

Guide to

Positive Performance Measurement

in the Western Australian Minerals and Resources Industry



October 2004



The objectives of the CME Guide are to:-

- ✓ Provide practical guidelines that define and standardise positive performance measures (PPMs) pertinent to the needs and diverse nature of the mineral and resource industry in Western Australia.
- ✓ Provide a composite, user friendly, and valued tool for PPMs, that is readily integrated into and in support of an organisation's Occupational Health and Safety Management System (OHSMS).
- ✓ Explain the relationship of PPMs to an organisation's business plan and their OHSMS.
- ✓ Advocate the most current and authoritative PPM methodologies.
- ✓ Acknowledge the varying stages of organisational maturity in health and safety management application.
- ✓ Acknowledge the different types of hazards experienced in different mineral and resource projects with their inherent work practises.
- ✓ Empower an organisation to identify where occupational health and safety issues exist and to target those areas with preventative action.
- ✓ Enable organisations to identify and select PPMs (from a core selection) appropriate to their organisational development and maturity rather than as an ad hoc exercise.
- ✓ Assist Health and Safety Professionals, Advisors and anyone wishing to utilise leading performance indicators.



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1. Introduction

Increased emphasis is placed on the need for organisations to use leading indicators or positive performance measures rather than solely focusing on lagging indicators such as lost time injury frequency rate (LTIFR), fatality frequency rate (FFR) and disabling injury frequency rate (DIFR).

A leading indicator is something that provides information that helps the user respond to changing circumstances and take actions to achieve desired outcomes or avoid unwanted outcomes¹.

The use of positive performance measures (PPMs) in occupational health and safety is focused on using these measures to improve safety performance by

promoting action to correct potential weaknesses without waiting for demonstrated failures.

To encourage increased use of PPMs, this guide has been put together to provide:

- practical assistance on why and how PPMs should be implemented;
- practical instruction on data collection and measurement; and
- implementation tools for the selection and use of PPMs.

The guide does not provide a definitive list of PPMs that will be suitable for all businesses within the minerals industry, nor is it a simple checklist for measuring health and safety management. Rather this guide:

- explains that the selection of PPMs is flexible and open to review and change; and
- focuses on assessing how successfully a work site is performing by monitoring processes, which produce good health and safety outcomes.



GOLD FIELDS AUSTRALIA

¹ Step Change in Safety (2003) Leading Performance Indicators: Guidance for Use, Safety Change in Safety, UK



2. Positive Performance Measures in the Minerals and Resources Industry

Positive performance measures are part of a process to guide actions that will improve future performance within an organisation. Given the vast differences between organisations and work sites it is not possible to establish:

- a generic or standard set of positive performance measures that will apply to the entire minerals industry; or
- a set of positive performance measures that will be relevant to an organisation indefinitely.

Each workplace needs to identify where there are potential weaknesses or opportunities for improvement within that particular workplace and identify a limited number of PPMs to address these.

Relevant measures will vary depending on the workplace structure, size, risk and existing occupational health and safety practices.

2.1 Why should the minerals and resources industry adopt positive performance measures?

The use of lagging indicators in isolation is not a reliable and/or an accurate measurement of occupational health and safety (OHS) performance. A wider range of OHS measurement is needed.

Positive performance measures are:

- an essential planning and measurement tool for achieving improved health and safety performance;
- a key step in any management process, forming the basis of continual improvement in an organisation's OHS risk control mechanisms; and
- an objective measurement of total operational performance.

The purpose of identifying and using PPMs is to assist work sites improve their health and safety performance.

2.2 What is the purpose of positive performance measures?

They can achieve this through:

- providing information that helps the user to take actions to achieve desired outcomes or avoid unwanted outcomes;
- enhancing an organisation's ability to objectively recognise areas of deterioration, poor performance and/or underdevelopment in their OHS practices;
- providing information on the progress and current status of the strategies, processes and activities used by worksites to address health and safety risks; and
- allowing for periodical monitoring of progress and review of objectives to identify if targets are being met.

2.3 What can be achieved by using positive performance measures?

The use of PPMs will lead to: -

- Increased OHS activity and an improved health and safety culture that is encouraged by management and supported by the workforce.
- Efficient implementation of corrective action items which creates a new found interest and raised awareness in OHS.
- Health and safety plans being discussed by all levels of the workforce allowing for greater participation in OHS reviews.
- Improved processes and increasing OHS activity that results in achievement of set goals.
- Improved performance due to focussing on what is currently important and what can be measured.

2.4 What problems can arise with the use of positive performance measures?

If measurement is not carried out correctly, the effectiveness of health and safety practices cannot be assessed and there is no reliable information source to determine how well OHS risks are being controlled.

Incorrect measurement leads to ineffective development of OHSMS's and inappropriate allocation of resources.

Positive performance measures can lead to wrong and/or misleading conclusions if inappropriate thresholds and measures are chosen. They are prone to being measured in isolation and therefore can generate misinformation.

3. Types of Positive Performance Measurements

Three types of PPMs can be identified to measure the proactive, leading activities necessary to control loss and damage.

The Minerals Council of Australia² have previously defined these three types of positive performance measures as:-

- input or activity measures;
- process or focus area type measures; and
- output or action plan type measures.

3.1 Input (Activity Measures)

This style of indicator measures inputs that can be counted or measured and is described numerically. For example the:

- number of JSAs written
- percentage of safety training performed
- number of safety meetings
- number of audits performed
- number of inspections completed
- percentage of job descriptions with OHS requirements documented.

Input measures are of value as long as there is a direct relationship between the input and the resulting outcome. This may not be so easy to demonstrate, and in many cases amounts to measuring *ACTIVITY* in safety.

3.2 Process (Focus Measures)

This style measures the indicator within the process. It focuses on the predominant types of injuries and monitors the practices and behaviours.

In the example in Table 1 the predominant injury are sprains and strains. The risk controls introduced were manual handling training for operators and risk assessment with several controls to mitigate risk. To determine the effectiveness of the introduced risk controls it is necessary to monitor work practices and behaviours associated with the task to determine a cause and effect relationship. Where a reduction in the precursors of significant strains/sprains (back, shoulder injuries) can be demonstrated an indicator is established that identifies risk control measures are having an effect.

The key with process measures is to focus on key drivers or contributors to the outcome of concern and it must be directly related in a cause effect relationship. Employee behaviours and task observations can be useful indicators of how well risks are perceived and controlled.

² Minerals Council of Australia (2003) "Positive Performance Measures – A Practical Guide" Minerals Council of Australia: Sydney

Predominant Injury	Risk Control Measure	Practices/behaviours to be Monitored	Cause/Effect Relationship
Strains and sprains	<ul style="list-style-type: none"> Manual Handling (MH) Training Risk Assessment & Control i.e. <ul style="list-style-type: none"> MH aid/equipment Access modified Material storage lowered to eliminate lifting above shoulder height 	<ul style="list-style-type: none"> Compliance in use of MH aid/equipment Compliance in use of agreed access to task Storage area redesigned 	<ul style="list-style-type: none"> % of personnel who use MH aid/equipment for task not incurring a strain or sprain. No. of strains and sprains incurred from task where agreed access not used.

Table 1. Process Measure Example

3.3 Output (Action Plan Measures)

These measure outputs in terms of achievement of objectives or whether a target or goal has been met. For example whether all supervisors have attended OHS training.

Output measures can be set in order to track progress towards achieving items from an Action Plan and as

performance indicators. For example if a occupational health and safety management plan (OHSMP) objective is set as “all supervisors are required to attend OHS training”, then the performance indicator is *Supervisor Attendance at OHS training* and the PPM is *actual* attendances recorded, measured and reported as a percentage.

4. Occupational Health and Safety Management Systems

A systematic health and safety management system can assist worksites to clearly identify what their responsibilities are and how they will manage them. It also creates a framework that can be audited to ensure system completeness and allow for continuous improvement to achieve a safe workplace. The advantages of a systems format are summarised in Appendix 1.

Experience has shown that if a safety management system is to be effective, successful and sustainable, it must contain a number of essential features as demonstrated in Figure 1.

An occupational health and safety management system is comprised of a number of key elements. Each key provides a framework for sub-elements which detail the

skeleton of the system and the required processes to make the system work. Figure 2 illustrates sub-elements and how they can relate to the key elements.

These key elements and sub-elements are based on Australian/New Zealand Standard 4801:2001 Occupational Health and Safety (OHS) Management System (AS/NZS 4801:2001). Additional detail on the key elements and sub-elements of AS/NZS 4801:2001 is provided in Appendix 2.

This Guide has adopted the AS/NZS 4801:2001 as the base format for presentation of the PPMs given the extensive use of the standard across the mineral and resource industry. This allows a system which can be replicated and is verifiable with key elements that are easily recognisable.

