

## SAFETY MANAGEMENT SYSTEM

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## Safety Management System

# Health Safety & Environment System

## 1 Introduction

#### 1.1 Bentley Crane Hire Safety Philosophy

Company policy encourages the fundamental principle that our people should be able to work to their maximum potential without undue risk to health and safety. Injury detracts from this potential and therefore all injuries must be eliminated.

In order to ensure prevention strategies are fully maintained all levels of management are accountable for their safety performance. Sound safety practice is a condition of employment for management and the work force alike with the responsibilities shared at all levels. The required application of our system and involvement of individuals in our safety programmes will be reflected in each individual's annual appraisal.

Our philosophy is that the application of our safety system is a requirement. When this requirement is met then our philosophy will be identified by a culture where all tasks are intrinsically assessed, planned and controlled operations performed.

## 1.2 Safety a Value – Not Only a Document

Reliance on this manual alone will not make Bentley Crane Hire the safest contractor in the industry. While the system promotes positive behaviour, safety at Bentley Crane Hire will be indicative of the attitudes of our people. Safety is not the procedures, it is the way we think and act. Our focus on positive behaviour is designed to change the way people behave. Successfully influencing the way, we think and behave will be the cornerstone of our safety culture. This document will not alone achieve our objectives.

To achieve our objectives all of us at Bentley Crane Hire will have to initially step out of our respective comfort zones, show we mean what we say, talk the talk and walk the walk. Care about safety and demonstrate the level of the safety standard we want. Give someone a pat on the back for doing the right thing and not walk past when he or she falls short of our expectation.

By applying the system as designed, thinking and acting instinctively about safety will prevent injury, increase efficiency and grow our business.

## 1.3 Application

The Bentley Crane Hire Safety System has been produced in-house in order to meet our company policies and philosophies and generate ownership by our people. During development client requirements, Australian Standard AS 1470 and international best practice systems have been integrated. The system is a comprehensive standalone management tool aimed at achieving best practice systems. The system both dictates and encourages consistent standards of safety management across all projects. These standards are reflected in individual project management plans that flow from the system requirements.

## 2 Implementation

The purpose of this implementation module is to provide staff and clients with an overview of the Bentley Crane Hire 'PRS-BCR' System.

The system can be regarded as similar to a "Nertney Wheel" centred on an axle of safe productivity. The outer rim consists of the core system requirements of **P**olicy, **R**isk Management, **S**tandards, **B**ehaviours, **C**ontinuous Improvement Strategies and **R**esponse Mechanisms. (The 'PRS-BCR' elements)

All the core elements of the system have been designed to ensure the system output is a work environment with minimal risk. The working wheel will be driven by management commitment, in a controlled direction, continually being upgraded in order to achieve best available practice.

The broad structure of the system is represented below.



Six core processes make up the Bentley Crane Hire Safety System. They are;

- i. Policy
- ii. Risk management
- iii. Standards for Hazard Management
- iv. Behavioural Safety
- v. Continuous Improvement Strategies
- vi. Response Processes





## 2.1 Delegation of Authority

The Principal delegates authority for OHS&E management down through line management in accordance with the organisational structure.

The reporting responsibilities back to the Principal will be directly through line management with assistance and monitoring provided by OHS&E personnel in their advisory capacity. The following figure indicates the reporting framework.



## 3 Responsibilities

## 3.1 Principal

The Principal has the overall responsibility to ensure the effective management of Health and Safety at all the Company's operations. The Principal shall be responsible for:

- i. Reviewing monthly health and safety reports and statistics submitted by the Safety Manager.
- ii. Reviewing quantifiable health and safety targets with the Management Team, ensuring the necessary resources are available for the effective implementation of safety processes.
- iii. Review major incident reports with the management team to ensure all action has been taken to prevent recurrence.
- iv. Reviewing the Health and Safety Management System to ensure its continued adequacy.
- v. Reviewing Audit Compliance results with Managers in order to bring about continuous improvement.
- vi. Promote the Company's ongoing determination and commitment to improve its performance in health, safety and environment management.

## 3.2 Safety Manager

The Safety Manager has the authority from the Principal and will be responsible for:

- i. Developing, monitoring and reviewing the Health and Safety Management Policy and Procedures.
- ii. Monitoring the Company's Health and Safety Performance and providing regular statistical performance reports to management.
- iii. Providing Management with up-to-date information on all relevant health and safety initiatives and relevant government legislation.
- iv. Developing and delivering presentations to clients and prospective clients on Health and Safety activities and performance.
- v. Providing a uniform direction and positive assistance to Site Managers.
- vi. Developing, delivering and evaluation of the Health, Safety and Environment Management Training Programmes.
- vii. Overseeing the Company's Workplace Rehabilitation Program.
- viii. Conducting Health and Safety Management Audits on a 12 monthly basis.

#### 3.3 Site Manager

The Site Manager is the key person for the success of the Company's Health and Safety Management Programme, and has the responsibility for the implementation and administration of the Safety Management System.

The Site Manager is shall be responsible for:

- Allocating responsibilities for and ensuring the safety of all persons employed on the site.
  - i. Administrative Staff
  - ii. Supervisory Personnel
  - iii. Contractors, Subcontractors, Suppliers and their employees
  - iv. Consultants
  - v. Visitors
- Where required appointing all legislative project positions including
  - i. Electrical Supervisor
  - ii. Ventilation Officer
- iii. Radiation Safety officer
- iv. Noise Officer
- Planning for Health and Safety
  - i. Develop, where necessary, detailed procedures for the safe performance of work and review these procedures for adequacy.
  - ii. Ensure that all field employees undergo a pre-employment medical examination as required by legislation and are placed in positions suitable for their physical condition.
  - iii. Ensure all necessary plant and equipment is provided to enable work to be carried out safely, ensuring such plant is maintained to the manufacturer's specification by appropriately qualified persons.
  - iv. Keep the workplace well organised and tidy by establishing correct lay-down areas and rubbish removal.
  - v. Set up facilities for First Aid, Fire Fighting and Emergency Procedures, and ensure compliance with the relevant authorities.
  - vi. Establish with all subcontractors the workplace health and safety requirements, prior to work commencing.
- vii. Review health and safety procedures, safe work methods, and statements submitted by subcontractors, ensuring that acceptable standards are proposed and adhered to.
- viii. Be aware of all relevant current Statutory Authority Acts, Regulations, Codes of Practice, and Licences ensuring compliance.

- Training
  - i. Identify training needs of employees and where necessary, release them to undertake training.
  - ii. Ensure subcontractors provide evidence of the experience, training and proficiency of employees prior to starting work on site.
  - iii. Ensure all personnel are inducted into the Safety System and Site requirements.
- Incident Reporting
  - i. Establish and maintain the necessary records for the recording and reporting of incidents at the workplace.
  - ii. Encourage worker participation in reporting hazards/incidents and with suggestions to reduce accident potential.
  - iii. Ensure the relevant incident reports and statistical information is forwarded to the Principal in a timely fashion.
  - iv. Ensure all incidents are investigated and reported in accordance with Safety Management System procedures.
  - v. Notify the relevant Authority of all incidents, as required by legislation.
  - vi. Implement corrective action following an incident, communicating the action taken to all workplace employees.
- Rehabilitation
  - i. Assist in rehabilitation and ensure that the necessary support is given to the injured worker and his/her family to enable an early return to work.
  - ii. Establish and Maintain Safety Awareness
  - iii. Maintain safety induction training programmes.
  - iv. Arrange tool box meetings, safety talks, demonstrations, posters, etc. to promote safety awareness and display the Company's commitment.
  - v. Instigate methods of minimising hazards at the workplace and promote interest in the hazard identification and control process.
  - vi. Encourage all employees to maintain acceptable standards of health and safety and foster an awareness of health and safety matters.
- vii. Actively promote and maintain the Company's health and safety recognition scheme.
- Disciplinary Action
  - i. Ensure that appropriate disciplinary action is applied in line with company procedures for safety breaches or otherwise where necessary.

# Should the Site Manager not be able to meet any of these responsibilities the Principal must be informed immediately.

## 3.4 Supervisory Personnel (Supervisor, Foreman, Leading Hand)

Supervisory Personnel are directly accountable for the Health and Safety of those persons under their control. The responsibilities are to:

- i. Actively promote Bentley Crane Hire's Safety Commitment in a positive manner.
- ii. Ensure that correct and safe work procedures are implemented and adhered to by all persons.
- iii. Identify and take corrective action to eliminate or control hazardous work conditions, equipment and/or practices.
- iv. Ensure acceptable standards of housekeeping are met and maintained as well as ensuring that the necessary facilities are available to ensure good housekeeping.
- v. Ensure that employees are provided with and use appropriate personal protective clothing and equipment, and are provided with the necessary training in its correct use.
- vi. Report and investigate all incidents in line with Safety Management System procedures and ensure that appropriate corrective action is taken and communicated to all employees.
- vii. Participate in and contribute to the effectiveness of health and safety meetings.
- viii. Ensure that pre-use inspections are carried out on all Bentley Crane Hire plant, equipment and tools.
- ix. Ensure that subcontractors adhere to their health, safety and environmental obligations.
- x. Check on all subcontractor plant and equipment to ensure the appropriate documentation, in accordance with company procedures, is sighted prior to use.

## Should at any time, any of the abovementioned responsibilities are not able to be met, the Site Manager is to be informed immediately.

## 3.5 Employees

- i. All employees are responsible for:
- ii. Reporting to the Supervisor, or Health and Safety Representative immediately of actual or potential unsafe conditions or activities, dangerous occurrences or injuries in the work place.
- iii. Assisting new employees in the application of the proper work procedures and practices.
- iv. Working in a manner that will not endanger themselves or any other person.
- v. Using personal protective clothing or equipment as provided by Bentley Crane Hire.
- vi. Reporting any defective or damaged personal protective clothing, equipment, or gear, and returning the item to their Supervisor for replacement or repair.
- vii. Complying with instructions given by a Site Manager Supervisor or Safety Manager pertaining to the use of personal protective clothing, equipment or gear or any matter in relation to health and safety in the workplace.

- viii. Not interfering with anything that has been provided in the interest of health and safety in the workplace.
- ix. Not engaging in any occupations that require a certificate or written authorisation unless the relevant certificate or permit is held.
- x. Not attempting any task unless they are trained, capable and competent to safely perform the task and have completed or reviewed the JHA for that task

#### 3.6 Subcontractors

All subcontractors shall be required to and be responsible for:

- i. Strictly adhere to Bentley Crane Hire's Health and Safety procedures and the Project Safety Plan, Safe Work Procedures and JHA's.
- ii. Observing all subcontract conditions regarding health and safety and environment and follow instructions issued by Bentley Crane Hire Management.
- iii. Having approved by Bentley Crane Hire Management, prior to commencement of work, a health and safety plan and/or a method statement for the work to be performed.
- iv. Co-operating fully with the Safety Manager and Health and Safety Representatives (where applicable).
- v. Providing adequate training and documented evidence to demonstrate that all employees can perform the tasks expected of them safely and proficiently.
- vi. Providing competent supervision to employees under their control at all times unless the employees are under Bentley Crane Hire's Supervision.
- vii. Providing and maintaining personal protective equipment and instructing employees in the safe use of such equipment.
- viii. Complying with all statutory Health & Safety Acts, Regulations, Code of Practice Australian Standards and Guidance Notes.

## 4 Policies

## 4.1 Policy Promotion

The Health and Safety Policy states the organisation's commitment to Health and Safety objectives and provides the framework for achieving those objectives. The Health and Safety Policy is the basis upon which effective Health and Safety Plans are built. The roles and accountabilities of managers, supervisors and employees in implementing the policy and procedures are clearly defined.

A Company Health and Safety Policy, signed by the Managing Director, shall be permanently displayed on all notice boards at Company and project sites.

The Company management shall demonstrate commitment to the Health and Safety Policy by providing all necessary resources and implementing procedures to ensure the Company's Health and Safety Program is maintained.

The Company's Health and Safety Policy shall be included as a topic at annual safety meetings. Adherence to the policy shall be discussed.

The Company's Health and Safety Policy shall be included with all contract tender documents and Project Safety Plans

Instruction on the Health and Safety Policy shall be included in Induction Training.

Audit Verification		
	Document: OH&S Plans, records etc	
0	Observation	
M	Employee Interview	

## 4.2 Health & Safety Policy

Bentley Crane Hire Construction, with its employees, is committed to providing a work environment that is safe and without risk to the health and safety of employees, contractors and visitors.

To achieve this aim, the Managing Director will ensure that appropriate management systems are implemented to:

- Comply, as a minimum standard, with all relevant statutory obligations.
- Continuously improve Occupational Health and Safety Performance.
- Provide adequate resources to establish and maintain safe systems of work.
- Provide adequate injury management resources to ensure a timely and safe return to work.

It is our intent that all levels of management and employees participate and exercise individual responsibility for their own safety and for the safety of others in our workplaces.

Bentley Crane Hire Construction is committed to achieving the goal of a safe and healthy work environment for all employees.

**Gabriel Andrade** 

**Managing Director** 

#### 4.3 OHS&E Coordination

An Occupational Health, Safety and Environment Manager shall be appointed on a full time basis to coordinate the total Company's health, safety and occupational health programme.

Site Occupational Health and Safety Coordinators shall be appointed for projects where risk and exposure warrant that position. This decision will be taken in consultation between the Principal, the Site Manager and the Safety and Environmental Manager. The Site Manager shall be the site OHS Coordinator for projects where a specific coordinator is not appointed.

The duties and responsibilities of Occupational Health and Safety personnel shall be clearly defined in writing.



## 4.4 OHS&E Records

Safety and Environmental records shall be maintained to demonstrate due diligence throughout all operations and the effective operation of the Safety Management System.

Safety and Environment records shall include records generated by Bentley Crane Hire and by subcontractors.

Records shall be:

- Legible and identifiable to the specific activity involved.
- Identified, filed and stored in historical sequence and in such a manner as to be readily and easily accessible.
- Stored in facilities that minimise deterioration or damage and prevent loss.
- The identification, collection, filing, storage, maintenance and disposition of safety and environmental records shall be coordinated by a person appointed by the site manager.

All projects shall maintain safety and environmental records in clearly labelled files adopting the following filing system.

- 1.0 Project Safety and Environmental Plan and formal appointments
- 1.1 Risk Management Register and Manual of Safe Operating Procedures
- 1.2 Subcontractor Tender evaluations/subcontractor management plans/subcontractor Safe Operating Procedures/Subcontractor Audits

1.3	Environmental records
1.4	Hazardous Substances Register including MSDS
1.5	Safe Work Registers including:
	Electrical
	Ladders
	Lifting Equipment
	Pressure Vessels
	Hand tools
	Fire Equipment
	Oxy / acetylene
1.6	Work Permits
1.7	Surveys
	Lighting
	Noise
	Non Powered Plant
1.8	Induction records
1.9	Competency Assessments
1.10	Safety Training
1.11	Pre Start Briefings
1.12	Tool Box talks/Safety Contacts/Task Observation
1.13	Safety Surveys
1.14	OHS Committee Meeting Minutes and correspondence
1.15	Workplace inspections
1.16	Audit results and Management reviews
1.17	Hazard Reports/Incident reports/Analyses/Significant Incidents
1.18	First Aid/Workers Compensation/Rehabilitation
1.19	Miscellaneous

Audit Verification		
	Document: OH&S Plans, records etc	

## 4.5 Performance Reporting

Performance monitoring is designed to provide a framework to support the process of continual improvement in safety and environmental initiatives. The performance criteria are based on critical aspects of the Safety Management System and specific goals established annually. Whilst the majority of measures will be quantitative, the results of six monthly attitudinal surveys shall be incorporated as a performance measure.

Performance criteria may change on an annual basis based on the outcomes of the Safety Action Plan however, key performance criteria should however remain constant and include the following Positive Performance Indicators:

Workplace Inspection	•	Number of monthly inspections undertaken
	•	% of remedial actions corrected
Hazard Reporting	•	No of hazards reported
	•	% of employees reporting hazards
	•	% of hazards corrected
Safety Contacts	•	No of safety observations and contacts made
	•	% of employees contacted
	•	% of employees following SWP
Safety Committees	•	No of meetings attended
	•	% of actions closed out from previous meetings
	•	Positive initiatives from current meeting
Training - General	•	Quality and quantity conducted
Training- Inductions	•	% of total project inducted
OHSE Audit	•	Compliance level

The majority of lag indicators relate to system failures, showing minimal correlation to how the system is functioning. Also the measures can be affected by outside influences such as the approach of treating doctors or previous injury history of individuals. For this reason, lag indicators will not be the key performance criteria for Bentley Crane Hire. Nevertheless, such measures allow benchmarking against the industry as an indication of performance.

The Downstream Measures to be included in project safety reports will include the following:

- Near Misses
- Vehicle incidents
- Property damage
- Minor Injuries and frequency rate
- Medical Injuries and frequency rate
- Disabling Injuries and frequency rate
- All injuries Frequency rate
- Lost Time injuries and frequency rate
- Injury Index (severity rate)

Where applicable:

- All frequencies will be applied on a monthly and 12 month rolling average basis.
- Statistics will incorporate subcontractor performance

#### 4.5.1 Report Circulation

A monthly project report summary shall be posted on all project safety noticeboards. A summary report shall also be tabled at monthly review meetings and discussed with supervisors

Audit Verification		
	Document: OH&S Plans, records etc	
<b>P</b>	Observation	

## 5 Risk Management

#### 5.1 Risk Management

#### 5.1.1 Objective

To provide a consistent means of risk assessment for all of Bentley Crane Hire's activities

#### 5.1.2 Definitions

**Hazard** - A situation, which may include a source of energy, with a potential to cause injury, illness, damage, environmental impact, loss or interruption of process.

**Risk Assessment -** A process of determining the level of risk of a particular hazard.

**Risk** - A measure of a hazard taking into account both the probability and potential consequences of a hazard resulting in injury, illness, damage, environmental impact, loss or interruption of process.

Risk Register - A register of all project activities that have been risk assessed

**WRAC** – (Workplace Risk Assessment and Control) – A team based approach to risk analysis in order to identify both operational and safety risks of a project or job.

#### 5.1.3 Activity Identification

Prior to project commencement the site manager shall establish a team for the purpose of segregating and listing all activities to be undertaken on the project. The team shall consist of a minimum of three persons and include an employee representative.

Segregation and listing of activities can be achieved by using the construction program or a walk through survey of the workplace.

#### 5.1.4 Hazard Identification

Once the activities have been segregated, hazards associated with each activity shall be identified. Hazards shall be divided into the following broad categories:

- Gravitational energy (falls and falling objects)
- Electrical energy
- Chemical energy (hazardous substances)
- Thermal energy
- Mechanical Energy (moving plant)
- Working Environment Heat/Air/Noise/Light/Vibration
- Biomechanical energy (muscular strains)

- Radiation energy
- Microbiological energy
- Potential and Kinetic energy

The hazard identification process can be undertaken utilising one or more of the following:

- i. Walk through survey
- ii. Work process evaluation such as HAZOP
- iii. Employee consultation
- iv. Incident, Hazard Report, Injury, Near Miss data
- v. Suppliers or manufacturers information
- vi. Professional advisers or specialists

#### 5.1.5 Risk Assessment

For each task a range of hazards may be identified and for each hazard identified a risk score must be determined in order to prioritise safety efforts and establish the extent of control measures. For all identified hazards the Risk Analysis Calculator is to be applied. By utilising the calculator, a risk score is determined taking into account:

- i. The occupations and number of persons at risk (take into account Bentley Crane Hire employees subcontractor employees, visitors and the public)
- ii. The probability of a hazard resulting in an incident
- iii. The length of exposure persons has to the hazard
- iv. The possible consequences of exposure.

Controls must then be identified to mitigate the risk. A second risk assessment is then completed to determine residual risk to see if the risk is now acceptable. If the risk is not reduced to an acceptable level an alternative control must be selected. The controls are then implemented.

The Risk Assessment Register shall be reviewed on a regular basis (minimum three monthly) to ensure all project activities have been included.

Prior to new activities commencing they shall be added to the Risk Assessment Register and assessed.

Audit Verification		
	Document: OH&S Plans, records etc	

## 5.2 Risk Analysis Calculator

	Risk Assessment Calculator						
	Step 3 – Calculate Risk						
	A B C D E						
1	1 High	2 High	4 High	7 High	11 Significant		
2	3 High	5 High	8 High	12 Significant	16 Moderate		
3	6 High	9 Significant	13 Significant	17 Moderate	20 Moderate		
4	10 Significant	14 Significant	18 Moderate	21 Low	23 Low		
5	5 15 Significant 19 Moderate 22 Low 24 Low 25 Low						
	Note: 1-15 Ranking requires JHA/SWP and review before activity commences.						

Risk Assessment Process			
Step 1 Determine Probability	Step 2 Determine Consequences (Highest of the two)		
Probability	People Consequences Plant, Property, Productivity & Environmental Consequences		
Frequent A= Common or Frequent Occurance	<b>Catastrophic</b> 1= Fatality, Permanent Disability	1= More than \$500k Damage and /or Large Reorganisation of project, Major Environmental Damage	
<b>Probable</b> B= Is Known to Occur or "It Has Happened"	Critical2= \$100-\$500k Damage and /or Project2= Serious Lost Time Injury orContingency Plan Required, SeriousIllnessEnvironmental Damage		
Occasional C= Could Occur or I've Heard of it Happening	Serious 3= Disabling or Short Term Lost Time Injury	3= \$50-\$100k Damage and /or Production Disruption, Reversible Environmental Damage	
<b>Remote</b> D= Not Likely to Occur	Marginal 4= Medical Treatment Case	4= \$5-50k Damage and /or Slight Production Disruption, Minor Environmental Damage	
Improbable E= Practically Impossible	<b>Negligible</b> 5= First Aid Injury	5= Under \$5k Damage and Minimal Productivity Disruption, No Environmental Damage	

**Catastrophic** - Death, loss of system or plant, release to environment, such that significant public interest or regulatory intervention occurs or reasonably could occur.

**Critical** - Severe injury, major system damage or other event, which causes some loss of production, unplanned, localised damage to environment, effects more than one department, or could have resulted in catastrophic consequences under different circumstances.

Marginal – Medical treatment case injury, minor system damage, minor confined and non-damaging environmental exposure, or other event generally confined to one department.

**Negligible** – Minor injury, negligible damage or no environmental damage.

\*When assessing the impact of environmental incidents, the definition is expressed in terms of monetary value where the total cost = cost of fine + clean-up cost + value of lost product + cost of delays.

#### Measures of Qualitative Probability / Frequency

**Frequent** - Likely to occur often during the life of an individual item or system or very often in the operation of a large number of similar items.

**Probable** - Likely to occur several times in the life of an individual item or system or often in operation of a large number of similar items.

**Occasional** - Likely to occur sometime in the life of an individual item or system, or will occur several times in the life of a large number of similar components.

**Remote** - Unlikely, but possible to occur sometime in the life of an individual item or system, or can reasonably be expected to occur in the life of a large number of similar components.

**Improbable** - So unlikely to occur in the life of an individual item or system that it may be assumed not to be experienced, or it may be possible, but unlikely, to occur in the life of a large number of similar components.

#### **Risk ranking**

Based on the assessment of consequences and probability, an overall risk result is determined for each potential hazardous event using the Risk Analysis Matrix

In most cases, the magnitude of the consequences from hazardous events can vary with corresponding changes in the probability of the combination of the event/aspect and resulting consequence.

#### 5.3 Project Management Plans

#### 5.3.1 Objectives

- To ensure a consistent approach in the development of project OH&S plans.
- To create awareness and an appreciation amongst all staff, employees, sub-contractors and the Client of the Company's objectives and strategies to comply with its legal responsibilities in relation to health, safety and the environment by having available Project Management Plans.
- To develop and implement procedures to identify, reduce, monitor and control areas of risk on a specific project.

#### 5.3.2 Definitions

**Project Management Plan -** The systematic establishment of project management standards and measures which encompass safety as an integral part of the project scope so that Company and sub-contractor employees are not exposed to uncontrolled hazards.

#### 5.3.3 Project Management Plans

A Project Management Plan shall be developed for each contract and must address:

• Client requirements;

- Bentley Crane Hire Safety Management System requirements;
- The sign off by the appropriate managers; and supervisors
- The control mechanisms (QA).

The safety and environmental project management system shall be a distinct section of the project management plan.

All project plans shall be developed using the safety and environmental planning preform.

As required by the Bentley Crane Hire Safety Standard, a copy of the Company's Health and Safety Policy shall be included in the Project Management Plan. This is to demonstrate the Company's overall intent to provide and maintain a safe workplace, with safe systems of work and to eliminate or reduce exposure to hazards and associated levels of risk to personnel and the environment.

Project Safety Objectives shall be established to define:

- Safety communication standards
- Safety performance targets
- Inspection and audit accountabilities
- Project safety accountabilities

Project Safety Objectives demonstrate the means by which the Project Management Plan implementation shall be measured.



#### 5.4 Change Management

#### 5.4.1 Objective

To describe the process for the management of change to ensure change does not cause injury to people, damage assets or the environment or compromise the efficiency of systems.

#### 5.4.2 Definitions

#### Change

A modification made to an existing unit of plant, equipment, process, infrastructure or system from its current design or state. It excludes normal repairs or other activities to restore original function.

#### Management of Change

The process by which risk associated with change is controlled.

#### Change Register

A central Change Register will be kept for each site. Relative documentation will be kept in one central location at each site.

#### 5.4.3 Responsibilities

All employees are responsible for initiating the Management of Change Process as appropriate, and are provided with training in the use of the Management of Change procedure.

Department Superintendents are responsible for:

- Assessing the validity of proposals to ensure consistency with the overall site and business objectives and targets,
- Delegating the planning of change ensuring the appropriate level of expertise is engaged, and consultation with the workforce affected by the proposed change occurs
- Approving and delegating the implementation of change
- Accepting that changes are complete verifying that no additional risk has been introduced by the change.

#### 5.4.4 Management of Change Process

#### 5.4.4.1 Initiation of Change

Where possible, change shall be initiated to:

- Reduce safety, health or environmental risks
- Improve or simplify the process or make it more economical
- Improve business practices

#### 5.4.4.2 Management Review

Management will assess the merits of, and decide the viability of any change proposal.

If the proposal is viable, the change must be entered into the relevant change register, and the Site Manager will delegate planning of the change appropriately.

#### 5.4.5 Detailed Review and Risk Assessment

Any proposed change will have a documented risk assessment completed using the appropriate forms. This will form the Change Plan and Justification.

#### 5.4.5.1 Approval of Change

Once all requirements listed in Change Plan & Justification are met, the Site Manager will give approval for the change to be implemented if the change is deemed viable

.

#### 5.4.5.2 Checking Risk has been Minimised

Upon completion of the change, and before hand over for physical use, the Site Manager will complete and sign the Change Completion Form, to verify that the change was completed without introducing additional risk. Any deviations from the original plan must be noted, and all requirements listed in the Detailed Requirements Checklist (HSE 3008 section 02.4) must be complete.

#### 5.4.6 Communicating Change

All internal changes must involve a sample of the workforce affected. All changes involving Client plant must be in consultation with the Client All completed changes are communicated to the relevant personnel by completing a Change Completion Form.

#### 5.4.7 Emergency Changes

In an extremely urgent situation an abbreviated Management of Change Procedure may be approved by the Site Manager. Emergency Changes must be recorded using the appropriate forms, registered and filed as with all other managed changes.

#### 5.4.8 General

#### 5.4.8.1 Modification of Equipment

Changes to Structures when carrying out modifications or repairs to all plant structures must be properly documented.

#### 5.4.9 Changes to Machine Mass

Any modifications that result in a change to the mass of a machine, or the centre of gravity of that mass must be assessed by an Engineer and documented.

#### 5.4.10 Identifying Change – Change Determination

The following table is to be used to determine if Change Management is required.

QUESTION	Tick YES or NO for each	
Is the change a Mandatory Change listed in the table below?	YES	NO
Does the change deviate from a normal or scheduled repair/maintenance or operational activity?	YES	NO
Does the intended activity involve modifications to existing plant, equipment, processes or structures?	YES	NO
Does the intended activity involve the introduction of a new type of plant, equipment, process or structure?	YES	NO
Does the intended activity deviate from current policies, standards, procedures, work instructions or training?	YES	NO
Will the intended activity result in a change of function for equipment or systems?	YES	NO

#### If any of the shaded boxes have been ticked, then Change Management is required.

NOTE: Determinations of this type are subjective and can best be made in consultation with the relevant people affected.

#### 5.4.11 Different Types of Change

## 5.4.11.1 Mandatory Change Table

The following table includes potential high-risk changes. All potential high-risk change is to be managed using the Change Management Process. Whilst this list is comprehensive, it is a guide only. There may be other issues for consideration. The table also indicates what **level of technical expertise or involvement** must be sought prior to approval.

TYPE OF CHANGE	SUB CLASSIFICATION	TECHNICAL EXPERTISE
		REQUIRED
	Acquisition of classified plant and maintainable items	General manager
	including the introduction of new inspection data/processes	
Capital Expenditure	and stock of critical spares.	Site Manager
	Structural	Mechanical Engineer
	Braking, slewing, steering, retard systems on all equipment	Mechanical Engineer
	Hydraulic / pneumatic systems	Mechanical Engineer
	Tyre rims	Mechanical Engineer
	Pressure vessels	Mechanical Engineer
	Guarding	Superintendent Maintenance
Mechanical systems	Balanced Machines	Mechanical Engineer
	Access – walkways, ladders, access machines	Mechanical Engineer
	Materials used, their composition and properties (Other than	
	wear materials)	Mechanical Engineer
	Where used on structures	
	Where used on moving parts	
	Shutdown / Isolation (Power Systems)	Electrical Engineer or Electrical
		supervisor
	Protection and limit devices (Power and Control Systems)	Electrical Engineer or Electrical
		supervisor
	New Installations, including alterations and additions.	Electrical Engineer or Electrical
Electrical systems		
	Less than 32Vac or less than 110Vdc	Electrical Worker
	Greater than 32Vac or greater than 110Vdc and up to 1100 Volts	Electrical worker
	Greater than 1100 Volts	Electrical Engineer or Electrical
	Greater than 1100 Volts	supervisor



	Overhead cranes	Mechanical Engineer
	Mono beams	Mechanical Engineer
Lifting, Fall Protection,	Anchor points for fall arrestors	Mechanical Engineer
Safety Devices	Man lift Baskets	Mechanical Engineer
	Safety devices	H&S Coordinator
	Hydraulic power tools	Mechanical Engineer
Tools	Electrical power tools	Electrical Engineer
	Fire systems	Emergency Services Coordinator
	Power / Water / Sewage utilities	Environmental Officer
	Tailings and Water storage dams	Environmental Officer and Tailings Engineer
Environment	Heritage / Ground disturbance	Aboriginal Liaison Officer and Environmental Officer
	Waste handling systems / facilities	Environmental Officer
	Chemical / Hydrocarbon storage & reticulation facilities	Environmental Officer
Training and Induction	Operator skill training packages	Training Co-ordinator
	Employment and Induction protocols	HR Advisor or H&S Coordinator
	Disaster Management	Emergency Services Coordinator
	Add new Chemical to Stock	Environmental Officer and H&S Coordinator
Site HSE Management System	Procedures, Work Instructions	Expertise depends on content of document. (Refer to H&S Coordinator for document control)
	Site Standards	Operations Manager, H&S Coordinator and/or Environmental Advisor

#### 5.4.12 Temporary Changes and Trials

Identification of temporary changes and changes to be trailed will be captured in Change Plan & Justification and Change Completion.



