

Health and Safety Manual

CS-OHS-M-01
Version 1

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Health and Safety Manual

FOREWORD

The foundation of CS Energy's success as a business is to generate electricity safely, reliably and economically.

Operating safely is CS Energy's highest priority. We genuinely care about the health and safety of our employees, contractors and visitors at our sites.

To achieve this, we are creating a culture of responsibility regarding safety, health and wellbeing. The '**stay on top of your game**' awareness theme breaks safety down into the basics – taking responsibility, working as a team and supporting each other. Underpinning this is CS Energy's Health and Safety Management System that has been developed in accordance with Australian Standards and legislative requirements. This Manual outlines the key elements of this system such as policies, procedures, staff accountabilities, training, reporting, auditing, and monitoring activities.

Copies of this company wide Manual are available at each CS Energy site. It is also included on the company's intranet, where additional information, such as our policies, strategic plans and standard operating procedures are also held.

I encourage you to familiarise yourself with this Manual. Only with the dedication of every person on every CS Energy site, can we achieve our goal of **ZERO HARM**.

DAVID BROWN

Chief Executive



The Manual has been endorsed by the Executive Management team.

Chief Executive

David Brown



Date: 7/10/10

Company Secretary

Warren Packer

Vane Fitzpatrick



Date: 7/10/10

Chief Financial Officer

Richard Boys



Date: 2/10/10

General Manager, Organisation Development

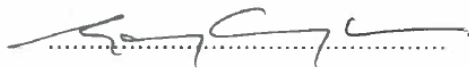
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Date: 7/10/10

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Version History

Revision	Description	Originator	Date
1	General update – H&S Documentation, structure and communication	B Johnson	01.02.11
0	Issued for implementation	B Johnson	01.10.10

1 HEALTH AND SAFETY IN CS ENERGY

1.1 CS Energy's Business and its Approach to Health and Safety

CS Energy is a major provider of electricity in the Australian electricity market. It owns and operates four Queensland power stations which generate more than 3,000 megawatts, using a fuel mix of coal, natural gas and landfill gas. CS Energy employs more than 600 staff across Queensland at the power stations and Brisbane Central Office.

Power stations have the potential to be dangerous places; the foundation of CS Energy's business is to generate electricity safely, reliably and efficiently.

It is a fundamental requirement of CS Energy whilst running its business that the personal safety of everyone at all CS Energy sites, whether they are employees, contractors, consultants, or visitors, is the number one priority every day,

All personnel have a fundamental right to a healthy and safe working environment, and expect to leave work at the end of the day/shift safe and well.

CS Energy is committed to a workplace free from occupational injury and illness, and has a proactive approach to health and safety utilising a robust Health and Safety Management System.

The Company's Health and Safety Management System (**HSMS**) has been developed to meet obligations set down in health and safety legislation and is in accordance with:

Australian Standard 4801: 2001 "Occupational Health and Safety Management Systems – Specification with guidance for use".

Implementation and ongoing application of the HSMS ensures health and safety risks are identified and controlled by applying safe systems of work across all CS Energy's activities.

This Health and Safety Manual is an integral part of the overall HSMS.

2 HEALTH & SAFETY MANAGEMENT SYSTEM

2.1 Overview

The CS Energy HSMS consists of the health and safety policy, health and safety manual, health and safety management plans, procedures, work instructions and forms, together with supporting systems such as databases, training, communication and consultation. The structure of the HSMS is illustrated in Figure 1.

The procedures, work instruction and forms make up CS Energy's safe systems of work which specifically address hazards and risks. These provide information about how to safely perform a task and record what actions have been carried out.

2.2 Health and Safety Policy

CS Energy's health and safety policy is the over-arching document of the HSMS.

This policy is signed by the Chief Executive and approved by the CS Energy Board. CS Energy communicates its commitment to safety via this Policy to all employees, contractors and others. This is achieved primarily through induction processes, noticeboards, Health and Safety plans, and intranet. Other communications mechanisms are used to support these processes such as toolbox talks and meetings.

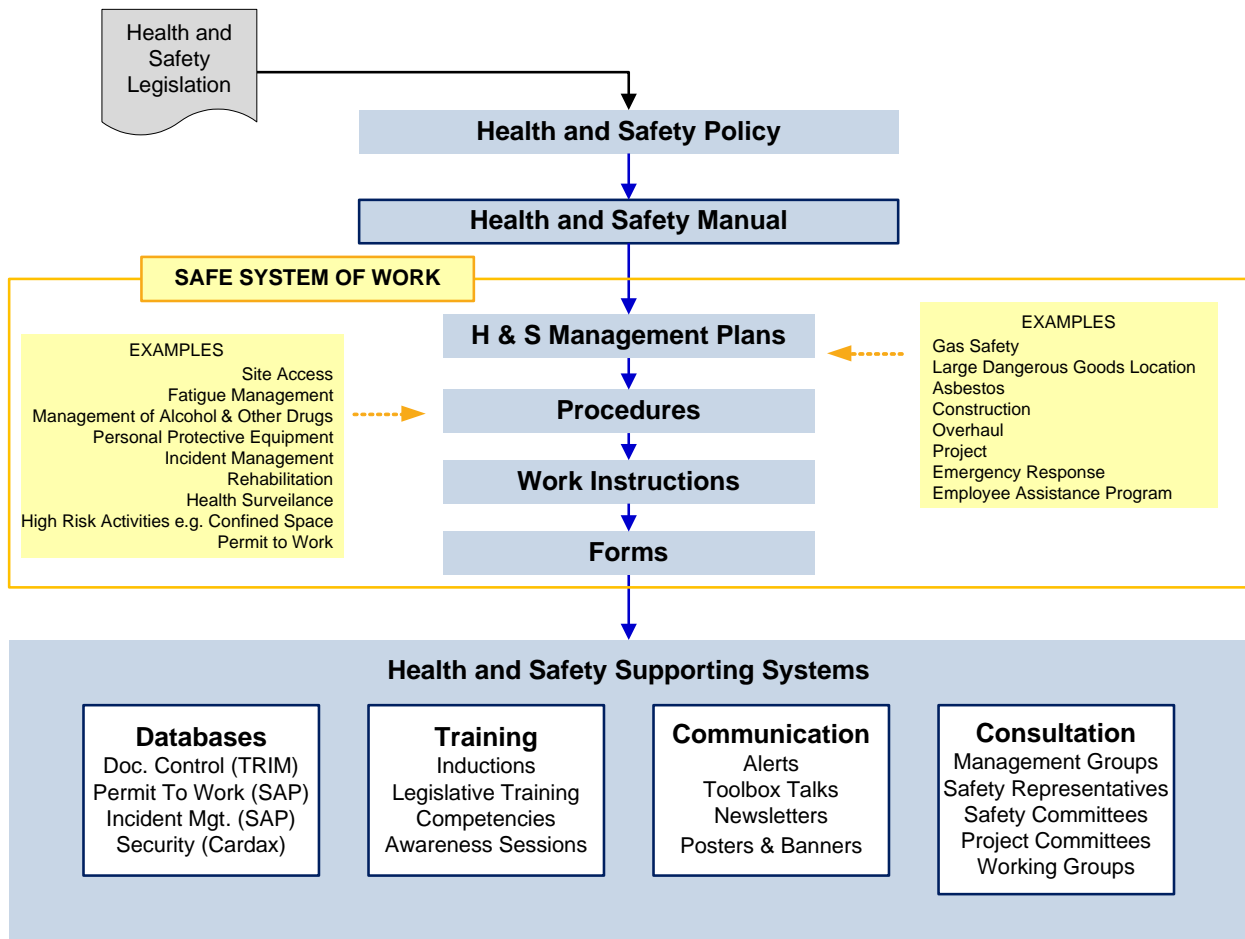


Fig. 1 - HSMS Structure

2.3 Health and Safety Manual

This Health and Safety Manual sits directly under the Policy and provides details of the HSMS to assist and guide all employees and contractors. The Manual also identifies the health and safety practices and standards set by CS Energy to be applied across the business. The Manual details the responsibilities and accountabilities together with the relevant procedures, documents and systems which adopt the Manual’s standards to provide consistency to health and safety across the business. These standards are the mandatory requirements for health and safety compliance to be applied by all personnel.

To emphasise CS Energy’s commitment to safety, a set of non-negotiable rules, ‘Life Savers’ have been developed which, if not complied with, are considered serious breaches to the HSMS. These ‘Life Savers’ must be adhered to by all personnel. These rules are detailed in Section 4 of this manual.

The HSMS including this Manual applies to all employees, contractors, and others involved in work across all CS energy sites and related business activities. Compliance with this Manual is mandatory.

The Health and Safety Manual is to be reviewed every two years and updated as necessary. The Manual and any consequent amendments are to be approved by the CS Energy Executive Management Team.

2.4 Health and Safety Management Plans

Health and safety management plans are developed for operations, major projects, overhauls and matters of legislative compliance. These plans reflect CS Energy's HSMS requirements for the specific site and/or area of management. These plans identify hazards and risks for the relevant work and outline the appropriate control measures to mitigate against any risk to ensure all people working under the plan work in a safe and compliant manner.