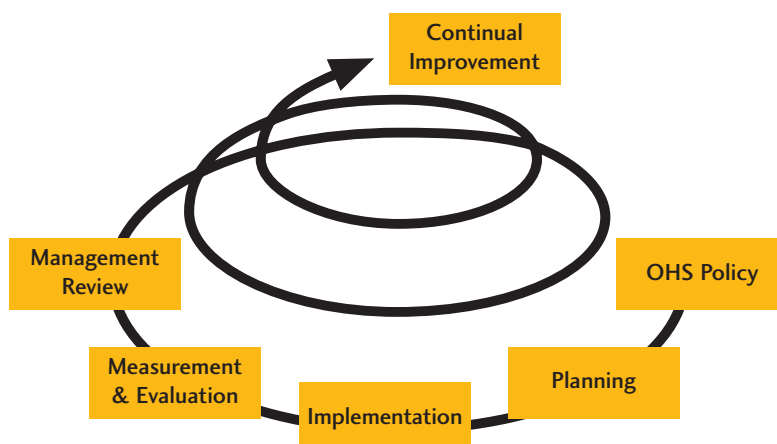


Figure 1. AS/NZS 4801:2001 Occupational Health and Safety Management System Model³

³ Standards Australia, AS/NZS 4801:2001 Occupational Health and Safety Management Systems - Specification with guidance for use. Standards Australia International Ltd: Sydney.

OHS Management System Key Elements				
1. OHS Policy	2. Planning	3. Implementation	4. Measurement and Evaluation	5. Management Review
Sub Elements				
<ul style="list-style-type: none"> • Organisation to determine their OHS Policy - <i>A Statement by the organisation of its intentions and principles in relation to its overall OHS performance, which provides a framework for action and for setting overall OHS objectives and targets. This is the main DRIVER.</i> 	<ul style="list-style-type: none"> • Planning to include identification of hazards, assessment and control of risks • Determine legal and other requirements for compliance • Set objectives and targets for OHS • Determine OHS management plan for organisation which may cascaded down throughout the company 	<ul style="list-style-type: none"> • Structure and responsibility <ul style="list-style-type: none"> - Allocate resources for human, physical & financial imperatives - Assign OHS responsibilities and accountabilities to key personnel • Determine training needs and competencies • Consultation, communication and reporting (OHS performance, incident, hazard, and statutory) • Documentation of the OHSMS (Policies, OHS standards, SOP's, job descriptions) • Document and data control • Hazard identification, risk assessment and control of risks (<i>Risk assessment, hierarchy of control, evaluation, design, contractor mgmt, purchasing</i>) • Emergency preparedness and response 	<ul style="list-style-type: none"> • Monitoring and Measurement <ul style="list-style-type: none"> - <i>Inspection, testing and monitoring – fire systems, NDT, calibration of equipment, ventilation, pressure vessels, switchboards, air quality etc</i> - Health surveillance (<i>If required by processes</i>) • Incident investigation, corrective and preventative action • Records and records management • Audits of the OHSMS 	<ul style="list-style-type: none"> • Review of OHSMS (<i>Periodic review to ensure its continuing suitability and effectiveness in satisfying the organisation's:</i> <ul style="list-style-type: none"> - Policy - Objectives, targets and performance indicators - Audit findings - Corrective action • Continual improvement based on the continuous evaluation of OHS performance for the purpose of identifying opportunities for improvement.

Figure 2. Occupational Health and Safety Management System Framework Detailing System Sub-Elements

⁴ Standards Australia, AS/NZS 4801:2001 Occupational Health and Safety Management Systems - Specification with guidance for use, Standards Australia International Ltd: Sydney.



5. The Process of Defining Positive Performance Measures

Positive performance measures quantify and qualify objectives and targets set during health and safety management planning and are refined after a period of monitoring.

The process of defining PPMs requires a worksite to determine:-

- Where they are at - by assessing their current level of safety performance using audits;
- Where they want to be - by setting objectives and targets;
- Strategies of how they are going to get there - by developing OHS Management & Improvement Plans.

Positive performance measures cannot be defined *carte blanche* for all work sites, as they will vary with the maturity and style of the operation.

To be effective, PPMs need to be;

- owned by mine personnel;
- relevant; and
- developed in consultation with employees.

Flexibility is required in order to allow an operation to reflect on what is being measured and whether it is achieving its intent. When a work site has achieved its desired outcome and performance plateaus further improvements can be gained from consultatively determining alternative PPMs at a site, department, and individual level.

Each mineral and resource operation should be mindful of the types of PPMs it selects to ensure that what is being measured relates closely to any objectives set.

The number of PPMs selected is highly dependent on the maturity of the operation. Mineral and resource operations who are intending to set PPMs for the *first time* are strongly encouraged to **start off small** and monitor whether core OHS activities are being performed.

Use of PPMs is much more effective if a limited number are chosen for use, with regular review of the ongoing relevance of them being undertaken.

The process of defining an organisational PPM table can be broken down into five steps. Figure 3 graphically demonstrates the steps required.

Positive Performance Measures (PPMs) Selection Process

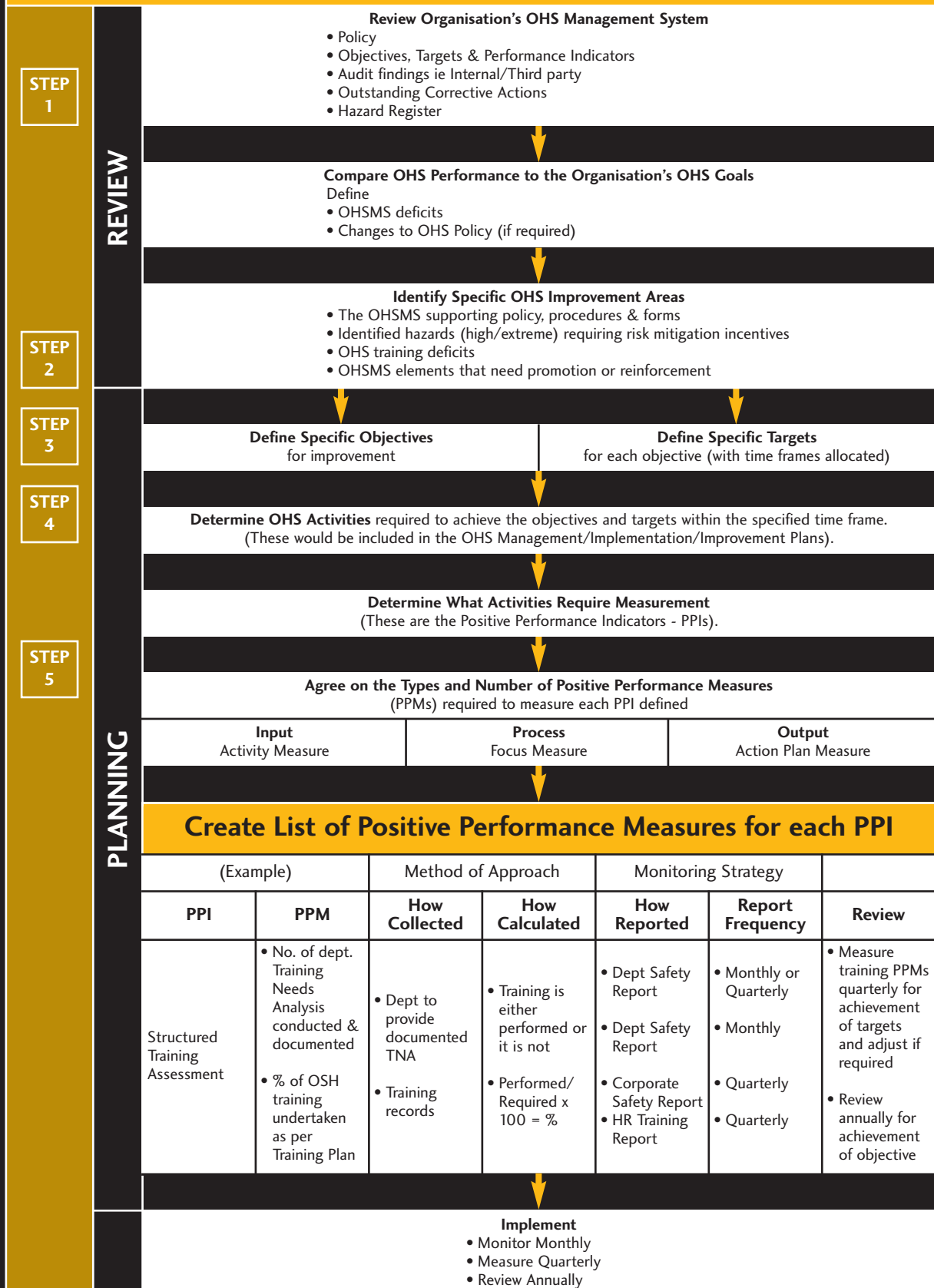


Figure 3 – Steps to Defining Positive Performance Measures



STEP 1 Review where we have been vs where we want to be

a. Review existing OHS information from:

- audit results of the OHSMS;
- legislative changes;
- achievement of objectives and targets from previous year; and
- outstanding corrective actions and hazard register imperatives to determine the continuing suitability, adequacy and effectiveness of the OHSMS.