#### 5.4.13 Management of Change Process Flowchart



#### 5.5 Standard Work Procedures

#### 5.5.1 Objective

To ensure that the minimum Company standards for Work Procedures are developed, written and implemented to minimise the risk of accidents.

#### 5.5.2 Definitions

**JHA** - Job Hazard Analysis, a step by step breakdown of a critical task, to help identify hazards which could result in injury, damage or production loss.

**SWP** - Standard Work Procedure is developed from the Job Hazard Analysis and defines how the critical task is to be performed safely.

**Critical Task** - A task which is deemed or considered to be hazardous, having a risk score between 1 and 8 inclusive and where the task occurs on a regular basis, requiring both a JHA and SWP to be developed.

#### 5.5.3 Hazardous Tasks Identified

A critical task analysis shall be undertaken at each site in order to identify critical tasks. No activity is to be undertaken unless the activity has been incorporated in the project Risk Assessment Register. Generally, hazard identification will take place at the commencement of projects however the same process must be adopted for subsequent activities.

#### 5.5.4 Health & Safety Analysis

All project activities tasks shall be analysed to identify their safety hazards using the Risk Management Procedure.

A risk analysis shall be performed during all stages of JHA's development. Should the activity be performed regularly and have a risk score between 1 and 8 inclusive, a standard work procedure will be developed.

A record shall be kept of all completed JHA's.

The Project Manager is to nominate a review time for all JHA's and SWP's.

During this review the risk assessment process shall be revisited to check the effectiveness of the control measure. During the review employees involved in the activity will be consulted.

Reviews will be undertaken on a regular basis or whenever there is a reason to suspect the controls are no longer valid.

#### 5.5.5 Performing a Job Hazard Analysis

- Nominate the job to be analysed
- Break the job down into successive components i.e. "how to do the job".
- Identify and nominate the hazards and possible incidents associated with each step. Determine the risk level for each hazard.
- Nominate control measures for each hazard in each step

#### 5.5.6 Control Measures

Where individual hazards are assessed at a risk score of 20 or lower (Possible Risk Attention Indicated) a formal control measure must be nominated on a Job Hazard Analysis form or subsequent SWP based on a Standard Work Practice where possible.

The standard hierarchy of control should be applied to determine the control measure to be adopted and nominated in the JHA or SWP.

#### This hierarchy is:

- i. Engineering Design design the hazard out completely
- ii. Substitution replacing the process and material with a less hazardous option
- iii. Redesign redesign the equipment or process to reduce the risk.
- iv. Separation Isolate the hazard from personnel
- v. Administration Reduce the exposure through procedural processes which on rosters, job rotation.
- vi. Personal Protection Use PPE for the hazard where no other option is available.

When deciding on control measures a short term or long term solution may be applied depending on the length of the activity and the exposure to the hazard.

Where any doubt exists on hazards, with or without control measures, conduct a risk assessment using the Risk Analysis Calculator.

A Job Hazard Analysis shall be conducted of all identified critical tasks prior to the tasks being performed.

Relevant employees shall be involved in conducting JHA's and developing Standard Operating Procedures.

No person shall be involved in an activity without training in the JHA or SWP.

#### 5.5.7 Standard Operating Procedures Written and Available

Standard Operating Procedures shall be written in logical steps, be simple and easy to read and highlight the critical points and safety steps that are to be followed.

The Standard Operating Procedures shall identify the tools, equipment and personal protective equipment which are to be used by the employee so that the critical task can be performed safely.

Employees shall be trained in the writing of Standard Work Procedures and a record kept of the training and the employee's attendance.

Standard Work Procedures shall be reviewed on an annual basis and updated whenever a change to plant, equipment, process or workplace occurs.

At a minimum, review teams shall consist of two employees from the area in which the Standard Work Procedure applies, and external expertise as required.

All employees shall be trained in the Standard Work Procedures relevant to their work and a record kept of the training and of the employee's attendance. No person shall be involved in an activity without receiving training in the applicable SWP or JHA.

The Standard Work Procedures shall be made available to all employees when performing the critical task.

Employees shall assist in the development of Standard Work Procedures.

Audit Verification	
	Document: OH&S Plans, records etc
0	Observation
M	Employee Interview

#### 5.6 Personal Protective Equipment

#### 5.6.1 Objective

To ensure personal protective equipment is supplied, used and maintained in accordance with the relevant legislation and SAA HB9 1994 Occupational Personal Protection.

#### 5.6.2 Application

PPE shall only be issued following due consideration of the hierarchy of controls. Where possible hazards should be controlled through:

- Substitution
- Redesign
- Isolation
- Administration measures

PPE should be the last option and used only where the controls nominated above are not feasible.

Personnel should:

- i. be familiar with the potential hazards and the available selection of PPE designed for the potential hazards;
- ii. compare the hazards of the activity with the capability of the intended item; and select the most appropriate item and ensure personnel are trained it is use and fitting.

#### 5.6.3 Control of Personal Protective Equipment

All employees shall be provided with appropriate personal protective equipment for the respective tasks they perform

Safety signs complying with (AS) 1319 shall be provided and displayed in prominent and relevant areas to specify the types of personal protective equipment to be worn.

Employees required to use personal protective equipment shall receive instruction as required by legislation:

- The purpose of the equipment;
- The correct use, maintenance and replacement of the equipment; and
- Individual responsibilities with regard to the use of the equipment.

All PPE issues to an individual shall be recorded and signed for. The PPE record shall be maintained for audit purposes.

Regular checks shall be conducted to ensure the good working condition of personal protective equipment. Inspections shall be informal, ongoing and part of daily job routine inspections.

Employees issued with protective equipment shall use and maintain the items in good condition and inspect each item before use. Damaged items shall be reported and replaced.

#### 5.6.4 General

The work environment may be subject to chemicals, heat, solar radiation, dust, noise and specific dangers to hands, feet and the head exist.

Legislation, Codes of Practice and Standards cover the basic requirement for protective equipment, but in the interests of Health and Safety, these requirements may be exceeded for specific purposes.

Personal protective clothing and equipment as specified shall be worn and used by all employees, sub-contractors and visitors in accordance with the rules prescribed. Adherence to these rules is a condition of employment and a condition of contract with Bentley Crane Hire.

Employees shall be subject to normal disciplinary procedures should they:

- Fail to correctly use such personal protective clothing and equipment as required
- Misuse or damage any equipment provided
- Fail to comply, so far as they are reasonably able, with instructions given by the Company or Company representative.

Where it is not practicable to avoid the presence of hazards, the Company will provide the necessary protective clothing and equipment to protect employees and visitors, on Company business or invitation, against those hazards.

Sub-contractors shall supply their own protective equipment, but it will be a condition of contract that all their agents, employees and visitors will have access to, and wear when appropriate, the required protective equipment.

Unique operations and hazardous substances requiring special procedures and personal protective equipment shall be discussed beforehand in a consultative manner.

#### 5.6.5 Suitability of Equipment

Personal protective equipment for use by employees shall only be of an approved type. All equipment shall have the registered mark of the Australian Standards (AS) displayed, or be otherwise approved by the recognised International Code of Practice for that equipment.

When protective equipment is required, every effort should be made to ensure that it is as comfortable to use as possible.

Considerations shall be given to materials as well as design to achieve the light, cool result suited to the conditions.

#### 5.6.6 Exemptions

No person shall receive dispensation from wearing the required equipment without a sound medical reason, supported by periodic doctor's medical certificates.

Exempt areas include the administration area and offices and only apply to hard hats.
### 5.6.7 Personal Protective Equipment Standards

#### 5.6.7.1 Helmets (AS 1801)

Helmets must be worn at all times on the site except within an enclosed vehicle cab or in an exempt area. They should be properly adjusted for correct fit. No hats or caps shall be worn under helmets. Metallic helmets and bump hats shall not be used.

Maintenance personnel may have to remove helmets for particular procedures, but this should be discouraged and chin straps should be used.

Under no circumstances shall helmets be painted or written on in any fashion. (Solvents seriously affect the properties of the plastics used in helmets). For similar reasons, helmets shall not be drilled, cut or otherwise altered. Helmets may be labelled with stick-on name tags.

Helmets that have suffered any significant impact shall be replaced. Note that helmets have a limited useful life even if not damaged by any impact. 'Use-by' dates shall be noted and helmets replaced before expiry dates.

#### 5.6.7.2 Safety Boots/Shoes (AS 2210)

Steel capped high cut leather safety boots shall be worn at all times on the site.

Every employee shall be issued with a minimum of one pair of safety footwear per year.

Comfort is an absolute necessity in safety footwear, and a variety of brands and sizes may be required to suit the range of foot shapes.

Boot styles with ankle support are required for those personnel spending extended periods on their feet or who regularly walk on rough or broken ground.

Safety footwear must be maintained in a good state of repair, and replaced if worn or damaged.

Reasons for replacement includes any separation of the upper from the sole, holes or tearing of any kind, impact damage, or damage that prevents proper fastening of the footwear. Laces should be checked regularly and replaced if defective.

### 5.6.7.3 Eye Protection (As 1337)

Eye protection shall be mandatory on sites, except when inside an enclosed vehicle cab or in an exempt area.

Persons exposed to the possibility of high speed particles require the highest degree of protection, and safety glasses shall be equipped with side as well as frontal protection. The minimum standard shall be medium impact safety glasses

Face shields shall be worn when using high speed tools, e.g. grinders, off-cut saws, etc.

Mono-goggles shall be worn when entering designated areas or when handling hazardous liquid chemicals. Monogoggles should be kept with at hand at all times.

Tinted safety glasses are recommended for day work but must not be worn during hours of darkness or when entering dim areas of plant.

Persons using prescription lenses must have the lens hardened and wear side shields.

Safety glasses must be comfortable, and clean. Damaged safety glasses must be replaced immediately.

Face shields for specific tasks, e.g. grinding, welding and drilling shall supplement eye protection.

Lens cleaning stations shall be placed inside crib rooms and workshops.

Special lenses and shields must be worn for particular cutting and welding processes. The following table outlines suitable lenses.

# TABLE 1

NON-IONISING RADIATION EYE PROTECTION GUIDE			
SHADE NUMBER	OPERATION		
2	Soldering		
3 or 4	Torch Brazing		
3 or 4	Light Cutting, up to 1"		
4 or 5	Medium Cutting, 1" to 6"		
4 or 5	Gas Welding (light) up to 1/8"		
5 or 6	Heavy cutting, over 6"		
5 or 6	Gas Welding (medium) 1/8" to ½"		
6, 7 or 8	Gas Welding (heavy), over <sup>1</sup> / <sub>2</sub> "		
10	Shielded Metal-Arc Welding, 1/16, 3/32, 1/8, 5/32" Electrodes		
10, 11, 12, 13, or 14	Atomic Hydrogen Welding		
11	Gas Shielded Arc Welding (non-ferrous), 1/16, 3/32, 1/8, 5/32" Electrodes		
12	Gas Shielded Arc Welding (ferrous) 1/16, 3/32, 1/8, 5/32" Electrodes		
14.	Shielded Metal-Arc welding, 3/16, 7/32, <sup>1</sup> / <sub>4</sub> " Electrodes		

14	Shielded Metal-Arc Welding, 5/16 and 3/18" Electrodes	
14	Carbon-Arc Welding	

AS 1338 requires the maintenance of records relating to the use of eye filters to protect against radiation generated in welding on allied operations.

### 5.6.7.4 Hearing Protection (AS 1270)

Hearing protection shall be worn at all times in designated "Hearing Protection Areas" as indicated by signs or stickers.

Heavy equipment operators shall wear hearing protection whilst their vehicles are operating and when they are outside the cab.

Employees shall carry hearing protection at all times when noise levels are likely to exceed 85dB(A), e.g. when using a hammer or grinding in the workshop.

Disposable earplugs shall normally be used as standard hearing protection equipment. Disposable earplugs shall be available at lens cleaning stations and crib rooms. Earplugs should only be used once and then discarded.

All personnel shall have access to ear plugs or muffs or both. Helmets with attached earmuffs shall be issued where appropriate.

Earmuffs must be correctly fitted to give a good seal for proper protection. Extra care must be taken in fitting earmuffs if eye protection is being worn.

Any disturbance of the sealing surface of earmuffs or any tearing of the lining indicates immediate replacement.

Earplugs may be required to supplement muffs when employees are exposed to excessive noise for short periods of time.

Employees shall be responsible for maintain ear muffs in a clean and operative condition.

### NOTES:

Removal of hearing protection for five seconds in a minute will negate 50% of the protection afforded.

### 5.6.7.5 Gloves (AS 2161, AS 2225)

All employees shall wear gloves when job activities demand.

Any job requiring the manual handling should be carried out wearing leather gloves or other gloves offering comparable protection.

Gloves shall be worn when cuts, burns or hazardous substances present a hand hazard. Glove type must be suitable for the particular operation and hazard.

Persons handling wire ropes or chains shall use gloves.

Personnel should NOT wear gloves when using bench mounted drills, lathes or pedestal grinders.

Gloves or any item of clothing shall be kept well clear of moving parts of machinery.

#### 5.6.7.6 Breathing Protection (AS 1715, AS 1716)

#### 5.6.7.7 Dust Masks

Any task that gives rise to local dust or airborne contamination will necessitate breathing protection, in the form of a disposable dust mask. This mask should be fitted at the first sign of airborne dust at the work place.

Dust masks shall be removed at the first sign of clogging or damage, and immediately replaced with a new mask.

If dust masks are not suitable consideration shall be given to the use of respirators.

#### 5.6.7.8 Respirators

The Company shall provide respirators when such equipment is necessary to protect the health of an employee. Respiratory equipment shall comply with the relevant legislation and standards.

Written standard operating procedures, governing the selection and use of respirators shall be provided.

Respirators must be examined before and after each use to ensure their cleanliness and that the valves are competent. Filters shall be resealed and enclosed in a sealed container to prevent contamination.

When stored after use, respirator equipment shall be cleaned and placed in sealed containers to prevent contamination and insect infestation.

Respiratory equipment shall be placed in a cool ventilated cupboard area and stored away from direct sunlight and other sources of direct or radiant heat.

### 5.6.7.9 Wet Weather Clothing

Wet weather gear, in the form of waterproof trousers and jackets, shall be available for use as required.

#### 5.6.7.10 Safety Harness and Belts (AS 1891, AS 2626)

Safety harnesses shall be used to prevent falls from elevated workplaces where redesign of the workplace where elevated work platforms cannot access and provision of scaffolding or guard rails is not practical.

Fall prevention is the required approach and fall arrest shall only be used when there is no other option and then only with the written permission of the site manager

Safety harnesses, and lanyards shall comply with the requirements of AS 1891 – Industrial Safety Belts and Harnesses. The use and maintenance of safety harnesses shall comply with AS 2626.

#### 5.6.8 Clothing and Skin Protection

#### 5.6.8.1 Skin Protection

Australia has the highest incidence of skin cancers in the world. These cancers are caused by overexposure to solar radiation

Personnel exposed to the elements are urged to take sensible precautions, and in particular to cover the head and shoulders.

Safety helmets go a long way towards protecting the head, but may be improved with add-on brims, or the addition of back and side flaps. Add-on brims may be provided upon request.

Although no substitute for proper clothing, sun block (factor 15+) is recommended for skin exposed to the sun for moderate to lengthy periods. Bulk supplies of factor 15+ sun block shall be supplied for all employees' use on site.

#### 5.6.8.2 Clothing Generally

Natural fibres 'breathe' more easily than do most synthetics and offer better protection in the event of chemical spills. Injuries by way of burns may arise from sparks and flames igniting or melting flammable chemicals impregnated into the clothing. The molten material sticks to the skin inflicting major burns, which more often than not become infected

All employees, as a minimum, shall wear shirts with collars and long sleeves. Shirts and trousers shall not be synthetic but must be of natural heavy duty cotton fabric.

Socks should be wool or a predominantly wool blend for comfort in hot conditions.

Note that natural fibres assist in dissipating undesirable static electricity, although they cannot prevent it altogether.

Hairnets shall be required for employees with long hair while working near power tools, pulleys, moving belts etc.

Rings, bracelets and necklaces shall not be worn by personnel. Office staff are exempt from this requirement.

### 5.6.8.3 Reflective or Fluorescent Vests

All employees working near vehicle movements shall wear reflective vests or shirts at all times. Surveyors and Surveyors' Assistants shall wear reflective vests or shirts when working near vehicle movements.

All personnel shall wear reflective vests or shirts when working in the vicinity of public traffic or in the vicinity of working machinery during the hours of darkness.

#### **Audit Verification**

	Document: OH&S Plans, records etc
-0	Observation

# 5.7 Safety Information

### 5.7.1 Objective

To provide and explain up to date legal advice and information to project staff in order to maintain regulatory compliance in all applicable facets of our business.

### 5.7.2 Definitions

**Safety Information -** is any written, visual or electronic media material that addresses the subject of health and safety both in the occupational and recreational environment.

### 5.7.3 Health & Safety Reference Library

A library of health and safety reference material shall be established and made available to all employees at each Company project and plant.

The health and safety reference libraries shall include material such as:

- Project OH&S Plan
- Relevant Legislation;
- Australian Standards;
- Company and specific site rules and procedures manuals;
- Material Safety Data Sheets;
- Emergency Response information;
- Details of relevant employee awards; and
- journals, magazines, periodicals and newsletters;

All employees shall be advised of the library and its location at induction. Advice of new material available in the library shall be advertised in safety bulletins or newsletters





# 5.8 Purchasing

#### 5.8.1 Objective

To include safety, health and environmental requirements in the purchasing process for any plant, equipment or buildings.

#### 5.8.2 Standards

All items of plant and equipment purchased by or on behalf of the Company shall comply with Statutory Acts and Regulations Design specifications shall be provided with all tenders or orders for supply or modification of Company plant and equipment

All personnel protective equipment and safety related equipment must meet Australian Standard. Purchase orders and/or subsequent invoices shall specify or confirm this requirement.

Material Safety Data Sheets shall be provided with all hazardous materials purchased by the Company.

Written safety instructions and procedures shall be provided for appropriate items of plant or equipment purchased by the Company.

Audit Verification



Document: Purchase Orders or Purchasing Requirements / Specifications

# 5.9 Design and Risk Analysis

### 5.9.1 Objective

To include health, safety and environmental requirements in the design of any plant or equipment purchased or modified.

#### 5.9.2 Design Review

Risk Management Analysis and where necessary a formal Hazard Operability Study (HAZOPS) shall be conducted prior to purchasing or modifying any equipment or constructing or modifying any plant or buildings

A team shall be appointed to conduct the detailed safety risk assessment. The team may include representatives from the following departments:

- safety;
- mechanical maintenance;
- electrical maintenance;
- engineering design; and
- operations.

All deviations identified from the detailed risk assessment shall be corrected and documented prior to the use of new or modified plant, equipment or buildings.



# 5.10 Environmental Protection

#### 5.10.1 Objective

To ensure systems are in place to minimise and control the accidental release of pollution to the environment.

### 5.10.2 Definitions

**Pollution** - The release of residual discharge which contaminates the air, water, ground or public disposal systems with consequent adverse effect on the health of people or the environment.

Contaminant - Any substance that may be toxic or hazardous to the health of people or the environment.

### 5.10.3 Environmental Auditing

Annual audits shall be conducted to identify environmental aspects and impacts and review action plans developed to ensure compliance with statutory and Company requirements.

The environmental audit shall consider, where appropriate, the management of:

- noise, air quality including dust emissions,
- rehabilitation, including degraded land,
- waste disposal, including hazardous substances, hydrocarbons and chemicals.

A record shall be kept of all environmental audits and findings and actions taken to correct non-conformances.

#### 5.10.4 Prevention Measures

The company shall comply with environmental statutory and licensing requirements for mining tenements and all other workplaces.

Each project shall adhere to Company and legislative environmental requirements, suitable for its own operations.

Each site or operation shall have available emergency procedures for the management of potential spills resulting from accidents or emergencies.

All complaints from the public shall be recorded and followed up immediately with appropriate corrective action taken.

Inspection and monitoring of dust control measures shall be conducted quarterly and records of the findings and actions taken to correct non-conformances shall be kept.

#### 5.10.5 Decontamination and Disposal of Hazardous Waste

An up to date record of all hazardous waste products and disposal methods shall be maintained.

Licensing limits for hazardous waste disposal shall be complied with.

Waste products shall be disposed of in an approved manner and at an approved site.

Waste disposal sub-contractors shall be licensed and comply with Company procedures and statutory requirements for the removal and disposal of hazardous materials.

Employees shall be made aware of known pollution hazards and trained in the safe handling and disposal of hazardous substances. Training will include emergency procedures to combat pollution spills, accidents and emergencies and in the use of personal protective equipment.

A record shall be kept of all training and of employee's attendances.

Adequate personal protective equipment shall be issued to employees for the safe handling and disposing of hazardous substances.



Audit Verification		
	Document: Environmental Audit Records	

# 5.11 Waste Management

### 5.11.1 Objective

To ensure a safe and environmentally sustainable workplace by providing sufficient containers for waste disposal and a scrap and waste removal system. Waste management is based on a hierarchal approach of:

- avoiding,
- reducing,
- re-using,
- recycling,
- treating or disposing.

### 5.11.2 Definitions

**Waste** - includes matter whether liquid, solid, gaseous or radioactive and whether useful or useless, which is discharged into the environment.

**Waste Management** - is the combined use of adequate and appropriate measures to separate and dispose of waste materials so as to minimise the impact upon the environment and people.

### 5.11.3 Waste Receptacles

An audit of project and plant sites shall be conducted to determine the number, size and type of waste containers required.

Sufficient number, size and type of waste containers shall be provided and located to suit the needs of the project and plant.

All rubbish bins shall be fitted with lids which shall be in position at all times.

### 5.11.4 Waste Removal Schedules

A schedule for the removal of rubbish and scrap material, and replacement of waste containers shall be implemented.

A stock of replacement refuse bins and waste containers shall be maintained for use during shutdowns or unusual circumstances where necessary.

Where bays or yards are provided for scrap material or waste bins, these shall be demarcated, signed and kept clean and tidy.

Sufficient access shall be provided at scrap stacking or removal areas for vehicles and these shall be kept clear at all times.

Large items of waste that do not fit into waste containers shall be removed from the workplace as soon as is practicable.

### 5.11.5 Separation of Waste

The location of all bins shall be demarcated by yellow lines or labelled with the appropriate type of waste container to be placed in the area.

Oily waste or other materials which could spontaneously ignite shall be placed in bins made of metal, fitted with a metal lid.

All waste material shall be separated and placed in appropriate waste containers.

Audit Verification		
	Document: OH&S Plans, Waste removal schedule	
0	Observation	

# 5.12 Selection & Placement of Personnel

#### 5.12.1 Objective

To ensure health and safety requirements are considered in the selection and placement of personnel on the basis of each applicant's competency and ability to perform the required duties.

### 5.12.2 Duty Statements

Position specifications that identify health and safety requirements shall be available for all positions within the Company. Specifications shall be kept current with workplace, process or job changes

### 5.12.3 Placement of Personnel

Health and safety requirements shall be considered with personal and job criteria as part of the selection process for placement of employees



# 5.13 Health Monitoring

### 5.13.1 Objective

To assess the health of employees before and during employment in order to ensure that their health and safety is not put at risk due to work conditions.

### 5.13.2 Pre-Employment Medicals

All employees shall complete a pre-employment medical which establishes current health levels, physical ability and previous medical history. The base medical examination shall include the physical assessment required by specific state legislation.

Pre-employment medical examinations shall be reported to the Company's standard. Medical examination results shall be retained on employee personal files.

Job specifications which detail health and safety requirements may be provided for reference during pre-employment medical examinations

### 5.13.3 Periodic Medicals

Employees shall undergo a periodic health assessment where required by the relevant legislation.

Full medical examinations shall be available to all employees in accordance with appropriate legislation.

Where risks are present due to hazardous chemicals or substances, health monitoring and regular testing of employees shall occur in accordance with the legislation.



# 5.14 Subcontractor Selection

### 5.14.1 Objective

To ensure the safety and environmental management systems and capabilities of all intending subcontractors is evaluated and determined prior to contract award.

### 5.14.2 Definitions

**Subcontractor Selection -** is the process of selection where subcontractors are required to demonstrate that they have achieved an acceptable level of safety performance on previous projects. This will include the subcontractor having a Project Management Plan and defining responsibilities for implementing and complying with it.

### 5.14.3 General

Bentley Crane Hire Construction shall conduct selection audits on subcontractors tendering for projects where high risk exists, or where large employee numbers subcontracts are to be applied

Subcontractor insurance requirements shall be detailed in appropriate contract documents

Subcontractors who have been used on previous projects and demonstrated commitment and adherence to their Safety Management Plan, the Company's requirements and maintain an acceptable safety performance shall be considered as preferred service providers.

#### 5.14.4 Selection Process

#### 5.14.4.1 Tender Evaluation and Contract Conditions

Where tenders are requested by Bentley Crane Hire for subcontract works a copy of the Special Conditions of Contract - Health, Safety and Environment Requirements shall be included with all tender documentation.

The requirements for subcontractors to comply with Bentley Crane Hire's Safety System shall be included in all appropriate contract documents.

Subcontractors shall be required to demonstrate their commitment to:

- adhering to their Safety and Health Plan;
- having a safety performance equal to or better than the industry standard;
- having safe work procedures for hazardous tasks;
- ensuring safe plant, equipment, materials and workplaces; and
- providing competent and qualified/ticketed operators and employees.

A copy of the Bentley Crane Hire Construction Subcontractor Health Safety and Environmental Evaluation Form shall also be included with tender documentation and must be returned completed with final tenders.

The Manager charged with the evaluation of the tender shall evaluate the subcontractor's submission and where a tenderer fails to supply the OH&SE evaluation or fails to reach a minimum 75% compliance level one of the following actions must be taken:

- Remove the contractor from the selection process;
- Request further detailed information; and re-evaluate the submission;

Nominate an on-site safety resource to assist the contractor develop the required systems prior to award of contract. (Subcontractor requiring such assistance must be re-evaluated prior to award of contract.)

**Note:** Subcontractors who do not have an adequate Management System and must for whatever reason still be used shall be directed to utilise the Bentley Crane Hire subcontractor documents.

### 5.14.5 **Pre-Commencement Meeting**

A meeting will be held with the successful subcontractor prior to commencement in order to ensure subcontractor's system is in readiness for his contracted works. This meeting will address the following issues:

- Project Safety and Environment Management Plan;
- The status of employee/supervisory training;
- Availability of qualified supervisory staff;
- Initial safe work procedures; and
- Status of project plant.

Audit Verification	
	Document: Personnel files

### 5.15 Subcontractor safety

### 5.15.1 Objective

To ensure that subcontractor services, plant, equipment and materials meet or surpass legislative, Company and Australian Standards health, safety, quality and environmental requirements, defined within the terms of the contract for service.

### 5.15.2 Definitions

**Subcontractor Safety** - is the process of monitoring and auditing subcontractor responsibility for implementing and complying with the approved Safety Management Plan.

### 5.15.3 Subcontractors to Comply with Health and Safety Rules

The subcontractor management shall provide Bentley Crane Hire with a copy of their Safety Management Plan that at a minimum, meets with Company, legislation and site requirements

Where a subcontractor's Safety Management Plan is not acceptable the Bentley Crane Hire Subcontractor Plan Template shall be adopted by the applicable subcontractor and approved by the Bentley Crane Hire Site Manager

Copies of the relevant Bentley Crane Hire Construction Safety Standards shall be supplied to subcontractor management and representatives.

The subcontractor shall appoint a senior company person responsible to ensure compliance with applicable Safety Standards.

Subcontractor employees shall attend the Worsley Alumina Pty Ltd site safety induction program to ensure understanding of and compliance with the site Safety Standards.

The Site Manager shall liaise with the subcontractor representative on all relevant safety, health and environment issues

#### 5.15.4 Subcontractor Medicals

All subcontractor employees shall be required to provide evidence that they have undergone a Mines Medical as required by legislation within the previous two years.

#### 5.15.5 Subcontractor Performance Verification

All subcontractors shall, where applicable be required to manage their individual systems. Documented results of subcontractor's inspections, associated procedures, accident/incident reports and safety meetings shall be maintained in a professional manner on site and made available to the Bentley Crane Hire Site Management on request

#### 5.15.6 Subcontractor Auditing

Audits of all subcontractors will be conducted by Bentley Crane Hire supervisory staff within two weeks of commencement, then on a monthly basis for long term contracts. Weekly inspections shall be conducted by Bentley Crane Hire Supervisory staff

A written order of response to identified deficiencies shall be referred to the Bentley Crane Hire Site Manager by the subcontractor's senior safety representative within seven days of the audit. Subcontractor audit performance results shall be posted on the Site Safety Noticeboard

#### 5.15.7 Subcontractor Performance Review

Supervisors charged with the supervision of subcontractors shall complete subcontractor performance appraisals on Contractor Management "On-Site Monitoring and Post Work Review" Supervisors Appraisal Form.

The appraisal, when completed, shall be referred to the Site Manager who shall take appropriate formal action where performance is deemed to be unsatisfactory. The Site Manager shall review overall subcontractor safety performance at the completion of the project on Contractor Management "Measurement of Contractor Performance".

Audit Verification		
	Document: OH&S Plans, records, meeting minutes etc	
0	Observation	
M	Employee Interview	

# 6 Hazard Management

# 6.1 Hazardous Substances

### 6.1.1 Objective

To provide effective control of hazardous substances used by the Company in order to minimise any health effects, risk to personnel and risk of environmental damage.