Each plan shall include the following criteria:

- purpose and objectives
- statutory legislation and applicable standards
- planning
- responsibilities
- hazards and risks
- safe work practices – minimum safety requirements
- implementation
- measurement and evaluation; and
- monitoring and review

The major health and safety management plans that are required under the CS Energy HSMS are:

- (i) **Gas Safety Management Plan:** The Gas Safety Management Plans provide the minimum health and safety standards for the safe operation of gas assets. This includes the Mica Creek Gas Pipeline and gas plant, Swanbank-E Power Station and the Liquid Petroleum Gas boiler ignition system at Callide Power Station. Refer to Queensland Petroleum and Gas (Production and Safety) Act, s675 - Content requirements for safety management plans.
- (ii) **LDGL Safety Management Plan:** Large Dangerous Goods Location (**LDGL**) Plans are required for assets and operations at all functional locations classified as LDGL facilities. These management plans deal with the requirements set out in the Queensland Dangerous Goods Safety Management Legislation such as emergency plans and procedures.
- (iii) **Asbestos Management Plan:** CS Energy has an Asbestos Management Plan that assists persons to comply with the asbestos prohibition and prevent exposure to airborne asbestos fibres while asbestos containing material (**ACM**) remains in the workplace. These management plans are required by the Queensland Workplace Health and Safety Legislation which calls up the Code of Practice for Asbestos Management.

In the case where ACM is to be removed, the asbestos removalist must develop an asbestos removal control plan, specific to the site, before commencing any asbestos removal work.

- (iv) **Radiation and Protection Plan:** A radiation safety and protection plan is required under the Radiation Act 1999 in order for CS Energy to be licensed for the practices it undertakes (e.g. possession of radiation sources for testing of tube welds). The plan shall include the radiation hazards specific to the practice and source, the radiation safety and protection measures to deal with the hazards, how the licensee proposes to monitor and review the implementation and effectiveness of the measures and the functions of the radiation safety officer.

The radiation safety and protection measures are measures, prescribed under the regulation, for preventing or minimising health risks to any person arising from exposure to radiation from the carrying out of a radiation practice
- (v) **Overhaul Safety Management Plan:** CS Energy shall develop Overhaul Safety Management Plans for overhaul specific works. These plans are developed during the overhaul planning phase and are required to manage health and safety risks specifically relating to overhaul works.
- (vi) **Project Safety Management Plan:** CS Energy shall develop Project Safety Management Plans for specific capital project works. These plans are developed during the project planning phase and are designed to manage health and safety risks that specifically relate to the project construction works.
- (vii) **Construction Safety Plan:** A construction safety plan outlines how the Principal Contractor will address the safety issues in relation to construction work. The Principal Contractor shall provide the plan detailing a standardised approach to the management of health and safety risks associated with construction activities commissioned or undertaken by CS Energy. The Principal Contractor can either be CS Energy or an external party.
- (viii) **Emergency Response Plan:** An emergency response plan shall be developed and implemented to ensure that potential and actual emergency incidents are managed in a way that ensures the immediate safety of all those potentially endangered by the event, including ensuring the safety of emergency responders. The plan shall also provide details for the initial on-site response to be managed in a systematic and professional manner and include appropriate communication to all stakeholders and authorities.

2.5 Health and Safety Procedures

Procedures are designed to provide a safe system of work by detailing the processes to carry out the work in a safe manner. Control measures to minimise the risk of injury, illness, plant damage and/or loss of supply are defined for application of the task.

Procedures developed by the Brisbane Office outline the minimum standards for operational sites to apply. The standards meet legislative requirements and those determined by management to be fit for purpose and in line with leading industry practice.

Operational sites are required to implement and apply the procedures. Where it is determined that additional site specific detail and knowledge is required to safely and effectively complete a task, a work instruction or job safety and environment analysis can be developed by the site to supplement the procedure.

2.6 Health and Safety Work Instructions

Work instructions are developed by sites to supplement a procedure by detailing additional information about site specific hazards with methods to control risks from those hazards.

2.7 Health and Safety Forms

CS Energy has standard forms for collecting and reporting specific information. These forms are the tools to support procedures and provide formal records of activities. A library of standard forms is available on the CS Energy Health and Safety Intranet page and maintained by the Brisbane Health and Safety team.

2.8 Health and Safety Supporting Systems

The health and safety supporting systems are essential to uphold the integrity of our safe systems of work for plans, procedures and forms and demonstrate our commitment to health and safety. These systems include databases, training, communication and consultation.

2.8.1 Health & Safety Databases

CS Energy has developed health and safety databases to collect and retain standardised information. These databases allow information to be retrieved efficiently by all people with authorised access. The organisation uses three primary databases known as TRIM, SAP, and Cardax.

- (i) **TRIM** is an electronic document and records system used as a document and records management system which allows information to be stored, secured, tracked, and retrieved across all operational sites within CS Energy. The system meets the requirements of the Public Records Act 2002.
- (ii) **SAP** (Systems Application Product) is used to manage and retain the supporting documents, forms and records associated with the Permit to Work (PTW) System, and retain incident information reported under the Incident Management Process. Refer to Section 13 for further information on the PTW System and Section 16 for further detail on the Incident Management System.

The **Incident Management Database** is a module of SAP used to record incident data and allow analysis, management and reporting of the data.

- (iii) The **Cardax System** is used to control security access to operational sites, and monitor employee hours worked for the purposes of managing fatigue risk.

2.8.2 Health & Safety Training

The CS Energy Health and Safety team work with the Learning and Development team to manage health and safety training for employees, contractors and visitors. Refer to Section 9 for further detail on health and safety training.

2.8.3 Health & Safety Communication

The CS Energy Health and Safety team work with the Corporate Communications and Stakeholder Relations team to disseminate health and safety information across the organisation. Refer to Section 10 for further detail on health and safety information networks. The document hierarchy is illustrated in Figure 2.

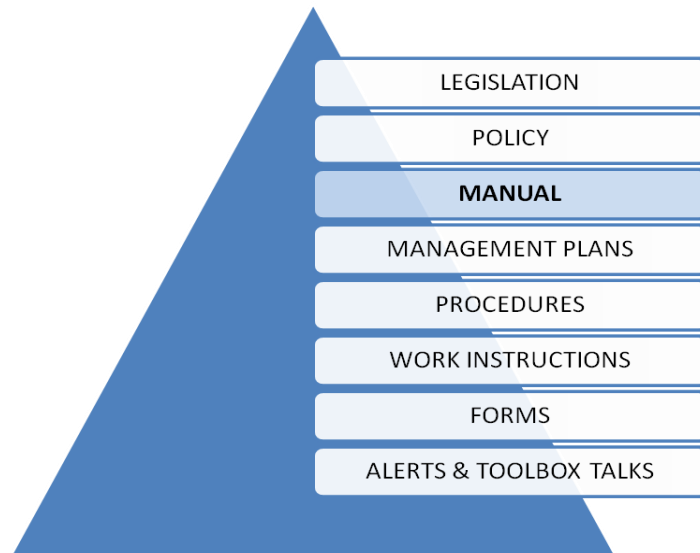


Fig. 2 - Document Hierarchy

2.8.4 Health and Safety Consultation

The Queensland Workplace Health and Safety Legislation requires that consultation occur in the workplace on health and safety matters. A consultation structure is established to allow appropriate consultation to occur across the business. Refer to Section 10 for detailed information about consultation processes.

3 HEALTH AND SAFETY - REQUIRED OUTCOMES

Through the development and application of our HSMS, this health and safety Manual, and supporting plans and procedures, CS Energy will achieve:

- a workplace free of occupational injury and illness;
- a workforce that is Fit for Duty;
- a consistent approach across the company towards health and safety;
- effective risk management with robust planning and prioritisation processes;
- clarity of roles, responsibilities and accountability for all people in the organisation;
- understanding and discharging employer obligations set by health and safety legislation;
- documentation of the company's ability and commitment to manage health and safety by controlling the risks to all persons affected by the organisations activities;
- safety awareness and leadership embedded throughout the business and part of everyday activity,
- continuous improvement by identifying leading practice and learning from it, and
- engagement of employees, contractors and others through effective communication and consultation.

4 HEALTH AND SAFETY RULES – “LIFE SAVERS”

4.1 Purpose

All personnel of CS Energy have a responsibility to themselves, their family and work colleagues to work safely. Accordingly, CS Energy has developed a set of health and safety non-negotiable rules, which must be applied by all personnel for this to be achieved.

This set of health and safety rules, called Life Savers, is based on incident management system data, consultation with managers and employee representatives and the procedure for Minimum Health and Safety Standards for Critical Risks, CS-OHS-48. The objective is to target and reinforce crucial behaviours and processes that ensure safety performance, particularly in high risk areas of the business.

Health and Safety Life Savers are rules that, if not followed, are considered to be serious safety breaches and will result in predefined disciplinary action applying the procedure for Fair and Just Culture, CS-OHS-47. Any such breach is considered a serious matter by CS Energy as it has the potential to cause serious injury or fatality of employees, contractors and/or members of the general public.

4.2 Scope and Responsibility

All employees and contractors working for CS Energy and its associated operations must adhere to the Health and Safety Life Savers.

Life Savers are CS Energy standards for safeguarding personal safety and are key controls and procedures that all personnel must comply with in the workplace.

All managers/supervisors are to ensure that all personnel know, understand and apply these principles when conducting work for CS Energy. New employees and contractors will be familiarised with the standards in their induction and site-based safety training.

4.3 Health and Safety Life Saver Rules

The Health and Safety Life Savers are specific rules that are pivotal to upholding the integrity of the CS Energy safety management system. These are detailed as follows:

1. **No person shall direct anyone to break a Life Savers rule.**
2. **Only operate equipment for which you are trained, competent and authorised.**
3. **Only commence work after all appropriate permits to work (PTW) are in place.**
4. **All necessary isolations must be in place and verified as effective in accordance with your role, before work can commence.**
5. **Do not remove, bypass or modify a safety protection device without appropriate authorisation.**
6. **Do not work at heights without appropriate fall protection systems in place for people and objects.**

These Life Savers shall be communicated to, and understood by all personnel and displayed in prominent locations around each site.