These results will also impact on the appropriateness of the OHS Policy and whether the results are in support of the OHS Policy.

- b. **Revisit** overall OSH goals and determine deficits in OHSMS and any changes to OHS Policy.

STEP 2 Identify what needs to be done to help us get there

- a. **Identify** specific OHS Improvement Areas i.e. OHSMS documentation, hazard mitigation, OHS training and/or OHSMS sub-elements that require process improvement, promotion or reinforcement (OSH for Supervision training, Hazard Management training for key personnel, machine guarding, ventilation enhancement, purchase new equipment etc).

STEP 3 Define the goal-posts

- a. **State** your objective/s for improvement i.e. *employees are to receive relevant instruction and training to ensure procedural compliance and equipment competence*

- b. **Set** your targets with time frames applied i.e. *100% employee compliance with designated instruction and training by end of Q3 2004.*

STEP 4 Determine how we are going to get there

- a. **Determine** what OHS activities are required to achieve each objective and target within the specified timeframe. These would normally be included in the sites OHS Management plan if related to improvements to the OHSMS or in the Site/department Implementation or Improvement Plan if related to specific issues.

- b. **Determine** what of these OHS activities require monitoring and measurement to assure achievement of objective i.e. *structured Manual Handling training and follow-up assessments* - These are your Positive Performance Indicators. *NB some activities may not always require measurement - i.e. purchase of new lifting equipment.*

STEP 5 Select types and number of ppms & create your ppm table

- a. Once the specific PPI/s have been determined for each objective, the management team or consultative group needs to agree on the types and number of PPMs required to measure each PPI.

Remember that a PPM is a totally numeric measurement of an OHS activity. A PPM does not ask the question, "has a training needs analysis been performed?" but rather, "how many are complete?"

A working example of this process is located at Appendix 3

6. Positive Performance Measures

To enable the identification and selection of PPMs appropriate to the organisations development the AS/NZS 4801:2001 framework has been used to highlight PPI's and PPMs for consideration.

It is important for organisations to ensure that the PPMs selected relate closely to any OHS objectives set.

This matrix is not intended to be an exhaustive list. Nor is it intended that organisations should consider using all measures. Rather the use of PPMs is much more effective if a limited number are chosen for use, with regular review of the ongoing relevance of them being undertaken.

1. OHS Policy

1.1. Leadership and Management Commitment

Objective	PPI	PPM	Method of Approach	Monitor & Review
To demonstrate Management Commitment to OHS Activities	Management commitment to OHS activities identified in OHS Plan	Output (Action Plan Measures) <ul style="list-style-type: none"> • % of supervision trained in OHS for supervisors • % Managers attended OHS leadership training • % Managers participation in audits • % of OHS training that is opened by a senior manager • % of Safety meetings attended by Senior Managers • Number of meetings per month where OHS is a standard agenda item 	<ul style="list-style-type: none"> • Track training completed via departmental OHS performance reports • Review records of safety meetings and audits 	<ul style="list-style-type: none"> • Monitor monthly • Review quarterly as per OHSMP review and annually as per OHSMS Audit
		<ul style="list-style-type: none"> • % Risk Assessments performed on major/significant risks 	<ul style="list-style-type: none"> • Review the site/department Hazard Register/Inventory 	<ul style="list-style-type: none"> • Monitor quarterly • Review annually
Ensure that all OHS activities are defined, documented and adequately resourced	Budgeting for OHS Activities	<ul style="list-style-type: none"> • OHS budget allocated based on resource identification to achieve Safety Management Plan • Dollar expenditure on specific components of OHSMS per quarter/year/100 employees • Dollar expenditure (Total) of OHSMS per quarter/year/100 employees 	<ul style="list-style-type: none"> • Review site/department OHSMP's to ensure that activities and risk controls have been appropriately budgeted for 	<ul style="list-style-type: none"> • Monitor quarterly at Mgmt Meetings • Review annually when reviewing the OHSMS

1.2. Safety & Health Policy				
Objective	PPI	PPM	Method of Approach	Monitor & Review
Safe and healthy culture within organisation	Policy is known to all employees and third party stakeholders	<p><i>NOTE: This indicator & measures would not be used in annual targets or as KPIs but are standards of best practice for OHS performance. (Used in Auditing)</i></p> <ul style="list-style-type: none"> • Annual review performed • Referenced and aligned to the organisational OHSMS • Signed and dated by organisational management as primary stakeholders • States its alignment to legislative controls • Updated upon management and legislative changes • Updated upon significant organisational development i.e. processes, culture change • Known to all employees and 3rd party stakeholders 	<ul style="list-style-type: none"> • Audit of the OHSMS (internal and external) • Document control review • OHS Induction, Intranet 	<ul style="list-style-type: none"> • Annual review by management for effectiveness, identify areas for improvement.

2. Planning

2.1. Planning for Hazard Management

Objective	PPI	PPM	Method of Approach	Monitor & Review
To ensure that all operational hazards are identified, ranked and appropriately managed	Risk Management Process	Input (Activity Measures) <ul style="list-style-type: none"> No. of departments that have determined their major risks & logged them in a Hazard Register No. of Risk Assessments conducted on hazards rated as high/extreme Hazard Register monitored quarterly and reviewed annually Output (Action Plan Measures) <ul style="list-style-type: none"> Hazard Register is current for year (site or department) No. of hazards with risk rating reduction post risk treatment % of hazards that have been prioritised for risk assessment 	<ul style="list-style-type: none"> Ensure that all departments have creation of a Hazard Register as a KPI Departments to report as per schedule on number of high/extreme ranked hazards that have been assessed Report % of hazards reviewed on a quarterly basis Hazard Register is used as basis for site/dept OHSMP's Track inherent and residual risk ratings Report % ranked with schedule for assessment 	Site Level <ul style="list-style-type: none"> Monitor monthly as per department KPI's Measure quarterly Review annually from results of OHSMS Review Corporate Level <ul style="list-style-type: none"> Monitor quarterly for assurance of KPI's Review annually
All operating hazards identified and managed	Risk Management Processes	<ul style="list-style-type: none"> % of risk assessment completed % of control measures implemented 	<ul style="list-style-type: none"> Track items from risk assessments to completion Report % completed on monthly basis Compilation of hazards into hazard register Report % of hazards prioritised for risk assessment 	<ul style="list-style-type: none"> Annual management update and review of hazard register

2.2. Objectives and Targets

Objectives with measurable targets for OHS improvement have been determined	Safety Management Planning	Input (Activity Measures) <ul style="list-style-type: none"> No. of objectives that are measurable with a time frame for completion (<i>Can be at Corporate, site or department level</i>) No. of objectives that are in support of Safety Policy (<i>Can be at an organisational, site or department level</i>) 	<ul style="list-style-type: none"> Review all Corporate/Site/Dept Safety Management Plans 	<ul style="list-style-type: none"> Review when OHSMP are created to ensure Action Plan format and alignment with Safety Policy Monitor monthly, measure quarterly and review annually for achievement against objectives
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2.3. Occupational Health & Safety Management Plans (OHSMP)

Objective	PPI	PPM	Method of Approach	Monitor & Review
OHS Activities are planned and systematic	Safety Management Plans	<p>Input (Activity Measures)</p> <ul style="list-style-type: none"> • % of sites/departments that have determined a OHSMP • % of OHSMP activities consistent with required action in Hazard Register • No. of activities determined to support the OHSMS <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> • Number of Safety Activities in OHSMP that address major risks identified in Hazard Register (Can be at an organisational, site or department level) • % of Risk Controls with budgetary allocation 	<ul style="list-style-type: none"> • Set determination of OHSMPs by a pre-determined date as a KPI • Report % of sites/departments that have determined a OHSMP • Report % of sites/departments that have included required action from Hazard Register in planned safety activities • Review OHSMPs to ensure that required scheduled activities from the OHSMS have been included • Review site/department Hazard Registers & report on compliance • Track site/department budgets to ensure that operational/capital costs have been allocated for Risk Controls 	<ul style="list-style-type: none"> • Management review when Safety Management Plans are created (calendar or financial year) • Monitor progress monthly, measure achievement of planned activities quarterly • Review annually for achievement against objectives

