if a permit is required**
- **I am authorised to perform the work**
- **I understand the permit**
- **I have confirmed that hazards are controlled, and it is safe to start**
- **I stop and reassess if conditions change**

Work authorisation is more than just a person in charge signing a permit to work form; it is seeking and having authorisation to start, resume, or hand over a task.

The person in charge of the work confirms that it is safe to start, that controls are in place and effective, and the task can be performed as planned

Please review Ref Permit to Work Procedure HSE-PRO-110201

1.0 Work Authorisation

This chapter applies to any work conducted by or on behalf of a Wood business where a permit to work is required.

The prime objective for a permit to work is to ensure high risk activities are properly authorised through a controlled, coordinated and communicated process allowing specific work to be undertaken within a specified time frame. The permit-to-work process system must meet the following requirements:

- It is documented in the form of a procedure
- Records the type of work being completed (e.g., hot work, breaking containment, confined space entry, electrical work, excavations etc.)
- Defines the scope of work and provides a work description
- Requires the completion of a risk assessment/job safety analysis
- Identifies machinery and equipment isolations and requires positive confirmation that isolations (e.g., mechanical, electrical, instrumentation etc.) are in place before work is authorised to start
- Has a defined period of validity (e.g., one shift, one week etc.) from time of issue?
- Has a defined minimum stage signatory process (e.g., request, issue, receipt, closure, cancellation, etc.)

In certain cases, a client's permit to work process may take precedence as defined in any agreed HSSE&S interface agreement. This standard represents the minimum requirement for a permit to work under the control of Wood regardless of any other less stringent process.

1.1 Organisation - Prepare, Engage, Intervene

Businesses must ensure that all work under the control of Wood, including short notice and emergency work, is properly prepared and that everyone is aware of their duty and responsibility to engage and intervene, if necessary, before work commencing or during the activity.

The process takes into account the following:

Prepare:

- Assigning a named competent person accountable for the organisation, planning, and control of work including work authorisation
- Identification of any relevant procedures to be followed during work execution, including the use of a permit to work, or local equivalent where applicable
- Eliminating or reducing HSSE&S risks through the way work is organised, planned, scheduled, and sequenced
- Hazard identification, risk assessment/job hazard analysis, and selection of control measures in accordance with 'Element 4 Risk Management of the HSSE&S Management System Standard.
- The unambiguous identification and labelling of machinery and equipment to be worked on
- Verification of safe isolation(s) of machinery and equipment before it is worked on.
- Identification of nearby machinery and equipment that may be affected by the work
- Preparation of a written method statement/activity hazard analysis where this is necessary to ensure HSSE&S is not compromised during execution
- The HSSE&S implications of other work activities being conducted in the vicinity (e.g., simultaneous operations (SIMOPS))
- The competency of personnel originating, accepting, and authorising a permit to work
- The competency of workers undertaking work under a permit to work system
- Allocation of an appropriate level of supervision for workers
- Impact on contractors, subcontractors and third parties
- Planning for emergencies and rescue
- Review the Permit to Work Procedure HSE-PRO-110201

Engage:

- Effective communication at toolbox/tailgate talks
- Safe use of work equipment
- Conformation with this standard
- Effective management of change
- Use the Work Authorisation Field Inspection form (HSE-FOR-110368)

Intervene:

- Workers must be reminded of the importance of using their Stop Work Authority

2.0 Competence

2.1 The named competent person assigned to meet the requirements of clause 1.1 must be competent in the permit to work process, including:

- Identifying work activities that require a permit to work
- Identifying supporting certificates that must accompany a permit to work
- Identifying key personnel within the permit-to-work system and their roles and area of responsibilities

2.2 Workers engaged in undertaking work under a permit to work must be trained and competent.

2.3 Workers engaged in originating and accepting a permit to work must be trained and competent in the permit to work process.

2.4 Businesses must ensure Wood personnel who hold key positions in a permit-to-work system (e.g., permit-to-work site controller, activity co-ordinator, area authority, responsible person electrical, isolation authority, authorised gas testes, performing authority/person in charge, etc.) are trained and competent.

2.5 Businesses must ensure Wood personnel who are responsible for authorisation of a permit to work and supporting certificates are trained and competent.

3.0 Work execution

3.1 Before work starts

This section applies to the start of a new work (e.g., engineering/design to field execution) and the handover of existing work to a new work party or shift team (e.g., shift rotation).

Commencement of work must be authorised by a competent person(s) and only after that person(s) has confirmed that the following activities, under their responsibility, have been completed.