4.4 Consequences and Non-compliance

All personnel must work to ensure compliance with the health and safety life savers. Where a person has acted and in breach of the life savers, disciplinary action will be taken. This action will be in accordance with the CS Energy Fair and Just Culture Procedure, CS-OHS-47 and the

performance management process as outlined in the procedure, Counselling, Discipline and Dismissal, CS-HR-23.

5 HEALTH & SAFETY PLANNING AND REVIEW

CS Energy has a one team, people and systems approach to health and safety management which are integrated and progressive. To measure compliance and continuous improvement, the following principles are applied:

- (i) Commitment and Communication
- (ii) Planning
- (iii) Implementation
- (iv) Measurement and Evaluation
- (v) Review and improvement

These principles shall be applied to areas of:

- Risk Management
- Contractor Management
- Incident Management
- Health and Well-being Programs
- Training and Competency Management
- Behavioural Safety and Human Factors
- Document Control
- Communication and Reporting Systems Management
- Emergency Response and Crisis Management

This framework provides a systemic approach to assist with meeting Legislative compliance and sustained improvement in safety performance. This approach shall be consistently applied across all CS Energy sites.

CS Energy uses a risk management approach to all aspects of work. The risk management approach is detailed in Section 13, Health and Safety Risk Management of this manual.

At the planning stage, performance measures are defined. Annual targets shall be set for each measure and detailed in the annual health and safety plan. These measures shall be reported against, on a monthly basis, and be reflected in the Board reports. Refer to Section 7, Objectives and Targets and Section 11, Health & Safety Reporting.

Risk management plans developed for specific areas of the business activities shall align with the relevant divisional plan including its measures. Reporting measures assist staff to focus on managing the risks to acceptable levels at all sites. Such specific areas include, but not limited to, projects, overhauls and forced outages.

6 LEGAL & OTHER REQUIREMENTS

CS Energy identifies, tracks and monitors its health and safety legal obligations and other requirements using the legal compliance database. The legal compliance database is maintained by the CS Energy Risk and Assurance team located in the Brisbane office.

The compliance database is accessible to management and health and safety teams via the CS Energy intranet. It provides essential information on compliance requirements from the Acts and Regulations that apply to CS Energy operations projects and other activities. It lists the

compliance requirement, date for renewal, fees and other matters that assist personnel in meeting their compliance obligations.

To maintain the legal compliance database and ensure it remains current, the following tasks are undertaken.

- Annual review of the legal compliance database, (by Risk and Assurance team).
- Monitoring changes to health and safety legislation, Australian Standards and associated public policy (e.g. codes of practice) to enable the organisation to promptly respond to any change, (by Health and Safety team).

Changes to CS Energy's health and safety legal obligations are monitored via a range of sources including subscription to Standards Australia, membership of industry networks such as the Safety Institute of Australia (including receiving updates) and the Risk management Institute of Australia, and participation in peak industry bodies such as the National Generators Forum.

Legal obligations for individuals, including changes to obligation information, are communicated to the individual via:

- induction training at each CS Energy site;
- role purpose statements;
- health and safety refresher training;
- toolbox talks;
- site health and safety committee meetings;
- quarterly presentations;
- safety alerts; and
- articles published in the CS Energy newsletter.

7 OBJECTIVES & TARGETS

CS Energy establishes a strategic business plan and sets the health and safety performance objectives and targets at a business level which forms the basis of the annual CS Energy health and safety business plan. Each site and functional business group is required to develop their own specific health and safety business plan which outlines their health and safety performance objectives and targets aligning with the divisional business plans for the coming financial year.

The CS Energy health and safety business plan establishes performance targets using lead and lag indicators as well as specific key initiatives and actions.

Lead indicators include, but are not limited to:

- Toolbox Talk occurrences
- Behavioural Observation occurrences
- Workplace Inspection occurrences
- Corrective actions overdue (from incident management system)
- Training compliance
- Personal Safety Leadership Plans
- Safety improvement projects and implementation status
- Health programs and implementation status

Lag indicators include, but are not limited to:

- Lost Time Frequency Rate (**LTIFR**)
- Total Case Recordable Frequency Rate (**TCRFR**)
- All Injuries Frequency Rate (**AIFR**)
- Category 3 Incident Frequency Rate (**Cat3FR**)
- Lost Time Injury Severity Rate (**LTISR**)
- Near Miss to Incident ratio

From these indicators, key performance indicators (KPI) are selected for inclusion in the CS Energy annual business plan and the respective divisional business plans.

Each site and/or business unit is responsible for developing their specific health and safety objectives and targets for the year based on the CS Energy annual business plan and targets. These shall be developed in conjunction with the Manager, Corporate Health and Safety to support the annual health and safety business plan. The performance against these plans will be included in business reporting and internal audit programs.

8 RESPONSIBILITY AND ACCOUNTABILITY

The Queensland Workplace Health and Safety Act (1995) place obligations on both employers and employees. This shared responsibility for health and safety is also a fundamental element of the CS Energy HSMS.

As part of the HSMS, CS Energy has established a process to ensure that specific health and safety responsibilities are incorporated into all Role Purpose Statements. All managers and employees are accountable for their performance against these responsibilities through the performance management system.

All levels of management are able to call upon the expertise of the health and safety group to assist them in meeting their responsibilities. The health and safety structure operates on a two level platform; leadership function led from the Brisbane office providing direction and support to the site-based health and safety teams. The health and safety position structure is detailed in Table 1.

Brisbane Office	Operational Site
Health & Safety Manager(s)	Health & Safety Specialist
Health & Safety Advisor(s)	Health & Safety Coordinator(s)
Health & Safety Officer/Administrator	Health & Safety Administrator(s)
	Emergency Response Personnel

Table 1 - Health and safety position structure

The health and safety responsibilities for key CS Energy positions are detailed below. These responsibilities should be read in conjunction with those listed in the specific Role Purpose Statements for the relevant position.

8.1 Boards of CS Energy & Subsidiary Companies

CS Energy and each subsidiary, as employers, have an obligation to ensure the health and safety of all employees, contractors and visitors in the course of their work. The Boards of each company are responsible for ensuring that workplace health and safety is capably managed by taking all reasonable steps to:

- provide sufficient resources to enable effective management of safety;
- monitor the health and safety information provided for proactive decision making; and
- be aware of high risk issues and risk mitigation measures within the Corporation.

8.2 Chief Executive

The Chief Executive is responsible for:

- ensuring the safety of every employee, contractor and visitor within the corporation, including subsidiary companies under the role responsibility;
- ensuring there are adequate resources and systems in place to safeguard the health and safety of employees, contractors and others;
- acting as a positive, influential role model to all personnel by championing safety throughout the organisation to ensure CS Energy takes a proactive approach towards health and safety management;
- driving compliance with health and safety management systems;
- ensuring management and others participate in the continuing development of health and safety management systems;
- ensuring operation and maintenance of CS energy assets achieve business objectives with emphasis on safety, risk management, training, compliance, budget performance and contractor performance; ensuring all risk management processes are implemented and applied to demonstrate risk reduction; and
- Implementation and annual review of the Health and Safety Policy.

The Chief Executive is the Executive Safety Manager as defined under the Petroleum and Gas (Production and Safety) Act 2004 for the Mica Creek Gas Pipeline and gas devices across CS Energy. The gas devices are installed at Swanbank, Mica Creek and Callide Power Stations.

8.3 General Managers

General Managers are responsible for:

- providing support and assistance in development of health and safety management systems;
- approval for health and safety documentation and processes;
- implementation of health and safety systems consistently across sites;
- implementing their own annual Personal Safety Leadership Plan which shall be reviewed and approved by the Chief Executive each fiscal year;
- ensuring all risk management processes are implemented and applied to demonstrate risk reduction;
- development of risk management plans respective to their discipline and area of responsibility;
- ensuring adequate resources and systems are in place to safeguard the health and safety of employees, contractors and visitors;
- managing safety proactively throughout the organisation;

- ensuring all Category 3 and 4 incidents within their area of responsibility are reported to the Chief Executive;
- ensuring all Category 3 and 4 incidents within their area of responsibility are investigated and appropriate corrective action is implemented in line with the CS Energy Incident Management and Incident Investigation procedures;
- establishing measurable targets and ensuring continual improvement aimed at preventing work-related injury or illness;
- ensuring all plant, where applicable, is registered in accordance with legislation;
- providing information and advice to the Chief Executive as required on health and safety issues; and
- support the application of the fair and just culture process.

8.4 Site Managers

Site Managers must ensure that employees, contractors and visitors work in a safe manner and adhere to the processes within the CS Energy HSMS.

The Site Manager responsibilities are to ensure:

- they champion safety throughout their site and lead by example;
- that the site takes a proactive approach towards health and safety management;
- critical risks are managed;
- a site-specific health and safety plan is developed for each year and actioned upon;
- effective application of the principles of the HSMS in a consistent manner to all aspects of their site activities;
- implementing their own annual Personal Safety Leadership Plan which shall be reviewed and approved by their General Manager each fiscal year;
- risk management plans are developed and actioned;
- all risk management processes are implemented and applied to demonstrate risk reduction;
- an effective and proactive safety committee is established for their site;
- all workers are trained and competent to perform their tasks safely and effectively;
- all incidents are investigated to the level required in the CS Energy Incident Management process;
- all incidents, injuries, near misses, dangerous occurrences and issues of non-compliance with health and safety procedures are notified in accordance with the CS Energy Incident Management process;
- injury and illness is managed to provide early return to work; and
- consistent application of the fair and just culture process.