3. Implementation

3.1. Ensuring Capability - Accountability and Responsibility

Objective	PPI	PPM	Method of Approach	Monitor & Review
Statutory personnel are familiarised with their OHS responsibilities	Statutory personnel awareness of OHS duties	Input (Activity Measures) <ul style="list-style-type: none"> % of statutory positions with OHS responsibilities included in job descriptions 	<ul style="list-style-type: none"> Log of Statutory positions with OHS responsibilities defined in job descriptions 	<ul style="list-style-type: none"> Quarterly management review and target gaps
Personnel to have OHS responsibilities and accountabilities defined, documented and understood	Employee awareness of OHS duties and performance measurement	Input (Activity Measures) <ul style="list-style-type: none"> % of key personnel positions with OHS responsibilities and accountabilities defined % of performance appraisals using: <ul style="list-style-type: none"> OHS performance indicators as part of measuring total performance within the position Demonstrated OHS commitment from worksite observations and participation in OHS activities % or number of position descriptions reviewed/assessed for OHS objectives Output (Action Plan Measures) <ul style="list-style-type: none"> No. of (or progress towards) health and safety targets defined in Performance Appraisals that have been met % of positive feedback on OHS performance from customers (can be internal user departments) and /or peers 	<ul style="list-style-type: none"> Log of job descriptions with OHS responsibilities defined Site/department annual Performance Appraisals – record % that are measuring OHS performance and report annually Site/department annual Performance Appraisals – record % achieved/received by department as a Lead Indicator 	<ul style="list-style-type: none"> Quarterly management review and target gaps Annual Management review and target areas for improvement
Assurance of contractor OHS Performance	OHS Accountability identified in Contractor Tender/ Contract documents	Input (Activity Measure) <ul style="list-style-type: none"> No. of contracts where sub-contractors periodic payments reliant on meeting OHS targets/scorecard/positive performance on audit 	<ul style="list-style-type: none"> Review of contracts/tender documentation for contractor services Ensure that monthly OHS reporting requirements & KPI's have been pre-determined Report % completed/achieved 	<ul style="list-style-type: none"> Monitor monthly and measure quarterly with Contract Managers Review annually post OHSMS Audit & when formally reviewing contractor performance

3.1. Ensuring Capability - Consultation, Motivation and Awareness

Objective	PPI	PPM	Method of Approach	Monitor & Review
Involve employees in regular tool box meetings	Scheduled toolbox meetings	Output (Action Plan Measures) <ul style="list-style-type: none"> % of Toolbox meetings scheduled and held % of employees attending (per shift crew) % of actions arising completed 	<ul style="list-style-type: none"> Schedule for toolbox meetings and record of meetings Log of Employees attending Log of actions completed from one meeting to the next 	<ul style="list-style-type: none"> Monitor monthly Measure quarterly Review annually for achievement of KPI and to target areas for improvement
Workplace OHS issues discussed with the workforce	Consultation on OHS issues	Input (Activity Measures) <ul style="list-style-type: none"> No. of JSA/SOPs reviewed in consultation with work group No. of Toolbox meetings where changes to the work environment or process is discussed as a routine agenda item 	<ul style="list-style-type: none"> Review and track Toolbox Meeting minutes for standard agenda items of review of SOP/JSA & changes to the work environment Report % of Toolbox Meetings where SOP/JSAs are discussed 	<ul style="list-style-type: none"> Monitor monthly Measure quarterly Review annually for achievement of KPI/results of OHSMS audit and target areas for improvement
Standard Work Practises in place for critical activities	Use of JSAs and SOPs	Input (Activity Measures) <ul style="list-style-type: none"> % of JSA/SOP completed for critical activities Number of JSA/SOP completed 	<ul style="list-style-type: none"> Register of critical activities defined for each department Log of JSA/SOP completed Report on % completed 	<ul style="list-style-type: none"> Monitor monthly Measure quarterly Review annually for achievement of KPI and to target areas for improvement
Workforce perceive safety management on site to be proactively and responsively managed	Health and Safety Culture	Output (Action Plan Measures) <ul style="list-style-type: none"> No. of Action Plan items outstanding from Safety Climate/Cultural Survey No. of corrective action items met from Safety Climate/Cultural Survey % of workers rating manager commitment to OHS as high or % of high ratings from overall findings No. of Toolbox meetings where changes to the work environment/plant/equipment materials is discussed % of issues raised at Toolbox meetings that are actioned within agreed time frame 	<ul style="list-style-type: none"> Conduct periodic standardised surveys & track trends Track action items from survey until completion Report % completed on monthly basis Publicise results to workforce and discuss at Toolbox meeting Record % of Toolbox meetings where changes are discussed Log of corrective actions (Corrective Actions Register) Track close out of corrective actions & publicise within department 	<ul style="list-style-type: none"> Monitor monthly Measure quarterly Review annually for achievement of KPI and to target areas for improvement
Increase/improve profile of safety management	OHS Incentive Programme	Input (Activity Measures) <ul style="list-style-type: none"> Meeting quarterly/annual OHS targets set at a workgroup or department level % or number of OHS Improvements by workgroup/department rewarded 	<ul style="list-style-type: none"> Targets set at workgroup or department level are recorded Departments/workgroups to report achievement of targets monthly Track OHS improvements and report recognition of these events 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

3.1. Ensuring Capability - Training and Competence

Objective	PPI	PPM	Method of Approach	Monitor & Review
Employees to receive relevant instruction and training to ensure competence	Structured training and assessment	<p>Input (Activity Measures)</p> <ul style="list-style-type: none"> No. of Training Needs Analysis (TNA) conducted and documented (department, work group, section, individual level) No. of training elements undertaken by employees in alignment with the TNA % of OHS Training undertaken as per Training Plan (includes Safety Representative Training) No. of employees attending specific training courses per month/quarter/year No. of OHS training courses assessed for effectiveness and appropriateness <p>Process (Focus Measures)</p> <ul style="list-style-type: none"> % of personnel who have received Manual Handling Training and have not incurred a musculoskeletal injury % of personnel who have received Work Permit Training and have not been involved in a Work Permit non-compliance No. of substandard behaviours identified/ assessed by personnel who have received training in specific safe work practice i.e. PPE compliance % of success rate of group performing chosen behaviours following training <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> % of employee competencies achieved as per TNA % of workers that have completed Induction Training (general and site specific) % of Supervision with First Aid training % of management and supervisors/leading hands/forepersons that have received OHS Training i.e. <ul style="list-style-type: none"> OHS for Supervisors Hazard Management/Risk Assessment Incident investigation First aid Work Permit Gas Testing % of OHS Training courses rated satisfactory or higher for effectiveness and appropriateness 	<ul style="list-style-type: none"> Review department training records for currency and completeness Track and report training completed as per Training Plan Review training evaluation forms for feedback Cross reference training records to injury experience (injury type) Cross reference training records to Incident reports Cross reference training records to Safe Behaviour Observation reports Track and report training completed as per Training Plan Review training elavation forms for feed back 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Review annually post OHSMS audit to ensure that courses are relevant and effective Project specific – monitor monthly and measure quarterly post training intervention Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Measure quarterly Review annually post OHSMS audit
Safe and competent employees	Structured training and assessment	<p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> Scheduled training completed % of incidents with training identified as major contributor 	<ul style="list-style-type: none"> Review Training Plan and records of completion Report % of training completed as per plan Analysis of incident reports for major contributing factors 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

3.2. Support Action - Communication

Objective	PPI	PPM	Method of Approach	Monitor & Review
OHS issues are communicated systematically	Formal Communication Processes	<p>Input (Activity Measures)</p> <ul style="list-style-type: none"> Documented communication to the workforce i.e. <ul style="list-style-type: none"> % of Toolbox meetings that have documented minutes % of Toolbox minutes posted within 3 days of meeting No. of Safety Toolbox meetings held as per OHSMP No. of safety alerts/bulletins issued per quarter/year No. of Pre-Start meetings held per month/quarter % of OHS committee meetings held as per plan % of plant with operating instructions % of operating instructions that have been reviewed in last year <p>Process (Focus Measures)</p> <ul style="list-style-type: none"> % of line managers who participate in Toolbox Meetings % of Safety Alerts that are communicated to the workforce % of departments that review the Safety Climate Survey results % of Toolbox meetings where incidents and hazards are routinely discussed % of Toolbox meetings where changes to the work environment (plant/equipment/process/materials) are discussed % of OHS dedicated notice-boards that are updated monthly % of formal OHS communications signed off as sighted by employees <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> % of employees attending OHS Toolbox meeting % of departments who record employee communications from the organisation i.e. <ul style="list-style-type: none"> Safety Alert Changes to plant and equipment Changes to the work environment Change in process Change in site rule Cited Toolbox minutes Change in Safe Work Practice or Safe Operating Procedure 	<ul style="list-style-type: none"> Review department/workgroup Toolbox Meeting Minute records Interview safety representatives or track date of minutes received Schedule for Toolbox Meetings/record of meetings Track records Interview employees/Safety Reps Schedule for meetings/record of meetings Check Plant/Quality Registers Check document control system or report % of compliance Review attendees at Toolbox Meetings recorded on minutes Report % communicated at Toolbox Meetings to alerts raised Report % communicated at Toolbox Meeting as agenda items on minutes Interview employees Review records Toolbox Meeting Minutes list of attendees vs staff numbers Review of department Toolbox Meeting Minutes 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