Any requirements for a permit to work or similar work authorisation process have been followed

There has been no significant change in the work as planned, and where significant change has been identified, it has been assessed in accordance with section 4 – Management of change

The control measures identified in any risk assessment/job safety analysis are appropriate and in place

Machinery, equipment, and pipework to be worked on has been unambiguously identified and tagged

Any necessary isolation(s) are in place and have been field verified by the relevant authority/competent person

All required barriers and signage have been put in place

Tools and equipment required for the work are available, fit-for-purpose and in good working order

Required PPE/RPE is available, in good working order, and workers are trained in its use

A toolbox talk/tailgate talk with the workers, confirming that they understand the scope of work, their role, risks involved, and the control measures are in place

The worksite has been checked to ensure it is safe for work to start

3.2 During work execution

As work proceeds, the person directly responsible for supervising the work must:

- Visit the worksite regularly and ensure the work is conducted in accordance with any permit to work, procedure, and/or method statement/activity hazard analysis and that the control measures identified in the risk assessment /job safety analysis remain in place for the duration of the work
- Stop work at any time if the conditions of the permit to work, procedure and/or method statement/activity hazard analysis cannot be met, or any other situation or significant change arises
- Check the worksite is left in a safe condition before any break in the work
- Check the worksite after any break in work to ensure it is safe to continue

3.3 Handover of work

Any work being handed over to a new work party or shift team (e.g., shift rotation) must be subject to a formal handover to ensure the continued safe execution of the work. The handover must meet the following requirements:

- Be face-face, were reasonably practicable
- Conduct a review and, where necessary, amend any permit to work, risk assessment/job safety analysis, method statement/activity hazard analysis, isolation certificate, and other relevant documentation. Any amendment must be properly authorised before work commencing

- Contain HSSE&S information relevant to the continued safe execution of the work
- The outgoing supervisor must record the relevant HSSE&S information and ensure it is communicated and understood by the incoming supervisor
- In the absence of a formal handover log the incoming supervisor must make a personal record of the relevant HSSE&S information communicated to him

3.4 Work Completion

On completion of the work, the person directly responsible for supervising the job must:

- Visit the worksite and ensure it is left in a safe and tidy condition and that any waste materials are disposed of in accordance with environmental requirements
- Ensure all tools and equipment have been accounted for and removed from the worksite
- Follow the work completion requirements of any permit to work, procedure or method statement/activity hazard analysis, etc.
- Prepare any notes, logs in preparation for handover to operations if applicable

4.0 Management of change

4.1 Businesses must ensure that any significant changes that could impact the HSSE&S of work under the control of Wood are documented, risk assessed and authorised.

4.2 Essential HSSE&S information resulting from any authorised change must be communicated to those organising, planning, and executing the work before the change is implemented.

4.3 If a significant change occurs during work execution the work must be stopped until the requirements of clauses 4.1 and 4.2 are met.

5.0 Subcontractors

5.1 Businesses must document their permit to work interface arrangements for subcontractors working on Wood operated facilities or under the direction of Wood.

5.2 Subcontractors working under the control of Wood must conform to this, unless clause 5.3 applies.

5.3 With the agreement of Wood, subcontractors may work to their own permit to work process if the following conditions are met:

- They are working in their own segregated area where their work activity is unlikely to affect the health and safety of others
- Their permit to work process has been agreed in an interface, bridging or contract document
- It has been agreed that the work will not be directly supervised by Wood
- Any client HSSE&S requirements/interfaces have been taken into account

Working at Height

Falls from height are among the most common causes of serious work-related injuries and deaths. At Wood we will eliminate the need to work at height whenever possible. We will always use fall protection equipment when there is a fall risk.

The hazards and factors affecting the risk of working at height include the vertical distance of a fall, fragile roofs, roof lights, voids, sloping roofs, deteriorating materials, unprotected edges, unstable or poorly maintained access equipment and adverse weather conditions. Protect yourself against a fall when working at height.

Protect yourself against a fall when working at height

- **I inspect my fall protection equipment before use.**
- **I secure tools and work materials to prevent dropped objects**
- **I tie off 100% to approved anchor points while outside a protected area**

Working at height outside a protected area (such as an elevated work area not enclosed by handrails) requires the use of approved fall protection equipment secured to an approved anchor point. Other considerations for working at height include ladders, work over water, rope access, floor openings, access hatches, and inspection pits. Floor openings shall be protected with physical barriers to prevent falls.