The relevant Site Manager is the Operator, as defined under the Petroleum and Gas (Production and Safety) Act 2004, for the Mica Creek Gas Pipeline and gas devices at their relevant site. The gas devices are installed at Swanbank, Mica Creek and Callide Power Stations. Subsequently, the operator is responsible for the statutory reporting to the Regulator which includes:

- annual Gas Safety Report by 1 September each year; and
- annual Gas Measurement Report by 1 September each year.

8.5 Superintendents and Supervisors

The responsibilities for Superintendents and Supervisors (line managers) are detailed in the relevant Role Purpose Statements and these responsibilities are to ensure:

- all risk management processes are implemented and applied to demonstrate risk reduction;
- all work is carried out by competent and authorised persons;
- compliance with procedures and processes;
- effective application of the fair and just culture processes;
- any breaches to procedures are reported along with any other incidents that occur; and
- appropriate records are completed and maintained.

8.6 Health & Safety Managers

Health & Safety Managers are responsible for:

- ensuring CS Energy achieves excellence in health and safety risk management for all CS Energy activities including operations and maintenance, corporate business, and business development (including construction projects, overhauls and joint ventures, etc);
- enabling the Chief Executive, Executive Management Team and CS Energy Board (and its subsidiaries) to satisfy their corporate governance obligations with regard to Health and Safety;
- identifying key health and safety risks and potential liabilities for CS Energy and ensuring they are assessed and controlled to acceptable standards;
- ensuring the health and safety key business objectives of the CS Energy Business Plan are achieved;
- maintaining and on-going development of the HSMS;
- maintaining a leadership and governance role to ensure the principles of the HSMS are implemented and adhered to;
- ensuring HSMS documents are developed and maintained; and
- effectively communicating objectives, strategies, performance and significant health and safety risk management issues to the CS Energy Board, Chief Executive, Executive Management Team and Site Managers on an ongoing basis, to enable them to pro-actively manage health and safety risks within their areas of responsibility.
- reporting CS Energy health and safety statistics
- providing advice on industry trends and communicating legislative changes across the organisation.

8.7 Health and Safety Advisors, Specialists & Coordinators

Health and Safety Advisors, Specialists and Coordinators have responsibility of assisting CS Energy sites through:

- developing, implementing and enhancing the HSMS including processes and supporting systems at their respective site;
- providing expert risk, health and safety advice to the site management teams and other personnel at each site;
- interpretation of, and providing advice on relevant Acts, Regulations and Standards;
- assisting and advising the safety committee members;
- working in conjunction with line managers to foster high levels of awareness, ownership and resolution of health and safety issues within work groups;

- ensuring timely and quality monthly reporting information is provided to the Manager, Corporate Health and Safety;
- conducting an assessment of the workplace, at least once per year, to identify hazards and unsafe conditions and record the assessment with recommended actions. Provide a copy to the safety committee and the site manager within 30 days of completion of the assessment (legislative requirement);
- notifying all health and safety incidents, injuries, near misses, dangerous occurrences and issues of non-compliance with health and safety procedures in accordance with the CS Energy Incident Management process;
- working with contracting companies to ensure contractors safely perform work at CS Energy sites and implement safe systems of work which satisfy CS Energy health and safety risk management requirements;
- monitoring contractor performance and compliance with approved health and safety management plans while working onsite; and
- coordinating a training needs analysis annually with the Learning and Development team and/or organisational capability staff (see section 9).

8.8 Registered Professional Engineers

The responsibilities for registered professional engineers are detailed in Role Purpose Statements. Their primary responsibility is to:

- approve specified design for plant and/or modifications to plant;
- work constructively with the Manager, Corporate Health and Safety and site management to ensure safety implications of change are identified and assessed, and any risks are eliminated or controlled consistent to legislation and leading industry practice; and
- provide appropriate change management processes to include training (working with Learning and Development and/or organisational capability teams as appropriate) and document control processes.

8.9 Employees

Employees are responsible for:

- ensuring their own safety and the safety of those in their work groups;
- ensuring the requirements of the HSMS (i.e. policy, Manual, plans and procedures) are applied and relevant assessment and/or monitoring activities are identified, carried out and recorded;
- operating plant for which you are trained, competent and authorised in the manner it was designed;
- applying risk management processes and following safe systems of work to perform tasks;
- reporting incidents, injuries, near misses, dangerous events and issues of non-compliance with health and safety procedures to their Supervisor;
- comply with all directions given by the Supervisor; and
- attending internal and/or external training as directed.

Specific details on the responsibilities for CS Energy employees are provided in the relevant Role Purpose Statement.

8.10 Contractors

Contractors must ensure they have a safety management plan and comply with statutory requirements and instructions given by the CS Energy representative to perform work in which they are engaged. Contractors are responsible for:

- ensuring their own safety and the safety of those in their work groups;
- implementing risk management strategies and applying safe systems of work to perform activities;
- ensuring knowledge of and following CS Energy HSMS and ensure the requirements of procedures are applied and relevant assessment and/or monitoring activities are identified, carried out and recorded;
- operating plant in the manner it was designed;
- reporting incidents, injuries, near misses, dangerous events and issues of non-compliance with health and safety procedures to their supervisor or CS Energy contact; and
- ensuring construction work complies with legislative requirements.

9 TRAINING & COMPETENCY

A high level of safety awareness is a reflection of the level of competency of CS Energy employees and the training they have been provided.

All CS Energy employees must participate in training and be assessed as competent to perform their duties. This is achieved through internal training and external nationally recognised training organisations.

Only operate equipment for which you are trained, competent and authorised.

9.1 Training Needs Analysis

A training needs analysis shall be coordinated annually by the site Health and Safety Coordinator working with the Learning and Development team to ensure training goals are met and the competency requirements are current for employees across their particular site. The employee health and safety training matrix is managed by the Health and Safety Coordinator and information is provided to the Learning and Development administrator for input into SAP.

9.2 Training Schedule

Each CS Energy site shall develop a training schedule and liaise with the Learning and Development Centre personnel.

Specific competencies that require refresher training or periodic renewal of licences or certification will be identified in the site training schedule and reflected in the site training register.

It is the responsibility of site-based Learning and Development personnel to monitor and maintain the training schedule and the register/database for their operational location.

9.3 Statutory Training

Certain positions and tasks that are performed across CS Energy require a minimum level of training prescribed under legislation. Refer to the Learning and Development procedure, Compliance Training Guide for CS Energy Leaders located on the Learning and Development intranet page.

Compliance with statutory training is a key performance measure for the health and safety scorecard.

9.4 Inductions

Site safety inductions and/or specific work inductions shall be undertaken by all employees, contractors and visitors before commencing work or on upon entering the site. For more details refer to the Procedure for Health, Safety and Environmental Induction, CS-OHS-28.

9.4.1 General Induction

All persons intending to work at a CS Energy site are to receive the general induction into CS Energy health, safety and environmental requirements. This induction can be undertaken at any of the CS Energy Sites and takes approximately two (2) hours.

This induction is current for two (2) years from the induction date.

9.4.2 Site Specific Induction

Upon the person's arrival at their intended place of work, the person shall undertake the site specific induction prior to undertaking any work. This induction is based on the risk management processes, work activities and work areas to be entered (i.e. Permit to Work Officer, Officer in Charge, cooling towers, confined spaces, etc.).

These inductions remain current for two (2) years from the induction date.

9.4.3 Visitor Induction

All visitors shall undertake the visitor induction upon entering the site. This consists of a video with duration of approximately 10 minutes.

10 CONSULTATION AND COMMUNICATION

Effective risk management requires consultation and communication across all levels of CS Energy.

10.1 Communication

The dissemination of health and safety information is achieved through open communication links between health and safety groups and sites.

CS Energy's commitment to health and safety is demonstrated through strong communication using such methods as:

- The Company's health and safety policy is displayed and communicated throughout the workplace.
- The health and safety policy is reviewed annually.
- Senior management representation at meetings of the Health and Safety committee.
- Demonstrating hazard rectification as soon as possible in accordance with the established time frames displaying commitment to continuous improvement.
- Where delays in resolution of health and safety hazards are expected, the workplace hazard will be made safe via such measures as are necessary until the final control measure/s can be implemented. Where this occurs, the progress on full correction will be communicated to the workforce at regular intervals.
- Management will visibly and by demonstration support all health and safety policies, plans and procedures and lead by example.
- Non-compliance with safety policies and procedures may result in disciplinary action being initiated following the fair and just culture process (see section 16.5).
- Safety will be an agenda item at all prescribed or regular meetings.

- A copy of this Manual will be made widely available throughout the workplace.
- Regular inductions, toolbox talks, safety observations and inspections are carried out at each workplace.
- Distribution of safety bulletins, alerts and other communication aids.
- Incident investigation reports completed in a timely manner.
- Appropriate resources will be allocated to carry out all health and safety practices and policies mentioned within this Manual.
- Company-wide intranet.

10.1.1 Toolbox Talks

Toolbox Talks are formal meetings held to communicate health, safety, environmental and operational matters and to reinforce the importance of being safe..

The aim of these meetings is to communicate a clear and consistent message about business initiatives, changes to process and any other proactive matter that impacts on health and safety to enhance each person's understanding of their work and ensure a consistent and safe approach to undertake work.

The manager, superintendent, supervisor or officer in charge shall lead the meeting and encourage open discussion between all attendees.