### 6.1.2 Definitions

Hazardous Substance - is one possessing any one or more of the following characteristics:

- toxicity;
- corrosiveness or reactive state;
- sensitivity to humans; or
- volatility or combustibility.

### 6.1.3 List of Substances

An initial audit shall be conducted to determine the number and type of hazardous substances on site

Up-to-date Chemical Records of hazardous substances shall be maintained for all areas. The Chemical Records are to include:

- an alphabetical list of all hazardous substances used;
- labelling requirements for each hazardous substance;
- a Material Safety Data Sheet for each item listed; and
- a record of the maximum quantity and storage location of each substance on the list.

Prior to any new potentially hazardous substances being introduced on site, it shall be cleared by the Safety Manager and then be entered on the Chemical Records.

#### 6.1.4 Hazardous Substance Management

The transport, storage, use, disposal and labelling of hazardous substances shall comply with the relevant legislation.

All bulk tanks containing hazardous substances shall have a bund wall around the perimeter to prevent seepage of any spillage. The containment of bulk hazardous substances shall comply with the requirements of legislation and Australian Standards (AS) 1940.

All storage tanks containing hazardous substances shall have the contents clearly identified, be numbered if in a cluster and have the appropriate Hazchem signs displayed to legislative requirements and Australian Standards (AS) 1319 and 1614.

Hazardous substance storage containers and areas shall be demarcated, appropriately signed to the requirements of Australian Standards (AS) 1319 and 1614, and where required, fenced off.

Hazardous substances shall only be stored in approved containers and labelled in accordance with legislative requirements.

Hazardous substance deliveries shall only be made to a supervised site. Acceptance certificates shall be signed by the supplier, deliverer and receiver.

A coloured map shall be permanently displayed outside the main entrance, which identifies the location and types of dangerous goods stored within the site

A manifest of all dangerous goods contained or stored within the site shall be kept in a suitable container next to the site map and shall be made available to Emergency Services personnel upon request.

The manifest is to indicate the:

- name of each substance;
- storage location; and
- quantity held.

Risk assessments shall be completed for all tasks requiring the use of hazardous substances to determine the:

- nature of risk involved in performing the task;
- safe work method to be used;
- personal protective equipment (PPE) requirements; and
- emergency response procedures

When any maintenance or repairs are carried out on any hazardous storage area, pipeline or equipment, a Work Permit shall be issued by the designated responsible person, indicating that the area is safe and that the work requested may proceed.

Employees shall follow the correct procedures for the safe transport, storage, use and disposal of hazardous substances and report any hazardous substance not listed on the Chemical Register to their supervisor.

### 6.1.5 **Person Designated to Control the List**

A person shall be appointed to coordinate the control and management of hazardous substances at all Company and project sites. The Coordinator's duties shall include:

- ensuring procedures are in place for the review of hazardous substances prior to their purchase and acceptance on site;
- reviewing Material Safety Data Sheets prior to the purchase of new hazardous substances;
- reviewing the list of hazardous substances annually, ensuring the current status of items listed is up-to-date;
- developing procedures for setting criteria for the acceptance or rejection of new hazardous substances;
- developing procedures for identifying hazardous substances that are not acceptable on site, such as Benzene, PCB's and asbestos products; and
- ensuring that licensing requirements are maintained for the transport, storage, use and disposal of hazardous substances.

The appointed person shall be trained in, or have knowledge of, hazardous substances used on site.

#### 6.1.6 Material Safety Data Sheets

Material Safety Data Sheets shall be available for all hazardous substances used on site.

Material Safety Data Sheets shall be available to all employees who are required to transport, store, use or dispose of hazardous substances.

A full set of Material Safety Data Sheets shall be available to all purchasing officers.

Training programs shall be available for the safe transport, storage, use and disposal of hazardous substances. Topics to be covered in the training programs are to include:

- Chemical Records;
- Material safety data sheets;
- Health effects of hazardous substances;
- Hazardous chemical code;
- Fitting, use and maintenance of personal protective equipment (PPE);
- Immediate first aid response actions and spill containment clean-up procedures; and
- Environmental consequences.

All persons who are required to transport, store, use, control or dispose of hazardous substances shall be trained in the safe work and emergency response procedures and use of Material Safety Data Sheets.

All training sessions shall be recorded and records kept of the results of written and practical tests.

The required Personal Protective Equipment shall be issued to employees and instructions given in its correct use.

### 6.1.7 Stores

Flammable material storage buildings shall be constructed of non-flammable material and provided with ventilation ports, in accordance with Australian Standard (AS) 1940.

Flammable Goods Stores shall display symbolic signs which shall include:

- Danger-No Smoking, No Naked Flames;
- A class label and subsidiary risk label where applicable;
- Warning-Restricted Area, Authorised Personnel Only;
- Emergency Contact phone number; and
- A layout diagram showing location of fixed fire protection facilities (where installed), drainage system and 'Emergency Stop' switch.

Separation distances as required by relevant state Dangerous Goods Regulations shall apply to all Flammable Goods Stores.

Provision for the control of leakage or spillage shall be included in all Flammable Goods Stores by way of bounding and drainage, in accordance with Australian Standard (AS) 1940.

All electrical fittings in Flammable Goods Stores shall be intrinsically safe as described in Australian Standard (AS) 3000 and 2381.10.

Flammable and explosive materials shall be segregated in storage as required by relevant state legislation.

Fire extinguishers shall be provided externally but no more than 15 metres from flammable liquid stores, in accordance with Australian Standard (AS) 2444.

All Flammable Goods Stores shall be kept locked. Keys shall be held by the person responsible for the store and shall be available at all times.

Suitable racks or shelving shall be provided, as applicable, for the neat and tidy storage of items.

Flammable materials store shall be kept free of waste materials. Storage shall be restricted to those materials designated. Where decanting occurs, drip trays shall be provided, which shall be cleaned immediately following any spill and decanting containers shall be bonded and earthed as appropriate.

All containers in storage shall be kept closed when not in use.



# 6.2 Storage and Stacking

### 6.2.1 Objective

To ensure all materials and equipment are stored safely to allow safe access and transfer of items.

#### 6.2.2 Stacking Neat and Stable

Competent personnel shall be responsible for the stacking and storage of materials and equipment

Racks shall be designed and constructed to safely accommodate the load of the material to be stacked.

All racks and elevated storage areas shall be labelled with the Work Load Limit (WLL).

Designated areas for storage and stacking shall be clearly marked.

All materials and equipment shall be stacked in designated storage areas and shall not obstruct access to safety equipment or access ways.

Round or unstable items shall be secured against movement.

Inspection of stacks shall be included as part of workplace area inspections.

Correct equipment shall be used when handling materials, e.g. ladders, trolley, lifting platform or fork lift.

#### 6.2.3 Unauthorised Stacking

Storage and stacking of items in cupboards and on shelves shall be neat and tidy.

Stacked items shall not obstruct lighting or ventilation

Items shall not be stacked on top of cupboards, on window sills or in any other inappropriate position.

Hazardous storage or stacking situations shall, if possible, be corrected, and shall always be reported to the immediate supervisor.

Audit Verification		
0	Observation	

## 6.3 Buildings and Work Areas

### 6.3.1 Objective

To ensure all buildings, infrastructure and work areas are maintained in a clean and safe condition.

#### 6.3.2 Definitions

**Buildings and Infrastructure** - includes all administration facilities, workshops, mobile workshops, process plant, temporary office/workshop accommodation, surface mining work areas, sub-contractor buildings, lunch rooms, toilets and change rooms.

### 6.3.3 Conditions of Buildings

All buildings, infrastructure and work areas shall be included as part of the monthly inspection program.

Schedules and checklists shall be developed and used for conducting inspections of buildings, infrastructure and work areas and for the reporting of non-conformances.

Daily inspections of all work areas shall be carried out for each site in accordance with legislative requirements.

Records shall be kept of inspections and findings for all buildings, infrastructure and work areas.

Where required, Work Orders shall be raised for correcting non-conformances.

Records shall be kept of actions raised to correct non-conformances and when they were completed.

The structure of all buildings and work places shall be maintained in a safe condition

All floors and premises (walking and working surfaces) including carpeted areas, walkways and roadways, shall be kept in a good state of repair and are to comply with the legislative requirements.

Audit Verification		
	Document: Inspections records	
-0	Observation	

# 6.4 Ladders, Stairways, Walkways and Scaffolding

#### 6.4.1 Objective

To ensure all ladders, stairs, walkways and scaffolds are designed, used and maintained to minimise the risk of injury.

#### 6.4.2 Definitions

Ladders - are fixed or portable structures with treads or rungs, with or without stiles and handrails.

**Stairways** - are sloping stepped structures having not less than three rises and a slope within the range of 26.5 degrees to 45 degrees.

**Walkways** - are passageways that are either level or sloping from the surrounding floor or level. Walkways may be a continuous structure or steps with landings.

Scaffolding - is a temporary structure, specifically erected to support access platforms or working platforms.

### 6.4.3 Ladders, Stairs and Walkways in Good Condition

Only portable ladders that meet Australian Standard (AS) 1892.1, 1892.2 and 1892.3 shall be used.

All stairs, fixed ladders, walkways, handrails and stanchions shall be constructed in accordance with Australian Standard (AS) 1657 and legislative requirements.

Facilities shall be available for the safe storage of portable ladders and scaffolding

All ladders, stairs, walkways and scaffolding shall be in a clean and safe condition prior to use.

#### 6.4.4 Portable Ladders

A responsible person shall be appointed to inspect and check the condition of all portable ladders every three months. A register shall be kept of the inspections and actions taken to correct non-conformances

Up to date records of all portable ladders shall be maintained, logging their identification number, location and inspections details.

Portable ladders shall be safely stored in demarcated areas.

### 6.4.5 Register for Scaffolding

Records of all scaffolding shall be maintained, logging their identification number, location and inspections details.

All scaffolding shall comply with legislative requirements, Australian Standard/New Zealand Standard (AS/NZS) 1576, Parts 1-5 and Australian Standard (AS) 1577.

Certified personnel shall be appointed for the erection and inspection of scaffolding.

All scaffolding shall be inspected before use, immediately after inclement weather and on a weekly basis while in use. The relevant details shall be recorded in the register.

The 'Scaff Tag" system shall be used for all scaffolding and personnel shall not access any scaffolding that does not have a current 'Scaff Tag' attached.

#### 6.4.6 Stairways, Landings, Open-Ended Platforms Fitted with Toe-Boards

All elevated platforms and stairway landings shall be fitted with a toe board that conforms to Australian Standard (AS) 1657.

All scaffolding shall be fitted with kickboards and handrails that conform to Australian Standard (AS) 1576.

### 6.4.7 Fixed Ladders Checked Annually

Up to date records of all fixed ladders shall be maintained, logging their identification number and location.

All fixed ladders shall be inspected once per year as part of a planned maintenance schedule.

A register shall be kept of the inspection and action taken to correct non-conformances.

All fixed ladders higher than six meters shall either be fitted with back support hoops, or be provided with a fall arrester line in accordance with legislative requirements.

Fixed ladders, ladder cages, rails and metal stairs shall be painted in accordance with Australian Standard (AS) 1318.

#### 6.4.8 Elevated Storage Areas

All platforms and elevated storage areas shall comply with Australian Standard (AS) 1657. Elevated storage areas shall be fitted with handrails, proper access and toe-boards.

All platform and elevated storage areas shall be labelled with the load bearing weight (LBW) for the floor area.

#### 6.4.9 Stairways

All stairways shall comply with Australian Standard (AS) 1657.

Stairways that have three or more steps shall have a secure handrail installed and be maintained free of rough and sharp edges.

All stairways shall be fitted with toe boards and handrails.

All handrails, guards and fences shall be colour coded in accordance with the Client's Engineering Specifications

**Audit Verification** 

	Document: Inspections records, registers
-0	Observation

# 6.5 Electrical Safety

### 6.5.1 Objective

To ensure electrical installations and electrical machinery are maintained in a safe condition and that access to specific installations and locations is limited to approved persons.

### 6.5.2 Electrical Installations

All electrical apparatus shall be installed and maintained in accordance with legislative requirements.

All electrical equipment shall be maintained in safe working order as required by legislative requirements.

Electrical apparatus installations shall be:

- fenced or effectively enclosed;
- provided with notices at all entrances prohibiting unauthorised access; and
- if unattended by an authorised person, kept closed and locked at all entrances in accordance with legislative requirements.

Machinery shall not be operated within a clearance of less than ten metres of any overhead high voltage power lines without written permission from the Electrical Supervisor.

Excavation permits shall be required for any excavation, digging or trenching greater than 100mm.

Any work or travelling of equipment or vehicles in the vicinity of overhead power lines shall be in accordance with Power Line Corridor requirements in the Mines Safety Inspection Regulations 1995

All electrical distribution panels and switchgear shall be identified and marked clearly in accordance with Australian Standard (AS) 3000.

Provision shall be made for the operation of main isolation switches when distribution boards are locked.

Where the possibility of electrical back feed or stored electrical energy exists, a prominent notice to that effect shall be displayed.

Temporary electrical installations shall not be allowed without the approval of the Electrical Supervisor.

Metal ladders or ladders with metal reinforcement shall not be used when working on electrical apparatus.

#### 6.5.3 Earthing and Polarity Checks, Inspection and Checks

Quarterly inspections or more frequently when legislation specifies of electrical installations and workshop equipment shall be conducted by the appointed electrician. The inspections shall include earthing and polarity checks.

Sub-stations and switch rooms shall be inspected regularly by the appointed electrician to ensure that contact with electrical supply cannot occur and these areas are maintained in a clean and dust free condition where applicable.

All inspections, checks and testing of electrical equipment shall be recorded.

All areas presenting explosion or ignition hazards with the presence of electrical apparatus shall be recorded and will include, but not be restricted to:

- flammable chemical stores;
- flammable liquid stores;

Explosion protection in accordance with Australian Standards (AS) 2380 and (AS) 2381 shall be fitted to electrical apparatus within hazardous areas.

Light switches shall be mounted external to hazardous areas.

Explosion protection on electrical apparatus shall be inspected quarterly. Registers of inspections and actions taken to correct non-conformances shall be kept.

Audit Verification		
	Document: Inspections records, registers	
0	Observation	

# 6.6 Lifting Gear and Equipment

#### 6.6.1 Objective

To ensure all lifting equipment is in good condition and used properly to protect employees from falling objects and to prevent equipment damage.

#### 6.6.2 Definitions

**Lifting Machinery** - is any machinery or combination of machines designed and constructed for the purpose of lifting and lowering any object by means of a chain, rope, hook or other attaching device. It includes fixed and mobile cranes, fork lift attachments, lever hoists chain blocks, tirfors, rope blocks and tackle, hooks, shackles, wire ropes and chain slings.

Lifting Gear - includes chains, slings, hooks and other fittings used for the purpose of lifting plant and equipment.

### 6.6.3 Lifting Gear

Lifting gear shall comply with legislative requirements and relevant Australian Standards.

An inspection schedule shall be used for the inspection of all lifting equipment to meet legislative and Australian Standards requirements.

A responsible person shall be appointed to physically examine all lifting equipment. The appointed person shall hold a current dogging/rigging certificate.

All lifting equipment shall be scheduled for inspection every six months.

Only safe lifting gear shall be used. This shall be achieved by:

- withdrawing all faulty equipment from service;
- destroying irreparable equipment including shackles, hooks, slings and chains;
- not using towing equipment for lifting and not using lifting equipment for towing;
- marking all lifting equipment; e.g. shackles, hooks, slings and chains;
- marking all towing equipment with red paint or a red tag; and
- updating the lifting equipment register with new equipment or as equipment is removed from service.

All sub-contractor's equipment shall be checked three monthly by a qualified person to the Company's standards. A record shall be kept of the inspection and non-standard equipment shall be removed from site.

Lifting equipment shall be used only as designed and within the manufacturer's specifications.

All lifting equipment shall be checked prior to use and any defects reported to the immediate supervisor.

### 6.6.4 Lifting Machinery and Gear Identified and Recorded

Lifting gear shall be identified and kept in good order by:



- labelling all lifting equipment with its own individual number and load capacity and recording details in the lifting equipment log book;
- inspecting all lifting equipment and recording the results in the lifting equipment log book;
- painting the hook sheave blocks yellow with black stripes and the hooks themselves with yellow to make them easily visible, all in accordance with Australian Standard (AS) 2700;
- making suitable storage facilities available; and
- storing equipment off the ground in a clean and dry environment.

Fibre web slings shall not be used on any Bentley Crane Hire Project without the written permission of the Site Manager.

All wire and chain shall be hung up neatly to prevent kinking and damage.

### 6.6.5 Working Load Limit Marked

The safe working load for cranes shall comply with the requirements of Australian Standards (AS) 1418 or (AS) 2550. All lifting devices, slings, beams, monorails, pulleys and chain blocks etc. shall be labelled with the working load limit (WLL).

### 6.6.6 Hooks Measured for Spread

The distortion of hooks shall be monitored once every six months with details recorded in the lifting equipment log book

Hooks shall be tested using the three-point pop-mark system to determine distortion.

Hooks with more than 5% distortion shall be taken out of service and destroyed.

Hooks with wear greater than 10% of the original width of the hook shall be taken out of service and destroyed.

### 6.6.7 Safety Latches

A safety latch shall be fitted to each hook as required by legislation.

### 6.6.8 Safe Access to Overhead Cranes

Safe and controlled access to overhead cranes shall be provided.

Overhead cranes shall have a second means of escape such as escape ladder ways.

#### 6.6.9 Training of Operators

Suitable training shall be given to employees required to operate lifting equipment. The training shall incorporate:

correct choice of slings and lifting gear;

- correct slinging and lifting practices; and
- use of standard hand signals.

Records of the training shall be kept.

Employees who are required to operate lifting equipment shall be tested every two years to ensure their competency as a follow up to the Slings and Lifting course.

The standard signal system shall be displayed in workshops.

Employees shall be trained in the use of the standard hand signals to control a load being lifted.

Records of employees authorised to operate lifting equipment shall be maintained.

All areas where fixed overhead cranes operate shall have caution signs positioned at entrances to the area or be otherwise appropriately barricaded.

Application	Australian Standard	Title
Chains and Ropes	AS1532	Short pitch transmission precision roller chains and chain wheels
	AS2321	Short-link chain for lifting purposes
	AS2759	Steel wire rope - Applications guide
	AS3569	Steel wire ropes
	AS1666	Wire rope slings
	AS3775	Chain slings - Grade T
	AS3776	Lifting component for Grade T chain slings
Lifting Components	AS1138	Thimbles for wire ropes
	AS2089	Sheave blocks for lifting purposes
	AS2317	Collared eyebolts

Application	Australian Standard	Title
	AS2318	Swivels for hoists
	AS2319	Rigging screws and turnbuckles
	AS2740	Wedge type sockets
	AS2741	Shackles
	AS3569	Steel wire ropes
	AS3777	Shank hooks and large-eye hooks - Maximum 25 t
Plant and Equipment	AS1735	Lifts, escalators, and moving walks
	AS2550	Cranes - Mobile, tower and derrick - Selection and operation

Audit Verification		
	Document: Inspections records, registers	
-0	Observation	

# 6.7 Work at Height

#### 6.7.1 Objective

To define the requirements and minimise the risks associated with working at height.

### 6.7.2 Definitions

**Work at Height:** Any work which is performed in such a position that could allow a person to fall from one level to another or where a risk assessment identifies that there is a danger of falling.

**Fall Prevention:** A system of work including but not limited to EWP's, scaffolding, scissor lifts, man lifts and harness and lanyards which limit the potential of a person falling from one level to another.

**Fall Arrest:** A system of work designed to break and/or limit the severity of a fall from one level to another by use of a harness and shock absorbing lanyard and double acting snap hooks.

**Personal fall-arrest equipment (PFAE):** Equipment worn by a person where there is the risk of free or restrained fall e.g. fall-arrest harness, confined space fall-arrest harness, shock absorbing lanyards, and associated carabiners, snap hooks and other apparatus.

**Personal Fall Restraint Equipment, (PFRE):** Equipment worn by a person where there is the risk of free or restrained fall e.g. fall-arrest harness, confined space fall-arrest harness, non-shock absorbing lanyards, and associated carabiners, snap hooks and other apparatus.

**ESO's:** Emergency Services Officers.

### 6.7.3 Requirements

### 6.7.3.1 Assessment

All persons working at height must be competent to perform "Safe Work at Height" risk assessments. Risk assessments are required for all work at height including work outside handrails.

For all work at height, there is to be a formal risk assessment to establish the hazards and controls to ensure safe working. The risk assessment is to consider the required level of supervision and changing environmental factors.

Risk assessment results are to be incorporated into a 'check list' procedure or JHA that ensures adequate provisions for working at height.

### 6.7.3.2 Work at height Permit

At any time that a person is required to work at height and use PFAE attached to anything other than a recognised work platform, (e.g. EWP, scaffold, scissor lift), or ladder a work at height permit is required. The authority is to be signed by the Supervisor and the ESO's representative. The ESO's are to be notified of the when a person is to go into a fall arrest situation and when that person has completed the task requiring PFAE each day.

A person using PFAE shall not work alone but shall have a person observing them at all times so that should they fall the alarm may be raised immediately.

Where the work method requires personnel to detach and reattach at height a double lanyard system shall be employed.

### 6.7.3.3 Contingency Planning

Emergency Response Plans are to address rescue provisions in all site working areas where falls from heights are a risk. It is to include provisions for rope rescue.

Where the scope of a job changes, a review is to be conducted to ensure the provisions for safe working at height are still valid

### 6.7.3.4 Use and Maintenance of Safety Belts, Full Body Harnesses,

All fall arrest and fall restraint equipment shall be inspected maintained in accordance with Australian Standards AS 2626, AS 4626 and AS 1891.

The relevant manufacturer's recommendations and instructions shall also be adhered to where such instruction does not conflict with the relevant Australian Standard.

All PFAE and PFRE shall have fully matched components.

This equipment should be made readily available at the work site. All equipment shall be inspected prior to use and at regular intervals.

### 6.7.3.5 Registers

A register shall be kept of all fall arrest and fall restraint equipment.

### 6.7.3.6 Fall Prevention

Wherever practical a safe working area must be provided by way of work platforms complete with floors, guard rails, toe boards and a safe means of access and egress.

Only competent and authorised persons shall be designated to control any work platform, scissor lift or man lift.

Every person in an EWP or man cage shall be secured by PFRE.

### 6.7.3.7 Design, Construction and Use of Permanent Work Platforms

Permanent work platforms are fixed structures that allow access to a work area at any time and should meet the following requirements:

As a minimum, a work platform should:

- be designed and constructed to carry the anticipated loads. Handrails are to withstand a minimum of 0.55kN (55 kg dead weight equivalent).
- Have a firm, level surface that does not move while being walked upon.
- have edge protection in accordance with AS1657. The edge protection should consist of (all dimensions above the walking level):
- a top rail between 900 and 1100 mm, a mid-rail at 600 mm, and a 100 mm (minimum) kickboard, or a top rail at a minimum of 900 mm and infill panels suitable to prevent falls.
- have a bar or gate (which should be self-closing) fitted to openings in handrails for downward access.

A permanent work platform should meet the requirements of AS1657

#### 6.7.3.8 Working Without a Work Platform

Where persons are to work in an area that has no work platform and has been deemed by the risk assessment, to require controls to prevent falls, persons should wear fall-restraint equipment (PFRE) secured to an appropriate anchorage.

Anchor points shall be inspected and authorised for use by a competent person.

Fall arrest equipment (PFAE) shall only be used when all other control measures have been explored and deemed to be inappropriate. When PFAE systems are used the anchor points shall be capable of withstanding 15 kN (1500 kg dead weight equivalent).

Static lines shall be capable of withstanding 60 kN (6000 kg dead weight equivalent).

#### 6.7.3.9 Design, Construction and Use of Fixed Ladders

All fixed ladders shall be designed and constructed to AS1657. If the ladder extends more than 6 metres the design is to include either:

- The provision of fall-arrest system (e.g. patented ladder-climb systems), or
- Landings/ rest points at 6 metre intervals and hoops and cages fitted from 2.2 metres above the bottom of the ladder.

#### 6.7.3.10 Use of Ladders

While climbing a ladder, a person should maintain at least three points of contact. All materials, tools, etc., required at the work area, should be lifted and lowered by an approved method (e.g. by crane, a rope or other approved lifting device).

Access to ladders should be unobstructed at all times.

### 6.7.3.11 Portable Ladders

Any ladder that is capable of being transferred from one location to another is considered a portable ladder.

#### 6.7.3.12 Design and Construction

All portable ladders should comply with the requirements of AS1892 Portable Ladders.

#### 6.7.3.13 Use of Portable Ladders

When working from a portable ladder the following should be followed:

- When personnel use a single or extension ladder, the ladder is to be either securely anchored at the top or held firmly by another person.
- When lashing or unlashing the ladder it must be secured by a person at the bottom of the ladder.
- Personnel using a single or extension ladder should have either both feet and one hand or one foot and two hands in contact with the ladder or be secured by a fall arrest device.
- When using a step ladder and a person's feet are more than two meters from the base of the ladder, the ladder must be held securely by another person.
- The top two rungs of a step ladder shall not be used.
- A person on the ladder is to remain within the vertical lines of the ladder. They should be able to work comfortably on the ladder while standing upright and not leaning to the sides.
- Equipment, materials or tools will not be carried up or down a ladder by hand. Three points of contact must be maintained at all times.
- Ladders are only to be placed on a firm and level surface.
- The height of a ladder is not to be more than 4 times the distance from the foot of the ladder to the wall.
- All access ladders shall be secured against movement and extend at least 900mm above the work platform level.
- PFAE is to be used with flexible ladders. Flexible ladders are only to be used when all other methods of access have been considered.
- Only one person is to use a ladder at a time.
- When ladders are used in areas subject to either personnel or vehicle traffic, precautions must be taken to prevent inadvertent contact with the ladder e.g. Barricade, signage, flashing lights, etc.
- There must be a system that ensures periodic inspection and servicing of all portable ladders. A log is to be kept of inspections and all ladders are to be marked as inspected.
- Ladders should not be used unless within current inspection date and in good condition.

#### 6.7.3.14 Disposal of Ladders

Where ladders do not comply with the inspection criteria the ladder is to be repaired to pass inspection or destroyed.

### 6.7.3.15 Flexible Ladders

#### 6.7.3.15.1 Design and Construction

The design and construction of a flexible ladder will be determined by the environment and intended use and is only to be constructed by an appropriately qualified manufacturer.

### 6.7.3.15.2 Use of Flexible Ladders

Flexible ladders should only be used when all other methods of access have been considered and deemed inappropriate. Other requirements are:

- PFAE should be used when using flexible ladders.
- Flexible ladders should be stored in an appropriate storage area complying with the manufacturers requirements.
- There must be a system that ensures periodic inspection and servicing of all flexible ladders.
- A log is to be kept of inspections and all ladders are to be marked when inspected.
- Ladders should not be used unless within current inspection date and in good condition.
- Where ladders do not comply with the inspection criteria the ladder should be repaired to pass inspection or destroyed.

### 6.7.3.16 Portable Stands

Where portable stands are used and there is a risk of a fall the portable stands shall have hand rails. If handrails cannot be used, then suitable fall arrest equipment shall be worn by personnel on the stand.

Whenever a portable stand is in use, it should be immobilised. Areas where portable stands are used should be level and firm.

### 6.7.3.17 Design, Construction and Use of Mobile Work Platforms

Mobile work platforms must comply with the Australian Standards

When the work platform is attached to an item of mobile equipment and in the raised position, the operator of the mobile equipment should not leave the operating position.

Where mobile work platforms are capable of being tilted or "dumped" during operation (e.g. basket attached to IT etc.), persons should wear PFAE. Where it is **not physically possible** to tilt the platform either through mechanical failure or operator error and substantial guard rails are installed (e.g. scissor lift, tilt controls are locked out etc.), use of PFAE should be optional.

### 6.7.4 Mancages

A mancage can only be used in conjunction with a mancage permit issued by the Engineering Maintenance Department Coordinator.

A "mancage" is a specially designed & constructed (to Australian Standards) cage that is suspended from a crane for the purpose of lifting and lowering personnel to access plant/ equipment that cannot be accessed through alternative means.

Where mancages are used, a written Mancage Permit must be completed.

Mancages should be approved and registered by the appropriate authority and a compliance plate must be affixed to the mancage to show this.

Mancages must only be used when:

- Weather conditions are suitable.
- A licensed & authorised crane driver operates the crane.
- All certificates of testing for the mancage, crane and all associated equipment (slings etc.) are current.
- All personnel involved in the work are aware of the relevant procedures to be followed.
- There is a hand held radio with all relevant channels to communicate between the mancage and the crane operator.
- The crane driver remains at the crane controls at all times whilst the mancage is in use.
- It is not possible for any part of the crane or load to be within or to move within 5 metres of any "live" power lines.
- The crane is stationary.

The crane shall comply with all the statutory requirements, have all the required inspections and tests up to date and be in good condition.

No other lifting is performed whilst the mancage is attached.

Personnel are secured inside the mancage at all times whilst the mancage is in use.

Each mancage shall be specifically designed in accordance with AS 1418.17.

#### Each man-cage shall:

- be clearly marked with the tare weight; and the maximum mass it can carry.
- Have the lifting slings permanently attached to the cage by locked shackles, or similar means.
- Be regularly inspected and maintained in safe working condition.
- Have the access door, if fitted only able to open inwards, and able to be securely locked.
- Have a maximum & minimum of two persons at any time occupying the cage whilst in use. One of the persons in the mancage should also be a licensed dogman.
- Be fitted with anchor points to allow both occupants to wear a safety harness attached to the anchor points at all times whilst the mancage is in use.


- Whilst in use, in addition to lifting attachments, be fitted with a safety sling securely anchored to the crane hoist rope, above the lifting hook.
- Be inspected prior to use to ensure all requirements are met.

Cranes lifting a mancage should:

- Have driven up & drive down controls on both the hoist and luffing motions.
- Be equipped with controls that return to the neutral position when released and this action causes the motion to stop.
- Be fitted with operational warning or limiting devices to prevent overwinding of the hoist drum.
- Be equipped with outriggers & have them extended at all times whilst the mancage is in use.
- Have all free fall devices locked out, whilst the mancage is in use.