Preventing objects from falling from height and using physical barriers below working areas keeps you and the people below you safe.

Scaffolds shall be properly constructed, inspected, and certified.

Wood's definition of working at height works at or above 1.8m/6ft unless local legislation requires a lower height.

1.0 Working at Height

This chapter applies to any work at height (WAH), i.e., any work in a place where, if precautions were not taken, a person could fall from above or below ground level, a distance liable to cause personal injury.

Also applies to any work where there is a potential risk to people, safety, and environmentally critical machinery or equipment as a result of a dropped or falling object when working at height.

Does not include:

- A slip, trip or fall on the same level, or walking up or down a permanent staircase in a building
- In certain cases, a client's process for WAH may take precedence as defined in any agreed HSSE&S interface agreement.
- Businesses must document their WAH processes to demonstrate compliance with Working at Height HSE-PRO-110200

1.1 Organisation - Prepare, Engage, Intervene

Businesses must ensure that work at-height activities under the control of Wood, including short notice and emergency work, is properly prepared, and that everyone is aware of their duty and responsibility to engage and intervene, if necessary, prior to work commencing or during the activity.

The process takes into account the following:

Prepare:

- Allowance of adequate time before work starts for organising and planning
- Assigning a named competent person accountable for the organisation, planning, and control of WAH
- Consideration of whether WAH can be avoided in accordance with section 2
- Hazard identification, risk assessment/job hazard analysis and selection of control measures in accordance with 'Element 4 Risk Management of the HSSE&S Management System Standard Sequencing of work to ensure that WAH can be conducted safely, and the planned use of work equipment is not compromised
- Allocation of an appropriate level of supervision for workers
- The competency of workers following section 4
- Use of personal fall protection systems in accordance with sections 12 to 16
- Use of mechanical equipment in accordance with section 8
- Consideration of adverse events and conditions that may impact safe working at height
- Planning for emergencies and rescue
- Review the Working at Height HSE-PRO-110200

Engage:

- Effective communication at toolbox/tailgate talks
- Safe use of work equipment
- Use the Working at Height Field Inspection Checklist (HSE-FOR-110369).
- Effective management of change

Intervene:

- Workers must be reminded of the importance of using their Stop Work Authority

1.2 Design – eliminating or reducing risk

Design processes must take into account the following:

- The foreseeable need for work at height on a structure during its lifecycle
- Elimination or reduction of the risks of falls through safety by design, including fixed edge protection and facilities for the use of personal fall protection (e.g., anchor points)

2.0 Avoiding working at height

2.1 Where reasonably practicable, work at height on, across, or near fragile surfaces must be avoided.

2.2 Where recognised control measures exist to avoid WAH on, across or near fragile surfaces they must be used.

2.3 A decision not to use a recognised control measure to avoid WAH on, across, or near fragile surfaces must be reviewed and authorised by senior management, including the relevant HSSE&S VP.

3.0 Dropped/falling objects prevention and mitigation

3.1 Control measures must be put in place to prevent injury from dropped/falling objects by:

- Preventing objects and material from falling at a height
- Preventing people from being struck by any falling object or material

3.2 Businesses must ensure workers are made aware of the risks and potential outcomes of dropped/falling

objects and provide them with the means by which they can minimise that risk.

3.3 Selection of control measures for the prevention of dropped objects must take into account the following:

- All items related to working at height must be appropriately secured
- Unnecessary items, including personal items, are not carried aloft
- All tools and equipment required to be used at height or could potentially become a dropped object due to the location (e.g., on ground level close to a trench, culvert etc.) must be adequately secured with a lanyard to either the user (e.g., tool bag or belt) or to the workplace (e.g., attachment point to enable the tool to be used effectively)
- Loose items in pockets
- Use of containment netting
- Head protection is worn and secured with a chin strap or other retention device

3.4 The throwing, dropping or tipping of objects or material from height that have the potential to cause injury to a worker or damage to equipment is prohibited.

3.5 Tools, materials and equipment being used at height must be raised and lowered in a secure and controlled manner.

3.6 Where there is a risk of being struck by a dropped/falling object then access to that area must be:

- Prevented by a physical barrier, which is clearly marked with prominent notices; or
- Enforced by a safety sentry

3.7 Businesses must ensure work site(s) are regularly inspected and that precautions are being taken to prevent objects from being dropped or falling and that barriers and signage are in place and are adequate.