These meetings are to be held at a frequency of at least:

- once per week for operational sites; and
- once per month for the Brisbane Office

Each attendee shall sign on to an attendance register for record of attendance. The records shall be held with the site Health and Safety Coordinator and included in the monthly health and safety statistical reporting for a leading indicator.

Site managers have a responsibility to ensure information is disseminated to personnel across their site.

10.1.2 Behavioural Observations

A behavioural observation is a formal assessment of a particular work activity done in consultation with the worker or workgroup with the goal of reducing risk by educating and reinforcing correct and safe behaviour. Safe, as well as at-risk behaviour, shall be recorded and positive feedback and discussion is encouraged for learnings from the observation and any subsequent actions required.

Managers, superintendents and supervisors shall conduct observations based on their targets being weekly, fortnightly or monthly depending on the site and role of the person. Findings shall be recorded and provided to the site Health and Safety Coordinator and included in the monthly health and safety statistical reporting for a leading indicator. Any follow up actions shall be managed through site improvement processes.

10.1.3 Workplace Inspections

A workplace inspection is an assessment of the workplace or area of plant to identify unsafe conditions, hazards and compliance to procedures/permit conditions/work processes or plant safety related matters.

The aim of a workplace inspection is to provide a safe working environment for all persons at the workplace through the identification of hazards/unsafe conditions and subsequent corrective actions eliminating or minimising risk.

Managers, superintendents and supervisors shall conduct Inspections based on their targets (generally monthly) depending on the role of the person. Findings shall be recorded and provided to the site Health and Safety Coordinator and included in the monthly health and safety statistical reporting for a leading indicator. Any follow up actions shall be managed through site improvement processes

10.1.4 Safety Alerts

Safety Alerts shall be prepared and distributed to all sites in response to events to enable personnel to be aware of potential risks being present because of varying plant integrity, process and procedural issues or any other issue presenting abnormal risk.

Risk mitigation measures shall be provided in the alert and actioned by the responsible person.

Each safety Alert shall be presented in the standard CS Energy format and approved by the Manager, Corporate Health and Safety prior to issue.

10.2 Consultation

The Queensland Workplace Health and Safety Act requires that consultation occur in the workplace on health and safety related issues.

The Workplace Health and Safety Act requires CS Energy to have Workplace Health and Safety Officers and elect Workplace Health and Safety Representatives. Approved training is required to perform in these roles.

Each site shall have:

- at least one Workplace Health and Safety Officer;
- Workplace Health and Safety Representatives elected every 2 years; and
- a Health and Safety Committee.

The health and safety site personnel regularly consult between each site group and respective site personnel. This ensures consistency of communication and application of health and safety policies, procedures, instructions and processes. Various forums such as committees and groups are established to facilitate effective consultation.

10.2.1 Health & Safety Committee

Health and Safety Committees must be established and be effective at each CS Energy site. Site-based Health and Safety Committees consist of the following people:

- Worker representative of each functional group.
- Management representative/s.
- Health and Safety Specialist / Advisor / Coordinator.
- A chairperson (elected from the committee members)
- A secretary (may be either a committee or non-committee member)

The committee membership must be set up so that the worker representatives outnumber the management representatives by at least one person. Employee health and safety committee representatives are to be elected by the worker groups that they represent according to site-specific nomination and election processes.

The committee is responsible for monitoring health and safety standards, involvement in the development of policies and procedures, promoting health and safety and acting as an advisory body to managers and supervisors. Recommendations from the committee

shall be presented to site management for approval and, if authorised, are to be implemented via the committee.

CS Energy employees will be made aware of whom their site health and safety representatives and associated support staff are, by way of notice boards posted at accessible locations around sites showing the names and photographs of:

- site health and safety committee representatives.
- site Workplace Health and Safety Officers (WHSO).
- site Workplace Health and Safety Representatives.
- site health and safety specialists / advisors / coordinators.
- site first aid officers.
- site fire wardens / emergency response team members.

10.2.1.1 Committees Functions

The functions of the health and safety committee are:

- act in an advisory capacity to the site manager or relevant supervisor;
- create and maintain an active interest in health and safety;
- facilitate employee consultation when changes to the workplace are being considered
- consider opportunities for training and education in the promotion of health and safety;
- review recent work injuries or hazards/risks identified at the workplace and make any necessary recommendations;
- assist in conducting workplace health and safety inspections as prescribed under this Manual; and
- assist in the resolution of health and safety issues at the workplace.

10.2.1.2 Meetings

The committee shall meet at monthly intervals and hold at least 11 meetings per year with minutes and action items recorded and distributed.

The committee will address the following matters at each meeting. These matters include:

- Review of incidents.
- Chart progress toward achievement of goals and targets.
- Provide feedback on issues raised by other employees.
- Review relevant policy and procedures for implementation as well as Australian Standards, Codes of Practices, etc.
- Business initiatives being implemented.
- Provide an avenue to raise potential HSMS or safe system of work improvements.

10.2.2 Health & Safety Consultation Groups

In addition to the health and safety committees, a health and safety working group will be established, as required, across the business to deal with specific issues. These groups shall be encouraged to include personnel from all sites representing a variety of disciplines to deliver a balanced, experienced team structure covering all CS Energy's health and safety business needs. Each group shall promote a "one team" philosophy for CS Energy and shall provide constant updates on activities and progress to sites.

11 HEALTH & SAFETY REPORTING

CS Energy health and safety reporting is based upon the elements of the HSMS. The HSMS is monitored with specific measures in place to gauge the organisation's performance. CS Energy shall report on the following matters:

- Health & safety performance using the key performance measures.
- Incident management (injuries, near-misses, dangerous events, breaches, etc).
- Alcohol and Other Drug testing statistics.
- Hazards, risks, corrective and preventative actions.
- Statutory reporting to the Regulator such as:
 - Annual Gas Safety Report by 1 September each year.
 - Annual Gas Measurement Report by 1 September each year.
 - Incidents classified as 'notifiable' under relevant health and safety legislation.
 - Annual Report on operations to the generating authority.
- Health monitoring.
- Employee Assistance Program usage.

Reporting is performed across all business units. The information reported links into the business scorecard. Refer to section 7, Objectives and Targets levels of the organisation.

11.1 Health & Safety Performance

Health and safety performance is reported monthly, quarterly and annually.

11.1.1 Monthly Report

Site Health and Safety Coordinators shall, each month, prepare a site health and safety report. This is distributed to site management and Manager, Corporate Health and Safety.

Additionally the Manager, Corporate Health and Safety compiles the monthly safety performance report for CS Energy.

Information contained in the report includes:

- Incident and injury details
- Rehabilitation details
- Measures to reflect the health and safety business scorecard
- Alcohol and other drug testing statistics
- Total hours worked across the organisation

- Status of incident investigations
- Status of corrective actions

The monthly report is distributed to the CS Energy Chief Executive, Executive Management Team, Site Managers, and Health and Safety Team.

11.1.2 Quarterly and Annual Reports

The Manager, Corporate Health and Safety shall compile health and safety information for the CS Energy Quarterly and Annual Reports. The organisation's health and safety performance is presented in these reports.

The Annual and Quarterly reports are compiled in accordance with the Government Owned Corporations Act. Health and safety information is provided to the Corporate Risk and Assurance Group and the Corporate Communications and Stakeholder Relations Group for the purposes of compiling these reports. The reports are then approved by the CS Energy Board and provided to the Shareholding Ministers.

The Annual Report is distributed to both internal and external stakeholders.

11.1.3 Industry Reporting

Each year an annual health and safety performance report is prepared for the Energy Supply Association of Australia (ESAA). The ESAA use the information provided by CS Energy and other electricity generation entities across Australia to compile and publish an industry-wide report.

11.2 Incident Management

All incidents, which includes injuries, near misses, dangerous occurrences and issues of non-compliance with health and safety procedures that occur across the business must be reported to your supervisor.

Superintendents, coordinators or supervisors shall enter incidents directly into the incident management database and shall be managed as outlined in the CS Energy Incident Management Procedure, CS-IM-01.

Refer to Section 16 of this Manual for specific detail on the CS Energy incident management process.

11.3 Hazards and Risks

All CS Energy employees and contractors are required to report hazards and unsafe conditions using the Hazard Report form, S1931. The hazard shall be reported to your immediate Supervisor and control measures be implemented to eliminate the hazard or minimise its risk to people or operations.

All hazards are managed as part of the risk management planning process detailed in Section 12, Health and Safety Risk Management.

Risks shall be reported on a functional level using the Hazard Reporting Form and if the risk is at a higher business level shall be managed using the Risk and Opportunity Management system (**ROMS**) database. The high level business risks are presented at the CS Energy Board risk management committee.

12 DOCUMENT AND DATA CONTROL

The development, review, revision and dissemination of health and safety documentation will be controlled. This shall include the use of a standard numbering system ensuring version control. The numbering system shall follow a standard convention.

The controlled copy of this Manual and related documents shall be maintained on the CS Energy Intranet, which can be copied and printed by the all site personnel. These printed copies shall be treated as ‘uncontrolled’.

12.1 Document Access & Retention Systems

CS Energy uses the TRIM system to provide access to documents and records across the organisation. All documents and records relating to health and safety shall be stored in the appropriate folder within the TRIM system, this shall include documents that are in draft, under revision, and final approved version.

In addition to the TRIM system, the CS Energy health and safety intranet page shall contain all current versions of health and safety policies, plans, procedures and forms that are centrally managed.

12.2 Document Registers

CS Energy shall establish document registers to provide personnel with direction on the location of health and safety documents within the TRIM system. Document registers covering health and safety documentation shall be developed on all CS Energy operational sites, including the corporate group.