Audit Verification	
	Document: Permits
-0	Observation
M	Employee Interview

# 6.8 Scaffolding

#### 6.8.1 Objective

To define the standards required for the installation, use and removal of scaffolding.

# 6.8.2 General

All scaffolding must comply with Australian Standards and be made safe to all who need to access or egress the scaffolding.

All scaffolding that is constructed on site shall display an appropriate tag (e.g. Scaftag) and be dated and signed by a licensed scaffolder. Only an appropriately licensed scaffolder shall construct, inspect, modify, maintain and dismantle scaffolding.

### 6.8.3 **Prior to Commencing Work**

All specific job requirements including the need for a JHA or other specialised requirements should be discussed. All JHA's are to be submitted prior to commencing work.

If a contractor is used the scaffolding contractor must provide evidence that equipment is regularly checked and is in a safe condition in line with AS 1576 & AS 1577. Equipment could also be checked by the Supervisor responsible for the job.

Bentley Crane Hire Construction owned equipment shall be checked by the scaffolders to ensure it is in a safe condition prior to use. This scaffolding shall be regularly checked by the appointed scaffolders on site as required by AS1576 and AS1577.

#### 6.8.4 Scaffold Requirements

The scaffolding should conform to the following general safety requirements of AS1657, 1576 and 1577.

### 6.8.5 Working Platform

The work platform shall at all times:

- be free from any tripping hazards,
- have planking has no gaps greater than that required for the lashing,
- a working surface that is slip resistant, firm and level,
- have planks or working surface that are secured and
- be level.

#### 6.8.6 Access to Platform

The clear width of an access to the platform, measured between guardrails should be;

- Not less than 675mm for persons and material; and
- Not less than 450mm for persons and hand tools.

# 6.8.7 Toe Boards

All scaffold platform toe / kick boards should include the following:

- Planks shall extend 150mm above the surface of the platform;
- Gap between the kick/toe board and the platform shall not exceed 10mm;
- The kick/toe board shall be secured and extend around the entire work platform;
- The kick/toe board may be omitted due to access requirements to the work. Where the kick/toe board is omitted the gap between the working face and structure shall be less than 100mm (to prevent objects or person falling).

# 6.8.8 Guardrails

Guard rails shall comply with the following:

- Where wire ropes, fibre ropes or chain are used, they shall only be used to close off access openings in guard railings;
- Guardrails should be securely fixed and parallel to the platform;
- A top rail should be between 900mm and 1100mm from the platform;
- A mid rail should be at 600mm from the platform unless fitted with an infill panel; and
- When guard rails are omitted at the working face or adjacent to a structure/building, the gap between the structure/building and platform edge should be less than 100mm.

### 6.8.9 Platform Access Stairs

Platform access stairs shall comply with the following:

- Stairs should be in straight flights and not less than 500mm in width;
- The minimum head room for stairs should be 1850mm;
- The minimum clearance above landings should be 1850mm;
- Every access landing should have 450mm clear around the landing point; and
- Opening in hand railings for downward access from a platform should be fitted with a bar or gate and these should be self-locking.

### 6.8.10 Constructing and Dismantling

- When constructing, altering or dismantling any scaffold, materials and equipment should not be thrown to persons above or below.
- When lifting and lowering equipment to and from upper levels an approved method should be used.
- While a scaffold is under construction and during dismantling, a PFAE should be worn and properly secured.
- The Scaftag system (which includes the structure's load capacity) should be utilised prior to personnel accessing the platform.
- The authorised scaffolder should display a "do not use scaffold" tag at each access to a scaffold during construction, alterations and dismantling.
- An appropriate barricade and signage should be erected below the work area and the scaffold.
- All scaffolding and associated equipment should be stored in a safe manner during construction and dismantling.
- All scaffolds should be inspected every 14 days and approved for use and have the approval tag updated by a licensed scaffolder.

- When the access through a structure is required the height of frame should be 2 metres, and the width of the walkway not less than 500mm.
- When the access height is less than standard and access is required precautions should be in place, e.g. Foam is fixed to tubing and "Caution Low Head Room" signs in place.
- Tube extensions should extend past the coupler by not less than 10mm.

# 6.8.11 Working from Scaffolds

- Access to all scaffolds should only occur after the scaffold is approved for use and the appropriate approval tag is in place at the access point.
- All equipment, materials and tools required at the work area should be lifted and lowered using a method that has been approved by a competent and authorised person.
- Work to be carried out on a scaffold should be within the load rating of the scaffold.
- At any time, a person leaves the confines of the scaffold platform to carry out work at height, they shall conform to the requirements of the "Working at Height" Standard.
- Where scaffolds are fitted with wheels the wheels shall be locked whenever the scaffold is being used.

Audit Verification	
0	Observation
	Employee Interview

# 6.9 Machine Guarding

### 6.9.1 Objective

To ensure employees are protected from injury that may be sustained from any pulley, chain drive, coupling, conveyor or other moving mechanical device by providing a guard on all access and nip points of the device.

# 6.9.2 Definitions

**Machinery** - means every engine, motor or other source of motive power, and every machine, shafting belt, gearing pulley, flywheel, lift, crane, contrivance, or appliance driven by such engine or power and includes boilers and air receivers, but not hand guided rock drills or small hand power tools.

Machine Guard - A device, screen or shield placed on moving components or openings to prevent hazardous access or contact with operating plant or equipment.

**Plant** - includes machinery, equipment, appliance, implement, or tool and any component or fitting of or accessory to any such article.

# 6.9.3 Machine Guarding

All machinery shall be adequately guarded to comply with legislative requirements.

An annual machine guard survey shall be conducted of all exposed, moving machine parts to ensure adequate guarding, and to inspect the guards for conformance to Australian Standards.

Specifications for guarding shall be provided for all machinery prior to purchase or installation. All machinery guarding shall be in accordance with Australian Standard (AS) 4024.1.

Conveyor guards shall comply with Australian Standard (AS) 1755.

For maintenance purposes, guards shall be constructed for ease of removal and replacement.

Machine guards shall be regularly inspected to ensure:

- the structural integrity of installed guards;
- damaged or missing guards are repaired or replaced; and
- that guards are colour coded to conform to Australian Standard (AS) 2700.

Where it is impractical to provide guards on plant or equipment, or where guards have been removed for maintenance or repair work, suitable fences or barricades shall be installed.

Barricades shall consist of the following:

- pipe and post, which shall be painted yellow and black, and may be designed to carry flashing warning lights; or
- post and chain; or
- barricade tape; or
- witches' hats
- other suitable barricade.

Where signs are used in conjunction with barricades, they shall be in accordance with Australian Standard (AS) 1319.

No person shall be permitted to work inside or enter a fenced or barricaded area unless the machinery has been isolated and tagged-out, in accordance with the Company's isolation and tag-out procedures

Where it is necessary to conduct commissioning or maintenance tasks on operating equipment that has had its guards removed, a written safe work procedure authorised by the Project Supervisor shall be used to enable employees to access a fenced or barricaded area.

No person shall remove a guard from any plant or equipment for any purpose, while the plant or equipment is still operating, and where it has not been isolated and tagged-out in accordance with legislative requirements.

Prior to reporting the hazard, corrective actions shall be taken to make safe any missing or damaged guard.



# 6.10 Pressure Vessels

#### 6.10.1 Objective

To provide and maintain ongoing safety inspection and maintenance programs for all pressure vessels, gas cylinders and associated equipment.

### 6.10.2 Definitions

**Pressure Equipment** - means a boiler, pressure vessel (e.g. air accumulators on trucks) or pressure piping to which AS/NZS 1200 applies and having a hazard level of A, B, C or D according to the criteria set out in AS 3920.1.

Pressure Vessel - means a vessel subject to internal or external pressure and: -

- i. includes interconnected parts and components, valves, gauges and other fittings up to the first point of connecting piping, fired heaters and gas cylinder; but
- ii. does not include any boiler or pressure piping.

Gas cylinder - any cylinder covered by Australian Standard (AS) 2030.

### 6.10.3 Pressure Vessels on Register

All pressure vessels and fittings shall meet design requirements for safe operation and shall be in accordance with Australian Standards (AS) 1210, (AS) 1228, (AS) 1777, Parts 1, 2, or 4 of (AS) 2030 and (AS) 2613.

A register of all pressure vessels shall be maintained, recording vessel identification and location, test pressures and inspection due dates.

Details of all tests, inspections and maintenance shall be kept in the register of pressure vessels.

All pressure vessels will be clearly marked to indicate manufacturing standard and serial number.

### 6.10.4 Test Pressure to Legislative Requirements

Pressure vessels shall be inspected and tested by a competent person in accordance with legislative requirements.

Compressed gas systems including fire protection systems shall be recorded, inspected and tested according to the relevant Australian Standard

#### 6.10.5 Relief Valves Locked or Sealed

All relief (safety) valves fitted to pressure vessels and gas cylinders shall be locked or sealed at correct operating pressures.

#### 6.10.6 Red Line on Pressure Gauges

All pressure and temperature gauges used in conjunction with pressure vessels and gas cylinders shall be permanently marked with the maximum operating pressure or temperature indicated in red on the dial face.

#### 6.10.7 Cylinder Storage and Usage

Procedures associated with storage and transport of compressed gas cylinders shall be in accordance with Company and legislative requirements.

Compressed gases shall be segregated in storage to comply with legislative requirements. Empty and full cylinders shall also be separated.

Gas cylinders shall be stored in an upright and secured position and be protected from direct sunlight where practicable.

Gas cylinder storage areas shall be demarcated and signed in accordance with Australian Standard (AS) 1319.

Compressed gas cylinders shall only be transported on approved trolleys or in approved lifting cages. No lifting device shall be attached to a gas cylinder.

Cylinders shall be individually chained or clamped and the securing device shall not be less than two thirds from the bottom of the cylinder.

Flashback arresters shall be fitted at both the valve and regulator ends of oxygen and acetylene cylinders.

Only Australian Standard approved hoses shall be used with compressed gas cylinders and pressurised vessels.

An inspection shall be conducted at least monthly of each oxy-acetylene set including the gauges, flashback arresters and hoses. Records shall be kept of the inspections and of actions taken to correct non-conformances.

Quarterly inspections shall also be conducted and oxy / acetylene sets will be tagged with the same colour tag used for electrical tools and apparatus for that quartile.

Dry Chemical fire extinguishers shall be provided within fifteen meters of gas cylinder storage locations and shall be available within 15 metres of any oxy / acetylene task requiring a hot work permit but must not be attached to the storage building, in accordance with Australian Standard (AS) 2444.

Only trained and competent employees shall use compressed gas cylinders and associated equipment. Records shall be kept of the competency.

Each user of compressed gas cutting and welding equipment shall complete a pre-use check of the equipment.

# 6.10.8 Pneumatic Tools: Usage and Storage

All air-powered tools shall only be used in accordance with the manufacturer's standard and only correctly rated Australian Standard air hoses, fittings, safety clips and locking pins shall be used on all compressed air lines

All compressed air receivers and air supply lines shall be fitted with an effective moisture trap.

The maximum air pressure shall be clearly indicated on air supply outlets

All fixed air supply outlets shall be installed face down and be positioned so that pneumatic tools can be easily attached.

Where pneumatic grinding tools are approved for use, they shall:

- have rated RPM permanently marked on the machine body; and
- be numbered and included in the pneumatic tool register.

Pneumatic tools will be inspected and serviced and tagged quarterly, (as with electrical tools) with the service being recorded in the pneumatic tools register. The inspection of pneumatic tools will include checking:

- actual RPM against the rated RPM of the tool;
- all connections to ensure they are tight and the machine is in good condition;
- that all air-powered tools are stored in a clean and correct manner;



- that attachments of compatible RPM are fitted; and
- the equipment number and identification is correct.

Pneumatic tools shall only be used with an in-line moisture trap and lubricator.

All pneumatic tools will be stored in a manner to prevent damage to the unit.

Audit Verification	
	Document: Inspections records, registers
-0	Observation

# 6.11 Hand Tool Usage

# 6.11.1 Objective

To ensure hand-tools are maintained in good working order to enable a high standard of work practices and safety of the operator

#### 6.11.2 Definitions

Hand-tools - tools which are portable and carried by employees to conduct installations, repairs, adjustments and maintenance work.

#### 6.11.3 Condition of Hand-tools

All rotary action tools such as grinding/cut-off wheels (not angle grinders) and electric saws shall be fitted with self-closing guards in accordance with Australian Standard (AS) 1788.2.

Guards fitted to rotary action tools shall be of sufficient strength to withstand impact from a broken wheel or blade in accordance with Australian Standard (AS) 1788.1.

Grinding wheels and discs shall be distinctly marked with the recommended operating speed. Recommended operating speeds shall not be exceeded in accordance with Australian Standard (AS) 1788.1.

All angle grinders shall be fitted with a fixed guard and side grip and be of double insulated construction.

Angle grinders above 150mm in diameter shall be fitted with a 'dead man's switch' in accordance with Australian and New Zealand Standard (AS/NZS) 3160.

Angle grinders shall only be used by operators who are deemed competent to use the equipment. Metal trades personnel shall be deemed competent by virtue of their trade papers.

Adequate facilities shall be provided for the transport of hand-tools between storage and work areas.

Non commercially produced or hand-made tools shall be assessed for safety and approved by the supervisor before being used.

Hand-tools, including wheeled appliances such as trolleys and wheelbarrows shall be maintained in good safe working condition.

Vitreously bonded grinding wheels shall be tested ('rung') before use.

Employees shall not use or operate hand-tools unless by virtue of their training or trade qualifications, they are deemed competent to use such equipment.

Operators of hand-tools and employees in the immediate vicinity shall wear the required personal protective equipment. Face shields are required when operating hand tools of high revolutions per minute, e.g. grinders, drills.

Employees shall only use hand-tools approved by the Company.

# 6.11.4 Supervisors to Conduct Regular Checks

Inspection of hand-tools shall be ongoing and part of daily routine job inspections.

Where hand-tools are used at heights and they present a hazard to other persons or equipment below, they shall be fitted with a strap or other securing device to prevent them being dropped whilst being used.

# 6.11.5 Storage of Tools

Specialised hand-tools, such as torque wrenches, explosive power tools, etc., shall be stamped or permanently numbered and a register kept which includes:

- identification number;
- type of tool;
- location of storage; and
- inspection details.

All hand-tools shall be stored in such a manner and in locations which are easily accessed;

- are stored on racks or off the ground;
- enable storage without damage to the tool;
- are appropriate for the size and weight of the tool; and
- do not create a hazard to employees.

# 6.11.6 Explosive Powered Tools

Explosive powered tools shall only be used by trained persons with authorisation from the Site Manager.



Where explosive powered tools are used and stored, they shall comply with and be used in accordance with Australian Standard (AS) 1873.1 and statutory requirements.

Operators of explosive power tools and employees in the immediate vicinity shall wear the required personal protective equipment.

Explosive cartridges shall be stored and secured separately from the explosive power tool.

Warning signs shall be displayed whilst explosive power tools are being used.

Audit Verification	
	Document: Registers
-0	Observation
M	Employee Interview

# 6.12 Isolation and Tag Out Procedures

### 6.12.1 Objective

To ensure that accidental injury or illness of personnel working for the Company is significantly reduced by using a tagging and lock-out system.

#### 6.12.2 Definitions

**Lock-Out** - A system where a safety device is used to physically isolate the main energy source from a piece of plant or equipment to make it inoperable.

**Tag-Out** - A system where Out of Service tags, Personal Danger tags, Information tags and Commissioning tags are used to indicate equipment or plant is not to be operated.

**Danger Tag** – means an accident prevention tag as referred to in Part 5 of Australian Standard (AS) 1319 that is in the form of a danger sign, within the meaning of that Standard.

<u>**Out-of-Service Tag**</u> – means an accident prevention tag as referred to in Part 5 of Australian Standard 1319 that is in the form of a warning sign, within the meaning of that Standard, bearing the words "out-of-service".

### 6.12.3 Procedures

Where maintenance work poses a danger to personnel or has the potential to result in equipment damage, the Company's isolation, lock-out and tag procedures shall be used for the positive isolation of electrical, mechanical, pneumatic, hydraulic and/or other energy sources.

Written Safe Work Procedures shall be available and used for tasks requiring the use of the isolation, lock-out and tag-out systems. The procedures shall include provision for the testing of the isolated equipment to confirm its isolation prior to work commencing.

The method of isolation, lock-out, tag-out and entry into confined spaces shall be in accordance with Company and legislative requirements.

Appropriate locks and devices shall be available for the physical isolation of electrical, mechanical, pneumatic, hydraulic or other energy sources.

Personal Danger tags, Out of Service tags, locks and keys shall be readily available for employees to use at all times

When using locks, Personal Danger tags and Out of Service tags shall still be used.

Employees shall be trained in the isolation, lock-out and tag-out procedures. A record shall be kept of the training and of employee's attendances

The removal of isolation locks, Personal Danger tags and Out of Service tags shall be performed in accordance with the Company's isolation and tag-out procedures.

All employees shall comply with the isolation, lock-out and tag-out procedures.

Padlocks shall be uniquely keyed, or where more than one padlock is required, keyed alike in sets which are under the direct and exclusive control of each individual.

A scissor lock shall be applied before the application of any padlock.

Where a "lock box" is utilised all personnel shall tag and lock out on the lock box. The individual isolations shall be under the control of an issuer and the keys for those locks shall be kept in the "lock box"

#### 6.12.4 Equipment Isolated and Locked

All electrical, mechanical, pneumatic, hydraulic and/or other energy sources, including motorised vehicles, shall be fitted with an isolation control valve, switch or circuit that can be locked in the off or closed position.

All new or modified equipment shall be fitted with isolation controls that can be isolated by lock-out systems.

### 6.12.5 Main Switch Accessible

The main isolation switch of all machinery, plant and equipment shall be accessible at all times.

Audit Verification	
	Document: SWP's, Procedures
-0	Observation
M	Employee Interview

# 6.13 Permit to Work

# 6.13.1 Objective

To stipulate risk control measures for work located in specific areas or involving particular tasks that are hazardous to employees, equipment or the environment.

# 6.13.2 Definitions

**Work Permit** - A signed authority to complete work involving potentially hazardous tasks or locations subject to certain conditions being observed.

# 6.13.3 Areas and Tasks Identified Where Permits Required

A standard for safe work in all Company project and plant areas shall be established and authorisation shall be required to commence work. Additional work permits shall be required for locations or tasks involving:

- hot work such as welding and grinding;
- confined space entry;
- excavations;
- land clearance;
- high voltage access or vicinity; and
- the use of a man-cage

Each work permit shall contain a checklist of precautionary measures and work practices required to be undertaken prior to, during and on completion of the work.

All tasks and work locations requiring permits for work shall be recorded in a critical task inventory.

# 6.13.4 Permits Use

All supervisory staff shall be familiar with locations and tasks requiring work permits

All employees shall receive training on the work permit system at their induction.

Work permits shall be issued before any task listed in the critical task inventory is undertaken.

A copy of the work permit shall be retained by the person performing the task or the immediate supervisor at the work site for the duration of the task.

Regular checks shall be undertaken to ensure compliance with all conditions required by permits.

All employees shall be trained in the use of hazard control equipment as required by work permits

# 6.13.5 Permits Issued and Signed by Responsible Person

Each Company project and plant shall have a person appointed responsible for the management of the Work Permit System Supervisory staff shall be appointed for the issue and management of work permits.

Audit Verification	
	Document: Permits
-0	Observation
M	Employee Interview

# 6.14 Vehicle Operation

# 6.14.1 Objective

To provide a high standard of roadworthiness of motorised equipment and ensure the ongoing compliance with driving and operating rules.

### 6.14.2 Definitions

**Motorised Equipment** - Any mobile motorised equipment (including mobile cranes, forklifts) used for the transportation or movement of people, equipment or goods.

Vehicle Classification - The following classifications will be used:

- i. Light Vehicles (under 3 tonnes) e.g. cars, vans and utilities;
- ii. Heavy Vehicles (over 3 tonne) e.g. trucks, loaders, buses, scrapers, graders, cranes and water carts; and
- iii. Emergency Vehicles e.g. fire engines and ambulances.

### 6.14.3 Condition of Vehicles and Equipment

All motorised equipment shall be provided and maintained so as to comply with the legislative requirements in each state.

All motorised equipment shall be identified by the registration number and included in a maintenance program and maintenance log book.

All vehicles, (except where otherwise specified) shall be equipped with the following items:

- fire extinguisher;
- flashing light and a flag mast and flag.

The flashing shall be on in designated areas.

All designated vehicles shall be equipped with an audible warning device and an automatically operating audible reversing alarm

Light vehicles shall not be driven in a mine (except in exempt areas or under escort) unless the vehicle has a current Mine Authorisation issued by the delegated officer.

Vehicles found to have defects which make them unroad-worthy or unsafe for use, shall be withdrawn from service until repairs have been affected.

# 6.14.4 Checklists Completed by Driver/Operator

Where required, general and scheduled maintenance inspections shall be conducted of all motorised equipment to identify vehicle faults

Copies of completed vehicle or mobile equipment checklists shall be kept.

All vehicles and mobile machinery (including replacements during repair) shall be subjected to a daily pre-use inspection by the driver or operator.

# 6.14.5 Driver/Operator Training

Each project and plant site shall maintain a record book listing:

- each unit of heavy motorised equipment;
- required licence class;
- authorised drivers; and
- driver training dates including refresher training.

Qualified drivers/operators of heavy motorised equipment shall undertake an annual competency based test to ensure they remain competent in the operation of the equipment.

#### 6.14.6 Licensing Requirements

Drivers and Operators of heavy motorised equipment shall have completed training and hold a current Certificate of Competency as an operator of that specific machine as required by Company policy and relevant legislation

Employee's driving licences shall be checked for currency and the driving licence record updated at least yearly.

Drivers of vehicles within Company grounds shall hold the applicable licence as required by the Road Traffic Act and Regulations or equivalent.

Personnel shall not drive within a mine unless they have been issued a Mine Permit or are otherwise escorted.

Licences and Certificates of Competency shall be carried by drivers whilst operating cranes on site.

Employees shall report to their immediate supervisor any loss or restriction of motorised equipment licence or certificate related to their work duties.

Vehicles shall only be used by competent and authorised drivers who shall ensure all Company vehicle safety and driving rules are complied with.

Audit Verification	
	Document: Site Permits, driver's licences, certificates of competency, pre-start books, periodic assessment records.
0	Observation
M	Employee Interview

# 6.15 Signage

### 6.15.1 Objective

To minimise the risk of accident or injury by displaying appropriate danger, hazard, warning, safety or information notices and signs.

# 6.15.2 Definitions

**Notices and Signs -** are physical indicators which give a particular safety message to those who may be exposed to hazards associated with an occupational environment. Notices and signs are classified into three main groups:

- Regulatory,
- Caution (warning), and
- Emergency-related information.

### 6.15.3 Standardised Signs

All signs required by relevant Acts or Regulations, Australian Standards or Company specifications shall be displayed in appropriate and visible locations.

Symbolic signs as described in Australian Standard (AS) 1319 shall be used as a preference.

Non-standard signs shall only be purchased with approval of the Safety Manager.

Signs shall be installed so as not to cause safety hazards.

All signs shall be maintained free of obstruction and in a clean, visible and legible condition. Faded or damaged signs shall be reported and replaced.

#### 6.15.4 Information and Training

Employee induction training shall include a description and meaning of each warning sign, safety sign, pipe colour code and general colour code used.

Safety performance board shall also be erected detailing current safety performance including injuries statistics, audit performance and specific hazard targets as a minimum.

# 6.15.5 Electrical Warning Signs

All sub-stations, switch rooms, transformers, generating stations and other electrical installations shall display statutory notices and signs as required by legislation. In particular:

- no unauthorised entry;
- no unauthorised handling or interfering with electrical equipment;

- procedure in case of fire; and
- Procedure in case of electric shock.

Audit Verification	
-0	Observation

# 6.16 Noise Management

#### 6.16.1 Objective

To minimise the risk of hearing loss or damage.

### 6.16.2 Definitions

Noise Control - is a hearing conservation program implemented to protect personnel who are occupationally exposed to noise.

**Hearing Conservation Program -** is a planned procedure to evaluate and control noise and to prevent impairment of hearing in persons exposed to excessive noise.

Audiometry - The process for establishing hearing ability.

#### 6.16.3 Noise Control

Noise surveys shall be conducted at a frequency as required by the legislation by a suitably qualified noise officer. The noise officer shall conduct specific surveys of designated areas, and when there is a change in workplace design or equipment that may affect noise levels. Noise survey results shall be recorded and filed for audit purposes.

Results of noise surveys shall be made available to all employees

Where a noise risk has been identified the Site Manager shall ensure an assessment is carried out to determine whether exposure is near or over the action level.

Should noise assessments reveal a level in excess of the current exposure standard, control measures shall be applied and included in the JHA or SWP for the activity. Controls should be applied in accordance with the hierarchy of controls:

- Engineering Controls
- Administration Controls
- Hearing Protection Devices.

The Company shall implement a Hearing Protection Program that includes the provision of, where practicable, engineering controls and suitable hearing protection to reduce noise levels and exposure. In other cases, the time an employee receives noise shall be limited in order to reduce exposure.

Hearing protection shall be worn in areas or on equipment identified as having noise levels of  $85 \, dB(A)$  or above. Where noise levels exceed 105 dB(A), then ear muffs are to be worn. (Note: Ear plugs may be worn in conjunction with ear muffs).

Entrances to areas where hearing protection is to be worn shall be designated by the use of mandatory symbolic signs in accordance with Australian Standard (AS) 1319.

Machinery operation or specific tasks requiring the wearing of hearing protection shall be designated at the machine or location by the use of mandatory symbolic signs in accordance with Australian Standard (AS) 1319.

All persons entering a designated area shall be provided with and wear hearing protection which conforms to Australian Standard (AS) 1270.

All persons operating machinery for which hearing protection is required shall be provided with and wear hearing protection which conforms to Australian Standard (AS) 1270.

Hearing protection shall be maintained and worn as described in Australian Standard (AS) 1270. Damaged hearing protection shall be reported and replaced.

### 6.16.4 Audiometry

Employees shall undergo hearing acuity testing, including pre-employment baseline audiometric testing, according to Company policy. Record of attendance shall be kept.

Where tests show hearing loss has occurred in an individual, follow up action shall include reassessment of the area/equipment and the engineering controls applied. Necessary action to correct shall then be taken.

All employees shall receive training regarding hearing loss risks, the reduction of those risks and the correct selection, use and maintenance of hearing protection equipment.

Audit Verification	
	Document: Periodic assessment records.
0	Observation
M	Employee Interview

# 6.17 Hygiene

# 6.17.1 Objective

To ensure all ablution areas, crib rooms and food preparation areas are kept hygienically clean and safe.

### 6.17.2 Definitions

Hygiene - refers to the control of biological, chemical and physical hazards to prevent disease.

### 6.17.3 Site Amenities

All toilets, ablution facilities, designated eating areas, and food storage areas shall comply with legislative and Company requirements for hygiene controls.

Adequate hygiene facilities including toilets, kitchen and crib rooms, food storage areas, cleaning supplies and waste bins, shall be provided.

### 6.17.4 Amenities Maintained in Hygienic Condition

A system shall be in place for the regular cleaning and maintenance of all toilets, ablution areas, designated eating areas and food storage facilities

Rubbish shall not be allowed to accumulate and a system shall be in place for the regular emptying of waste bins.

All toilets, ablution facilities, designated eating areas and food storage areas shall be kept tidy and clean at all times.

Any unhygienic conditions in the work place shall be reported to supervision if unable to be immediately rectified.

Areas shall be designated for the eating of food and facilities provided for food storage.

Chemicals, hazardous and flammable substance shall be stored separately from food storage and eating areas.

All non-potable water supply outlets shall be identified.

#### 6.17.5 Monthly Inspections

A system shall be in place for monthly hygiene inspections of all toilets, ablution areas, designated eating areas and food storage areas.

Schedules and checklists shall be used for conducting inspections of toilets, ablution areas, designated eating areas, food storage areas and for the reporting of non-conformances.

Documentation shall be kept of all hygiene inspections and findings and action taken to correct non-conformances.

Where required, Work Orders shall be raised for correcting non-conformances.

Records shall be kept of actions taken to correct non-conformances and when these are completed.







# 6.18 Lighting

# 6.18.1 Objective

To ensure there is adequate light for personnel to perform their work in safety during the day or night and in emergency situations.

# 6.18.2 Definitions

Lux - a measure of light intensity.

# 6.18.3 Light Levels

Lighting levels shall comply with Australian Standard (AS) 1680 Parts 1 and 2, (AS) 2293 and legislative requirements.

Where required emergency lighting shall be provided to all work areas, passages, stairways and where there is a safety or security hazard.

A record shall be kept of all lighting surveys and findings, and action taken to correct non-conformances.

Windows and other sources of natural light shall be kept clean and free of obstructions.

Where required, Work Orders shall be raised for correcting non-conformances.

# 6.18.4 Light Fittings, Maintenance and Inspection

Light fittings shall have protective guards if mounted less than four metres above a work area and there is potential for the light fittings to be damaged during work processes.

All fittings shall be designed for their operating conditions.

Intrinsically safe lighting shall be used in areas where flammable or explosive substances are stored

Reflectors and diffusers shall be used where appropriate.

The cleaning of reflectors, diffusers and globes shall be an integral part of housekeeping routine.

The inspection and replacement of blown or damaged lights, light fittings, windows and sky lights shall be included in routine maintenance.

All lighting including emergency provisions shall be checked and tested as part of the monthly inspection.

Lights that are defective or fail to operate shall be reported to the immediate supervisor.

### 6.18.5 Areas with Poor Light Condition

Lighting contrasts that makes areas of adequate illumination appear dim shall be avoided.

Natural light shall be used where possible.

Portable lighting shall be used for work performed in an area without sufficient light.

Areas made hazardous due to poor lighting shall be reported and corrected.

Poorly lit work areas shall be identified and rectified. No more than 10% of the lights shall be faulty at any time in a given area.

#### 6.18.6 Safety Glass Applied Where Required

Laminated or toughened glass shall be used for lighting points or where safety screens are used.

Large glass surfaces that extend to floor level (office doors, fume cupboards, etc) shall be fitted with safety glass and clearly marked to make them visible.

Audit Verification	
	Document: Inspection checklists.
-0	Observation

# 7 Behavioural Safety

# 7.1 Safety Induction

# 7.1.1 Objectives

To provide all new employees and site visitors prior to commencing on site with an awareness of workplace hazards and associated safety procedures in order to minimise the risk of accidents.