4.0 Competence

4.1 Workers engaged in work at height, including those involved in the organisation, planning, inspection, and supervision of WAH must be competent.

4.2 The named competent person assigned to meet the requirements of clause 1.2 must have the necessary knowledge and experience in work at height activities, including:

- Working at height – hierarchy of control measures
- Identification and understanding of potential dropped object hazards
- Specific control measures to prevent dropped objects

4.3 Workers must be trained in the safe and proper use of work equipment for WAH.

4.4 A competent person must supervise workers undergoing training in relation to WAH.

5.0 Falls – prevention and mitigation

5.1 Where work at height cannot be avoided, falls must be prevented by the provision of suitable work equipment.

5.2 Selection of control measures for WAH must take into account the following:

- The nature of the work to be undertaken
- The work environment and conditions
- The distance and consequences of a potential fall
- Foreseeable loadings placed on work equipment
- The duration and frequency of use of work equipment
- The need for prompt evacuation and rescue in an emergency
- Hierarchy of control measures for WAH
- The manufacturer's instructions on the correct use of work equipment
- Preventing falls by:
    - Using an existing safe place of work
    - Provision of safe working platforms or scaffolding
    - Work restraint systems

If these measures cannot be achieved,

Minimising the consequences/ distance of a fall by:

- Using collective protection measures (e.g., safety nets, airbags etc.) installed close to the level of work; or
- Using personal protection measures (e.g., fall-arrest systems, rope access method

6.0 Protection of edges and openings

6.1 Where work at height involves working at or near an edge, then the edge must, where reasonably practicable, be provided with the following control measures:

Protection of edges:

- Top guard rail, with posts with a vertical height of no less than 950mm (37") above the edge or as defined in local/national legislation
- An intermediary guardrail or similar means of protection to prevent a person from falling between the top and mid rail. The distance between the top and mid rail shall not exceed 470mm (18.5") or as defined in local/ national legislation
- A toe board fitted with a minimum height or 102mm (4"), with no more than 6mm (¼") clearance from the ground level or as defined in local/national legislation

Protection of openings:

- Edge protection as described above; or
- A fixed cover that has sufficient strength to support any foreseeable loadings and be clearly marked with prominent warning notices.

7.0 Work on or near fragile surfaces

7.1 For work on or near fragile surfaces the following steps must be taken:

- Prominent warning notices must be affixed at the approaches to the fragile surface
- Workers are made aware of the location and boundaries of any fragile surfaces
- Platforms, coverings, guardrails and similar means of support must be used to prevent persons or objects falling through the fragile

7.2 If after taking the steps above, there is still a risk of a person falling through the fragile surface, then measures must be taken to minimise the distance and consequences of the fall (section 5)

8.0 Use of mechanical equipment

8.1 Mechanical equipment (e.g., mobile elevated work platforms, aerial work platforms, scissor lifts etc.) must be used in accordance with:

- The manufacturer's instructions
- Wood – Use of Powered Access Equipment when Working at Height HSE-PRO-110200

9.0 Work platforms

9.1 Work platforms and their supporting structures must:

- Be suitable for their intended use
- Be clearly marked with the safe working load (SWL), including tools and equipment
- Be assembled, altered, and dismantled by a competent person in a way that does not affect the stability
- Be located on a stable surface that is capable of supporting any foreseeable loading on the work platform
- Be stable by design or by physical attachment to a suitable surface or other structure with appropriate fixings
- Have sufficient strength and rigidity for the intended purpose and loading
- Be assembled, used, altered, and dismantled in a way that does not affect stability and prevents risks of falling objects
- In the case of a wheeled structure (e.g., mobile tower scaffold) be prevented from moving during use

10.0 Scaffolds

10.1 Scaffolding must, where applicable, be assembled in conformity with:

- Wood standards, procedures, and guidance
- Recognised standards for scaffold configurations

10.2 Scaffold must only be assembled, modified, and dismantled under the supervision of a competent person and by competent workers who have been trained in that type of work.

10.3 Before assembly, complex scaffolds must:

- Be designed by a competent scaffold designer
- Have had the necessary strength and stability calculations for their intended use and environment conditions
- Have an assembly, use and dismantling plan prepared by a competent scaffold designer

10.4 Scaffold requiring netting of sheeting must be designed and assembled to take into account any foreseeable wind loadings.

10.5 Where a scaffold is unsafe for use or has not been subject to the inspection requirements of this chapter (see section 19) it must be marked with suitable warning tags/signs and barriers to prevent access.