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Implementation

3.2. Support Action - Reporting

Objective	PPI	PPM	Method of Approach	Monitor & Review
Reporting requirements of OHS issues is known and understood	OHS Reporting (Incident, Hazard, Safety Performance) – internal & external	Input (Activity Measures) <ul style="list-style-type: none"> No. of Toolbox meetings where prompt incident reporting is discussed No. of personnel who attend OHS induction where Incident/Hazard Reporting is discussed No. of hazards reported per department/workgroup per month No. of Safe Work Practices (Observations) reported per department/workgroup per month/quarter Process (Focus Measures) <ul style="list-style-type: none"> % of incidents incurred after a hazard has been reported and there was no action No. of repeat incidents Output (Action Plan Measures) <ul style="list-style-type: none"> % of incidents reported on the same day as event (Timeliness to notify incidents) % of Incident Reports completed and received by supervisor within 24 hours of event % of departments that report safety performance statistics within 3 days of end of month/quarter No. of near misses reported per month/quarter/year No. of first aid/MTC/RWC/LTI/OIL injuries reported per month/quarter/year 	<ul style="list-style-type: none"> Track pre-determined Toolbox topics & minutes of Toolbox Meetings Log of Induction Training Acknowledgement form Review of Induction script Track Hazard Reports by department/workgroup & publicise Record number of 'safe' SWP/ Observation Reports, compile and report by department/workgroup & publicise Review of Incident Report log and Hazard Report log Interview area Safety Reps Review of Incident Reports against day of event (company standard for reporting severity of events) Track Incident report against incident type and report 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

3.2. Support Action - Documentation to Support the OHSMS

All documents are in place to support the safety management system	Supporting OHS Documentation	Input (Activity Measures) <ul style="list-style-type: none"> % of SOP written per month/quarter/year % of SOP revised per month/quarter/year No. of Safe Work Practices written per month/quarter/year No. of Safe Work Practices revised per month/quarter/year % of JSAs written per month/quarter/year % of JSAs revised per month/quarter/year % of Safety Critical Procedures (OHS Standards) written per month/quarter/year % of Safety Critical Procedures (OHS Standards) revised per month/quarter/year No. of Work Permits written per month/quarter/year 	<ul style="list-style-type: none"> Departments to report number written per pre-defined time period Review Register of Critical Activities (SOP Register) Log of SOP/SWP/JSAs completed Log of Safety Critical Procedures (OHS Standards) completed Review Document Control System Report on % reviewed Track log of Work Permits and report 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly
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3.2. Support Action - Documentation to Support the OHSMS

Objective	PPI	PPM	Method of Approach	Monitor & Review
All documents are in place to support the safety management system	Supporting OHS Documentation	Process (Focus Measures) <ul style="list-style-type: none"> % of Work Permits written per month/quarter/year against known work conducted on site Output (Action Plan Measures) <ul style="list-style-type: none"> No. of jobs performed in permit to work environments without permit to work issued 	<ul style="list-style-type: none"> Track Maintenance Reports, Purchase Orders and Log of Work Permits Interrogate Incident reports for Work permit non-compliances 	<ul style="list-style-type: none"> Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

3.3. Hazard Management - Hazard ID, Risk Assessment and Control

To ensure a consistent approach to the identification, assessment and control of hazards	Hazard reporting and investigation process	<ul style="list-style-type: none"> % of hazard investigation reports completed on time % of corrective actions implemented 	<ul style="list-style-type: none"> Investigation reports with completion dates Log of corrective actions Report outstanding items 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement
Demonstrate a consistent approach to identification and assessment of risk prior to purchase of materials, plant and equipment	Purchasing Controls	Input (Activity Measures) <ul style="list-style-type: none"> No. of job observations conducted per week/month/year % of job observations performed per week/month/year No. of risk assessment performed per week/month/year No. of risks identified per week/month/year No. of written/revised JSAs/JHAs conducted per week/month/year No. of HRA, SOP, Hazobs conducted per week/month/year No. of site inspections completed per week/month/year No. of hazard inspections completed per week/month/year No. of housekeeping inspections performed per week/month/year % or the number of first aid injuries investigated to the number reported per week/month/year % or the number of medical treatment injuries investigated to the number reported per week/month/year % or the number of lost time injuries investigated to the number reported per week/month/year % of outstanding investigations per number of incidents occurring 	<ul style="list-style-type: none"> Record number/% of Observation Reports, compile and report weekly/monthly Record number completed and report Review schedule of JSA's, HRA, SOP, Hazobs and workplace inspections Analyse incident reports for injury severity Compare number of incident reports to number of corresponding investigations completed and report accordingly Review incident reports with completion dates Track completed actions Report outstanding investigations 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

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Implementation

3.3. Hazard Management - Hazard ID, Risk Assessment and Control

Objective	PPI	PPM	Method of Approach	Monitor & Review
To ensure a consistent approach to the identification, assessment and control of hazards	Hazard Management Processes	<p>Process (Focus Measures)</p> <ul style="list-style-type: none"> • % of injuries incurred from identified “major” hazards following risk assessment and application of control measures • No. of implemented and failed risk control measures • No. of recurring incidents where control measures have been applied <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> • % of major hazards controlled with documented risk assessment and control measures • No. of high & extreme hazards that have had risk assessment and control measures determined • No. of risk assessment corrective actions closed out • No. of equipment maintenance programs and schedules performed according to designated schedule • No. of inspections performed to determine correct and appropriately erected signage • % of compliance with Approved Chemicals Program • % of MSDSs available for chemicals stored on site <p>Measuring Workplace Precautions</p> <ul style="list-style-type: none"> • % of demonstrated use of hierarchy of control in determination of hazard control measures <ul style="list-style-type: none"> • Elimination • Substitution • Engineering • Administrative • PPE 	<ul style="list-style-type: none"> • Review Hazard Register for identified Major Hazards with controls implemented and compare to Incident reports <ul style="list-style-type: none"> • Monthly report from departments of progress • Review department Hazard Registers • Review Toolbox Meeting Minutes • Log of corrective actions track completed actions and report <ul style="list-style-type: none"> • Signage specific workplace inspections records <ul style="list-style-type: none"> • Records of inspection findings • Conduct audit of chemical management on site (Hazardous Substances and DG's) <ul style="list-style-type: none"> • Log of Risk Assessment records • Track completed reports for evidence of application of ALARP measures • Report at regular intervals if improvement in application of ALARP is required 	<ul style="list-style-type: none"> • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement <ul style="list-style-type: none"> • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement <ul style="list-style-type: none"> • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement

3.3. Hazard Management - Purchasing Goods, Services & Equipment

Objective	PPI	PPM	Method of Approach	Monitor & Review
Demonstrate a consistent approach to identification and assessment of risk prior to purchase of materials, plant and equipment	Purchasing Controls	Input (Activity Measures) <ul style="list-style-type: none"> % of major purchases made with OHS risk assessment performed % of employee participation (including contractors) in equipment review and purchase Process (Focus Measures) <ul style="list-style-type: none"> % of injury occurring and/or recurring using plant/equipment purchased following OHS assessment % of chemicals assessed % of risk assessments performed prior to new equipment being introduced into the workplace Output (Action Plan Measures) <ul style="list-style-type: none"> % of service contracts with OHS clauses % of newly purchased plant/equipment being entered into preventative maintenance plan % of equipment meeting OHS Standards and requirements No. of OHS requirements defined in the purchasing policy of principal employer No. of OHS requirements defined in the purchasing policy of contractors % of reference to OHS guidelines when purchasing new equipment and items % of chemicals assessed prior to being brought on site 	<ul style="list-style-type: none"> Review log of purchase orders or capital requests Track risk assessments completed Check Toolbox Meeting Minutes, Project Action Team or SQUAD meeting minutes for verification of key personnel consultation Review monitoring documentation for efficacy of control measures Review and track Hazardous Substances Register Review Risk assessments log against purchases of new equipment Conduct audit of Service Contracts Interrogate maintenance database against records of purchases Conduct an equipment audit & report Conduct specific Purchasing Control audit or review document Review purchase specifications forms, Project Action Team meeting minutes Review hazardous substances register & report 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