# 7.1.2 Definitions

**General Health and Safety Induction -** is a formal training session which provides personnel with the essential information regarding safety rules and procedures applying to all sites and occupations.

**Site Specific Health and Safety Induction -** is a formal training session which provides personnel with the rules, regulations and emergency procedures that are specific to a work site and applicable to all occupations.

# 7.1.3 Induction Training

All employees shall receive induction training and assessment in accordance with Company, Client and legislative requirements.

Sub-contractors, their employees and agents shall receive induction training and assessment in accordance with Company, Client and legislative requirements.

# 7.1.4 Induction Process

Inductions can be in three stages:

- i. Client Induction
- ii. Site Familiarisation
- iii. General Induction
- iv. Site Specific Induction

# 7.1.5 Client Induction

All employees and subcontractors intending to work on site shall undergo the Client's induction process. A pre-requisite to work on site shall be a current MARCSTA induction.

# 7.1.6 Site Familiarisation

A familiarisation induction may be undertaken where it is impracticable to conduct a site specific and general induction. It is applicable to visitors and short term contractors.

On completion of the familiarisation the visitor or worker may enter site but only under strict supervision. He/she must not be left unattended in any area of the project.

The content of the familiarisation will include:

- Project layout;
- Access and egress;
- Site specific rules;
- First aid and emergency procedures;
- PPE requirements;
- Specific hazards; and
- Amenities

An induction record must be completed.

# 7.1.7 Site Induction

Ideally prior to commencement, but definitely within two (2) days of commencing the Company induction must be completed. The Company induction program shall be presented on site by either the Safety Manager or a Supervisor.

The Company inductions shall be followed by the completion of assessment criteria. Any persons not deemed competent will be re-inducted and reassessed prior to continuing on site.

All employees shall be reassessed two yearly on their knowledge of the Company's health and safety rules and procedures. Where reassessment indicates the need, employees will receive the necessary training.

# 7.1.8 Area Inductions

Area Specific Inductions will follow Site Induction and provide information directly relevant to Safety Management in a particular area. This information will include:

- Area layout;
- Access and egress;
- Area specific rules;
- First aid and emergency procedures including locations of emergency showers and eye wash stations;
- Specific hazards;

- Amenities;
- Client requirements; and
- Environmental issues.

Bentley Crane Hire induction record must be completed.

# 7.1.9 Records

All induction and annual training and assessments shall be recorded and retained for a minimum of two years, or as required by the relevant legislation in each state.

Employees and sub-contractor personnel shall indicate acceptance of Company rules, procedures and legislative requirements detailed at induction by signing the appropriate form.

The induction training syllabus and content shall be reviewed bi-annually and at any time changes in workplace design or processes occur.



# 7.2 Health & Safety Training

# 7.2.1 Objective

To provide all new employees and site visitors with an awareness of workplace

To develop employee knowledge of the Company's Safety System and skills in general health and safety applications, to enable better understanding and management of risks.

# 7.2.2 Health, Safety and Environment System

A Health and Safety Training Program shall be implemented to ensure Supervisory personnel have been trained in the philosophy and application of the Bentley Crane Hire Safety System.

The training course shall be conducted on an as needs basis to provide regular opportunities for supervisory personnel to attend. Supervisory Personnel new to the company or existing personnel promoted to supervisory positions shall complete the course at the earliest possible opportunity.

# 7.2.3 Training Needs Analysis

The Safety Manager shall be responsible for ensuring the safety training needs of project staff are identified and determined.

The analysis shall be consistent with the Site Risk Management analysis. Where training is identified as a Control measures such training shall be included in the Site training program.

Appropriate training shall be given to employees required to work in the following specific hazard areas but not limited to:

- permit to work requirements
- confined spaces,
- hot work permits
- specific applications of isolation and tag out.
- specific driving requirements
- hazardous goods handling, storage and disposal
- working at heights

# 7.2.4 Core Training

### 7.2.4.1 Supervisor Safety and Environmental Management Training

All Bentley Crane Hire supervisory staff are required to complete the Supervisor Safety and Environmental Training Course prior to/or immediately after appointment to a supervisory role

# 7.2.4.2 Site Employee Training

The following core courses shall be conducted on each site as required:

- Risk Management
- Incident Investigation
- Hazardous Substances
- Manual Handling
- First Aid

# 7.2.4.3 Course and Trainer Selection

When considering a course for a program the following should be taken into account.

- A specific course objective must be determined.
- Determine whether the course content reflects the project training needs analysis
- An assessment protocol should be included in order to achieve a measurable outcome.

- Establish whether internal resources are available to provide the necessary training.
- Determine the training delivery strategies
- Ensure that the course is recognised and or accredited
- Ensure the trainer is qualified both as a trainer and in the area of expertise.

# 7.2.4.4 External Training Courses

When selecting an external course consideration shall be given to a range of available training providers. Wherever possible Registered Training Organisations under the National Training Framework shall be contracted ahead of non-recognised training organisations.

#### 7.2.4.5 Records

All training shall be recorded on the Bentley Crane Hire Training Record form. Training registers are to be established and maintained on each site.



# 7.3 Safety Communication

# 7.3.1 Objective

To focus personnel on safety through regular communication meetings.

# 7.3.2 Definitions

**PSI** - Pre Shift Information - An informal meeting of work teams to discuss the previous day's safety issues and evaluate their preparedness to work safely during the coming shift.

**Tool Box Meeting -** An informal meeting of personnel for the purpose of two-way communication in relation project specific hazards and safety initiatives.

# 7.3.3 Work Teams

All personnel including subcontractors shall be appointed to work teams under the supervision of a Supervisor.

Each work team will meet with their shift Supervisor at the start of each shift for the purpose of conducting a PSI. More than one work team may attend the PSI.

PSI shall take place on every project, every shift.

### 7.3.4 PSI Content and Responsibilities

Supervisors are responsible for organising and conducting Pre Shift Information meetings.

All personnel are responsible to ensure they participate positively at PSI meetings and adopt the outcomes during the shift.

### 7.3.4.1 Supervisor's Role

The supervisors shall discuss and answer the following questions at every PSI meeting:

Can the work crew safely access their work area?

Are there any new hazard reports since last shift?

- Potential fall of people, plant or materials?
- Electrical hazards
- Chemical Hazards?
- Potential struck by or struck against hazards?
- Manual Handling Hazards potential strains or sprains?
- Work environment hazards such as dust or noise?

What safe work procedures apply to today's shift?

- Are the proper tools and equipment available?
- Is the proper PPE available and is the crew trained in its use?

Will the activities of other crews interfere with safe operations?

Can the crew communicate effectively with each other?

Are there any outstanding hazard reports from crew members?

Has the crew been advised to play their part in PSI?

Supervisors are to encourage crew members to nominate an individual safety initiative that they will focus on during the current work cycle. Supervisors may ask individuals to inform the group what particular safety focuses are currently being applied.

### 7.3.4.2 Employee's Role

Within the first 30 minutes of each shift all employees will confirm that safe work conditions exist by personally answering the following questions.

Am I fit enough to work today? Awake, Alert and suffering no effects of drugs or alcohol?

Can/Could I access my work area safely?

Do I know and can I follow the safe operating procedures for the work I am about to do?

Are there any hazards in my work area that have not been controlled and reported?

- Potential fall of people, plant or materials?
- Electrical hazards
- Chemical Hazards?
- Potential struck by or struck against hazards?
- Manual Handling Hazards potential strains or sprains?
- Work environment hazards such as dust or noise?

A "NO" answer must result an immediate verbal report to the employee supervisor.

### 7.3.5 PSI Verification

As PSI's are conducted on a shift by shift basis and the same questions are to be asked by supervisors the recording of meetings is not required. Verification of PSI's will be achieved through random employee interview during project audits and through the task observation/contact process.

# 7.3.6 Toolbox Meetings

Tool box meetings shall be conducted on all projects by supervisory staff and from time to time where possible health and safety representatives and senior site staff.

Where possible tool box groups should be small in number in order to increase the effectiveness of the meeting.

# 7.3.7 Toolbox Meeting Content

The subject matter for meetings shall be relevant to project safety only. Site Safety Coordinators shall assist supervisors with topics where possible. The content shall be relevant to the project. Accident review, new work procedures, hazard reports, inspection results, traffic/access changes, significant incidents and employee ideas should be core topics. Employee interaction and feedback shall be encouraged at each meeting.

# 7.3.8 Toolbox Meeting Frequency

Toolbox talks shall be conducted on a minimum monthly frequency on all projects.

# 7.3.9 Records

The topics, attendees and employee feedback shall be recorded and maintained for audit purposes

Audit Verification	
	Document: Meeting minutes, attendance sheets.
-0	Observation
M	Employee Interview

# 7.4 Safety Promotion

### 7.4.1 Objective

To identify and promote health and safety issues in order to extend our safety message to both work and family life such that safety becomes a value, thus reducing injury not only at work but in the home.

# 7.4.2 Definitions

Safety: The management of personnel, machinery and the work environment so that the risks of:

- Harm to the health and safety of individuals,
- damage to plant and the environment,
- production losses, are reduced to acceptable levels.

# 7.4.3 Safety Promotion

Causes of both on and off-the-job accidents and management of health and safety issues at work and at home shall be included in the Company safety program.

Programs shall be implemented to identify at work and off-the-job health and safety matters.

Health and safety promotion material shall be distributed through health and safety meetings.

Employees are required to report all incidents occurring in the workplace

Employees shall be encouraged to report off-the-job health and safety incidents and issues.

Audit Verification	
	Document: Distributed material
-0	Observation
M	Employee Interview

# 7.5 Task Observation

# 7.5.1 Objective

To identify how individual employees actually perform tasks against established safe work practices and how the work environment influences the decision to deviate from accepted work practices. To provide one on one contact and feedback following employee observations in order to encourage ongoing positive behaviour.

# 7.5.2 Definitions

**Task Observation** - The physical observation of an individual performing a work task to verify that Standard Work Practices are correctly followed and suitable.

# 7.5.3 Safety Contact

The process whereby a supervisor or work colleague provides safety feedback to an operative usually following a task observation. The main purpose is to provide positive feedback on application of safe work practices. It should be noted however that on some occasions corrective feedback on unsafe behaviour may be warranted.

# 7.5.4 Task Observation Sheet

A document on which a supervisor confirms:

- i. The observation process was undertaken.
- ii. One on one employee contact was made.

# 7.5.5 Training

All supervisors shall receive training in the task observation/safety contact process.

All employees shall be informed of the task observation/safety contact process and be trained in the completion of safety contact logs.

# 7.5.6 Task Observation Process

This process is applied in three phases:

- i. Pre Shift Information (PSI) Meeting
- ii. Task Observation
- iii. Safety Contact

### The process is:

- A tool to promote safe behaviour
- A process to encourage discussion about safety
- A system that will significantly reduce injuries over time
- It will replace the current observation systems
- A system that belongs to all employees
- A tool to identify trends of at risk behaviours to enable preventive intervention

# 7.5.7 Pre Shift Information (PSI) Meeting

PSI is performed by supervisors at the commencement of each and every shift. During PSI employees are reminded and focused on the need to complete employee safety checks within the first half hour (see SPB 07 Safety Promotion). Safety contacts will be subsequent verification that the employee checks are actually occurring.

# TOOLBOX MEETINGS OR PRESTART BRIEFINGS DO NOT REPLACE THE PROCESS OF SAFETY CONTACTS.

# 7.5.8 Task Observation

All supervisory staff shall have access to copies of current written Standard Operating Procedures for their area of responsibility.

Each individual employee under each Supervisor shall be observed a minimum of once per month. The purpose of the observation is to identify whether individual employees are applying the relative SWP and SOP. Safe and unsafe acts are to be noted in relation to the Task Observation Sheet and followed up with the employee during the safety contact.

# 7.5.9 Safety Contact - Positive Performance

Immediately following an employee observation Supervisors shall make contact with the employee in order to provide feedback on the observation

Note: Positive reinforcement is a strong behaviour modification technique.

### 7.5.10 Need for Corrective Feedback

Although being positive is the strongest motivator for safe performance employees must be told when they are deviating from expected practice. Ignoring unsafe behaviour is encouraging the wrong standards. If corrective feedback is required it should be given in the following manner in order to promote safe behaviour:

- Promote the Bentley Crane Hire Safety Objectives.
- Have no hidden agendas.
- Use a non-threatening, non punishment style.
- Avoid the "gotcha" approach.
- Tell the person that his/her safety is a priority.
- Be sincere.
- Tell the person that the observed act/behaviour is unsafe and why.
- Ask why she/he performed unsafely.
- Remove barriers that impede the employee working safety.
- Ask for suggestions.
- Conduct a follow up observation and provide positive reinforcement.

During the employee safety contact the supervisor shall complete a safety contact log entry.

During the safety contact the employee shall confirm that he/she is performing his/her daily and task checks. The contact shall end with positive feedback by the supervisor.

# 7.5.11 Use of Task Observations

Supervisor shall be responsible for completing a log entry for each employee under their supervision during each fortnight or work cycle. On the completion of a work cycle the supervisor shall sign each sheet and refer to the Site Safety Coordinator. The number of employees contacted and the number of employees applying SOPs correctly will be a project safety performance measure.

# 7.5.12 Follow Up

Where a SOP requires modification the project safety coordinator shall be advised. Always finish the contact on a positive note. Task observation results shall be discussed at project team meetings with a view to determining trends on safe and unsafe behaviour.

Where there is a pattern of deviation from safe work procedures the issue must be addressed through tool box meetings or modifications to procedures and retraining.

Where a SWP requires modification the Safety Manager shall be advised. Always finish the contact on a positive note

# 7.5.13 Peer Observations

Each site shall consider the scope for extending this programme to all personnel being able to conduct task observations on a voluntary basis.

Audit Verification	
	Document: Task observation sheets
M	Employee Interview

# 8 Continuous Improvement

# 8.1 Hazard Reporting

### 8.1.1 Objective

To ensure:

- i. Formal avenue for the reporting of hazards by any person on a Bentley Crane Hire site is available at all times.
- ii. A remedial action and feedback process is implemented and communicated when hazards are reported.

### 8.1.2 Definitions

Hazard: Any situation that has the potential to cause:

- injury,
- harm to health,
- damage to or loss of property,
- damage to the environment,
- loss of productivity.

# 8.1.3 Responsibilities

All personnel share the responsibility of identifying and reporting hazards on a daily basis.

Supervisory staff have the responsibility to encourage the reporting of hazards, rectifying hazards when they are reported and providing feedback to personnel when hazards are corrected or there is a delay in correction

Site Managers have the responsibility to ensure reported hazards are properly investigated and to ensure corrective actions are implemented and documents.

# 8.1.4 Reporting Process

Where a hazard is identified and it cannot be rectified immediately any person identifying the hazard shall rectify the hazard. If that person is unable to rectify the hazard they shall:

- make the area safe by barricading the area
- notify the person in immediate control over them of the hazard.

The Supervisor shall rectify the hazard as soon as practicable. If the hazard cannot be rectified immediately then the Supervisor shall investigate the circumstances surrounding the cause of the hazard using the Bentley Crane Hire investigation form and identify the causes and remedial actions.

The Site Manager shall approve and confirm the remedial actions

This information shall be disseminated to the work teams at the next PSI meeting.

# 8.1.5 Record Keeping

The white copy shall be referred to the Safety Manager for filing. The Safety Manager shall manage the hazard reporting function and file posted original reports after an appropriate time.

# 8.1.6 Follow Up

Completed hazard reports shall be discussed at tool box talks and encouragement regularly given for continuing hazard reporting.

Audit Verification	
	Document: Incident Reports
-0	Observation
M	Employee Interview

# 8.2 Learning from Incidents

# 8.2.1 Objective

To ensure all injuries, occupational diseases, damage and other incidents that result in loss or a near miss are reported and investigated to identify immediate and root causes. Appropriate corrective actions are to be taken based upon the findings of the investigation.

# 8.2.2 Definitions

**Incident** - means an occurrence involving injury, property damage occupational disease, damage to the environment, loss of production or where there was potential for injury, damage or loss of production to occur

# Occupational Diseases - means:

- i. a disease of a kind referred to in state Workers' Compensation legislation; or
- ii. any other condition that results from exposure in the workplace to agents or substances to the extent that the normal physiological mechanisms are affected and the health of the employee is impaired as a consequence.
## 8.2.3 Internal Reporting of Incidents

The reporting and investigation of incidents shall comply with the legislative requirements and the Company's standard reporting system.

All incidents shall be reported using the Company's Incident Report Form and all details on the form are to be correctly completed.

The Managing Director shall be advised within 24 hours, of notifiable accidents and incidents as described in relevant legislation.

An appropriate investigation shall be carried out for all incidents and a report prepared within two working days of the incident first being reported.

A register for recording all incidents shall be maintained.

A copy of the completed incident Report Form shall be returned to the originator and the original recorded on the Company's incident register.

All employees shall be made aware of the incident reporting procedures through induction programs.

Incidents shall be reported as soon as is practicable to the Health and Safety Representative, if there is one, of the area in which the incident occurred.

Employees shall report all incidents to their Supervisor immediately.

## 8.2.4 Investigations by Designated Appointed Personnel

Incident Investigators and Health and Safety Representatives shall be trained in incident reporting and investigation procedures.

All training sessions shall be recorded and records of written and practical tests where used.

Health and Safety Representatives shall be involved in the investigation of incidents as prescribed in relevant legislation

#### 8.2.5 Incident Contributing Factors Identified

Both immediate and basic contributing factors shall be identified and documented in the incident investigation.

The reporting and recording of immediate and basic contributing factors shall conform to Company requirements.

## 8.2.6 Corrective Action

Effective actions to prevent or minimise the incident recurrence shall be recommended in writing.

Consideration shall be given to recommending actions which can be taken immediately.

All incidents that occur shall be reviewed and corrective actions taken. The cost, effectiveness and practicability of the recommended actions shall be considered.

## 8.2.7 Incident Report Follow-up

Incident reports shall be reviewed monthly to ensure that recommended actions have been implemented within the stated time.

A review of the implemented actions shall be performed monthly to ensure they are effective in preventing an incident from recurring.

Incident reports and their recommendations shall be reviewed on a weekly or daily basis with employees.

## 8.2.8 Incident Classification

## 8.2.8.1 Lost Time Injury

A lost time injury is any injury which occurs causing any employee or subcontractor to be deemed by a Doctor to be totally unfit for work duties for one, (1), complete shift or more.

### 8.2.8.2 Restricted Work Duty Injury

A restricted work duty injury is any injury which occurs causing any employee or subcontractor to be deemed by a Doctor unable to continue their normal duties for one, (1), complete shift or more.

## 8.2.8.3 Medical Treatment Case

A medical treatment case is any injury that requires treatment beyond the capability of a person competent in Senior First Aid and includes but is not limited to the injuries described in the table below.

## 8.2.8.4 Minor Injury

A minor injury is any injury that requires first aid treatment whether or not that first aid treatment is selfadministered.

### 8.2.8.5 Serious Potential Incident

A serious potential incident is any incident that:

- requires reporting to any statutory department
- could have caused if one or at most two, (2), of the circumstances were different:
  - o a fatality
  - o a permanent disability

## Examples

A piece of scaffold falls but does not strike anybody but had a person been in the area they would or could have been struck.

A vehicle rolls over but neither the driver nor passengers are injured.

Any electric shock regardless of how minor.

## 8.2.8.6 Near Miss

A near miss is an incident where no-one was injured and no damage to equipment or the environment occurred but there was a potential for any of those occurrences.

## 8.2.8.7 Hazard

A hazard is any situation or work practice that has the potential to cause

- injury,
- harm to the health,
- damage to or loss of property,
- damage to the environment
- loss of production

### 8.2.9 Communication of Significant Incident

The circumstances leading to any:

- lost time injury,
- restricted work duty injury,
- medical treatment case,
- serious potential incident,

the causes of such incidents and the remedial actions taken will be communicated to employees and subcontractors as soon as practicable.

Any documentation of significant incidents that occur elsewhere on a site or at another site will be made available to employees and subcontractors.

If a similar incident has the potential to occur at a Bentley Crane Hire site, then the risk shall be identified and remedial action implemented to prevent such an occurrence.

## 8.2.10 Incident Reporting and Investigation Guidelines

All incidents that do occur could have been prevented.

Many incidents but for good luck or good fortune, could have resulted in far more serious consequences than those that actually did occur.

Incidents also occur whereby a serious accident did not occur due only to good luck or good fortune (near miss).

All of these situations are serious Safety Incidents and require a thorough investigation of the cause.

The object of any such investigation is to **PREVENT** the same type or similar incident from re-occurring

#### 8.2.10.1 Outline of General Procedures

The following is an outline of the general procedures to apply to Incident Reporting and Investigation.

- Administer aid to any injured party in accordance with the Emergency and First Aid procedures and refer to
  medical treatment where required.
- Secure the scene of the incident.
- Notify the Safety and Health Representative.
- Take photographs.
- Obtain brief details of the occurrence.
- Notify Head Office Management of the occurrence.
- Comply with any Legislative requirements concerning incident reporting.
- Obtain instructions from the Safety Management on the investigation procedures required.
- Carry out the investigation.
- Report on the findings of the investigation.
- Develop and implement corrective procedures and monitor their effectiveness.

## 8.2.10.2 Reporting

The occurrence of Safety Incidents, which do not result in any actual accident or loss (a near miss) must be reported to management. In this way corrective procedures can be implemented **BEFORE** any actual accidents occur.

This reporting must be to the Supervisor in the first instance, then, after corrective action or procedures have been determined, to all employees by way of personal instructions, meetings or safety committee minutes.

Employees must report to the Supervisor any medical treatment obtained during non-working hours for any workrelated injuries or illness on the first scheduled workday following treatment.

Any minor damage to equipment must be reported to the Supervisor/Foreman.

The occurrence of accidents involving injury, loss, impact upon the environment or damage **MUST** be reported more formally for the following purposes:

- To comply with the requirements of the various State Government Acts and Regulations;
- To enable accurate and timely notification to the company's insurers of any event which may be the subject of a claim;
- To enable accurate and timely notification to the company's insurers of any event which may be the subject of a claim;
- To enable the company to arrange for a timely and appropriate investigation of circumstances of the accident; and
- To enable appropriate procedures to be implemented in order to prevent a re- occurrence.

### 8.2.10.3 Legislative Reporting Requirements

The legislative requirements are set out in the various State Acts and Regulations.

Generally, they require formal notification to the appropriate inspectorate of the occurrence and details of any accident that involves any injury to any person.

The seriousness of the injury will generally determine whether the inspectorate accepts a written report or requires inspecting the site personally.

Company staff responsible for safety on each particular project **MUST** be conversant with the detailed procedures required by the legislation for the notification on reporting of injuries to the relevant authorities.

When an employee is injured and requires medical attention, a staff member is to accompany the injured party to the hospital or surgery. The company's 'Medical Referral' form must be given to the treating Doctor.

Prior to leaving the injured party and if the injury permits, ensure the injured party completes all relevant forms for Workers' Compensation Insurance requirements.

If the injury does not permit the injured party from completing the required forms, arrangements should be made to have the forms completed by approved persons as soon as possible.

#### 8.2.10.4 Company Reporting Requirements

When an incident does occur it results in damage and loss under any of the following categories:

## Contract Works

Covers the value of the contract works.

#### Plant and Equipment

Covers all company owned property, plant and equipment used in the course of the works.

## **Third Party Liability**

• A third person's property.

• A third person's injury.

## Motor Vehicles

- Vehicle damage.
- Third party property.
- Third party injury.

All serious incidents must be notified to the General Manager and the Safety Manager as soon as possible after it has occurred.

It must then be followed up within 48 hours with a written Incident Report to the same persons.

The written notification to management of the incident must include the following minimum information:

- project and management identification;
- report writer, signature and date;
- brief details of the incident;
- date of occurrence;
- time of occurrence;
- location of incident;
- weather conditions; and
- witnesses to the incident;
- brief details of any injuries sustained;
- brief details of any property damage sustained; and
- brief details of how the incident occurred.
- This incident notification is to be distributed as follows:
- original to Head Office (white copy);
- duplicate to the site file (blue copy); and
- triplicate to be left in the Site Incident Book (yellow copy).

## 8.2.10.5 Incident Investigations

The seriousness of any Incident or near miss, will be determined by the General Manager or Site Manager from:

- The level of injury loss or damage actually sustained; AND
- The level of injury loss or damage that **COULD** have been sustained.

On the basis of this determination the General Manager or Site Manager will then either:

• appointment an Investigative team to carry out the investigation; or

• give instructions as to the nature, scope and manner of any investigation required.

#### **Investigative Team**

The Investigative team will consist of a minimum of three (3) persons; at least one of whom should be remote from the site.

This team should be made up from amongst the following:

- the Site Manager.
- the Site Supervisor.
- a senior company staff member remote from the Project Management staff; or
- a consultant incident investigator.

A Safety and Health Representative is an automatic addition to every investigation team.

On any project where a separate position of Site Safety Coordinator exists alongside the Supervisor, that Safety Coordinator is an automatic addition to the above minimum team.

#### **Guidelines for Accident Investigators**

#### Secure the Area

Remember you are about to enter an area where an employee may have been injured. Don't become a further statistic, protect yourself. Ensure that there is no further potential for danger to personnel or damage to plant and equipment.

#### Visual Inspection

Familiarise yourself with the incident scene and the existing conditions. This will ensure that your interview questions will be relevant and constructive.

Inspect the incident site carefully to identify any obvious component failures etc. Collect any such component and tag noting the date and time of the incident and store in a secure place. These items may be required in future legal proceedings.

Record all useful photographs required to assist in interviews or consequent reports.

#### **Interview Witness**

Put the interviewee at ease:

- Choose the location and setting for the interview carefully;
- Be friendly not aggressive (the interviewee is not on trial); and
- Use the correct body language.

#### DO NOT ATTEMPT TO PLACE THE BLAME:

- The intention of the accident investigation is to **PREVENT** a re-occurrence not to conduct a 'witch hunt'; and
- The true facts will be suppressed if the witness feels they are 'dobbing in' a workmate.

Blaming human error is counterproductive and covers up unsafe conditions, procedures or systems failures and faulty/unsuitable materials that may have caused the incident.

#### **Building a Chain of Events**

For the incident investigation to be successful in the identification of all of the causes it will be necessary to establish:

#### a) Events leading up to the incident:

- i. The systems of work being carried out;
- ii. The instructions given for the work;
- iii. Variations from instructions or Safe Systems of work;
- iv. Workplace conditions such as lighting, floor surfaces, stair treads and handrails, warning signs, temperature, weather (if the incident occurred outside), etc.;
- v. The exact location of the incident;
- vi. The materials in use or being handled; and
- vii. The type of transport or equipment in use.

#### b) Facts of the incident itself:

- i. The state of the system and the actions that occurred at that moment;
- ii. The persons directly involved, and those involved at a distance, if any;
- iii. The tools, equipment, materials and fixtures directly concerned; and
- iv. The time.

#### c) Relevant facts or what occurred immediately after the incident:

- i. The injuries or damage directly resulting;
- ii. The events leading to consequential injury or damage;
- iii. The persons involved, including those rendering aid; and
- iv. Any problems in dealing with the injuries or damage such as:
- v. No method for releasing a trapped person, a faulty extinguisher, isolation switch difficult to locate, etc.

#### **Incident Investigation Reports**

The report of an investigation into any accident or serious safety incident shall include the following information:

- Identification of the Project;
- Time and date of the incident;
- Indicate whether the report refers to injury, damage, environmental or near miss;
- Include as much personal detail of injured parties as possible. If unable to obtain this information from the injured person it may be sourced from personnel files. Contact telephone number is important;

- The occupation or job of all persons involved. Give a brief outline of duties performed;
- Provide details of the employee's experience or training;
- Provide as much detail as possible of the nature and location of the injury or damage;
- Provide a description of all incidents;
- What the persons involved were doing at the time of the incident; and
- The chain of events and what happened unexpectedly to produce the undesired result;
- Details of the interview with any witnesses or anyone else involved in the incident. Obtain signed statements where appropriate;
- List the factors that contributed to the incident. This information will be vital when assessing the corrective action to be taken;
- Include a report by the relevant Plant Manager on the recent maintenance history of any plant involved in the incident;
- The Project Manager's comments on the immediate corrective action taken and an outline of the steps to be taken to minimise the risk of occurrence. This outline may in fact be that the Site Safety Committee review the detailed procedures connected to the incident;
- Separate statements by persons involved and witnesses; and
- Any other information which the investigators deem to be relevant.

Audit Verification	
	Document: Incident Reports, significant incident reports
-0	Observation
M	Employee Interview

## 8.3 Incident Analysis

## 8.3.1 Objective

To implement and maintain a standard system of statistics analysis to provide measures for accident and incident cause, cost and prevention.

## 8.3.2 Definitions

**Incident** - means an occurrence involving injury or occupational illness involving damage to property, damage to the environment, loss of production or where there was potential for injury, damage or loss of production to occur ("near miss").

## 8.3.3 Progressive Statistical Data

Incident statistics shall be analysed and reports provided which will include:

- incident frequency rates;
- injury and disease duration rates; and
- incident costs

Reports shall be provided on a monthly and rolling year basis.

## 8.3.4 Analysis of Statistics

Analysis incident data shall provide statistics for the Company as a whole and for individual sites.

Incident statistics shall be analysed to provide relevant data related to accidents and injuries.

### 8.3.5 Statistics Published and Circulated

Safety statistics shall be presented and reviewed at management safety meetings.

Safety statistics shall be presented and reviewed at monthly and annual area and site safety meetings.

Monthly and rolling year incident statistics shall be displayed on all site notice boards.



## 8.4 Occupational Health and Safety Representatives

### 8.4.1 Objectives

To ensure elected Health and Safety Representatives enhance the communication of Health and Safety information between management and employees by their involvement in workplace inspections, management self-audits and Health and Safety Committee meetings.

## 8.4.2 Definitions

**Health and Safety Representative -** as defined in legislation, is an elected employee who represents other employees on matters affecting the Health and Safety of people in the workplace.

### 8.4.3 Election of Health and Safety Representatives

The election of Health and Safety Representatives shall be compliant with the Mines Safety and Inspection Act 1994 and executed in consultation with employees.

Health and Safety Representatives shall be elected for all sites where more than 20 employees work.

A list of Health and Safety Representatives for each site shall be displayed on the Notice Board.