11.0 Safe use of portable ladders and step ladders

11.1 Ladders must only be used where the work at height is low risk and is short duration work of less than 30 minutes or the nature of the site prevents the use of other control measures (e.g., scaffold, portable platforms, powered access equipment etc.).

11.2 Ladders must be:

- Fit for purpose, suitable for their intended use and foreseeable loadings
- Positioned to ensure their stability during use
- Prevented from slipping or moving (i.e., secured at the top and/or footed at the bottom

11.3 Workers must be trained in the safe use of ladders. This training must, as a minimum include:

- The safe use of the ladder types they are likely to use
- Pre-use inspection
- The importance of maintaining three points of contact
- No working off the top three rungs unless the ladder is fitted with a suitable hand hold
- Safe carrying of tools on ladders
- Factors affecting ladder stability
- Securing ladders and use of stability devices
- Recognising when it is unsafe to use a ladder and the appropriate action to take
- Recognising when a personal fall protection system is required

11.4 The use of domestic or household duty ladders and step ladders is prohibited.

12.0 Personal fall protection systems

12.1 Personal fall protection systems, in addition to meeting recognised standards must:

- Be of suitable and sufficient strength for the work being carried out and any foreseeable loading
- Be a correct fit for the user and capable of supporting their body weight and tools
- Be correctly worn
- Be used in accordance with the manufacturer's instructions and Wood standards, procedures and guidance

12.2 Personal fall protection systems designed to be used with an anchor must always be attached to at least one anchor and the means of attachment must be capable of supporting all foreseeable loadings (i.e., also refer to section 18).

13.0 Rope access

13.1 Rope access systems, in addition to meeting recognised standards, must meet the following requirements:

- Be comprised of at least a main working line and safety line
- The user must wear a suitable harness connected to both the working and safety line
- The working line is equipped with a mechanism for safe ascent and decent and has a self-locking system in case of a loss of control by the user
- The safety line is equipped with a mobile fall protection system that is connected to and moves with the user
- Measures are taken to prevent lines being inadvertently cut (i.e., edge protection etc.)
- Used in accordance with the manufacturer's instructions and Wood standards, procedures, and guidance

13.2 Single rope systems can only be used if:

- A risk assessment has demonstrated that the use of a second line would involve higher risk to the user and is signed off by a senior manager including the relevant HSSE&S VP
- Other measures have been taken to ensure safety

14.0 Work restraint

14.1 Work restraint systems, in addition to meeting recognised procedure, must be:

- Used in such a way to prevent the user from getting into a position from which a fall can occur
- Ensure the restraint line is protected from being cut
- Used in accordance with the manufacturer's instructions and Wood standards, procedures, and guidance

15.0 Fall arrest systems

15.1 Fall arrest systems, in additional to meeting recognised procedures must meet the following requirements:

- Incorporate a means of absorbing energy and limiting the forces applied to the user's body

- Be of sufficient type to protect the user in the event of a fall from height
- Use of a shock absorbing lanyard where there is sufficient height to enable the component to deploy safely above ground level
- Use of a self-retracting lanyard where height is limited
- Ensure the fall arrest line is protected from being cut
- Used in accordance with the manufacturer's instructions and Wood standards, procedures, and guidance

16.0 Work positioning systems

16.1 Work positioning systems, (i.e., a personal fall arrest system that limits the distance of a free fall to 610mm (24") or less) in addition to meeting recognised standards must meet the following requirements:

- Be provided with a back-up system for preventing or arresting a fall
- The user must be connected to the back-up system
- Ensure positioning line protecting from being cut
- Used in accordance with the manufacturer's instructions and Wood standards, procedures and guidance

17.0 Suspension trauma prevention

17.1 Harnesses must be fitted with a suspension trauma strap where it is foreseeable that it will take longer than 10minutes to affect a rescue (e.g., a remote location) of a person suspended after a fall.

18.0 Anchor points

18.1 Anchor points used for personal fall protection must be sufficiently rated, approved, inspected and tagged by a competent person.

19.0 Inspection and maintenance

19.1 All work platforms, scaffold, personal fall protection systems, anchor points and work equipment used for work at height must be, where appropriate subject to:

- Pre-use inspection by a competent person
- Inspection after any adverse event or condition that may affect their effectiveness
- Inspection in accordance with manufacturer's instructions and legal requirements

19.2 Any defective or suspect items must be immediately removed from use and inspected by a competent person, who shall determine if the items are fit for use or to be destroyed.