3.3. Hazard Management - Design, Fabrication, Installation & Commissioning

Demonstrate a consistent approach to identification and assessment of risk prior to Design, Fabrication, Installation & Commissioning of plant and equipment	Controls for the design, fabrication, installation and commissioning of plant and equipment	Input (Activity Measures) <ul style="list-style-type: none"> % of departments that systematically apply risk assessment prior to the design, fabrication, installation or commissioning of equipment % of risk assessments that have been included in the design & fabrication process % of risk assessments that have been reviewed during the installation & commissioning phase 	<ul style="list-style-type: none"> Log of risk assessments Track % that have been prepared and/or reviewed for these activities 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement
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Implementation

3.3. Hazard Management - Design, Fabrication, Installation & Commissioning

Objective	PPI	PPM	Method of Approach	Monitor & Review
Demonstrate a consistent approach to identification and assessment of risk prior to Design, Fabrication, Installation & Commissioning of plant and equipment	Controls for the design, fabrication, installation and commissioning of plant and equipment	Process (Focus Measures) <ul style="list-style-type: none"> % of injury occurring after plant/equipment has been installed but has not had a risk assessment No. of new risks introduced from newly installed plant and equipment that requires plant change Output (Action Plan Measures) <ul style="list-style-type: none"> % of risk assessments conducted during the design/fabrication phase % of risk assessment reviewed during the commissioning phase % of projects where there has been nil incidents/non-compliances reported related to design No. of operational instructions documented post installation of plant & equipment 	<ul style="list-style-type: none"> Review equipment &/or maintenance records for new plant and equipment and cross reference with Injury log Review equipment/maintenance records and check plant change required on newly installed plant Track risk assessment records Check project and maintenance records against incident and non-compliance log Check log of operational instructions 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

3.3. Hazard Management - Management of Change

All changes to the workplace is known, assessed and controlled prior to implementation	Change Processes	Input (Activity Measures) <ul style="list-style-type: none"> No. of pre-start meetings where changes to workplace are discussed No. of departments where supervisors meet weekly to discuss operational change No. of Toolbox meetings where workplace change is routinely discussed No. of departments who maintain shift handover reports No. of departments where there is a formal handover between shifts/shift swings No. of departments that involve the area SHR in changes to the workplace Output (Action Plan Measures) <ul style="list-style-type: none"> % of departments that hold pre-start meetings % of departments where changes to the workplace is routinely discussed at Toolbox meetings % of departments that maintain shift/shift-swing handover reports % of departments who conduct formal handover % of SHRs that are involved in changes to the workplace 	<ul style="list-style-type: none"> Log of pre-start meetings Interview OHS rep or employees Check Log of Minutes from supervisors/dept meetings Review log of Toolbox Meeting Minutes Self report from departments/check log of shift handover reports/ interview SHRS Interview supervisors/operators Check log of handover reports Interview SHRS Review attendees on Project action Team/SQUAD minutes Review participants on risk assessments Log of pre-start meetings Review log of Toolbox Meeting Minutes Self report from departments/check log of shift handover reports/ interview SHRs Interview supervisors/SHRs Interview SHRs, review Project Team minutes for participation 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement <ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement
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3.3. Hazard Management - Contractor Management

Objective	PPI	PPM	Method of Approach	Monitor & Review
All contractors have an effective and compatible OHS Management system	Management of Contractors	<p>Pre-qualification Output (Action Plan Measures)</p> <ul style="list-style-type: none"> No. of 'major contract' contractors (based upon number of employees, contract \$ size or permanency) who have met full prequalification status No. of minor contractors (based upon number of employees, contract \$ size or permanency) who have met prequalification with demonstrated insurance, indemnity and Workers Compensation insurances <p>Post-qualification Input (Activity Measures)</p> <ul style="list-style-type: none"> No. of contractors that have determined their major risks No. of risk assessments conducted on Hazards rated as high/extreme Hazard register is current and monitored quarterly and reviewed annually No. of risk assessments performed on new plant/processes and prioritised with control measures No. of outstanding control measures resulting from risk assessments No. of incident investigations performed and prioritised with control measures No. of outstanding control measures resulting from incident investigations % of contractors represented on site OHS committee % of key contract personnel positions with OHS responsibilities and accountabilities defined % of safety meetings attended by Senior Managers No. of meetings per month where OHS is a standard agenda item % of safety meeting minutes/bulletins and alerts that are communicated to employees within 3 days of issue % of OHS competencies acquired as per Contractor Training Plan (includes SHRs , OHS for supervisors) No. of emergency response/emergency evacuation drills performed per annum 	<ul style="list-style-type: none"> Track tender pre-qualification records Track contractor OHS records Review contractor Hazard Register Review contractor risk assessments and Hazard Register Check Incident Log and Investigation Action Plan Review Incident Investigation Reports/ Database/ Corrective Actions Register Review participants of site OHS committee Check contractor OHSMS documents &/or role descriptions Review safety meeting minutes for participants Interview SHRs or employees Check OHS Noticeboards Review Contractor OHS Training Needs matrix and training records Review monthly OHS reporting by contractor; check contractor OHSMP 	<ul style="list-style-type: none"> Measure quarterly Review annually with target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

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Implementation

3.3. Hazard Management - Contractor Management

Objective	PPI	PPM	Method of Approach	Monitor & Review
All contractors have an effective and compatible OHS Management system	Management of Contractors	<p>Process (Focus Measures)</p> <ul style="list-style-type: none"> • % of personnel who have received Manual Handling Training and have not incurred a musculoskeletal injury • No. of substandard behaviours identified/ assessed by personnel who have received training in specific safe work practice i.e. PPE compliance • % of incidents incurred after a hazard has been reported and there was no action • No. of repeat incidents <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> • No. of contractors who are aware of the OHS requirements of the principal • % of key personnel positions with OHS Competencies, Responsibilities and Accountabilities defined • Meeting quarterly/annual OHS targets set at a workgroup or department level • No. of Start-up and Toolbox meetings where changes to the work environment/plant/equipment materials is discussed • % of issues raised at Toolbox meetings that are actioned within agreed time frame • No. of JSAs/SOPs/JHAs and Safe Work Practises written and revised per week/quarter/year • % of incidents reported on the same day as event (Timeliness to notify incidents) • % of Incident Reports completed and received by supervisor within 24 hours of event • No. of near misses reported per month/quarter/year • No. of first aid injuries reported per month/quarter/year • % of contractors that report safety performance statistics to the principal within 3 days of end of month/quarter 	<ul style="list-style-type: none"> • Track OHS training against Incident log • Track behaviour observation records against specific training records • Review Hazard Report Log against Incident Report log • Review Incident Report Log • Contractor meeting minutes • Interview contractor/ contract holder • Review role descriptions • Monthly OHS report against targets set in OHSMP • Contractor Start up and Toolbox Meeting Minutes • Track Action Items from minutes and report % completed periodically • Register of Critical Activities • Log of JSA/SOPs completed • Report on % complete • % reported within 24 hours or as per company standard • % completed within 24 hours or as per company standard • Analyse Incident Report Log • % received within 3 day timeframe 	<ul style="list-style-type: none"> • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement • Review annually for achievement of KPI and to target areas for improvement

3.4. Emergency Preparedness and Response- Emergency Response

Objective	PPI	PPM	Method of Approach	Monitor & Review
To minimise the impact of an unplanned event	Emergency Preparedness and Response Action	Input (Activity Measures) <ul style="list-style-type: none"> No. of workplace emergency evacuation exercises performed No. of personnel trained in emergency response and coordination No. of employees and contractors involved in emergency response/evacuation drills No. of emergency response exercises completed % of departments who have performed threat analysis % of departmental threat analysis completed and compiled into site emergency plan % of emergency response plans reviewed upon introduction of hazardous new material/processes/plant % of input into site Emergency Response plan from external service providers (i.e. FESA, RFDS, Hospital, Police, Dept. Environmental Protection/ Dangerous Goods) 	<ul style="list-style-type: none"> Track emergency exercises completed Review Training Matrix and records Organise Fire Wardens/Emergency Control Personnel to perform number count Track emergency response exercises Review department Emergency Risk Assessment & report % complete Review department Emergency Response Plan & report % complete Review document review schedule Cross reference against Toolbox minutes Review external service providers listed in plan 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement
		Output (Action Plan Measures) <ul style="list-style-type: none"> % of personnel trained in emergency response and coordination appropriate to departmental/site risk % of supervisors trained in emergency response coordination % of action items closed out within allocated timeframe following emergency response debrief No. of personnel trained in public/media response No. of personnel trained in Critical Incident Recovery Planning % of emergency equipment included in a maintenance program (daily/weekly/monthly/quarterly/annual) % of personnel allocated to conduct maintenance on emergency equipment No. of emergency systems tested for compliance and effectiveness (Fire system, Fall arrest equipment, SCBA, Water Hydrants, Site Alarms, PA system) daily/weekly/monthly/quarterly/ annually 	<ul style="list-style-type: none"> Review Training Matrix and department Threat Analysis Review department Training Matrix Track action items from debrief until completion Review Training Matrix against training records for emergency personnel/CIRP Team Review emergency equipment maintenance records & report % included Track number of emergency response personnel with allocated duties for maintenance Review emergency equipment maintenance records & report number included for testing 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