## 8.4.4 Duties and Responsibilities

Health and Safety Representatives shall be made aware of their duties and responsibilities as defined in the relevant legislation. A written summary of the roles and responsibilities of safety representatives will be developed and agreed between the representatives and Site Manager and included in the Site Safety Plan.

Health and Safety Representatives shall be provided with the necessary resources and assistance in accordance with the legislative requirements, to enable them to perform their role.

## 8.4.5 Training

Health and Safety Representatives shall be trained in accordance with legislative requirements

Health and Safety Representatives shall attend other Health and Safety training programs deemed necessary for them to perform their role.

All training sessions shall be recorded and results of written and practical tests where used will be kept.

Audit Verification	
	Document: Monthly inspections, training records, meeting minutes
M	Employee Interview

## 8.5 Health & safety Committees

## 8.5.1 Objective

To provide management and employees with a system which enables them to contribute and participate in the improvement of workplace Health and Safety, and which provides a forum for the discussion and resolution of Health and Safety issues.

## 8.5.2 Definitions

**Project Health and Safety Committee** - a joint employer/employee meeting for facilitating consultation and cooperation in initiating, developing and implementing measures designed to ensure the Health and Safety of employees at all project and plant work sites.

## 8.5.3 Site Health and Safety Committee

A Site Health and Safety Committee shall be established in accordance with Company policy for each project site. These committees shall deal with local Health and Safety issues.

Site Health and Safety Committees shall have a balanced composition of management representatives and Health and Safety Representatives, representing all departments and project areas. Sub-contractors shall be included on the committee where appropriate. On smaller sites the committee may be made up of the entire workforce.

Appointment of Health and Safety Committee members shall be confirmed in writing where appropriate.

Where required, a knowledgeable person or specialist can be called to attend project meetings, when specialist knowledge is required to resolve specific Health and Safety issues (e.g. Noise Officer).

The roles and responsibilities of the Site Health and Safety Committees shall be defined in writing and included in a project specific committee constitution.

The role of the Project Health and Safety Committee shall be to:

- review and resolve site Health and Safety issues raised by employees;
- recommend methods for accident and incident prevention and the development of safe work practices;
- refer unresolved Health and Safety issues to the Regional Management Meetings;
- review and assist in implementing company Health and Safety programs;
- ensure Health and Safety programs involve employees in accident prevention and provide feedback to employees on the outcome of Health and Safety issues discussed at the meetings.

Adequate resources shall be made available to Project Health and Safety Committees to enable them to function effectively.

## 8.5.4 Meeting Frequency

Site Health and Safety Committees shall meet at least once each month.

All committee members should be provided with a written agenda one week prior to the next scheduled Health and Safety Committee meeting.

All agendas, as a minimum, shall contain the following agenda items:

- review of previous minutes;
- review of outstanding and completed actions;
- review of accidents and accident statistics;
- review of National and Regional Management Meetings minutes; and new business.

Where applicable elected Health and Safety Committee members shall attend safety committee meetings.

## 8.5.5 Minutes of Meetings

All Health and Safety Committee meeting minutes shall contain the following details as a minimum:

- distribution list of all Health and Safety Committee members and other attendees;
- record of attendance and apologies;
- date and time of meeting;
- details of issues raised, discussion points and actions to be taken (complete with the nominated time frame and the person responsible for the action); and date and time of the next Health and Safety Committee meeting.

All Health and Safety Committee meeting minutes shall be circulated to committee members and placed on appropriate notice boards within one week of the meeting being held.

All Health and Safety Committee meeting minutes shall be signed by the Chairperson and a Health and Safety Representative.

Copies of all Health and Safety Committee minutes shall be filed and retained for reference

## 8.5.6 Chairperson

A competent person shall be elected and appointed in writing as the Chairperson for the Health and Safety Committee.

The Chairperson's roles and responsibilities shall be defined in writing and implemented.

The Chairperson shall be trained in Health and Safety principles and practices and in the role of the Chairperson. As a minimum, the Chairperson shall have attended the Company's Health and Safety training course.



## 8.6 Management Audits

### 8.6.1 Objectives

To ensure the Bentley Crane Hire Safety Standards are being effectively implemented and complied with and that actions raised to rectify deficiencies are being managed and completed.

### 8.6.2 Definitions

**Management Audit** - a detailed review of an individual project application of the Safety Standards by management and employee representatives, using a systematic audit process.

#### 8.6.3 Audit Team

A Management Self Audit shall be performed for each site at least annually.

The Management Self Audit Team should consist of:

- The Safety Manager (lead auditor)
- A Site OH&S Representative
- Managing Director where scheduled.

The following project personnel shall be available during the course of the audit:

- Site Manager
- Site Supervisor
- Site Safety Coordinator

The Safety Manager shall be responsible for:

- coordinating the annual Site Management Audits;
- recording the audit results;
- monitoring and analysing trends from the audit results and advising on methods to improve the results.

The Company's Safety Performance audit booklet shall be used when performing the audit and reporting the results.

A filing system for the Project Management Audits and records shall be maintained.

## 8.6.4 Audit Process

A pre-start meeting will be convened with the Site Manager and senior project staff in order to discuss the staging of the audit.

A familiarisation tour of the site shall be undertaken if necessary, prior to commencement.

The audit will be conducted by examining objective evidence, observing behaviours and informally interviewing employees and subcontractors.

The audit document shall be completed as part of the audit progresses

On completion of the examination of documentary systems verification the workplace shall be inspected and personnel queried in order to test field application.

When the audit is completed an audit debriefing will be carried out between the audit team and site management with an emphasis on site system improvements and confirmation of successful initiatives.

## 8.6.5 Follow-up Actions

Action plans shall be developed and implemented to address deficiencies from the Management Self Audit which cannot be corrected immediately.

Action plans shall be reviewed on a monthly basis until all required actions are completed.

Audit Verification



## 8.7 Workplace Inspections

## 8.7.1 Objective

To regularly conduct workplace inspections to identify hazards which have the potential to harm employees, damage to plant, damage to the environment, or loss to the business, and to implement corrective actions to eliminate or mitigate the risks posed by them.

## 8.7.2 Definitions

Health and Safety Representative - Health and Safety Representative as defined in the respective state legislation.

**Plant** - includes all buildings, machinery, fixed and mobile plant and tools (as defined in the legislation).

Workplace - includes all work areas, work stations and equipment as defined in the legislation.

## 8.7.3 Inspections

Each site shall conduct regular inspections of the workplace conditions including all tools buildings and equipment on a regular basis as detailed below.

Safety Item	Responsible	Frequency
Workplace Inspections	Designated Person	Daily
Planned Inspections	HealthandSafetyRepresentativeandSupervisor	Monthly
Portable Ladders	Designated Person	Quarterly
Fixed Ladders	Designated Person	Annually
Scaffolding	Designated Person	Quarterly
Portable Electrical Equipment	Designated Electrician	Quarterly
Earth Leakage Units	Designated Electrician	Quarterly

Safety Item	Responsible	Frequency
Electrical Installations	Designated Electrician	Quarterly
Machine Guards	Designated Person	Monthly
Lifting Equipment	Appointed Person	Quarterly
Compressed Air Tools	Appointed Fitter	Six Monthly
Cutting Torch Equipment Condition	Designated Person	Quarterly
Gas Cylinder Trolleys	Designated Person	Quarterly
Pressure Vessels	Plant Manager	Bi-annually
Safe Work Procedures Review	Site OHS Manager	Bi-annually
Respiratory Equipment Inspection/Maintenance	Designated Person	Monthly
PPE Inspections/maintenance	Designated Person	Monthly
Safety Harnesses, Fall Arresters and Life Lines	Designated Person	Pre-use/after use, and Quarterly.
First Aid Box and Equipment	Designated Person	Monthly
Fire Extinguishers	Appointed Person	Biannually
Evacuation Drill	Site OHS Manager	Six Monthly
Emergency Plans	Safety Manager	Annually
Fences	Designated Person	Annually
Safety Induction and Refresher Syllabus	Safety Manager	Annually
Noise Survey	Safety Manager	As per Legislation.
Pollution	Safety Manager	Six Monthly
Pollution Survey	Safety Manager	Annually
Site Hygiene	Safety Manager	Six Monthly

Safety Item	Responsible	Frequency
Lighting Surveys	Safety Manager	Annually
Sub-contractorSiteInspections	Project Supervisor	Weekly
Management Self Audits	Site Manager	Annually
Daily Vehicle Inspections	Employee	Daily
Vehicle Inspections	Appointed Person	Monthly/As required
Operator Testing	Appointed Person	As Required

## 8.7.4 Monthly Inspections by Health and Safety Representatives

Workplace inspections shall be performed to legislative requirements and Company Standards.

Monthly workplace and plant inspections involving supervision and the Health and Safety Representative shall be performed of all areas, as required by legislation.

Workplace and plant inspections shall identify:

- legislative compliance;
- housekeeping standards;
- hazardous conditions;
- unsafe acts and conditions;
- substandard acts and conditions; and
- actions needed to correct the non-conformance.

An inspection checklist shall be developed and implemented for the recording of all inspections and reporting of deficiencies. The inspections shall identify:

- high risk conditions;
- human error / inefficiencies;
- remedial actions necessary and
- positive factors where appropriate.

Records shall be kept of all inspection reports.

The Supervisor shall make the Health and Safety Representative and where appropriate, all employees aware of all known hazards in the area.

Employees shall be appointed to participate in workplace inspections on a regular basis

## 8.7.5 Report Reviews

Monthly inspection reports shall be reviewed by management on a monthly basis to ensure that appropriate action is taken to remedy deficiencies.

The relevant results of monthly inspections shall be discussed with employees at "Tool Box" meetings.

Implemented corrective actions shall be monitored and reviewed for their effectiveness and appropriateness on a monthly basis.



## 9 **Response Processes**

## 9.1 First Aid Facilities

## 9.1.1 Objective

To ensure first aid facilities and equipment are available to employees, sub-contractors and visitors and that trained personnel are available for the treatment of injuries.

### 9.1.2 Definitions

First Aider - a person who has completed and holds a Workplace First Aid Certificate or above.

## 9.1.3 First Aid Facilities and Trained Personnel

The provision of first aid facilities and equipment shall comply with the legislative requirements.

The purchase, storage and use of drugs and medical supplies shall comply with legislative requirements

The location of the first aid equipment shall be indicated by means of symbolic signs to Australian Standard (AS) 1319.

First aid boxes shall:

- be dust and moisture proof;
- be large enough to hold the first aid contents;
- be painted white inside and out and identified by a white cross on a jade green background, with the words "First Aid" in white; and
- contain first aid instructions and a list of contents.

First aid boxes shall be maintained free from dust and water and be secured in a safe area.

Site first aid boxes shall be checked monthly.

A record is to be kept of all inspections and checklists.

All Site Supervisors should hold a current First Aid Certificate.

All training sessions shall be recorded and records kept of the results of written and practical tests if used.

The call-out procedure for emergency first aid or medical assistance shall be clearly visible at all telephone points and updated whenever the procedures change.

Audit Verification	
	Document: Inspection reports
	Observation

## 9.2 Worker's Compensation

### 9.2.1 Objective

To ensure the prompt reporting, recording and investigation of workers' compensation claims and access to workers' compensation services in the event of employees sustaining workplace injury or disease.

To maintain close personal contact with the insurer to ensure costs of claims are managed.

## 9.2.2 Workers' Compensation Management

The Company shall maintain Workers' Compensation insurance for all employees who are on a Contract of Employment (including part-time and casual staff).

All sub-contractors and service providers shall have the necessary Workers' Compensation insurance cover whilst working on Company and project sites.

The Company shall implement a process for managing the reporting of Workers' Compensation claims to enable the prompt lodgement and discussion of claims progress with the insurer

A person experienced in Workers' Compensation management shall be appointed to be responsible for the processing and management of Workers' Compensation claims.

Workers' Compensation claims shall be processed within Company and legislative requirement time-frames.

All personnel shall receive instruction and information on the Workers' Compensation system during induction.

All occupational injuries and diseases shall be reported as promptly as possible.

## 9.2.3 Claims Management Review

Workers' Compensation claims shall be reviewed on a quarterly basis with the insurer.

Senior management shall be kept informed of Workers' Compensation rates, claims experience and costs both direct and indirect.

## 9.2.4 Audiometric Testing

Where required by legislation, all employees shall have an audiometric test upon commencing and terminating from employment.



## 9.3

## 9.4 Injury Rehabilitation

## 9.4.1 Objective

To ensure early intervention for effective Rehabilitation to provide benefits for the employee and the Company to minimise the disruption to work. To provide work, alternative duties and other programs for injured employees to facilitate recovery towards the resumption of pre-injury duties.

#### 9.4.2 Definitions

**Rehabilitation -** The ongoing coordinated use of appropriate medical, work duties and other measures to restore function and assist an individual return to gainful employment.

**Rehabilitation Coordinator** - The person charged with the task of coordinating the earliest practicable return to work of injured employees.

**Return to Work Plan -** A written plan, formulated in consultation with the employee, Rehabilitation service provider and treating medical practitioner to facilitate the earliest practicable return to normal duties.

Alternative Duties - Are tasks identified for injured employees that will not aggravate the illness or injury and are within the employees' capabilities.

## 9.4.3 Rehabilitation Program

The Company shall maintain a Rehabilitation program to provide a process for the management of employee's occupational injury and disease. The program shall reflect the legislative requirements.

A competent person shall be appointed to coordinate the Rehabilitation of injured employees.

Doctors shall be given a written Medical Treatment Referral when treating injured employees.

Meaningful alternative duties shall be identified for the effective graded return to work of the injured employee on the Medical Treatment Referral.

Company personnel shall liaise with the Rehabilitation service provider, where necessary, the Doctor and the employee to formulate a Return to Work Plan.

Close contact shall be maintained with the injured employee until full recovery is achieved.

Audit Verification	
	Document: Referrals, return to work plans
M	Employee Interview

9.5

## 9.6 Fire Prevention

## 9.6.1 Objective

To ensure that sufficient fire prevention and suppression systems, procedures and equipment are provided and maintained.

## 9.6.2 Definitions

**Fire Protection and Prevention Survey** - A survey of all premises and procedures to identify fire risks and determine protection and prevention measures.

Hot Work – Any grinding, arc welding or gas welding or cutting.

## 9.6.3 Fire Risks Identified

A Fire Protection and Prevention Survey shall be conducted.

Fire risk surveys shall be conducted at site start-ups and at least every twelve months or when changes occur to workplace design or processes.

Fire Protection and Prevention Survey Report recommendations shall be actioned by provision or repair of equipment, employee training and fire safety programs

## 9.6.4 Correct Types of Fire Extinguishing Equipment Provided

Fire detection and suppression systems shall be installed where recommended by the Fire Protection and Prevention Survey Report. Installations shall comply with the relevant Australian Standards, (AS) 1670, (AS) 4118 and (AS) 4214.

Appropriate fire extinguishing systems, equipment shall be provided and located for protection of identified risk areas.

Where portable fire extinguishers are provided, Dry Chemical Powder shall be used as a preference with the exception of selected electrical installations where Carbon Dioxide shall be installed. Flammable or combustible liquid stores shall have both foam and Dry Chemical Powder extinguishers.

All missing, damaged or discharged fire extinguishing equipment shall be reported and replaced immediately.

Training in the correct use of fire extinguishing equipment shall be provided for all employees

All employees shall know the location of, and how to use, fire extinguishing equipment. They shall report any damaged, expired or missing equipment to their immediate supervisor.

### 9.6.5 Fire Protection Equipment Locations Marked

All fire protection and suppression equipment shall be clearly identified and shall remain accessible at all times. Equipment identification shall be in accordance with Australian Standards (AS) 1319.

Where equipment is not clearly visible, symbolic signs shall be provided in locations that cannot be obstructed and are visible from all approaches.

All signage related to fire protection and suppression equipment shall be maintained in good legible condition at all times.

Fire extinguishers shall be mounted so that the bottom of the extinguisher is no less than 100mm off the floor and the top is not more than 1.2 metres from the floor.

Fire extinguishers shall have a triangular wall plate positioned above the extinguisher, no less than 2 metres from the floor.

An indicator disk stating the type of fire extinguisher and its application shall be positioned above the extinguisher.

Fire extinguisher locations shall be numbered on the mounting board or wall directly above the extinguisher.

All fire equipment numbers shall be white on a red background.

#### 9.6.6 "Keep Clear" Areas Demarcated

"Keep Clear" areas shall be indicated at all fire equipment.

Any missing or deteriorated markings around fire extinguisher equipment shall be reported to the immediate supervisor.

#### 9.6.7 Fire Equipment Unobstructed

No items shall be stored or located in fire equipment or emergency exit demarcated areas.

#### 9.6.8 Inspections of Fire Installations and Equipment

All fire protection installations and equipment shall be numbered and recorded in a fire equipment log book including type, capacity and location of equipment.

A suitably trained and qualified person shall be appointed to conduct inspections of fire installations and equipment.

Fire protection installations and equipment shall be inspected monthly. Checklists shall be provided for inspections.

### 9.6.9 Annual Maintenance Program

Gaseous fire extinguishing systems shall be inspected, tested and serviced in accordance with Australian Standard (AS) 1851.12.

Portable fire extinguishers shall be serviced in accordance with Australian Standard (AS) 1851.1. Service tag records shall only be altered by an authorised person.

Sub-contractors fire equipment, inspection checklists and maintenance records shall be checked regularly to ensure compliance with the Company's standards.

All maintenance, testing and servicing of fire equipment and systems shall be recorded in the fire equipment register.

Additional portable equipment shall be provided to maintain fire protection during testing and servicing programs where necessary.

Damaged fire equipment and discharged extinguishers shall be reported and replaced immediately.

Fire equipment shall be used for its intended purpose only.

## 9.6.10 Permits

A hot work permit shall be issued for all hot work conducted outside of designated workshop areas.



## 9.7 Emergency Preparedness

## 9.7.1 Objective

To ensure systems and procedures are in place for the immediate response to any workplace emergency situation, with a view to:

- decrease the level of risk to life, property and the environment; and
- control any incident and minimise its effects.

## 9.7.2 Definitions

Emergency Management Team - is responsible for the overall management of major emergency or incident situations.

Emergency Services officers - are responsible for providing initial response to emergency situations.

**Emergency Response Coordinator -** is the Site Manager or nominee at each Company site and is responsible to coordinate the immediate emergency response.

## 9.7.3 Emergency Plan

Emergency Management Plans shall be developed and implemented for all sites in accordance with legislative requirements. The Emergency Management Plans, where appropriate, shall outline the procedures for managing:

- hazardous substances release or spill;
- outbreak of fire on the surface and underground;
- major accidents involving injury, property loss or environmental damage;
- ground disturbance, e.g., earthquake;
- bomb or civil threats;
- natural disasters, including floods and storms;
- civil emergencies which could impact on the Company's operations and employees, such as aircraft crash and road traffic emergencies;
- counselling and other support for persons traumatically affected during or after the emergency; and
- the coordination of external authorities and organisations that would be involved or would provide assistance in the Company's emergency plans and procedures.

Adequate resources shall be provided for the development, implementation and management of the Emergency Plan and for any emergency situation

Where appropriate an Emergency Management Team shall be formed.

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Emergency Procedures (to support the Emergency Plan) shall be developed and provided to Emergency Management Team members and Emergency Services members, external emergency services, external support organisations, the Client's Emergency Coordinator, sub-contractor emergency personnel and other employees on an as needed basis.

Emergency Services members shall be trained in their duties contained in the Emergency Procedures.

All employees shall attend training sessions on Emergency Procedures.

Each site shall display at a visible place at the entrance to the area, a full plan of the area identifying the locations of all entrances and exits, emergency shut-off valves and controls, all fire hydrant points, fire extinguishers and first aid facilities.

Emergency Procedures shall be reviewed and updated annually, or when a situation arises which warrants the need for a review.

Emergency Evacuation Procedures shall be tested on a biennial basis.



## 9.8 Security

#### 9.8.1 Objective

To provide and maintain security systems and procedures in order to minimise risk to employees and property.

#### 9.8.2 Definitions

**Security System -** is a program designed to prevent unauthorised entry to Company and project sites, allows for the location of personnel in an emergency and prevents loss of Company property.

## 9.8.3 Controlled Access and Egress of Persons, Vehicles, etc.

Security systems shall be provided at all Company, project and plant sites. This shall include a system of entry and exit control for all persons and vehicles shall be in operation at all plant and project sites.

All visitors shall sign the "visitors" book before entering Company premises or project sites.

Any person without the required protective clothing, or suspected of being under the influence of alcohol or drugs shall be denied entry at control points.

Project work sites shall be barricaded or otherwise delineated to control access / egress to the area and to minimise potential hazards to passers-by.

Audit Verification	
	Document: Visitors book
-0	Observation
M	Employee Interview

# **10 Subcontractor Management**

## **10.1 Requirements**

## 10.1.1 Objective

To define the mandatory requirements for the selection, induction and management of construction, labour hire and service contractors.

## 10.1.2 Requirements of Standard

The effective management of contractors requires specific Bentley Crane Hire management overview and a systematic approach which targets the vulnerabilities and risks associated with the sub-contract work,

This is achieved through:

- classifying all contracts according to the potential hazards and risk exposures associated with the proposed contract work
- pre-qualifying contracting companies according to their capabilities where there are significant HSE hazards and potential risks
- considering HSE capabilities and performance in the selection of contractors
- having a Bentley Crane Hire person specifically accountable for the safe and environmentally responsible execution of the contract work
- having all contractor employees undergo site and area specific inductions
- having regular reviews of contractor EHS performance
- having specific EHS improvement plans where the contractor's performance does not
- meet expectations

## 10.1.3 Define Contractor categories: -

**Category 1:** - Companies or individuals engaged on temporary contracts to work under close Bentley Crane Hire supervision (e.g. specialists, consultant's individuals providing temporary support etc.).

Rule: - Contractors shall be treated as if they were Bentley Crane Hire employees.

**Category 2:** - Work on a discrete project (i.e. construction project, installation of facilities, construction of major infrastructure etc.).

**Rule:** - Must submit work specific safety plan. Must complete subcontractor checklist in full. Audits will be conducted against the checklist.

**Category 3:** - Companies or individuals employed to carry out specific tasks or services, with minimal supervision. This category is subdivided into two separate components: -

- i. Contractors working with minimal supervision within maintenance, process or pit areas of the mine (e.g. maintenance personnel, general mining support services, contractor engaged for the supply of labour services to multiple areas etc.).
- ii. Contractors working with minimal supervision within generally risk free areas such as administration or general access areas (i.e. delivery services, administration support, stores support,)

**Rules:** The Company representative will use the subcontractor checklist as deemed appropriate for the contracted task. The higher the level of risk, the higher the level of scrutiny required. The lower the level of risk, less scrutiny can be applied

#### 10.1.4 Emergency Situation or Breakdown

If contractor **is** on the preferred contractor list, then the process may be circumvented by obtaining verbal authorisation from the immediate Supervisor.

If contractor is <u>not</u> on the preferred contractor list, then the process may only be circumvented by obtaining verbal authorisation from General Manager or Site Manager.

Forward completed copy of scope of work to contractor ASAP (i.e. Fax, mail or e-mail)

Paper work with relevant approvals is to be processed by next working day.

Non-preferred contractors used in an emergency situation will need to have their work performance rated by the Company representative. Subject to the rating given, the contractor may be included in the preferred contractor listing for future work.

## 10.1.5 Risk Assessment Tool

	Risk Assessment Calculator				
	Step 3 – Calculate Risk				
	А	В	С	D	Е
1	1 High	2 High	4 High	7 High	11 Significant
2	3 High	5 High	8 High	12 Significant	16 Moderate
3	6 High	9 Significant	13 Significant	17 Moderate	20 Moderate
4	10 Significant	14 Significant	18 Moderate	21 Low	23 Low
5	5 15 Significant 19 Moderate 22 Low 24 Low 25 Low				
	Note: 1-15 Ranking requires JHA/SWP and review before activity commences.				

Risk Assessment Process			
Step 1 Determine Probability	Step 2 Determine Consequences (Highest of the two)		
Probability	People Consequences         Plant, Property, Productivity & Environmental Consequences		
Frequent	Catastrophic	1= More than \$500k Damage and /or	
A= Common or	1= Fatality, Permanent Disability	Large Reorganisation of project, Major	
Frequent Occurance		Environmental Damage	
Probable	Critical	2= \$100-\$500k Damage and /or Project	
B= Is Known to Occur	2= Serious Lost Time Injury or	Contingency Plan Required, Serious	
or "It Has Happened"	Illness Environmental Damage		
Occasional	Serious	3= \$50-\$100k Damage and /or Production	
C= Could Occur or I've	3= Disabling or Short Term Lost	Disruption, Reversible Environmental	
Heard of it Happening	Time Injury	Damage	
Remote	Marginal	4= \$5-50k Damage and /or Slight	
D= Not Likely to Occur	4= Medical Treatment Case	Production Disruption, Minor	
		Environmental Damage	
Improbable	Negligible 5= Under \$5k Damage and Minimal		
E= Practically	5= First Aid Injury	Productivity Disruption, No	
Impossible		Environmental Damage	

### **10.1.6** Measures of Qualitative Consequence

**Catastrophic** - Death, loss of system or plant, release to environment, such that significant public interest or regulatory intervention occurs or reasonably could occur.

**Critical** - Severe injury, major system damage or other event, which causes some loss of production, unplanned, localised damage to environment, effects more than one department, or could have resulted in catastrophic consequences under different circumstances.

Marginal – Medical treatment case injury, minor system damage, minor confined and non-damaging environmental exposure, or other event generally confined to one department.

**Negligible** – Minor injury, negligible damage or no environmental damage.

\*When assessing the impact of environmental incidents, the definition is expressed in terms of monetary value where the total cost = cost of fine + clean-up cost + value of lost product + cost of delays.

#### Measures of Qualitative Probability / Frequency

Frequent - Likely to occur often during the life of an individual item or system or very often in the operation of a large number of similar items.

Probable - Likely to occur several times in the life of an individual item or system or often in operation of a large number of similar items.

Occasional - Likely to occur sometime in the life of an individual item or system, or will occur several times in the life of a large number of similar components.

Remote - Unlikely, but possible to occur sometime in the life of an individual item or system, or can reasonably be expected to occur in the life of a large number of similar components.

Improbable - So unlikely to occur in the life of an individual item or system that it may be assumed not to be experienced, or it may be possible, but unlikely, to occur in the life of a large number of similar components.

#### **Risk ranking**

Based on the assessment of consequences and probability, an overall risk result is determined for each potential hazardous event using the Risk Analysis Matrix

In most cases, the magnitude of the consequences from hazardous events can vary with corresponding changes in the probability of the combination of the event/aspect and resulting consequence.

Audit Verification	
	Document: Contractor checklists, Tender documentation
0	Observation







# Safety Management System

# Standard Work Practices

## **11 Work Area Behaviour**

## 11.1 Purpose

The purpose of the Standard Work Practice is to:

- Define the level of behaviour that is expected from all employees and sub-contractors on Bentley Crane Hire sites; and
- Ensure employees and sub-contractors whilst on Bentley Crane Hire sites and operations use appropriate behaviour.

## 11.2 Scope

The Standard Work Practice applies to:

- All areas of Bentley Crane Hire operations, including Administration and Workshop areas; and
- All employees and sub-contractors working on Bentley Crane Hire sites.

## 11.3 Requirement

Behaviour that may be acceptable outside of work can be extremely dangerous and unacceptable in the work area (e.g. on concrete floors, near sharp steel edges and around moving machinery).

Follow these directions at all times:

- Do not trip, fight or wrestle with another person;
- Walk, do not run along walkways and stairs;
- Do not play with fire, electricity, compressed air or water hoses;
- Never throw things about your workplace;
- Do not distract anyone who is concentrating on their job; and
- Do not indulge in horseplay, skylarking and practical joking. These behaviours will not be tolerated and shall be regarded as dismissible offences.

# **12 Arc Welding**

## 12.1 Purpose

The objective of the Standard Work Practice is to:

• Define the minimum safety standard for performing arc welding tasks and the maintenance of arc welding equipment, on Bentley Crane Hire sites and its operations.

## 12.2 Scope

The Standard Work Practice applies to:

- All arc welding equipment on and arc welding tasks performed at, Bentley Crane Hire sites and operations; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to carry out arc welding tasks.

## 12.3 Requirements

## **12.3.1 Protective Equipment**

- Eye protection face shield; (mono goggles shall be worn in bounded areas unless welding)
- Protective clothing non synthetic;
- Safety footwear;
- Fire resistant gauntlets or gloves; and
- Fire resistant head gear, apron and spats.

## 12.3.2 Operation

- Ensure fire extinguishers are accessible.
- Remove all flammable or explosive materials from the working area.
- Position the radiation screens to ensure maximum protection of adjacent personnel.
- Switch off the welding machine after the welding process is completed.
- Extinguish any smouldering materials.
- A 'Hot Work Permit' is required when working in an area where the risk of fire and/or explosion cannot be removed by physical means.
- Ensure there is adequate, natural make-up or extraction ventilation.

- Respiratory protection must be worn and extraction ventilation must be utilised in confined spaces.
- Assistants shall be warned regarding welding flashes

NON-IONISING RADIATION EYE PROTECTION GUIDE		
SHADE NUMBER	OPERATION	
2	Soldering	
3 or 4	Torch Brazing	
3 or 4	Light Cutting, up to 1"	
4 or 5	Medium Cutting, 1" to 6"	
4or 5	Gas Welding (light) up to 1/8"	
5 or 6	Heavy Cutting, over 6"	
5 or 6	Gas Welding (medium) 1/8" to <sup>1</sup> /2"	
6. 7 or 8	Gas Welding (heavy), over <sup>1</sup> / <sub>2</sub> "	
10	Shielded Metal-Arc Welding (electrodes), 1/16, 3/32, 1/8, 5/32" in diameter	
10, 11, 12, 13 or 14	Atomic Hydrogen Welding	
11	Gas Shielded Arc Welding (non-ferrous), 1/16, 3/32, 1/8, 5/32" Electrodes	
12	Gas shielded Arc Welding (ferrous) 1/16, 3/32, 1/8, 5/32" Electrodes	
14	Shielded Metal-Arc welding, 3/16, 7/32, 1/4" Electrodes	
14	Shielded Metal-Arc Welding, 5/16 and 3/8" Electrodes	
14	Carbon-Arc Welded	
# **13 Gas Welding and Cutting**

# 13.1 Purpose

The purpose of the Standard Work Practice is to:

- Define the standard for the safe use and maintenance of gas welding equipment on sites and operations; and
- Define the responsibilities for the safe use and maintenance of gas welding equipment.