19.3 Scaffolds and other work platforms must be inspected by a competent person at least every 7 days or as required under current local/national legislation. The results of the inspection must be recorded as applicable and displayed on the scaffold using an appropriate tagging system:

- Name and position of person conducting the inspection
- Location and description of the equipment inspected
- Date and time of inspection
- Details of any issue that present an HSSE&S risk
- Details of action taken or planned to deal with those HSSE&S risks

19.4 All personal fall protection, work platforms, scaffolding and work equipment used for WAH must be maintained by a competent person and that maintenance must take into account:

- Manufacturer's instructions
- Wood standards, procedures, and guidance
- Recognised industry standards for maintenance of the equipment type

19.5 Records of all certifications, inspection and maintenance must be retained and accessible.

20.0 Storage of equipment

20.1 Businesses must provide suitable storage for all applicable work at height equipment (e.g., personal fall protection systems, rope access systems, fall arrest systems etc.) and must be kept clean, dry and sheltered away from chemicals, moisture, abrasives and direct sunlight.

21.0 Emergency preparedness and rescue

21.1 Access and egress routes for scaffolding and work platforms must be adequate for evacuation in the event of an emergency and must take into account:

- The number of people required to undertake a rescue
- The foreseeable loadings during an emergency
- The distance to be travelled (vertically and horizontally) and the time to reach safety

21.2 All work at height involving the use of personal fall protection, rope access and fall arrest systems must

have a rescue plan in place before work starts. This rescue plan must take account of:

- The number of people required to undertake a rescue
- Training for rescuers
- Rescue procedures and equipment
- Role of the emergency services

21.3 All personnel involved in the planning and execution of the WAH activity must be briefed on the rescue plan, prior to work commencing.

Definitions

Adverse events and conditions: an event or condition (e.g., adverse weather, collision from a vehicle, ground subsidence) that has the potential to impact safety of a job and work equipment.

Attendant/sentry: a worker stationed outside a confined space to control access (i.e., attendant/sentry not allowed to leave the confined space entry unless replaced by another competent attendant/sentry).

Additionally, they must maintain documents and logs, monitor conditions and maintain communications with workers inside the confined space and be able to raise the alarm in the event of an emergency.

Authorities: people with HSSE&S responsibilities who have been given and understand the necessary authority to fulfil their roles.

Breaking Containment: The opening of process/utility systems for any reason, including inspection, repairs, or modifications, where there is a risk from egress of toxic, flammable or otherwise dangerous materials.

Business: an organisation or organisational subset that is independent with regards to one or more accounting or operational functions and includes both operational and functional components of the business. This would therefore include the current understanding of the hierarchy of our business (i.e., Group, BU, contract, and other categories). E.g., joint venture, partnership, and consultancy.

Collective protection measures: measures that protect everyone e.g., permanent, or temporary guard rails.

Competent: have the necessary skills, experience, and qualifications to enable them to fulfil their HSSE&S responsibilities associated with their work including being capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorisation to take prompt corrective measures to eliminate them.

Confined space: When a person passes through an opening into a confined space. Confined space entry is considered to have happened as soon as any part of the entrant's body passes the opening of the space. (Note: This includes any partial entry, e.g., when carrying out visual inspection of a confined space.) **Control of work:** a set of measures taken during work organisation, planning and execution to ensure that the work is completed without harm to people, the environment and the assets.

Decontaminate: The removal of residual hydrocarbon liquids, vapors, and gasses

De-isolation: the process that disconnects and removes segregated equipment from hazardous energy or toxic substance from the recipient.

Essential HSSE&S information: information that will enable a worker or stakeholder to undertake their work in accordance with the requirements of the HSSE&S management system and to ensure compliance with legal and other HSSE&S requirements.

Existing safe place of work: an existing place of work that already has adequate fall prevention measures in place e.g., fixed guard rails, parapet walls etc.

Fall arrest system: a system designed to arrest the fall of a person so that they can either conduct a self-rescue or be rescued. Typically, it consists of an anchorage, connectors, a body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these.

Falling object: any falling object. This includes any object that is liable to cause personal injury or damage to either safety or environmentally critical plant or equipment.

Field verified: confirmation by the relevant authority (e.g., authorised process operator, electrician, or other authorised person) that the tag numbers on the system(s) are correct and correspond to the relevant permit to work and supporting certificates. The appropriate locks and tags will be confirmed as being in place and this will be demonstrated to the work party, including proof that the system is isolated and there is zero energy present.