A single position within each functional health and safety team shall be allocated responsibility for the maintenance of health and safety document registers to ensure they are kept up to date as new documentation is generated and loaded onto the system.

12.3 Document Control

To manage and review documentation reliably, CS Energy is committed to having a working, effective document control system. Controlled documents receive unique document numbers, details of which are retained in a document register. All controlled documents have been reviewed prior to approval. Once approved, a master copy is retained on file, both electronically and in hard copy. Superseded documents are removed from circulation and the revision number indicates the latest revision.

Document	Review Period
Policies, Manual and Plans	Annually
Procedures	2 years
Work instructions	2 years and by change management
Forms	As required and to align with relevant procedures
JSEA	Before use

Table 2 - Document review period

To maintain the currency of the documents, periodic reviews are carried out. Table 2 provides a guide as to the frequency of review periods for documents. This may be varied dependant on drivers such as changes to legislation, policy direction changes, incident report findings, or at

the direction of Executive Management. Records management aspects are covered, in part, in the document control procedure with critical records requirements also captured in the compliance database.

13 HEALTH & SAFETY RISK MANAGEMENT

CS Energy risk management process aligns with AS/NZS 4360 – Risk Management to manage risk across the organisation. This Manual deals specifically with the operational and production safety risk management and change management processes. It aims at controlling hazards to an acceptable level, or developing appropriate control strategies and measures to minimise the level of risk. Risks shall be managed using the hierarchy of control.

Each site shall develop and maintain a risk register detailing the health and safety hazards and corresponding risk mitigation measures.

13.1 Safety Risk Management Process

The safety risk management process illustrated in Figure 12.1 includes the following steps:

- (i) Identify tasks.
- (ii) Identify hazards.
- (iii) Assess the risks attributable to those hazards.
- (iv) Decide on control measures
- (v) Implement control measures
- (vi) Monitor and Review effectiveness of control measures

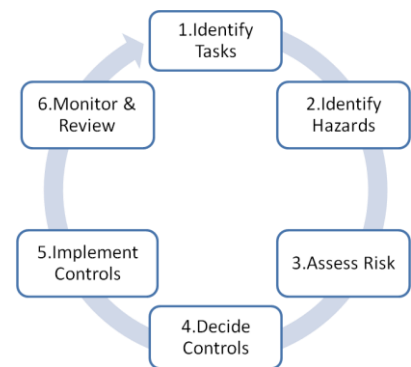


Fig. 3 – 6 steps of the risk management process

For further details on risk management processes refer to Job Safety and Environmental Analysis Procedure, CS-OHS-11.

13.2 Hierarchy of Control

After safety risks have been prioritised for action, control measures shall be agreed upon and implemented. The control measures must be applied in accordance with the hierarchy of control:

- (i) Elimination (e.g. removing hazards at design phase)
- (ii) Engineering Redesign (e.g. installing machine guarding to prevent access to moving parts)
- (iii) Substitution (e.g. substituting a hazardous product with a less hazardous product)
- (iv) Administration (e.g. instructing personnel to avoid a hazardous area)
- (v) Personal Protective Equipment

CS Energy's risk management process is to manage risks by elimination of the hazard. If this is not practical, the risk is to be managed to as low as reasonable practicable (**ALARP**) by focusing on the other control options in descending order, i.e. personal protective equipment being the least preferred control.

13.3 Risk Registers

Risks identified in safety management studies or risk workshops (e.g. HAZOP) make up the site risk register. The risk register is a living document and any new or changed hazards and risks along with control measures for their mitigation are added to the risk register as they are identified. The Site Manager is responsible for approving the register with risks ALARP.

Access to site risk registers can be obtained from the Health & Safety Coordinator.

13.4 Safe System of Work

CS Energy has developed several tools and processes to provide safe systems of work when performing work activities. The tools and processes to minimise the risk to ALARP vary depending on the level of control measures for the risk categories.

13.4.1 Major Risk Categories

The major risks and associated hazards that present at each site include the following categories:

- Electrical
- Plant and Equipment
- Workplace Design
- Isolation of energy sources (PTW System)
- Confined Spaces
- Working at Heights
- Hot Work and Hazardous Areas
- Hazardous Substances and Dangerous Goods
- Digging and Excavation
- Manual Handling
- Load shifting
- Contractor and construction work
- Radiation
- Gas Safety
- Asbestos and Synthetic Mineral Fibres
- Emergency Response

These areas present potential risks to sites if not managed effectively. Refer to each site risk register which provide details to effectively control the risks for the above categories.

CS Energy shall manage safety risk on an operational level for tasks that are performed across the organisation, and a process level for safety risks that are inherent to production.

The Procedure, Minimum Health and Safety Standards for Critical Risks, CS-OHS-48 outlines the minimum safety standards that must be adhered to. Failure to adhere to these standards will result in that person being subject to the fair and just culture process where disciplinary action may result.

13.4.2 Permit to Work

CS Energy will manage all permitting for power station and gas pipeline activities using the Permit to Work (PTW) Process. The PTW process ensures the positive and effective isolation of energy sources. It aims to ensure that work occurs with the appropriate level of safety to reduce exposure to risk in a systematic, planned and approved manner by providing a mechanism for employees, contractors and/or other relevant third parties to identify, schedule, evaluate and review works before proceeding with the activity. All employees will be trained in the PTW process during the induction process and additional training is provided on an ongoing basis.

The PTW Process must be followed under all circumstances. Refer to the Permit to Work Manual, CS-PTW-01 for details of this process. All control measures, isolations and subsidiary work permits under the PTW must be implemented before work commences.

The PTW process requires permits for the following activities:

- accessing operational plant
- electrical and mechanical isolations
- hot work
- working at heights
- confined spaces
- excavation and digging
- live electrical work
- radiation
- high voltage equipment

13.4.3 Job Safety and Environmental Analysis

The site manager will ensure that a Job Safety and Environmental Analysis (**JSEA**) is undertaken and/or reviewed and be critically analysed to ensure all relevant controls are identified for all job tasks. JSEAs must also be prepared and reviewed prior to applying for a Permit to Work.

All assessments are to be compiled by the relevant Officer in Charge/Supervisor and work team. JSEAs shall be forwarded to the Responsible Officer for review and registering. Further consultation between the Officer in Charge/Supervisor and work team is to take place prior to commencing the work to ensure relevance of the planned method and also to confirm understanding and input from the team.

Access to pre-existing JSEAs is to be found in the JSEA register located in the CS energy intranet. JSEA forms are located on the company intranet.

Refer to the Job Safety and Environmental Analysis Procedure CS-OHS-11 for further information.

13.4.4 Task Risk Analysis

The task risk analysis 2 X 2 shall be used by all persons for all jobs prior to commencing the work. It is a risk assessment tool where the person steps back 2 metres and takes 2 minutes to assess the job, tools, documentation and conditions for any hazards that may expose that person to unnecessary risk.

If the risk is above moderate a JSEA is then required before work can commence. The completed task risk analysis is to be forwarded to the site Health and Safety Coordinator for records.

13.4.5 Procedures and Work Instructions

Certain safety risks within CS Energy shall be controlled by following process outlined in procedures and/or work instructions. These documents provide a prescribed manner of performing a task, maintaining a process or plant, or undertaking a high risk activity. A procedure and/or work instruction is developed from a risk assessment and uses standardised and effective control measures to manage the identified risk.

The development of these documents is a joint responsibility between the CS Energy Brisbane health and safety team and the functional safety teams at operational sites. The Brisbane health and safety team shall develop procedures outlining the minimum standards that are universally applicable across all sites, whereas site-based health and safety teams will typically develop work instructions that are applicable to the hazards and risks that exist on their site location. Site work instructions must comply with the standards set by the procedures developed for the business.

All procedures and work instructions are located on the CS Energy health and safety intranet.

13.4.6 Change Management

CS Energy has identified strategies, policies and procedures that will ensure that all modifications are reviewed by competent people, are appropriately authorised and documented and that necessary training is provided before the modifications are implemented.

The objective is to ensure that any modifications to the design of plant or procedures are thoroughly assessed through relevant planning, design and procurement measures. This is to ensure that changes to systems and procedures, equipment and facilities or personnel do not dilute the integrity of HSMS.

13.4.7 Procurement of Goods and Services

Health and safety considerations shall be incorporated into CS Energy procurement policy, procedures and contracts to ensure safety risks associated with the procurement of goods and services are minimised.

Considerations to be incorporated into the process for purchasing or leasing goods shall include:

- Compliance (e.g. Australian Standard conformance & plant registration, etc)
- Design Safety Risks (e.g., noise, vibration, airborne toxins emissions, etc)
- Information (e.g. instructions for the operation, inspection and maintenance of plant & equipment)
- Human Factor Risks (e.g., operational or maintenance complexity, product weights or packaging arrangements, etc)
- Inherent Product Risks (e.g., dangerous goods risks, supply of MSDS, etc)
- Other Risks (e.g. storage requirements and lead times for critical spares, product rigging & lifting requirements, calibration, etc)

The health and safety considerations incorporated in the process for engaging contract personnel and professional service providers include:

- The CS Energy contract manager shall evaluate a service provider's health and safety performance, management systems and key personnel during the pre-contractual phase.
- Potential contractors shall be evaluated using the CS Energy Contractor Health and Safety Checklist prior to engagement.
- The monitoring regime shall be appropriate to the safety risks presented by the service provided or scope of works, and the length of the contract under management.