# 13.2 Scope

The Standard Work Practice applies to:

- The use and maintenance of gas welding equipment on sites; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to either use or maintain gas welding equipment and perform gas welding tasks.

# 13.3 Requirements

#### **13.3.1 Protective Equipment**

- Eye protection;
- Protective clothing not synthetic;
- Safety footwear; and
- Fire resistant gauntlets or gloves.

#### 13.3.2 General

Supervisors/Foremen shall thoroughly instruct employees in the safe use of cutting and welding equipment. All equipment shall be used in strict accordance with the manufacturer's instructions and recommendations.

Defective equipment shall be immediately removed from service.

Special precautions shall be taken during cutting and welding operations to ensure that inert and other welding gases do not collect in adjacent low-lying areas or confined spaces. Ensure there is adequate, natural, make-up or extraction ventilation provided.

Cylinders shall not be taken into confined spaces. Leads and hand pieces shall not be left unattended in confined spaces.

Fuel tank welding shall be restricted to the welder nominated by Site Management and can only be undertaken after adequate purging and complete filling of the tank with inert gas.

Employees shall not be exposed to concentrations of harmful air contaminants i.e. smoke, fumes, toxic decomposition products etc. Special controls, including ventilator and respirator usage may be required.

Oxygen shall not be used for blowing off clothes or for cleaning purposes.

Statutory requirements for fire-safety, including Hot Work Permit requirements shall be complied with.

Cylinders and hand pieces shall be fitted with appropriate flash back arrestors.

Cylinder valves shall be turned off when not in use and lines bled off.

#### **13.3.3** Equipment and Storage

Acceptable spark igniters (but not matches or cigarette lighters), shall be used to light torches. Torches shall not be used to light cigarettes etc.

Suitable keys shall be attached to all cylinders when in use.

Pressure reducing regulators and flash back arrestors must be fitted on all cylinders prior to use.

Before any regulator is removed from a cylinder, the cylinder valve shall be closed and the gas pressure released from the regulator.

Cylinders shall be securely fixed in the upright or slanted position when transported, stored or used, and must never be rolled on their sides or dropped.

Storage of oxygen, acetylene and LPG cylinders whether empty or full shall be separated by a 3 meter air space, or a one-hour fire wall.

Cylinder taps and valves shall be in the off position when not in use.

Cylinders, cylinder taps and valves, chaplains, regulators, hoses and apparatus shall be kept free from oil or grease substances and shall not be handled with oily hands or gloves. Protective caps or collars shall be fitted on cylinders whenever possible.

When cylinders are hoisted, they shall be secured on a cradle, lifting basket or pallet. They shall not be hoisted or transported by means of magnets, chokers, slings, or valve protection caps.

Cylinders shall be placed where they cannot become part of an electrical circuit. Electrodes shall not be struck against a cylinder to strike an arc.

Empty cylinders shall be plainly marked and treated as hazardous since some gas may still be contained. Gentle handling is mandatory.

Smoking or any source of ignition shall be prohibited in all cylinder storage areas and "NO SMOKING" signs shall be posted.

Heavy portable welding equipment and accessories mounted on wheels shall be secured or blocked to prevent accidental movement.

Oxygen shall not be allowed to enter regulators suddenly. Mixing gases in cylinders is prohibited. Cylinders with improperly operating valves or defective regulators shall not be used. A broken or damaged regulator shall be removed from service immediately.

Hoses must be properly secured with hose clamps at each end (wire is unacceptable) and must be checked daily for deterioration. Flashback arrestors shall be fitted to gas cylinder regulators.

All questionable concentrations of gas or vapour must be immediately reported and repairs effected.

#### 13.3.4 Fire Bans

Welding and cutting is not permitted on TOTAL FIRE BAN DAYS, in bush areas unless the required Fire Authority permit has been obtained and all necessary fire prevention requirements have been strictly complied with.

#### 13.3.5 Summary

- Ensure gas cylinders are secured in an upright position.
- Ensure fire extinguishers are accessible.
- Remove all flammable explosive materials from the working area.
- Ensure that no cigarette lighters are carried on the person.
- Position radiation welding screens.
- Check that all fittings are tight.
- Turn on the gas and regulate the flow.
- Turn off the gas after the welding and cutting process is completed.
- Extinguish any smouldering materials after welding.

# **14 Hand Held Electrical Tools**

# 14.1 Purpose

The purpose of the Standard Work Practice is to:

- Define the standard for the safe use of hand held electrical tools on sites; and
- Define the responsibilities for the care and maintenance of hand held electric tools used by employees and sub-contractors on sites.

# 14.2 Scope

The Standard Work Practice applies to:

- The use and maintenance of hand held electrical tools at Bentley Crane Hire sites and operations; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to use hand held electrical tools.

# 14.3 Requirements

#### 14.3.1 Personal protective equipment

- Eye protection;
- Hearing protection; and
- Safety footwear.
- Glove as appropriate

#### 14.3.2 General

Operation, adjustment and repair of hand held electrical tools must be restricted to experienced and licensed personnel. Any defective tools must be tagged with an Out-of-Service tag.

All electrical power tools shall be properly earthed and electrically sound. Earth leakage units must be fitted.

Guards must be fitted where tools are so designed and must be replaced after servicing has been completed.

All hand power tools shall be equipped with a momentary contact "on/off" switch (on the tool) which can be turned off with a single finger or hand motion.

Portable tools (i.e. grinders, saws etc.) shall not be used in a bench type manner nor otherwise clamped. The object being tooled shall be securely fastened.

Correct discs or grinding wheels, in accordance with the manufacturer's ratings shall be used.

Electrical cords shall be kept out of walkways, stairs and ladders and not placed so as to create tripping hazards, or be subject to damage from equipment or materials.

Hand held electrical grinders (150mm) and other hand held electrical tools, must not be used if they have a "lock-on" type trigger, but must be tagged "out-of-Service" to have the trigger replaced with a non-lockable switch.

Only grinders up to 175mm shall be used and all grinders shall have a dead man's switch.

#### 14.3.3 Summary

Visually check the 3-pin socket and flexible lead to ensure no wires are bared or showing.

Visually check the condition of the tool.

Ensure the tool is tagged with the test results of the electrician's last inspection dated within the 3 month period.

Ensure the power is turned off. Plug in and connect the electric tool to the electricity supply, ensuring that the face of the power point is clean. Switch on and check the operation of the hand tool.

Commence work and comply with the manufacturer's instructions regarding the tool's specific use.

Switch off and disconnect the power when the work has been completed. Never leave the tool running or powered when unattended.

#### Note:

Defective tools must be tagged with an Out of Service Tag.

# **15 Hand Tools**

# 15.1 Purpose

The purpose of the Standard Work Practice are to:

- Define the standard for the safe use of hand tools on sites; and
- Define the responsibilities for the care and maintenance of hand tools used by employees and sub-contractors, on sites.

# 15.2 Scope

The Standard Work Practice applies to:

- The use and maintenance of hand tools at sites; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to use and maintain hand tools.

# 15.3 Requirements

#### 15.3.1 Personal Protective Equipment

- Eye Protection;
- Hearing Protection;
- Gloves; and
- Safety footwear.

#### 15.3.2 General

- Hand tools shall be inspected prior to use to ensure that they are in good condition.
- Tools such as drift pins, wedges and chisels shall be kept properly dressed (free from mushroomed heads).
- Tools with blades shall be kept sharp.
- Drill steels or grouser steel shall not be used as tools or for tooling.
- The wooden handles of tools shall be kept free of splinters or cracks and kept tight in the tool.
- Wrenches (including adjustable pipe, end and socket wrenches) shall not be used when the jaws are sprung to the point that slippage occurs or when obviously worn out.
- Spark and flame producing tools shall not be used near flammable liquids or highly combustible materials, or charged blast areas or explosives magazines.

# **16 Hazardous Substances**

# 16.1 Purpose

The purpose of the Standard Work Practice is to:

• Define the standard for the safe transport, handling, storage, use, identification and disposal of hazardous substances and chemicals on and used at sites.

# 16.2 Scope

The Standard Work Practice applies to:

- All hazardous substances and chemicals used on Bentley Crane Hire sites and operations; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to transport, handle, store, use or dispose of, hazardous substances and chemicals.

# 16.3 Requirements

#### 16.3.1 MSDSD

Material Safety Data Sheets cover the following matters in relation to individual hazardous substances:

- The determination and classification of a hazardous substance;
- Control of hazardous substances;
- Storage, placarding and handling of hazardous substances;
- Emergency notes;

The general principals set out below should be followed with reference to the Material Safety Data Sheet as a first point of referral.

#### 16.3.2 Management of Chemicals

#### **Basic Principles for Safe Handling**

All chemicals in use on site can be safely handled, provided care is exercised in the storage and use of the products. Persons need to be informed about the dangers associated with each chemical, and the means of protection from these dangers.

Information, training, suitable equipment and effective work practices are required.

All containers shall be labelled to clearly identify the substances contained therein.

A risk assessment shall be conducted for all chemicals in use.

#### Main Chemical Hazards:

- Physical contact;
- Ingestion
- Inhalation
- Skin contact
- Eye contact
- Fire and explosion; and
- Environmental effects.

#### **Physical Contact**

All chemicals can have some effect on the body and some are particularly dangerous. Poisoning can occur by swallowing, breathing of fumes, and in some cases, simply by skin contact.

Poisons that are absorbed through the skin, or affect the skin and will be more hazardous when in contact with wet tissues such as the eyes, nose and mouth, due to the sensitivity of such tissues.

#### Fire and Explosion

Some chemicals on site may be flammable, and some of these may be capable of producing explosions. In a fire situation it is important to remember that chemicals become more mobile, and may vaporise, or melt and flow. Some chemicals will undergo decomposition in a fire and may become significantly more hazardous.

#### **Environmental**

Most chemicals will have some detrimental environmental effect.

#### 16.3.3 Storage

Chemicals must be properly stored to minimise possible adverse effects. Spillage control should be considered in storage, as should separation of incompatible chemicals.

Weather protection may be needed for some items and consideration of relationship to other activities, people and food may be required.

Appropriate signs in accordance with statutory requirements shall be placed in and around storage areas.

An inventory of all chemicals, including location, storage amount and usage rates, shall be available. A map showing the storage locations shall be part of the site manifest.

Material Safety Data Sheets shall be available at the office, storage areas, at points of use and the First Aid Room.

Where no MSDS sheet is available for a chemical, then contact the Safety Manager and the appropriate MSDS shall be organised.

Chemical stores shall have appropriate fire protection, being extinguishers and hose reels or hydrants for large storages. Note that some chemicals should not be wetted, and fire extinguishers should be of the dry chemical type.

#### 16.3.4 General Handling

By reference to the MSDS, the appropriate personal protection for handling the particular chemical may be determined. This equipment will be supplied to operatives, and they shall be trained in its use.

Signs advising of the requirement for personal protective equipment will be displayed where appropriate.

Where a chemical is particularly dangerous, such as cyanide solids or solutions, persons shall be observed when handling significant quantities.

#### Cyanides

Cyanides, whether solid or in solution, are capable of producing highly toxic, hydrogen cyanide gas. The only protection against gas production is to keep solid cyanide dry, or keep solutions alkaline.

Cyanides are toxic either by swallowing, breathing of gas or dust, or by skin contact.

All persons handling cyanides must have full bodily protection, including breathing protection.

Cyanides **<u>must not</u>** be allowed to come into contact with acids.

Any suspected case of cyanide poisoning must be referred to expert medical advice immediately.

A smell of bitter almonds is indicative of the presence of cyanide, but it should be noted that 10% of the population are unable to detect the presence of cyanide by the sense of smell.

#### Acids

Acids have a similar effect to cyanide soda, but can also produce highly corrosive fumes. Full breathing protection is required in addition to skin and eye protection. Medical treatment should be sought for burns.

#### Caustics

Caustic soda (solid or solutions) can cause severe burns to the skin, and full skin and eye protection is mandatory for handling this substance.

Any spillages onto the skin should be washed off with copious quantities of water for 20 minutes. Burns will need urgent medical treatment.

#### Diesel

Diesel fuel has been listed as a potential carcinogen in humans by the IARC. Care should be taken not to spill diesel on clothing or skin. Gloves shall be worn when refuelling machinery or filling service truck diesel tanks.

#### Spillage

All spillages of chemicals must be cleaned up immediately, and significant spillages should be dealt with as detailed on the MSDS

#### 16.3.5 First Aid

First aid supplies should contain recommended antidotes for all chemicals on site. First Aid procedures are detailed on the relevant MSDS.

# **17 Operation of Cranes**

# 17.1 Purpose

The purpose of the Standard Work Practice is to:

• Define minimum safety standards for driving and operating mobile cranes on Bentley Crane Hire sites, including its client's premises.

# 17.2 Scope

The Standard Work Practice applies to:

- All overhead gantry cranes used and maintained on sites; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to use and maintain overhead gantry cranes on Bentley Crane Hire sites and operations.

# 17.3 Requirements

#### 17.3.1 Personal Protective Equipment

- Eye Protection;
- Head Protection;
- Hand Protection gloves; and
- Safety Footwear.

# 17.3.2 Operations

Cranes are used for a wide variety of jobs in many situations around job sites.

To operate rubber tyred mobile cranes, operators are required by law to:

- have a sound knowledge of slings and slinging arrangements and must have completed a basic slinging course;
- Possess a current crane operator's certificate;
- Only operate a crane that has been licensed by the relevant government authority; and
- Depending on the crane's capacity, have one and sometimes two, registered dogmen or riggers assist with any lift.

Trainees can only operate cranes under direct supervision.



When operating the crane, follow these basic procedures.

DO

- Inspect slings and chains prior to use;
- Use only tagged chains and slings in good condition;
- Inspect the crane carefully for faults, and check the tyres;
- Only place a loaded crane on hard, even surfaces;
- Lift within the safety limits of the sling and crane;
- Observe safe practices and legal requirements;
- Be aware of personnel and vehicles in the vicinity;
- Be aware of power lines in your proximity;
- Check the load mass before selecting a sling or chain;
- Leave the crane parked in a safe place and aspect; and
- Take signals from one person only except in an emergency, where anyone can give a 'stop' signal.

# DO NOT

- Leave a crane with the load suspended;
- Exceed safety limits;
- Lift personnel, except in an approved and tagged man-cage; or
- Take anything for granted check it yourself.

## 17.3.3 Overhead Gantry Cranes

- Check and know the weight of the load to be lifted.
- Ensure the weight and load does not exceed the displayed safe working load on the overhead gantry crane.
- Check the steel wire rope drum to ensure the rope lay is correct.
- Activate the lower switch check that all wheels and rope run free.
- Activate the stop switch.
- Use only certified tagged chains for lifting and ensure the weight and load does not exceed the safe working load (SWL) displayed on the tag.
- Check that the hook safety latches are in place and work effectively.

- BENTLEY CRANE HIRE
- Connect the hook to the load and commence to lift.
- Halt the lift when the load is clear of the floor.
- Check that all lifting chains, ropes, are secure.
- Recommence the lift.
- Ensure electrical cables are not in a position to be damaged.
- Move the gantry to position the load. Do not rely on the cut-out switches to limit the travel of the gantry.
- Lower the load to the required location.
- Place and check to ensure the load is secure and stable before disconnecting the lifting chains or rope.
- Place signs to warn of dangers from climbing onto loads that may topple, where the centre of balance could be altered by the person's weight.

# **18 Lathes and Drills**

# 18.1 Purpose

The purpose of the Standard Work Practice is to:

Define the minimum safety standard for using and maintaining lathes and drilling machinery on sites.

# 18.2 Scope

The Standard Work Practice applies to:

- All lathes and drilling machinery used and maintained on sites; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to use lathes and drilling machinery on Bentley Crane Hire sites and operations.

# 18.3 Requirements

#### 18.3.1 Personal Protective Equipment

- Eye protection;
- Hearing protection;
- Safety footwear; and
- Hair nets (where applicable).

#### 18.3.2 Operation

- Turn the lights on over the working area.
- Check that all power to the machinery is off and the machine guards are locked into place.
- Position the item to be worked on, into the chuck jaws and securely clamp.
- Deactivate the switch locking device and turn on the electrical power.
- Select the correct speed and proceed to work.
- Check that cutting fluids run correctly and are flowing into the work area.
- Stop all spinning chucks or tools before checking measurements.
- Brush off any steel shavings or swarf with a hand held, bristle type brush.
- Switch off and lock out the starting switch.
- Release the chuck jaws or clamps and remove the work.
- Switch off the overhead lighting.

# **19 Pneumatic Tools**

#### 19.1 Purpose

The purpose of the Standard Work Practice is to:

• Define the standard for the safe use of pneumatic tools on Bentley Crane Hire sites and operations.

## 19.2 Scope

The Standard Work Practice applies to:

- The use of pneumatic tools at Bentley Crane Hire sites and operations; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to use pneumatic tools.

#### **19.3 Requirements**

## **19.3.1** Personal protective Equipment

- Eye protection;
- Hearing protection;
- Safety footwear; and
- Hand protection gloves.

#### 19.3.2 General

The manufacturer's safe operating pressures shall not be exceeded on any pneumatically operated tool. All loose connections and attachment points shall be safety clipped or chained.

Pneumatically driven nailers, staplers and other similar equipment shall be provided with automatic fastener feed equipment.

A safety device shall be fitted on the muzzle to prevent the tool trim from ejecting fasteners, unless the muzzle is in contact with the work surface

- Ensure the airflow is turned off.
- Connect the pneumatic tool to the flexible airline.
- Secure the couplings with a locking pin and safety chains.
- The manufacturer's specified clamps must be used on all airlines and tools.
- Fill the in-line oil lubricator with oil if applicable.
- Turn on the airflow.
- Check the operation of the tool and commence work.
- Turn off the airflow when the work has been completed.

# 20 Slips / Trips / Falls

#### 20.1 Purpose

The Purpose of the Standard Work Practice is to:

- Identify areas and tasks that have the potential for slips, trips and falls on Bentley Crane Hire sites and operations; and
- Provide minimum safety standards for Bentley Crane Hire employees and sub-contractors for the prevention of slips, trips and fall hazards.

# 20.2 Scope

The Standard Work Practice applies to:

- Buildings, workshops, work areas, plant and equipment where there is potential for slips, trips and falls to occur on Bentley Crane Hire sites and operations; and
- All employees and sub-contractors working on Bentley Crane Hire sites and its operations.

# 20.3 Requirements

Slips, trips and falls are a very simple way in which serious injuries have occurred in the workplace.

Modifying the work environment is the most effective way of reducing the risk of falls. Unfortunately, constantly changing workplaces in the construction industry make it difficult to prevent falls.

The risk of slips, trips and falls may be reduced by:

- Keeping all pedestrian areas free of tripping hazards;
- Where practicable, ensuring all pedestrian surfaces are non-slip, kept clean and that appropriate footwear is worn;
- Ensuring the edges of walkways, stairs, etc. are clearly visible to pedestrians;
- Providing hand rails on walkways, stairs, etc. These are particularly needed when accessing machinery;
- Complying with all trenching regulations, e.g. Providing barricades around excavations or trenches where a person may fall;
- Complying with all scaffolding regulations, e.g. Erecting scaffolding where a person may fall 4.0 meters or more from a working platform;
- Providing adequate hand and foot holds for access to vehicles or machinery. This can be done by the principle contractor or employer, or requested in the design specifications to the manufacturer;
- Ensuring that all ladders are well maintained and used correctly, particularly with respect to surface anchoring;
- Ensuring clear paths and good visibility where tandem carrying of goods, materials, etc. Is necessary; and
- Using safety harnesses and safety lanyards where a person may be injured from a fall and it is not practicable to provide guardrails, midrails or edge protection and a level platform.

# 21 Tanks and Pressure Vessels

# 21.1 Purpose

The purpose of the Standard Work Practice is to:

- Define the minimum standard for the identification and safe use of tanks and pressure vessels on Bentley Crane Hire sites and its operations; and
- Define the testing procedure for pressure vessels used on Bentley Crane Hire sites and its operations.

# 21.2 Scope

The Standard Work Practice applies to:

- All tanks and pressure vessels located and used on Bentley Crane Hire sites and operations;
- All persons responsible for the identification and testing of tanks and pressure vessels; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to use tanks and pressure vessels on Bentley Crane Hire sites and operations.

# 21.3 Requirements

#### 21.3.1 Tanks and Pressure Vessels

All tanks and vessels shall be designed, fabricated, tested, and stamped in compliance with statutory requirements.

Each tank or vessel containing flammable, combustible, corrosive, or toxic substances shall be prominently identified, i.e. "Gasoline", "Diesel", "Chlorine", etc.

The identification shall at all times be legible and include pertinent warnings such as "Danger", "No smoking", "High Temperature", etc.

Design, construction, testing, and installation of boilers and unfired pressure vessels shall comply with statutory requirements for Boiler and Pressure Vessel.

Adequate clearance shall be provided around boilers and associated room walls. Combustibles shall not be stored in the immediate area.

#### 21.3.2 Relief Valves

Each pressure relieving-safety device installed on operating equipment shall be maintained to ensure proper functioning of the device (normally set at 110% of the design pressure of the vessel). A boiler or other pressure vessel shall never be operated with a malfunctioning safety or relief valve. Any repairs required for the safety controls and associated equipment shall be performed immediately.

Each pressure-relieving safety device in service shall have a serial or identification number stamped upon it. In addition, a metal plate or metal tag shall be attached to each such device which shall show the pressure setting and the date the device was installed into service.

Outlets from pressure-relieving safety devices shall be properly secured and shall be run to a safe place of discharge. Warning signs shall be posted as necessary.

#### 21.3.3 Pressure Testing

No person shall be allowed near systems under test when the pressure approaches the yield strength or when the test pressure is over 500 gauge pounds per square inch (or 3500 kPa). Warning flagging and signs shall be utilised to warn all employees.

Except for low-pressure tests, hydrostatic pressure shall be used in lieu of pneumatic pressures. Oxygen shall never be used in any type of pressure test.

Thermal relief valves set at the operating pressure shall be provided to prevent over-pressurising and to ensure the thermal expansion of the liquids. These valves may be omitted when thermal expansion is not a problem or when a pump incapable of exceeding the test pressure is applying the pressure.

Any line or equipment not under test shall be isolated (by valve or blinds) and vented or disconnected.

Only calibrated test gauges shall be used and these shall be mounted in the upright position. Pump discharge gauges must be visible to the pump operator during the test.

A block valve shall be required on the line from the test pump to the line or equipment under test.

The rate of pressure increase shall not exceed 100 pounds per square inch (700 kPa) per minute.

When draining test fluids, the line or vessel shall be properly vented to avoid excessive vacuum build-up.

# 22 Compressed Air

#### 22.1 Purpose

The purpose of the Standard Work Practice is to:

• Define the standard for the safe use of compressed air, air tools and air lines on Bentley Crane Hire sites and operations.

## 22.2 Scope

The Standard Work Practice applies to:

- The installation and use of compressed air, air lines and pneumatic tools at Bentley Crane Hire sites and operations; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to either use or maintain compressed air, air lines and pneumatic tools.

# 22.3 Requirements

#### 22.3.1 Personal Protective Equipment

- Eye protection;
- Hearing protection;
- Safety footwear;
- Hand protection gloves and
- Hard Hats

#### 22.3.2 General

- All couplings on air pressure hoses must have safety clips and / or chains attached to prevent inadvertent release under pressure. All attachments shall be properly secured.
- All compressors, air receivers and other parts of compressed-air equipment shall be installed, equipped and maintained in good working condition at all times.
- An approved safety check valve shall be installed at the outlet manifold for each supply line.

- BENTLEY CRANE HIRE
- The air hose must be connected to the tool before the air is turned on. Air pressure is to be released from the air hose before disconnecting the tool.
- Compressed air or high pressure air shall not be used for blowing dust off clothes or directed to any part of the body.
- Only properly trained and qualified employees shall operate air pressure activated hand tools.
- The manufacturer's safe operating pressures shall not be exceeded on any pneumatic operated tool. All loose connections and attachment points shall be safety clipped or chained.
- Pneumatically driven nailers, staplers and other similar equipment shall be provided with automatic fastener feed equipment.
- A safety device shall be fitted on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface.
- No loaded or empty air pressure activated tool shall be pointed at any person at any time.
- No power actuated hand tool shall be carried from the worksite without management authorisation.

#### 22.3.3 Summary

- Check that the airflow is off.
- Check the condition of the tool and attachments.
- Connect the pneumatic tool to the flexible airline.
- Secure the couplings with a locking pin and/or safety chains.
- The manufacturer's specified clamps must be used on all airlines and tools.
- Fill the in-line oil lubricator with oil.
- Connect the flexible air lines to the main service line.
- Turn on the air flow.
- Check the operation of the tool and commence work.
- Turn off the air flow when the work has been completed.
- Release the air pressure before disconnecting the tool.

# 23 Underground Electrical Cabling

# 23.1 Purpose

The purpose of the Standard Work Practice is to:

- Define the standard for indicating the presence of underground electrical cables on Bentley Crane Hire sites; and
- Define the procedure for excavating near underground electrical cables.

# 23.2 Scope

The Standard Work Practice applies to:

- All work conducted around and near underground electrical cables on Bentley Crane Hire sites and operations; and
- All employees and sub-contractors working around or near underground electrical cables on Bentley Crane Hire sites and operations.

# 23.3 Requirements

Underground electrical cables shall be provided with sufficient surface markings or be properly mapped to determine their location. The depth of such cables shall be indicated.

- No excavation shall take place in the vicinity of underground cables without specific instruction from the site supervisor, who shall consult with the site Electrical Supervisor on safety precautions to be observed.
- An 'Excavation Permit' shall be issued before any excavation work is commenced,
- Accidental unearthing of underground cables shall be reported to the site Supervisor immediately.

# 24 Vibration

# 24.1 Purpose

The objective of the Standard Work Practice is to:

• Define the minimum safety standard for minimising the effects of workplace and work vibration on employees and subcontractors on Bentley Crane Hire sites and its operations.

# 24.2 Scope

The Standard Work Practice applies to:

- All workplaces and operations where there is the potential for employee and sub-contractor exposure to occupational vibration; and
- All employees and sub-contractors of Bentley Crane Hire, who have the potential to be exposed to workplace and environmental vibration.

# 24.3 Requirements

Whole body vibration (WBV) occurs when vibration is transmitted to a person through some supporting structures, such as a vehicle seat in mobile plant.

WBV stresses the entire body, and particularly affects the back. Early symptoms of stiffness or pain may occur in the neck and back. Long term exposure may damage intervertebral discs and cause fractures of the vertebrae, as well as disrupt the body's circulatory system.

Site supervision should ensure that all practicable action is taken to reduce whole body vibration.

Localised vibration occurs when vibration is limited to a specific body part, such as the hands. Pneumatic tools are the main source of localised vibration.

Personal protective equipment (gloves) is available which reduces the amount of vibration transmitted to the hands of persons operating pneumatic impact tools. These gloves absorb the vibration and dissipate it throughout the whole glove, therefore reducing vibration to the operator's hands.

The exposure of employees to vibration should be eliminated or reduced whenever possible. Control measures include:

- Modifying the ground over which mobile plant or vehicles travel, or where possible, avoiding ground which increases vibration levels;
- Maintaining equipment in good order;
- Modifying equipment to eliminate exposure, e.g. Moving controls off the vibrating surface, mechanically isolating the source of vibration and using passive anti-vibration seats; and



- Changing work practices to eliminate employee exposure, e.g. Rotating jobs and multi-skilling of the workforce to reduce the exposure of individuals.
- Personnel should not be exposed to vibration from tools such as pneumatic tools, for periods longer than one hour continuously without a substantial break.

# 25 Safe Work at Heights

## 25.1 Purpose

The purpose of the Standard Work Practice is to:

- Define the minimum safety standard for working at heights on Bentley Crane Hire sites and its operations; and
- Defining responsibilities for the management of working at heights on Bentley Crane Hire sites and operations.

## 25.2 Scope

The Standard Work Practice applies to:

- All work conducted at heights on Bentley Crane Hire sites and operations; and
- All employees and sub-contractors of Bentley Crane Hire, who are required to perform work at heights.

# 25.3 Requirements

Persons required to work at a height where they could they fall and where a platform with a handrail does not exist, are required by law to be secured by a safety harness and lanyard.

They shall preferably be secured to a substantial overhead structure such that if a person were to fall, the fall would not exceed 0.6 meters in the case of fall restraint.

Safety lanyards shall contain a shock absorbing mechanism of a type that conforms to AS 1891.3 - 1992 in the case of fall arrest.

Where a person is required to use a safety harness and lanyard, that person should be observed at all times, with the observer preferably stationed at the rope attachment point.

All scaffolding must be erected in accordance with the requirements of the relevant authority, and carried out by a Certificated Scaffolder if the height exceeds 4.0 meters.

# **26 Vehicle Operation**

# 26.1 Purpose

The purpose of the Standard Work Practice is to:

• Define minimum safety standards when driving and operating company, hired or private vehicles on Bentley Crane Hire sites, including its client's premises.

# 26.2 Scope

The Standard Work Practice applies to:

- All vehicles and machinery driven and operated on Bentley Crane Hire sites; and
- All Bentley Crane Hire employees, its contractors, sub-contractors and visitors who are required to drive and/or operate vehicles and machinery.