Fixed cover: a cover over an opening that is either held in place by secure fixings or is designed in such a way that when placed over the hole it cannot move.

Flagman/spotter: individual dedicated to protecting employees on foot, accompanying vehicles with a potentially obstructed view. Flagman/spotter signals and communicates with moving and energised equipment where there is a potential risk to others.

Foreseeable loadings: loadings which could be reasonably anticipated and includes static and dynamic loadings.

Foreseeable: something that could reasonably be anticipated.

Fragile surfaces: a surface that is not capable of carrying the foreseeable weight of a person and any

equipment that may be carried or moved. A surface shall always be treated as fragile unless a competent person advises otherwise.

Hazardous atmosphere: an atmosphere is hazardous when it has too much or too little oxygen or it contains flammable, combustible or explosive agents or it contains contaminants (e.g., fumes, dust, or mist) that could cause an immediate threat to workers health or interfere with a worker's ability to escape unaided from that risk.

Hazardous energy: potential energy/kinetic sources may be but not limited to:

Chemical energy

Electrical energy

Hydraulic energy

Mechanical energy

Pneumatic energy

Potential energy

Pressurised liquids/gasses

Radioactive energy

Thermal energy

IOGP: The International Association of Oil & Gas Producers (IOGP).

Isolation: An isolation separates people from hazards such as electricity, pressure, and energised equipment. Energy isolations also provide protection from potential energy sources, e.g., positioning valves to prevent tanks filling with material due to gravity

Lifting operations: any operation concerned with the lifting and lowering of a load, including lifting, or lowering a person or persons using:

Portable lifting equipment (e.g., shackles, slings, chain hoists lever hoists etc.)

Fixed lifting equipment (e.g., overhead cranes, hoists, trolley beams, pad eyes, davits, man riding winches, utility winches)

Mobile lifting equipment (e.g., mobile cranes, forklift trucks, mobile elevated working platforms etc.)

Line of fire: a path in which an object will travel. Line of fire injuries occur when the path of a moving object intersects with an individual's body.

Method statement/activity hazard analysis: a document that details the way a work task or process is to be completed. It outlines the hazards involved and includes a step-by-step guide on how to do the job safely. It must also detail which control measures have been introduced to ensure the safety of anyone who may be affected by the task or process.

Moving and energised equipment: the movement of any work equipment (e.g., cranes and other vehicles) and energised equipment (e.g., rotating, electrical or pressurised machinery).

Non-proven isolation: valve isolation. No provision to confirm effective of valve closure prior to breaking into a system.

NORM: Naturally Occurring Radioactive Materials

Permit to work: a documented process that authorises certain people to carry out specific work within a specified time frame.

Personal fall protection: a system that protects only the individual against falls from height and includes fall protection, work restraints, work positioning, fall arrest and rescue systems. These systems generally but not always include at least a body holding device connected to a reliable anchor.

Positive isolation: complete separation of the plant/ equipment to be worked on from other parts of the system.

Proven isolation: a valve isolation. Effective of valve closure(s) can be confirmed via vent/bleed points before and break in work commences.

Powered access equipment: the meaning given in Wood Procedure 'Mobile Elevating Work Platforms (MEWPs) Procedure' (HSE-PRO-110199).

Reasonably practicable: making a judgement on whether, after assessing the extent of the risk and the available ways of eliminating or minimising the risk, and associated cost (e.g., time, effort, money) whether the cost is grossly disproportionate to the risk.

Recognised control measures: a control measure for a specific hazard that is described in legislation, standards, and guidance. Typical sources include:

Regulators (e.g., OSHA, HSE, BSEE, WorkSafe)

Industry and Trade Associations (e.g., IOGP, SCiS, IRATA)

Standard setting organisations (e.g., ISO, BSI, ASME)

Standard setting organisations (e.g., ISO, ANSI, BSI, ASME).

Recognised standard: a standard, Code of Practice or similar publication provided by one or more of the following organisations:

Regulators (e.g., OSHA, HSE, BSEE, WorkSafe)

Industry and Trade Associations (e.g., IOGP, SCiS, IRATA)

Standard setting organisations (e.g., ISO, ANSI, BSI, ASME).

Responsible person: a person (e.g., supervisor, area authority, person-in-charge) who has the responsibility and authority to control work being undertaken.

Rope access systems: a method of working at height that uses ropes and associated equipment to allow workers to access difficult to reach locations without the use of scaffolding, cradles, or powered access equipment.