14 EMERGENCY RESPONSE

Emergency response and business recovery is essential for health and safety management at CS Energy. In the event of control measure failure CS Energy shall have competent emergency response teams and plans in place at all sites.

14.1 Emergency Response Plans

Emergency response and business recovery plans shall:

- be developed for all CS Energy operational sites and functional locations.
- take into account credible emergency scenarios.
- have response capability based on the credible emergencies that may occur at the site.
- have response capability dependent on emergency services and facilities in the immediate area.
- provide equipment and infrastructure to support the emergency response and business recovery system such as emergency vehicles to communication equipment.
- include clear responsibilities for key roles that are required for the plan to be effective.
- have planned drills to practice the effectiveness of the plan at a frequency of at least every 12 months.

When an emergency occurs on site, each person has a responsibility for their safety, and that of their fellow workers. When an emergency occurs, it must be immediately reported and the Emergency Response Plan (CS-IM-03) must be activated for the initiation of the appropriate emergency action.

The Emergency Response Plan includes the requirements for a site evacuation. The site evacuation is tested as required to:

- facilitate a smooth and orderly evacuation;
- ensure that the warning system is working and is heard by everyone onsite;
- ensure that everyone is aware of the location of the evacuation assembly area;
- ensure that exit paths and walkways are clear at all times;
- ensure that there is a process for the accounting of all workers and visitors at the site; and
- emergency response teams are notified as required.

Refer to the site emergency plans for further detail on local emergency response plans.

15 MONITORING & MEASUREMENT

15.1 Procedural Monitoring

CS Energy shall monitor the effectiveness of plans, procedures and other supporting processes to ensure the control measures remain effective. Site health and safety teams shall monitor compliance to these procedures as they relate to their use on site, and compliance with the procedures shall be further monitored as part of the internal audit program.

Brisbane health and safety provide a governance role to ensure business standards are followed.

15.2 Monitoring Equipment

All CS Energy operational sites shall identify, acquire, calibrate, maintain and appropriately store physical hazard monitoring and measuring equipment that is required for use on site.

Typical monitoring equipment that is used at sites includes:

- Gas & Dust Monitoring Equipment.
- Drug & Alcohol Screening Equipment.
- Light Monitoring Equipment.
- Noise & Vibration Monitoring Equipment.
- Depth, Height, Range & Weight Measurement Equipment.
- Electrical Testing Equipment.

It is the responsibility of the site Health and Safety Coordinator to provide a governance role to ensure equipment is maintained and calibrated for use. The site manager shall nominate the appropriate person on site maintain such equipment and to retain records to demonstrate that manufacturer's requirements are being complied with. All records shall be filed in accordance with site information management processes.

15.3 Pre-employment Health Assessments

Personal health assessments are undertaken prior to employment for all CS Energy employees in accordance with the Pre-Employment Health Assessments procedure, CS-OHS-10. The pre-employment health assessments, using approved medical practitioners, are intended to determine whether an applicant has any medical condition which may:

- impact on their ability to perform the inherent occupational requirements of the position;
- place the applicant at any increased risk of injury or illness or re-aggravation / recurrence of a pre-existing medical condition if carrying out the inherent occupational requirements of the proposed position; and
- place others in the workplace at an increased risk of injury or illness.

Pre-employment health assessments establish a baseline of health assessment for employees and assist in ensuring they are capable of undertaking the work required of them at their commencement date.

15.4 Health Surveillance

Where employees are exposed to hazards which can affect the employee's health, CS Energy is committed to minimising the risk by ensuring that the requirements of the relevant standard for the control of the specific hazards are met.

Also CS Energy will regularly access workplaces, with employee consultation, for the purpose of identifying hazards and risk potential. Where necessary and upon reasonable request, the Company will provide for the monitoring of an employee's health in relation to exposure to specific hazards.

CS Energy will ensure that employees are informed of risks that they may be exposed to. When new hazards are identified current employees at risk of exposure will be advised and appropriate action taken.

Each site shall develop programs using appropriate medical providers to conduct health monitoring processes where the identified health hazards have:

- the potential to cause an identifiable disease or illness;
- an effective technique for detecting the health effect; and
- a reasonable likelihood that exposure to the hazard will exceed set exposure limits (or the expected exposure levels to the hazard are unknown).

Queensland Workplace Health and Safety Legislation requires employers to conduct Health Surveillance programs for employees where employees are exposed to high risk hazards such as certain hazardous substances and noise.

These include:

- Lead absorption tests.
- Asbestos monitoring.
- Silica monitoring.
- Hearing monitoring.

Health surveillance is not a control measure. It is a means of reviewing the effectiveness of control measures.

15.5 Fit for Duty

CS Energy identifies that people's physical and psychological well being can be affected by their interaction within and external to the work environment. These effects can adversely influence how they function within the workplace and can lead to an increase potential for injuries and or illnesses to occur. Two such areas, being a shared responsibility between the organisation and its personnel, include the management of alcohol and other drugs, and fatigue.

15.5.1 Management of Alcohol and Other Drugs

CS Energy aims to provide a workplace free from the risk of injury or illness resulting from the influence of alcohol and other drugs.

Testing is in place on each site and anyone above the defined limits for alcohol or other drugs are not permitted on site.

Employees, contractors and other personnel while they are at CS Energy workplaces must not:

- consume alcohol or illegal drugs whilst at work; and
- sell, provide or manufacture alcohol or other drugs

Refer to the procedure, Managing Alcohol and Other Drugs, CS-OHS-42, and Policy.

15.5.2 Management of Fatigue

Employees, contractors and other personnel have a responsibility for ensuring they are fit for duty by complying with the requirements of the procedure, Management of Fatigue, CS-OHS-12, and Policy.

To successfully control the risks associated with fatigue in the workplace it is up to each individual to recognise the symptoms of fatigue, obtain adequate sleep and ensure they and others affected by fatigue seek assistance.

The most effective means to manage fatigue is to have adequate restorative sleep.

16 INCIDENT MANAGEMENT

Incident management is an integral element of the HSMS and is the process of managing an incident should the risk control measures fail. The management of incidents include immediate actions, notification, reporting, recording, investigation and corrective action associated with health & safety, environmental, operational, security, information technology and fraud incidents.

Management actions taken in response of an incident are to initially protect and minimise the impact on persons, environment, facilities, production and the off-site community. Corrective measures implemented following an incident reduce the likelihood of reoccurrence.

The incident management process starts when the incident occurs and includes:

- providing injury treatment
- recording the incident
- conducting an incident investigation
- implementing corrective actions; and
- reporting and/or external notification to the regulator.

All incidents are managed in accordance with the CS Energy Incident Management procedure, CS-IM-01.

16.1 Reporting of incidents

All incidents must be reported to CS Energy immediately or as soon as practicable. The person involved, eye witness or injured person must report the incident immediately to their supervisor.

In addition, the Site Manager or nominated site person, accompanied by other staff and contractors as appropriate, shall present all Category 3 and 4 incidents (refer to Incident Management procedure CS-IM-01) to the Chief Executive, General Manager Operations and General Manager Organisational Development the outcomes, actions and remedial measures of all Category 3 and 4 incidents mitigating against a similar or repeat occurrence of the incident. The frequency of these presentations shall occur at least every three months or at the discretion of the Chief Executive.

16.2 Injury Management

In the event of an incident, the area is to be made safe and priority given to providing immediate treatment to the injured party.

All CS Energy sites shall have personnel trained and certified in the provision of Senior First Aid or Occupational First Aid. If further immediate treatment is required, arrangements will be made to transport the injured party offsite for specialist medical treatment.

A Company Rehabilitation and Return to Work Program shall be implemented for any person who sustains a work injury and requires treatment by a Medical Practitioner. The purpose of the program is to provide the injured person with either an immediate return to work following medical treatment or a graduated return to normal duties as may be required, in conjunction with other treatments.

All CS Energy operational sites shall have personnel trained and certified in the provision of rehabilitation and return to work services. The role of these personnel is to develop and deliver return to work plans for injured persons.

Return to work cases shall be managed in accordance with the CS Energy Rehabilitation Policy and Procedures, CS-OHS-04.

16.3 Incident Investigation

The purpose of an incident investigation is to ensure that:

- accurate and consistent record of events is documented;
- root cause/s of the incident is identified;
- corrective actions are recommended to enable informed decisions by management to implement control measures to eliminate or reduce the risk of the incident occurring again; and
- reporting to management

Once an accident or incident has been reported, the workflow process commences and the appropriate level of investigation will be conducted.

16.4 Incident Corrective Actions

From the investigation report the site manager authorises control measures and corrective actions to prevent any re-occurrence of future similar incidents.

Corrective action measures must be implemented at the earliest opportunity and be assigned to specific individuals to ensure they are acted upon.

The Site Manager is responsible for ensuring that the corrective actions for the site are completed within the specified time.

Corrective action status is a key performance measure in the health and safety business plan.

16.5 Fair and Just Culture

CS Energy uses a fair and just Culture process, which is detailed in the Procedure for Fair and Just Culture, CS-OHS-47, to guide performance management decision making and ensure a consistent approach that recognises good behaviour as well as behaviours that fall below expectations.

The application of the Fair and Just Culture Procedure should only apply:

- following an investigation into an incident, event or exceptional behaviour;
- after factual information or data has been collected from a thorough investigation. The focus of investigations should be predominately on identifying and addressing system, organisational contributing factors and related causes.

The minimum health and safety standards for critical risks assist in identifying specific areas of expected behaviour to follow sound practice to eliminate incidents.