# 26.3 Requirements

- All motorised equipment and light vehicles shall be subjected to a mechanical safety inspection prior to being used on a work site and allowed only to be put to work after found to be roadworthy and in a safe condition.
- All light vehicles shall be required to display a site permit or otherwise shall be escorted in the works area. No light vehicle will be issued a permit unless it meets the requirements of Bentley Crane Hire Safety Management System Standards.
- All personnel driving in the works area shall be issued with a Driver's Permit. Pre-requisites for a Driver's Permit shall include:
- Satisfactory completion of a theory test of the driving requirements and procedures;
- Satisfactory completion of a practical driving test through the works area; and
- Being a holder of a current licence appropriate to the vehicle or machinery being driven.
- Where there are no 'Give Way' or 'Stop' signs, light vehicles shall give way to heavier vehicles particularly:
- Vehicles entering any haul road system at that point where there is no demarcated intersection shall give way to all traffic already using the haul road.
- Any vehicles following another vehicle shall maintain a separation distance of at least 50 metres at all times, except when overtaking those vehicles / machines which these rules allow.
- Vehicles which must not be overtaken are:
- Emergency vehicles;
- Explosives trucks; and

- Moving haul trucks and scrapers.
- All vehicles shall be driven with the headlights on at all times unless otherwise specified by site specific requirements, and shall dip high beam to oncoming traffic.
- Only roads with reflective delineators shall be used at night.
- All vehicles fitted with a revolving beacon shall have them turned on in specified areas.
- The following vehicles shall be fitted with flashing lights:
- All light vehicles;
- All Fork lifts and cranes;
- All mechanical gearbox vehicles shall be parked:
- With the engine off;
- In either first or reverse gear;
- With the park brake applied;
- With the front wheels turned to the side of the road when on a slope;
- More than 10 metres from either side of a heavy vehicle.
- Automatic gearbox light vehicles shall be left in Park (P).
- All vehicles shall reverse park in designated areas.
- When broken down;
- Park as above;
- Switch on hazard lights;
- Place reflective triangles 50 metres from the vehicle, both front and rear;
- At night, highlight the right rear of the vehicle with a flashing light (or turn on the mounted revolving beacon).
- Notify other road users; and
- Arrange for the repair / removal of the vehicle immediately.
- All personnel shall check in front of and behind their vehicle prior to moving off.
- Personnel driving heavy vehicles shall use the appropriate horn signals and wait five seconds prior to moving off. The following horn signals shall be used:
- 1 blast and pause about to start engine;
- 2 blasts and pause about to move forward; and
- **3** blasts and pause about to reverse.
- Horn signals must be used:
- When moving from a parking location;

- Around the workshop;
- At the fuel farm; and
- When there are other vehicles or personnel on foot in the vicinity.
- Whenever dust, fog or rain obscures visibility, headlights must be switched on. If visibility is less than 50 metres then vehicles shall pull over to the left and stop. Other road users shall be warned via the two-way radio.
- Rigid bars or 'A' frames shall be used for towing heavy machinery except:
- From bogged positions; and
- When no rigid bar connection is available.
- A light vehicle with a revolving beacon shall escort all towed vehicles.
- When towing trailers the following shall apply:
- The towing vehicle shall be heavier than the trailer;
- The towing vehicle shall have its flashing beacon on;
- Safety chains shall be secured; and
- Trailers and lighting plants shall be towed at no more than 40 km/hr; and
- Towing or pushing of vehicles shall only be done under the direct supervision of the Supervisor.
- No vehicle shall be driven into a hazardous area. All hazards shall be reported to the Supervisor.
- Vehicles shall not be driven over unprotected trailing electrical cables, air hoses, water lines or hoses.
- No vehicles shall be operated or parked within 10 metres of overhead power-lines without written authorisation.
- The following statutory separation distances shall be maintained at all times:
- 3 metres if less than 110,000 volts; and
- 6 metres if more than 110,000 volts.
- All drivers shall ensure that they have adequate clearance when driving under power lines or cable arches. A spotter shall be used where necessary.
- Mobile phones shall not be used whilst and vehicle or machinery is in motion.

# **27 Grinders**

# 27.1 Purpose

The purpose of the Standard Work Practice is to:

Define the requirements and control measures for the safe and efficient use of portable angle grinders.

# 27.2 Scope

The Standard Work Practice applies to:

• All Bentley Crane Hire employees, its contractors, sub-contractors and visitors who are required to use portable angle grinders on Bentley Crane Hire sites or projects.

# 27.3 Requirements

#### 27.3.1 Personal Protective Equipment

- Safety glasses and face shield;
- Hearing Protection;
- Close fitting gloves; and
- Safety footwear.

#### 27.3.2 Hazards

The primary hazards arising from the use of portable angle grinders are:

- Electrical (electric shock to operator)
- Sparks / hot metal (burns / fires)
- Contact with rotating disc / wheel (cuts)
- Being struck by flying objects (including dust into eyes)
- Disc / wheel shattering /'exploding' (severe injury including permanent disability).
- Vibration related disorders (numb fingers, 'white finger')
- Cuts to, or blows received by, nearby people
- Noise induced hearing loss
- Hair or clothing caught in rotating parts of the equipment, and
- Sprain or strain from lifting or holding the angle grinder incorrectly.

#### 27.3.3 Training and Competency

Only personnel who have the appropriate tools, equipment, licences, skills, induction and training to safely undertake their tasks shall use angle grinders.

In most circumstances the required skills will be held by 'Metal Trades' personnel. 'Metal Trades' personnel are those people who have completed an apprenticeship and been awarded a Trades Certificate in a Metals Trade e.g. Boilermaker, Fitting & Machining.

Where a Supervisor chooses to use a Non 'Metals Trade' person to use an angle grinder, they must satisfy themselves that this person has received appropriate training and is competent to complete the task safely.

#### 27.3.4 Safety Rules

Prior to using an angle grinder it shall be inspected including:

- Inspect the angle grinder to ensure that the chassis is intact i.e. no cracks or parts loose,
- Inspect the disc and disc guard. Make sure that they are in place and secure.
- Ensure that the disc or wheel is not chipped, cracked, glazed or damaged in any way that could cause it to shatter or 'explode',
- Check the handle(s) to ensure that they are secure and not damaged,
- Check to see that the test tag on the power cord is up-to-date and that the 'on-off' and/or 'deadman' switch is in good working order,

Conduct a 'test start' to check the angle grinder for balance and vibration. If unusual and/or excessive vibration is encountered during the test or at any time during use, immediately stop work unplug the unit, remove the disc and inspect it and the angle grinder for damage or incorrect mounting. If you are unable to locate and correct the problem, seek advice from your supervisor regarding repair or replacement of the disc or angle grinder.

Before operating an angle grinder, set up, inspect and secure your work area including:

Ensure that there are no flammable materials in your area and that it is not a restricted or hazardous area where grinding is not allowed. Determine if a Permit to Work is required and, where needed, ensure it is obtained.

Avoid using an angle grinder within a confined space. If this is not possible, ensure that a JHA and any other Confined Space Operations requirements (including permits) have been completed.

Check that your power supply is earth leakage protected.

Ensure that your power cord and extension leads are long enough and are positioned out of harm's way.

Secure the object you are working on in a vice or in an alternative holding device. Do not hold the object you are grinding in your hand unless circumstances preclude any other method of doing the job. Where such circumstances exist, they must be supported by the completion of a formal JHA that is approved by the work area supervisor.

When positioning the job and securing the object, consideration must be given to the vibration and noise generated for both the operator and people in adjacent areas. Ensure that all personnel in the area are a safe distance from the grinding area, If required, erect protection screens to protect other personnel or plant in the area.

When operating an angle grinder:

- Hold the grinder firmly with two hands and ensure that you will be able to maintain your balance throughout the job,
- Maintain the appropriate pressure on the object to avoid damaging the wheel or overheating the object,
- Avoid allowing the wheel to rest on one spot for too long. This could cause the work to burn or the wheel to crack or 'explode',
- Where possible do the work at waist height,
- Maintain the grinding disc at a  $15^{\circ}$  to  $30^{\circ}$  angle to the work piece,
- Allow the grinder to reach full speed before commencing work,
- Allow the grinder to do the work, do not use excessive force,
- Allow the disc to stop completely before putting the grinder down, and
- Always lay the grinder down with the disc facing upwards.







# Safety Management System

# **Conditions of Contract**

# **28 Conditions of Contract**

# 1. LEGISLATIVE AND SAFETY MANAGEMENT SYSTEM COMPLIANCE

- 1.1 From the commencement of work on site until the completion of contractual obligations the subcontractor will comply with all legislative requirements, his own safety and environmental program and Bentley Crane Hire approved plan and Bentley Crane Hire directions issued in relation to safety and environmental management.
- 1.2 The subcontractor agrees that the management of safety and the environment is a joint responsibility, however, the subcontractor acknowledges that Bentley Crane Hire will have overall responsibility for the co-ordination of EH&S issues including those affecting the subcontractor. This however does not diminish any of the subcontractors EH&S responsibilities.
- 1.3 The subcontractor shall ensure that personnel under their control comply with legislative requirements, Bentley Crane Hire Safety and Environmental Project requirements and the subcontractor's safety and environmental plan and procedures.
- 1.4 Where a subcontractor fails to comply with a written safety or environment direction by Bentley Crane Hire within the nominated time frame and remedial is required by Bentley Crane Hire, the subcontractor shall be liable for all costs sustained.
- 1.5 Where plant, equipment or materials is risk assessed by Bentley Crane Hire as being an unacceptable safety or environmental risk the subcontractor will remove and replace such plant, equipment or material at its own cost.

# 2. SUBCONTRACTORS SAFETY AND ENVIRONMENTAL PLAN

- 2.1 The subcontractor will develop and implement a EH&S management plan specifically for the project. The plan will address the following criteria:
- 2.1.1 Company policy
- 2.1.2 Risk assessment process including risks associated with the specific activities relative to this contract.
- 2.1.3 Safe Work Procedures or job safety analyses addressing activities of moderate to high risk.
- 2.1.4 Skills and competencies required to safely perform all activities.
- 2.1.5 Specific roles and responsibilities of subcontract personnel.
- 2.1.6 Training plan and where necessary re-training for personnel relative to skill and competency requirements and nominated risk control measures.
- 2.1.7 A schedule of workplace inspections and auditing designed to test compliance with the subcontractors plan and procedures.
- 2.1.8 A response plan for the management of emergencies, workers compensation, rehabilitation, accident investigation and analysis.

# 2.2 Nominated Person for Safety & Environmental Supervision

- 2.2.1 The subcontractor shall nominate a person to be responsible for the implementation of their Health Safety and Environment plan.
- 2.2.2 The subcontractor shall provide Bentley Crane Hire with a summary of the nominated safety coordinators qualifications and experience. Bentley Crane Hire reserves the right to have the safety coordinator replaced where in Bentley Crane Hire's opinion the coordinators performance is deemed inadequate.

# 2.3 Specific Safe Work Practice Requirements

- 2.3.1 Maintain a record of all licences, approvals, certificates and authorisations required under Occupational Health and Safety legislation and submit a register of such documentation to Bentley Crane Hire on request.
- 2.3.2 Only equipment maintained in accordance with manufacturers specifications is to be brought on to site. Verification shall be submitted to Bentley Crane Hire signed by a competent person that such equipment is and can be maintained in accordance with manufacturers specifications.
- 2.3.3 Provide and maintain first aid facilities and personnel in accordance with state legislation and ensure first aid personnel training remains current. No work is to be undertaken at any time without a qualified first aider being in attendance.
- 2.3.4 Ensure fire prevention strategies and equipment are provided and maintained. Ensure personnel are trained in fire prevention techniques.
- 2.3.5 Ensure Bentley Crane Hire are notified of all chemical substances to be brought on site. Provide or obtain from Bentley Crane Hire Material Safety Data Sheets for all chemicals to brought on site and ensure handling, storage and use is in accordance with material safety data sheet information.
- 2.3.6 Ensure all electrical works and equipment is installed, maintained and tested in accordance with state statutory requirements. A register of electrical equipment and testing is to be maintained throughout the contract.
- 2.3.7 No equipment is to be supported or lifting without establishing and advising Bentley Crane Hire of the applicable safe working load.

# 2.4 Induction and Training

- 2.4.1 No personnel are to commence work on this contract without attending a site specific and or industry generic induction as directed by Bentley Crane Hire.
- 2.4.2 If directed by Bentley Crane Hire attend at the subcontractors cost a re-induction program.
- 2.4.3 The subcontractor shall ensure his personn2el are aware and remain aware of hazards and control measures related to the contract
- 2.4.4 The subcontractor shall provide to Bentley Crane Hire documentation confirming personnel are trained in the correct usage handling and operation of any equipment under the control of the subcontractor.

# 3. BENTLEY CRANE HIRESAFETY AND ENVIRONMENTAL AUDITING

- 3.1 The subcontractor acknowledges and agrees to the systematic auditing of the subcontractors management plan and on-site performance by Bentley Crane Hire on a minimum monthly basis.
- 3.2 The subcontractor agrees to co-operate with the auditing process by:
  - Making available in accordance with the Bentley Crane Hire audit schedule a senior representative to answer audit questions.
  - Providing verification of the subcontractors HS&E Plan implementation in the form of documentation, allowing auditor observation of activities and subcontract employee interviews.
  - Providing a response to audit findings within seven days of receiving formal audit reports.

# 4. SUBCONTRACTOR SAFETY & ENVIRONMENT REPORTING

# 4.1 Monthly Reporting

At the end of each month provide Bentley Crane Hire with a report that includes the following:

- a list of subcontract personnel attending on site together with the total hours worked.
- A list and description of all safety and environmental incidents occurring in the month together with the implemented corrective actions.
- The names and status of any personnel undertaking rehabilitation or absent from the project as a result of work related injury.
- A summary of any non-compliance issues identified during the course of the subcontractors own inspection and auditing process.

# 4.2 Incident Reporting

- 4.2.1 Following the occurrence of an actual or potential incident immediately advise the Bentley Crane Hire Site Manager of:
  - Nature of the incident and immediate causes.
  - Details of any possible subsequent injury, property or environmental.
  - Details of actual injuries, property or environmental damage.
  - Assistance needed for emergency response or injury treatment.
- 4.2.2 Within 48 hours of an actual or potential safety or environmental incident a written report shall be submitted to the Site Manager confirming and updating the information advised in Clause 4.2.1 and including:
  - the current status of injured personnel

- the identified causes of the incident addressing system, plant and people deficiencies
- the physical and systemic corrective actions implemented or to be implemented
- a copy of any statutory notification to and advice received from a statutory authority.



Contractor/Subcontractor: Date of Audit: \_\_/\_\_/

Item 1: Health and Safety Management

#### **OHS Criteria** Compliance D Rating Achieved 0 Recommendations Item Т Has an OHS Plan been developed? 1.1 20 \* 1.2 Is the plan relevant to the current contract? 20 \* Are site supervisors aware of the plan 1.3 \* \* requirements? 20 Are staff and employees responsibilities defined 1.4 \* \* and understood? 10 1.5 Is there access to Codes of Practice and legislation? \* \* 10 Total /80

#### Verification:

**D** – Document **O** – Observation **I** - Interview

#### **Compliance:**

**FV** - Full Verification (Total Score)

**NV -** No Verification (No Score)

**NI** - Needs Improvement (+ 50%)

**BS** - Below Standard (0-50%)



Contractor/Subcontractor:							Date of Audit://			
Item 2: Risk Management										
ltem	OHS Criteria	Compliance	Rating	Achieved	D	0	I	Recommendations		
2.1	Have all the activities for the project been identified?		10		*		*			
2.2	Has each activity been risk assessed?		10		*					
2.3	Have specific JHA's been developed for moderate to high risk activities?		30		*	-				
2.4	Have JHA's been developed utilising current Codes and Legislation?		10		*		*			
2.5	Are employee representatives involved in developing JHA's?		10		*		*			
2.6	Are the JHA's being applied as documented?		40			*				
2.7	Is there a JSA reviewed monthly?		10		*					
2.8	Are employees and supervisor fully aware of the need for JHA's?		20				*			
		Total	/140							

#### Verification:

**D** – Document **O** – Observation **I** - Interview

**Compliance:** 

FV - Full Verification (Total Score)

NV - No Verification (No Score)

NI - Needs Improvement (+ 50%)

**BS** - Below Standard (0-50%)



Contractor/Subcontractor:							Date of Audit://				
Item 3: Plant Management											
Item	OHS Criteria	Compliance	Rating	Achieved	D	0	I	Recommendations			
3.1	Is there a register of all plant brought on to site?		10		*						
3.2	Is there an inspection performed prior <del>to coming on- site?</del>		20		*						
3.3	Is there a daily pre-start inspection performed by the operator?		10		*		*				
3.4	Is there a formal maintenance program?		10		*		*				
3.5	Are the qualifications of maintenance personnel available?		10		*						
3.6	Is there a register of skills and competence on-site, including copies of competencies and assessments?		10		*		*				
3.7	Is there a register of lifting gear available cross referenced to test certificates.		20		*						
3.8	Is there a register of electrical equipment and are testing requirements being met?		20		*						
3.9	Is there a register of static plant and other non- electrical equipment and is the equipment regularly inspected?		10								


Item 3:	Plant Management (cont)							
Item	OHS Criteria	Compliance	Rating	Achieved	D	ο	I	Recommendations
3.10	Is there a register of fire extinguishers and is there adequate supply.		10					
		Total	/130					

**D** – Document **O** – Observation **I** - Interview

#### **Compliance:**

NV - No Verification (No Score)

NI - Needs Improvement (+ 50%)



Contra	Contractor/Subcontractor: Date of Audit://								
Item 4:	OH&S Control								
ltem	OHS Criteria	Compliance	Rating	Achieved	D	ο	I	Recommendations	
4.1	Is there a hazard reporting system in place?		20		*				
4.2	Are hazard reports being made and corrected.		20		*	_	*		
4.3	Is there a company disciplinary procedure and is it being followed?		10		*		*		
4.4	Is there a formal safety inspection procedure and has it been implemented.		20		*		*		
4.5	Is there a formal accident/incident investigation procedure and is it being followed?		10		*				
4.6	Is there evidence of corrective action as a result of investigations.		20		*	*			
4.7	Are accident statistics and records collated a reported?		20		*				
4.8	Is there a register of hazardous substances. Are MSDS's available and distributed to employees/		20		*	*	*		





Item 4:	OH&S Control (cont)							
ltem	OHS Criteria	Compliance	Rating	Achieved	D	ο	I	Recommendations
4.9	Is appropriate PPE issued and recorded?		20		*	*		
		Total	/160					

**D** – Document **O** – Observation **I** - Interview

#### **Compliance:**

<b>I v</b> I un <b>v</b> enneution (10tul beole)	FV -	· Full	Verification	(Total Score)	1
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**NV -** No Verification (No Score)

Rev 3.1 June 2017

**NI** - Needs Improvement (+ 50%)





Contra	ctor/Subcontractor:	Date of Audit://							
Item 5: Workers Compensation and Rehabilitation									
ltem	OHS Criteria	Compliance	Rating	Achieved	D	ο	I	Recommendations	
5.1	Has an O.H.S Plan been developed.		20		*				
	Is there a nominated trained rehabilitation co-ordinator and								
5.2	provider?		10		*				
5.3	Is there a copy of the workers compensation policy on-site?		10		*		*		
	Are employees aware of their workers compensation and								
5.4	rehabilitation rights and rehabilitation		10		*		*		
5.5	Is the rehabilitation procedure being implemented?		10		*		*		
5.6	Are the legislated regulatory posters displayed.		10		-	*			
5.7	Are there indicative alternate duties determined.		10		*				
		Total	/80						

**D** – Document **O** – Observation **I** - Interview

#### **Compliance:**

**FV** - Full Verification (Total Score)

NV - No Verification (No Score)

NI - Needs Improvement (+ 50%)



Contractor/Subcontractor:							Date of Audit://						
Item 6: OHS Training													
ltem	OHS Criteria	Compliance	Rating	Achieved	D	0	I	Recommendations					
6.1	Does the Company have a safety training program/strategy?		20		*								
6.2	Are the training records of employees available?		20		*								
6.3	Have supervisory staff received formaLsafety training?		20		*		*						
6.4	Have employees been inducted into the company and Anfield requirements/		20		*		*						
6.5	Have safety reps received formal training?		10		*	*							
6.6	Are employees attending tool box talks at the required frequency?		10		*		*						
6.7	Have personnel been trained in the appropriate JHA's.		20			*							
6.8	Has manual handling training been undertaken?		10		*								
6.9	Have personnel using hazardous substances been trained?		10		*		*						
		Total	/140										

**D** – Document **O** – Observation **I** - Interview

**Compliance:** 

**FV** - Full Verification (Total Score)

NV - No Verification (No Score)

NI - Needs Improvement (+ 50%)





Safety Management System



## Safety Management System

# Safety Audit

### **29 Safety Performance Audit**

#### 29.1 Foreword

The safety management performance audit is conducted to enable an objective and quantitative evaluation of the implementation, application and effectiveness of the Company's occupational safety and health programme.

The audit system has four key objectives:

- The evaluation of the implementation of the Company's Safety and Health programme,
- The identification of elements where implementation or application are below the appropriate standard,
- To assist in determining action plans and priorities to address the identified deficiencies, and
- To provide a basis for reviewing and establishing achievable targets for the improvement of safety performance.

#### 29.2 Scoring

The audit will look at the various elements of the Safety and Health Procedures.

Each section will be individually assessed against the required standard of performance and a performance rating score allocated.

The auditor should note that each section contains a number of sub-headings and the relevant element is marked against each of the sub-headings.

The checklist is a guide only and is not definitive. Any sub-heading which is not applicable shall be marked as such and is not to be measured. The maximum possible score shall be adjusted accordingly prior to calculating the overall score for that element.

If an element is not applicable to the project being audited then it shall be marked as such and will not be measured for that project. The Overall Rating score shall be adjusted accordingly.

The individual element scores shall be calculated to determine the overall rating and shall be plotted on the Profile Graph. The scores achieved during the previous audit, where applicable, will also be plotted on the graph in order to give a comparison for the purpose of continuous improvement measurement.

The standards which will form the criteria for rating will be:

- i. The Company's Safety and Health Procedures,
- ii. Relevant State Legislation, and
- iii. Appropriate Australian Standards.

The performance score and comments shall be at the discretion of the auditor(s) and will be based upon:

The degree of implementation of the element under review into the working environment and the systems of work,

The degree to which the project is managing the element under review in its day to day activities and complying to the standards referred to above.

The rating scores shall be allocated as a figure from 0 - 10 or 0 - 20 as specified at the top of the page, relative to the degree of compliance with the standards and will be calculated into a percentage as the rating for that element. A guide for scoring the degree of compliance is over the page.

Performance Evaluation	Points	Assessment Standard
1. Fully Implemented	10	Everything in place and working.
Implemented to Standard	6 - 9	Most things in place.
Partially Implemented	1 - 5	Some things implemented
No Attempt to Implement	0	Nothing shown to be implemented.
2. Good Understanding	10	Good knowledge of the subject.
Some Knowledge	5 - 9	Has some idea of the requirements.
Scant Knowledge	1 - 4	Very limited understanding displayed.
No knowledge	0	No attempt made to find out requirements.
3. Exceeds Standard	10	Well Above requirements.
To Standard	6 - 9	Completed to minimum requirements.
Below Standard	1 - 5	Below minimum requirements.
No Control	0	No attempt to control standards.
4. Direct Assessment	0 - 10	Yes it's been done - 100% complete
		No it's not been done - 0% complete, or,
		It's 50% complete.

#### NOTE :

A point value of 0 - 10 is used most often but a point value of 0 - 20 is also used.

Each element has sub-elements in which there are a number of criteria. The rating will be assessed according to the number of criteria that have been implemented/complied with, i.e. 10 criteria listed, 5 complied with = a score of 5.

#### CORRECTIVE ACTION PLAN

Conducting audits will not in itself significantly improve safety performance.

The audit is merely a tool to identify both site and corporate deficiencies and extent of problems in the application of safety and health standards.

Unless a Corrective Action Plan is devised and implemented the audit remains just another measurement and no improvement in safety will be forthcoming.

The Performance Profile Graph will assist in prioritising those areas most in need of improvement

A Corrective Action Plan must be established.

#### PERFORMANCE PROFILE GRAPH

Example....

		10	20	30	40	50	60	70	80	90	100
1.	Safety Management Systems		•		•	•				•	•
2.	Hazard Management								>		
3.	Safety Communications				<						
4.	Emergency Control							$\overline{}$			
											-
		_									
		_									



Safety Management System



## Safety Management System

# **Drug & Alcohol Policy**

### **30 Drug and Alcohol Policy**

#### 30.1 Purpose

Bentley Crane Hire acknowledges its responsibility to provide a safe and healthy working environment for all personnel employed in its operations. Bentley Crane Hire must ensure all individuals are "fit for work" whilst on any site. It is recognised that inappropriate use of drugs and alcohol by personnel working on Company sites reduces their fitness for work and can lead to deficiencies in job performance and is a contributing factor in industrial accidents.

The benefits of this policy are:

To create a safe and healthy work environment for all personnel which is free from the Hazards associated with drugs and alcohol in the workplace.

To foster an attitude amongst all personnel engaged on the site that it is not acceptable to present for work under the influence of alcohol or any other drug which may prevent them from performing their duties in a safe manner.

To ensure the Company meets all its legal and statutory obligations with respect to providing a safe working environment for all personnel employed on sites and for visitors to these sites.

#### 30.2 Scope

Scope Overview The scope of this document includes the following organisations/business areas:

- Bentley Crane Hire, Henderson Depot
- Bentley Crane Hire,
- All our job sites

#### 30.3 Responsibilities

General Manager

Approve all policies and procedures relating to alcohol and other drugs.

#### 30.4 Drug and Alcohol

#### **30.4.1 Duty of Care Responsibilities**

Both the Company and the individual employed on each site have obligations under the "Duty of Care" responsibilities in occupational health and safety legislation and in common law.

#### Duty of Employer

In common law the Company is obliged to provide a safe workplace so that employees are not subject to unnecessary hazards. This duty relates to taking reasonable steps to ensure employees are in a fit state to work safely so as to minimise risks to both themselves and to others in the workplace.

#### **Duty of Employee**

An employee has a corresponding duty in common law to take reasonable care so as not to expose themselves or fellow employees to unnecessary risks.

#### **30.4.2** Intoxicating Liquor or Drugs

- 1. A person (whether or not an employee) shall not register an alcohol reading in excess of 0.020% or an illicit drug reading which is in excess of the prescribed limits within the relevant Australian standards.
- 2. The principal employer at, or the manager or supervisor of a site may direct an employee reporting for duty to immediately leave the job site if, in the opinion of the principal employer, manager or supervisor, the employee is adversely affected by intoxicating liquor or drugs.
- 3. An employee must not refuse or fail to comply with a direction given under sub regulation (2) above.
- 4. A person must not, without the knowledge and permission of the manager of the job site:
  - have any intoxicating liquor or deleterious drug in his or her possession in or on a job site
  - consume any intoxicating liquor or deleterious drug while in or on a job site.
  - Attend for or remain at work if he or she is or might be affected by alcohol or drugs.

#### 30.5 Prescription and Over-The-Counter Drugs

The use of prescription drugs may impair a person's ability to perform safely or efficiently. There are several types of prescription drugs which may reasonably create a potential for impairment of an employees work performance, attendance or behaviour, e.g. sedatives, antidepressants, stimulants, etc.

Employees using prescribed medication which may fall into this category should obtain advice from their Medical Practitioner as to what effects the drug or medication may have, and if there is a risk it will cause impairment.

If a prescribed drug could cause impairment a doctor's letter regarding the effect of the drug should be obtained outlining any limitation on normal duties. This should be presented to the manger. Medical confidentiality will be maintained.

Similarly if a risk of impairment is identified with "over-the-counter" drugs, employees should seek medical advice and obtain a doctor's notification as above.

Any limitation to normal duties will be treated as is currently the case (i.e. if appropriate alternative duties are available they will be provided, otherwise, the employee may be required to take sick leave).

#### 30.6 Testing for Drugs and Alcohol

It is a condition of employment for all employees at Bentley Crane Hire to agree to testing if:

- Job site requirement includes testing for drugs
- Supervisor is of the opinion that the employee is adversely affected by alcohol or drugs

#### 30.7 Types of Testing

A random drug and alcohol testing program will apply to all employees engaged the operations of cranes and equipment.

When undertaking a random test the person must advise the tester if they are taking any over-the-counter or prescription drugs, as some of these drugs can interfere with drug testing. A doctor's letter will be requested, detailing the drugs being taken.

Employees who are involved in mobile machinery (including light vehicle) incidents and significant incidents/accidents can be tested at our discretion. Significant incidents may include (but not limited to):

- Light vehicles and surface mobile equipment incidents;
- Injuries resulting from negligence or "horse play";
- Property damage; or
- Incidents that are reportable to Statutory Authorities

#### Testing If suspected of being impaired by drugs or alcohol

Any employee who has reason to believe that another employee, a contractor's employee, or a visitor is under the influence of alcohol or drugs may request a test. A request for testing must be submitted to the appropriate supervisor and/or the duty manager onsite. The employee requesting the test must provide the reasons for the request.

An investigation and subsequent testing (where considered appropriate) is to be conducted by a management representative in accordance with procedures. The employee/person under investigation will have the right to request a witness. Testing will be implemented where the reasons for requesting the test are considered appropriate by the management representative.

#### 30.8 Refusal To Take A Test

Refusal by an employee to submit to, or cooperate fully with the administration of a drug and alcohol test, will result in that employee's supervisor being called upon to counsel and encourage that person to take the test. Should the employee continue to refuse to undertake a test that employee will not be permitted access to the workplace. Continued refusal to submit to, or cooperate with the administration of a drug and alcohol test will be treated in the same manner as any other refusal to comply with contractual obligations in respect to any Bentley Crane Hire policies and procedures.

#### 30.9 Tampering With An Alcohol Or Drug Test Sample

Tampering with an alcohol or drug sample will lead to disciplinary action which may include termination of employment.

#### **30.10** Possession Of Alcohol And Illegal Drugs

The possession or consumption of alcohol or illegal drugs in the workplace during working hours by an employee(s) will result in termination of their employment contract. (refer section 4.2 paragraph 4)

#### **30.11 Persons Registering A Positive Result**

If a person tests positive to a screening drug test on site their urine sample will be dispatched to an approved laboratory for confirmation tests. The individual will be sent home pending the outcome of the laboratory tests. If the results of the confirmation laboratory test are negative then the screening test record will be annotated negative also.

Where the employee returns a positive result from a confirmation test the following will apply:

- Discussions of a disciplinary nature, which include the likelihood of termination of employment, will be held with the employee.
- The employee will be provided with a copy of the laboratory drug and alcohol test results.

### **BENTLEY CRANE HIRE**

61 Alacrity Place Henderson 08 9437 2000

Unit 9A, 275 Treasure Road Welshpool 08 9358 4003

#### EMPLOYEE DRUG AND ALCOHOL POLICY ACCEPTANCE FORM

This is to certify that I have received a copy of Bentley Crane Hire's Drug and Alcohol Policy (6 pages) and that I have read and understood this policy.

I understand that it is a condition of my employment / (continued employment) that I agree to comply with this Drug and Alcohol Policy.

SURNAME:
FIRST NAME:
OCCUPATION:
DATE:

SIGNATURE: .....

NOTE: Manager or Supervisor to complete this bottom section as a witness to employee signature. This document to be retained in the employee's personnel file.

MANAGER or SUPERVISOR name: .....

Signature .....

Date.....



Safety Management System



# Safety Management System

Forms