RPE: Respiratory Protective Equipment

Safety and environmentally critical machinery and equipment: any machinery or equipment that if damaged can put people or the environment at risk of harm.

Sanction to test: a system which allows plant/ equipment to be temporary de-isolated for the purpose of testing (e.g., leak testing, starting/ running motors). This system must be highlighted, discussed agreed and approved during the planning stages of the work.

Scaffolding: A temporary structure erected from metal to support access or working platforms. Scaffolds are commonly used in construction work so workers have a safe, stable work platform when work cannot be done at ground level or on a finished floor

Senior management: the person or group of people (senior management team) who directs and controls a business at the highest level (e.g., SBU, BU, contract).

Significant change: a change that if not properly controlled and mitigated could result in a high severity/potential HSSE&S event.

Structure: any building, timber, masonry, metal or reinforced concrete structure, railway line or siding, tramway line, dock, harbour, inland navigation, tunnel, shaft, bridge, viaduct, waterworks, reservoir, pipe or pipeline, cable, aqueduct, sewer, sewage works, gasholder, road, airfield, sea defence works, river works, drainage works, earthworks, lagoon, dam, wall, caisson, mast, tower, pylon, underground tank, earth retaining structure or structure designed to preserve or alter any natural feature, fixed plant and installations or any similar structure; and any formwork, falsework, scaffold or other structure designed or used to provide support or means of access during the lifecycle of a project.

Suspended load: an object that is temporarily lifted and hangs above ground.

Take into account: necessary to think about; to consider or regard; to include or pay attention to; to allow for.

Third parties: parties that may, depending on the circumstances, affect or be affected by work performed under the control of Wood (e.g., clients, subcontractors, neighbours, emergency services, regulators).

Under the control: work undertaken by Wood employees and its subcontractors that is directed and/or supervised by a Wood business.

Vehicle: cars, light vehicles, vans, pick-ups, motorcycles, trucks, mobile cranes, taxis, buses and all conventional highway or site wheeled transportation.

Wheeled structure: refers to wheeled scaffolds (e.g., tower scaffolds) and other wheeled work platforms. It does not include powered access equipment.

Work at height: Work at height means work in any place where, if precautions were not taken, a person could fall a distance liable to cause personal injury. You are working at height if you:

Work above ground/floor level

Could fall from an edge, through an opening or fragile surface or

Could fall from ground level into an opening in a floor or a hole in the ground.

Work at height does not include a slip or a trip on the level, as a fall from height must involve a fall from one level to a lower level, nor does it include walking up and down a permanent staircase in a building

References

Confined Space - Life Saving Rule Field Level Inspection	HSE-FOR-110363
Driving - Life Saving Rule Field Level Inspection	HSE-FOR-110364
Energy Isolation - Life Saving Rule Field Level Inspection	HSE-FOR-110365
Line of Fire - Life Saving Rule Field Level Inspection	HSE-FOR-110366
Safe Mechanical Lifting - Life Saving Rule Field Level Inspection	HSE-FOR-110367
Work Authorisation - Life Saving Rule Field Level Inspection	HSE-FOR-110368
Working at Height - Life Saving Rule Field Level Inspection	HSE-FOR-110369
Driving and Land Transport Procedure	HSE-PRO-110198
Mobile Elevating Work Platforms (MEWPs) Procedure	HSE-PRO-110199
Working at Height Procedure	HSE-PRO-110200
Permit to Work Procedure	HSE-PRO-110201
Confined Space Entry Procedure	HSE-PRO-110202
Energy Isolation Procedure	HSE-PRO-110203
Hot Work Procedure	HSE-PRO-110205
Reporting, Recording and Investigation of Incidents Procedure	HSE-PRO-110314
HSSE&S Management System Standard	HSE-STD-100051
HSSE&S Roles and Responsibilities Standard	HSE-STD-100074
Bypassing Safety Controls Standard	HSE-STD-110019
HSSE&S Safe Mechanical Lifting Standard	HSE-STD-110021

Revision History

Rev no.	Rev date	Summary of changes
0	05 March 2019	Issued for use, incorporates heritage documents HSE-PRO-10006; HSE-POL-100020; HSE-STD-100012; HSE-STD-100013; HSE-STD-100023 and HSE-STD-100029
1	03 August 2021	Addition of Breaking Containment within Energy Isolation LSR section. Update branding.
2	01 December 2022	Combining of Wood Live Saving Rules HSE-STD-100022 and Safety Management Standard HSE-STD-100060 to obtain one consistent document