Details are provided in the Procedure for Minimum Health and Safety Standards for Critical Risks, CS-OHS-48. In support of this procedure a set of health and safety non-negotiable rules

known as “Life Savers” are established that are pivotal in upholding the integrity of the CS Energy HSMS. For specific details of the “Life Savers” refer to the Procedure for Health and Safety Life Savers, CS-OHS-49.

17 HEALTH & SAFETY RECORDS MANAGEMENT

CS Energy is required to obtain and maintain records that are necessary to safely operate and maintain its assets.

All health and safety records shall be:

- maintained in such a way to ensure they are legible, identifiable and traceable to which they relate; and
- stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss.

Individual record retention times and privacy requirements will be determined by the group responsible for managing that record. CS Energy uses the TRIM filing system for the purpose of records retention.

The length of retention and disposal of records shall be as defined in the CS Energy Records and Disposal Schedules and must meet (as a minimum) the legal requirements under the Workplace Health and Safety Act and Regulation and the Queensland Government Retention and Disposal Schedule for Administration Records.

CS Energy has identified a range of health and safety records that need to be collected, maintained and stored across the organisation.

All CS Energy operational sites and business units are responsible for identifying and sharing across the company new health and safety records that are required as well as the management and retention requirements for these records in accordance with the CS Energy Records Management Procedure.

17.1 Privacy & Access to Health Information Records

CS Energy employee health assessment and surveillance records are collected, retained and secured according to legislative requirements.

All personal health monitoring and medical information collected by CS Energy will be kept in a confidential manner and not disclosed without the written, informed consent of the relevant individual worker unless required by legislation. However, employees will be granted access to their own health assessment information that has been collected CS Energy.

18 HEALTH & SAFETY AUDIT

CS Energy shall establish health and safety management system audit programs across the organisation. The audit program shall be structured over two levels:

- Independent audit - conducted by the corporate risk & assurance group.
- External Audit - conducted by a third-party for system certification purposes or identified specific health and safety issue.

The type of audit conducted shall vary depending on the group conducting the audit. Each site shall develop their audit plan to be included in the annual site health and safety plan.

18.1 Compliance Reviews

Periodic compliance reviews will occur to ensure adherence to company policy and procedure and any statutory obligations. These reviews can be conducted or be administered by Health & Safety personnel. Audits of compliance checks will be conducted by independent auditors either through the Queensland Audit Office or the Risk & Assurance Internal Audit group.

18.2 Audit Reports

Following the audit, a report shall be generated detailing key findings from the audit and any recommended corrective actions. The report shall be developed in accordance with the CS Energy Internal Audit Report template.

Audit reports shall be provided to the relevant responsible manager within 2 weeks of audit completion unless otherwise agreed.

18.3 Corrective Actions

Corrective actions, from either compliance or audit reviews, to correct any non-conformances shall be implemented following authorisation from the Site Manager. Where significant risk is present, these actions shall be included in the ROMS database.

19 MANAGEMENT REVIEW

A review of this Manual detailing the CS Energy HSMS shall be conducted on a 2 yearly basis as a minimum. However, a review of the elements within HSMS shall be initiated at other times in response to changed circumstances faced by the business (e.g. a material change of operations, legislation changes, etc).

The purpose of HSMS reviews is to ensure that the system continues to serve CS Energy's operational safety risk management needs. The review process shall ensure that the necessary information is collected to allow CS Energy management to carry out an effective evaluation.

Reviews of the CS Energy HSMS shall be initiated primarily by the Manager, Corporate Health and Safety however; any member of the Executive Management Team may request a review be commenced.

20 GLOSSARY

All Injuries Frequency Rate (AIFR)

A measurement based upon a rolling 12 month average and measures number of all injuries recorded per million hours worked.

$$\text{AIFR} = \frac{\text{All Injuries} \times 1,000,000}{\text{Hours Worked}}$$

Behavioural Observation

A formal assessment of a particular work activity done in consultation with the worker or workgroup with the goal of reducing risk by educating and reinforcing correct and safe behaviour.

Category 3 Incident Frequency Rate (Cat3FR)

A measure based upon a rolling 12 month average and measures number of category 3 incidents recorded per million hours worked.

$$\text{Cat3FR} = \frac{\text{No. of Cat.3 Incidents} \times 1,000,000}{\text{Hours Worked}}$$

Construction Work

Construction work is:

- (a) work to erect, construct, extend, alter, convert, fit-out, commission, renovate, repair, refurbish, disassemble or decommission a structure, or part of a structure; or
- (b) work connected with site preparation, excavation and landscaping for work mentioned in paragraph (a); or
- (c) the assembly or installation of prefabricated components to form a structure, or part of a structure, for work mentioned in paragraph (a); or
- (d) the disassembly of prefabricated components for work mentioned in paragraph (a) that, immediately before the disassembly, formed a structure or part of a structure; or
- (e) an activity that is a prescribed activity (from Workplace Health and Safety Act 1995).

The definition of construction work includes repair but does not include maintenance.

Repair is work to bring an existing structure back into service following:

- a failure of the structure or part of the structure; or
- the structure reaching a state in which it is no longer fit for its intended purpose.

Maintenance is work to prevent a structure reaching a point where 'repair' is required. Maintenance may involve disassembly or decommissioning of the structure or part of the structure.

Contractor

A person who carries out work under a contract for services with CS Energy, either as an individual or as an Employee of a company other than CS Energy or its related bodies corporate as defined in the *Corporations Act 2001 (Cth)*.

CS Energy Sites

CS Energy sites are Swanbank Power Station, Callide Power Station, Mica Creek Power Station, Kogan Creek Power Station, Brisbane Central Office and other groups conducting business for CS Energy.

Employee

A person having a valid contract of employment with CS Energy and/or is in receipt of salary or wages from CS Energy or its related bodies corporate as defined in the *Corporations Act 2001 (Cth)*.

Fair and Just Culture

A process that provides a consistent approach to performance management by effectively applying the understanding of human factors and clearly delineating the boundaries of acceptable and culpable behaviours.

Job Safety & Environment Analysis (JSEA)

A method for identifying, assessing, controlling, monitoring and documenting the hazards and risks posed in each activity/task or item of plant involved in work.

Key Performance Indicator (KPI)

A defined measure with specific criteria that defines each site/business unit performance.

Life Savers	A set of health and safety rules that, if not followed, are considered to be serious breaches and will result in predefined disciplinary action subject to the fair and just culture procedure.
Lost Time Injury (LTI)	Those occurrences that resulted in a fatality, permanent disability or time lost from work of one day/shift or more (Australian Standard 1885.1). Also refer to CS energy Procedure for Incident Management, CS-IM-01.
Lost Time Injury Frequency Rate (LTIFR)	<p>A measurement based upon a rolling 12 month average and measures number of lost time injuries (LTI) per million hours worked.</p> $LTIFR = \frac{\text{No. of LTIs} \times 1,000,000}{\text{Hours Worked}}$
Lost Time Injury Severity Rate (LTISR)	<p>A measurement indicating severity of the incident based upon the days lost in the reporting period of 12 months and measures days lost per million hours worked.</p> $LTISR = \frac{\text{No. of Days Lost} \times 1,000,000}{\text{Hours Worked}}$ <p>Note – maximum days lost due to any injury is 220 days.</p>
Near Miss	An unplanned incident that occurs and does not result in injury, illness or damage to plant, however has the potential to do so.
Major Works	Any works of a capital nature that is a project and requires a detailed contract. In most cases it would involve a contractor being given Principle Contractor status.
Medical Treatment Injury (MTI)	Occurrences that require treatment by a medical practitioner beyond the scope of first aid. Medical treatment does not include a consultation by the medical practitioner where treatment is not provided (see Procedure for Incident Management, CS-IM-01).
Original Equipment Manufacturer (OEM)	An original equipment manufacturer, or OEM, manufactures products or components that are purchased by a company and retailed under the purchasing company's brand name. OEM refers to the company that originally manufactured the product.
Personal Safety Leadership Plan	A plan developed for an individual that identifies behaviors that the individual can action to improve their own safety leadership performance. Demonstration of these actions is measured to reflect performance against the plan.
Principal Contractor	As defined by the Queensland Workplace Health and Safety Act (the Act), the Principal Contractor for construction work is the person appointed by CS Energy as the Principal Contractor for the construction work under section 184A of the Act. CS Energy can appoint itself as the Principal Contractor.

Risk Management

Risk management is a systematic approach to determine the control measures required to eliminate or reduce risk to as low as reasonably practical (**ALARP**), where risk is the likelihood of injury, environmental harm, property damage and/or loss of supply. It is process of identifying hazards, assessing risks associated with that hazard, identifying control measures to eliminate or mitigate the risks associated with the hazard, and then reviewing the outcomes to ensure they are effective.

Risk Register

A documented list detailing the health and safety hazards and corresponding risk mitigation measures for a site, business unit or specific work undertaken such as an overhaul.

Toolbox Talk

A Toolbox Talk is a formal meeting held to discuss health, safety, environmental and operational matters. This has typically run by managers, superintendents and/or supervisors to communicate specific information to staff.

Total Case Recordable Frequency Rate (TCRFR)

A measurement based upon a rolling 12 month average and measures number of lost time injuries (LTI) and medical treatment injuries (MTI) per million hours worked.

$$\text{TCRFR} = \frac{\text{No. of LTIs and MTIs} \times 1,000,000}{\text{Hours Worked}}$$

Workplace Inspection

An assessment of the workplace or area of plant to identify unsafe conditions, hazards and compliance to procedures/permit conditions/work processes or plant safety related matters.

Zero Harm

Zero harm means no harm to anyone, anytime while at work.