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Implementation

3.4. Emergency Preparedness and Response- Injury Management

Objective	PPI	PPM	Method of Approach	Monitor & Review
An effective Injury Management system that promotes prompt 1st aid, rehabilitation and early return to work	Injury Management Activities and Actions	<p>Input (Activity Measures)</p> <ul style="list-style-type: none"> No. of personnel trained in Senior first aid/Occ first aid/Oxyviva/stretcher bearer/Penthrane No. of supervisors trained in Senior first aid No. of Basic Life Support courses offered to site No. of inspections performed on first aid equipment No. of first aid treatments No. of medical treatment cases/restricted work cases/LTI <p>Process (Focus Measures)</p> <ul style="list-style-type: none"> % of personnel who have participated in rehabilitation program that have returned to work within 5 days of LTI % of injuries where prompt first aid was received and did not progress to medical treatment case or worse % of injuries where alternative duties have been made available that has not progressed to a LTI % of workers compensation premium reduction as a result of proactive Injury management % of injuries where injury level minimised by specialised Occ. Health personnel intervention (Nurse, Physio, Occ. Physician, rehabilitation provider) <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> % of employees rehabilitated of total injuries incurred Time taken to return injured employee to the workplace % of employees attending offered Basic Life Support courses % of budget allocated to first aid resourcing % of employees attending EAP % of personnel booked for CIRP training that have attended training (quarter/annual) % of supervisors that have attended rehabilitation briefing 	<ul style="list-style-type: none"> Review training records for nominated emergency personnel Review supervisors training records Review training plan Review maintenance schedule for emergency equipment Analyse incident log & report Analyse rehabilitation records and incident log Analyse Incident Report log for date & time of injury & date/time of 1st aid treatment against injury severity Review rehabilitation records and incident log Review Case Management Meeting minutes, WC premium estimations & rehabilitation records Review Incident log, personal health file and rehabilitation records Review of incident and rehabilitation records Review Rehabilitation Plan Training records Review budget for first aid costs Review EAP data Review Training Matrix for emergency personnel and training received Review training records 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

4. Measurement & Evaluation

4.1. Monitoring the Safety Management System

Objective	PPI	PPM	Method of Approach	Monitor & Review
The Safety Management System is monitored and measured	Monitoring of the Safety Management System	<p>Input (Activity Measures)</p> <ul style="list-style-type: none"> No. of OHSMP outstanding items reviewed and addressed quarterly No. of OHSMP Action items completed within allocated target No. of Safety Meetings where OHSMP Action items are reviewed No. of SOP's to be reviewed No. of SOP's to be determined/department No. of JSAs to be conducted % of training completed as per plan <p>Process (Focus Measures)</p> <ul style="list-style-type: none"> % of key personnel that have attended training in Introduction to the OHSMS % of employees failing Fitness for Work programs Safety climate results No. of departments that have set objectives for OHS improvement based on department specific risks No. of departments that have determined their Hazard Register <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> % of improvements to the OHSMS % of results that are above or below target % of OHSMP Action Items completed per department % of employees participating in wellness programs % of Departments that review their OHSMP quarterly % of Departments that report OHS KPIs within 3 days of end of month <p>LAG Indicators A qualitative indicator that can be counted or measured and is described numerically i.e.</p> <ul style="list-style-type: none"> Fatalities LTIFR First aid cases Notifiable dangerous occurrence rate Environmental incidents Non injury incident (near miss) Compensable injury rates Workers compensation claims 	<ul style="list-style-type: none"> Review site and department OHSMP Track Action items and report number completed within timeframe Review Safety Meeting minutes Review Critical Jobs & report number reviewed Review Critical Job Register and report number outstanding Review Training Matrix and compare to Training received as per plan Review training records Analyse drug and alcohol testing records Analyse results and report Review department OHSMPs and Hazard Registers Review department specific Hazard Registers Review all OHSMPs & report on % of improvements implemented Analyse all OHSMPs and report achievement against targets Track Action Items from OHSMPs and report completion Track employees participation and/or review Wellness program evaluation Self report by department or review their Safety meeting minutes Track monthly reporting & report % received within timeframe Analyse Incident Report log and Workers' Compensation reports 	<ul style="list-style-type: none"> Measure quarterly and review annually for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

4.2. Inspection Testing and Monitoring

Objective	PPI	PPM	Method of Approach	Monitor & Review
All hazards including mechanical, environmental, personal and biological) are monitored and measured	Inspection Testing and Monitoring of plant, personnel & the environment	<p>Input (Activity Measures)</p> <ul style="list-style-type: none"> No. of workplace inspections completed No. of planned inspections of classified plant completed No. of personnel who are competent to perform inspection and testing of plant & equipment No. of lighting/noise/radiation surveys to be conducted No. of departments that have identified their electrical safety testing requirements No. of potable water samples to be taken No. of personnel for biological monitoring No. of departments/sections that have a preventative maintenance program in place for equipment and/or machinery No. of departments that have identified Health Monitoring requirements No. of Workplace Inspection Checklists determined that are department specific No. of employees identified for periodic health monitoring relevant to exposures No. of atmospheric sampling to be performed No. of environmental monitoring strategies to be implemented No. of personnel identified for biological monitoring relevant to exposures <p>Process (Focus Measures)</p> <ul style="list-style-type: none"> No. of fire/ignition events on equipment following non-compliance with maintenance schedule No. of failures of ventilation system No. of fall/unstable ground incidents No. of diesel exhaust exposures (CO) No. of potable water contaminations No. of food poisoning incidences No. of isolation deviations 	<ul style="list-style-type: none"> Review inspection records & department OHSMP for inspections scheduled against number completed Review Training Matrix and training records Review department OHSMPs Track CONTAM targets Interrogate Preventive Maintenance Database/records Review department Health Risk Assessment Review workplace inspection checklists against known hazards Track CONTAM targets Track environmental monitoring targets Track Health Risk Assessments CONTAM targets Track incidents and analyse investigation for causal factors Track incidents and report 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

4.2. Inspection Testing and Monitoring

Objective	PPI	PPM	Method of Approach	Monitor & Review
All hazards including mechanical, environmental, personal and biological) are monitored and measured	Inspection Testing and Monitoring of plant, personnel & the environment	Output (Action Plan Measures) <ul style="list-style-type: none"> • % of line supervision trained in Introduction to the OHSMS • No. of employees who have had a Pre-placement Health Assessment prior to offer of employment • % of workplace inspections completed as per target • % of departments that have completed Biological Monitoring requirements • % of atmospheric sampling performed against target • % of exposures exceeding AS standards i.e. noise, gases, dusts (monthly, quarterly, annually) • No. of departments meeting CONTAM quota • % of fleet vehicles that have received planned maintenance • % of critical safety equipment (ESDs, sprinkler systems, alarms etc) that have received maintenance as planned • % of equipment/machine guarding retrofitted • No. of fire extinguishers in workplace according to risk • % of positive isolators • No. of equipment failures occurring • Cost of equipment failures 	<ul style="list-style-type: none"> • Track training records • Track Human resource records/medical records • Track safety management plan targets against % completed • Track Health Risk Assessment/CONTAM targets & % completed • Determine exposure standards and track exceedances • Track safety management plan targets against % completed • Review maintenance records/database & report completion • Review maintenance records on emergency equipment • Interrogate plant change records & report % • Review fire risk survey and cross reference against fire equipment location map • Review all plant drawings or physically inspect plant & determine % present • Interrogate maintenance records & report number of failures • Interrogate Loss Control records, Maintenance costs and Quality Incident Log for down time due to failures 	<ul style="list-style-type: none"> • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement

4.3. Audits of the Safety Management System

Evaluate the Health & Safety Management System for deficiencies and non-compliances	Safety Management	Input (Activity Measures) <ul style="list-style-type: none"> • No. of Audits to be performed (OHSMS audits, discrete OHSMS element audits, external audit of the OHSMS, dangerous goods audits, Hazardous Substances audits etc) • No. of Safe Behaviours identified per week/month/year • No. of Safe Behaviours to be reviewed/assessed/agreed per week/month/year • No. of supervisors/SHRs for training in OHS Auditing • No. of employees used as Safety Sampler per week/month/quarter/year 	<ul style="list-style-type: none"> • Review Audit Schedule (part of OHSMP) & report number completed • Review Observation Reports & report number of safe behaviours • Review OHSMP targets (department and site) • Review Training Matrix • Review training records 	<ul style="list-style-type: none"> • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement
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4.3. Audits of the Safety Management System

Objective	PPI	PPM	Method of Approach	Monitor & Review
Evaluate the Health & Safety Management System for deficiencies and non-compliances	Safety Management	<p>Process (Focus Measures)</p> <ul style="list-style-type: none"> • % of key personnel who have completed training in Systems Auditing and/or behaviour auditing • % of SHRs participating in internal system element audits • % of department that have received above compliance/ below compliance/best practice audit results • % increase in success rate per week/month/quarter/year for a specific focus standard behaviour • Employee Perception Survey results (numbers participating; positive/negative scores etc) • No. of OHS standards/ Procedures written following last external OHSMS audit • No. of Internal and 3rd party OHS audits performed • No. of job observations performed • % of personnel who have attended Hazard Identification Training • % of visitors who have been inducted • % of Contractors/Sub Contractor participating in audits <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> • No., regularity, quality and outcomes of self assessments conducted (audits) • No, regularity, quality and outcomes of independent assessments conducted (3rd party audits) • No. of sub-standard conditions identified as a result of safety audits • % of action items from audits that have been closed out • % of departments that have determined Action Items following results of Climate Survey 	<ul style="list-style-type: none"> • Review training records • Review training records and internal audit records for participants • Interview SHRs • Review scores & report • Interrogate Observation records for specific focus item & report success • Summarise results and report key trends/significant results • Interrogate Critical Work Registers and report number written during period • Review Audit schedule & report • Review job observation schedule and report • Review training records • Interrogate Induction records for personnel type • Review total number of contractors to number of contractors involved with audits (check audit participants) • Review audit results and records (internal and external) • Track action items from audit and report % completed • Check department Toolbox Meeting minutes and Management Team minutes for determination of Action Items 	<ul style="list-style-type: none"> • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement • Monitor monthly • Measure achievement quarterly • Review annually for achievement of KPI and to target areas for improvement

4.4. Corrective and Preventive Action				
Objective	PPI	PPM	Method of Approach	Monitor & Review
All results from Inspection, Incident, Hazard and Audit reports are investigated and corrected to prevent further occurrence	Corrective Actions Register	Input (Activity Measures) <ul style="list-style-type: none"> No. of Safety Meetings where outstanding corrective actions are discussed No. of safety activities where corrective actions are recorded in an Action Plan format with timeframes and responsibilities assigned No. of closed out corrective actions in agreed time frame Process (Focus Measures) <ul style="list-style-type: none"> % of corrective actions reviewed % of departments that review corrective actions for trends No. of corrected action items closed out as a result of safety audits No of incidents incurred whilst corrective action outstanding Output (Action Plan Measures) <ul style="list-style-type: none"> % of corrective actions outstanding Time taken to carry out corrective items once identified 	<ul style="list-style-type: none"> Review Safety Meeting Minutes & report Review all safety activities (all meetings, risk assessments, hazard/incident investigation, audits, inspections, monitoring etc) for compliance & report Track corrective actions & report compliance Check department and/or site Safety minutes for analysis of corrective actions Track outstanding corrective actions Track new incidents against corrective actions registers Track corrective actions & report % outstanding Track time between corrective action registration and close out; average and report against risk rating 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

4.5. Incident Investigation

Objective	PPI	PPM	Method of Approach	Monitor & Review
All incidents are promptly investigated and corrected to prevent further incidents	Incident Investigation process	<p>Input (Activity Measures)</p> <ul style="list-style-type: none"> No. of incident investigations conducted within 3 days of event No. of Investigations closed out within xx days No. of Investigations completed <p>Process (Focus Measures)</p> <ul style="list-style-type: none"> No. of investigations using Root Cause Analysis No. of employees participating in Investigation Team % of key personnel who have completed Incident Investigation training % of Safety Alerts raised and distributed to relevant departments when indicated on an investigation report % of SOP's revised after incident investigation identified procedural weakness % of risk assessments performed (when indicated) after deficits in work practice identified during investigation % of system failures (general failure types) identified during investigation <p>Input (Activity Measures)</p> <ul style="list-style-type: none"> No. of incident investigations conducted within 3 days of event No. of Investigations closed out within xx days No. of Investigations completed <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> % of corrective actions outstanding % of Supervisors trained in Incident Investigation % of Managers participating in incident investigation % of Managers leading an incident investigation % of Investigations conducted as per Incident matrix % of incident investigation completed on time % of corrective actions implemented 	<ul style="list-style-type: none"> Track incident investigation reports Interrogate Investigation reports to determine incident severity against level of investigation Track participants in investigation teams from Investigation reports Track training records and report % trained Track investigation reports for compliance and report % Track investigation reports and SOP document control register for changes Track investigation reports and corresponding risk assessments Analyse investigation reports Track incident investigation reports Track corrective actions & report completed items Review training records Track participants in investigations Cross-reference level of investigation to company standard Incident reports with completion dates Log of corrective actions Report outstanding items 	<ul style="list-style-type: none"> Monitor monthly Measure achievement quarterly Review annually for achievement of KPI and to target areas for improvement

5. Management Review

Objective	PPI	PPM	Method of Approach	Monitor & Review
Improve Safety Culture	Employees perception survey process	<ul style="list-style-type: none"> Overall findings on criteria 	<ul style="list-style-type: none"> Conduct periodic standardised surveys Track Trends 	<ul style="list-style-type: none"> Conduct periodic standardised surveys Track Trends
Demonstrated improvement in the management of safety	Continuous Improvement	<p>Input (Activity Measures)</p> <ul style="list-style-type: none"> No of meetings dedicated to review of OHSMS % completion of corrective actions within specified time period No. of objectives achieved % of planned OHS Systems audits undertaken % of audit recommendations implemented % of return to work assessments completed % return to work assessment recommendations implemented % of recommendations from claims management systems audits implemented <p>Process (Focus Measures)</p> <ul style="list-style-type: none"> % of departments to review OHS performance from previous year and adjust OHSMP No. of departments that have redefined their OHS objectives and targets for new year % of audit results reviewed by senior management <p>Output (Action Plan Measures)</p> <ul style="list-style-type: none"> % of departments that have reviewed their Hazard Register % change in internal or independent audit score over specified periods of time No. of targets for safety activities met No. of managers that have reviewed their departments OHS performance No. of departments that have redefined OHS objectives and targets for new year 	<ul style="list-style-type: none"> Track meeting minutes Track corrective actions & report % completed within timeframe Cross reference OHSMP objectives with predetermined targets and performance indicators & report success Review schedule of audits and report % of compliance Cross reference audit recommendations to action plan and track implementation Track rehabilitation records & report % completed & % of recommendations implemented Cross reference audit recommendations to action plan and track implementation Track department OHSMP Track Management Meeting Minutes Self report by departments Review department Hazard Register Review department Safety Minutes Track audit scores Track performance indicators from OHSMPs and determine whether targets have been met Review department management meeting minutes Track department OHSMP revision 	<ul style="list-style-type: none"> Annual review by management for effectiveness, identify progress and set target areas for improvement. Annual review by management for effectiveness, identify progress and set target areas for improvement

Appendix 1. The Advantages of a Systems Format

- Australian Industry has comprehensively adopted AS/NZS 4801:2001 (and other safety management systems) as an OHS tool that ensures that *all facets* of OHS management have been considered and that the system is complete;
- Systems formats are portable and recognisable by management as they follow the process of all other management systems whether they are financial, production and/or auditing;
- PPMs that follow a management systems format would be more user friendly and readily recognisable;
- System PPMs can easily be integrated into a complimentary systems format;
- Mirroring PPMs against an OHSMS format helps to ensure sequential chronology for effective PPM measurement;
- PPMs determined against management system headings can assist a company with objective evidence of system improvement; and
- PPMs determined against a known OHSMS can be matched into Australian Standards or other audit accreditation with positive marketing implications.

Appendix 2. Overview of the Elements of AS/NZS 4801:2001

OHS Policy

Commitment and Policy are displayed in the organisations' OHS Policy. The policy should reflect the organisations' commitment from senior management, to be compliant to laws governing operations and promote continual improvement. The policy is the basis of how the organisation sets its objectives and targets.

Planning

Planning Identification of Hazards, Hazard/Risk Assessment and Controoft Hazards/Risks.

Planning is a method for an organisation to address hazard identification, hazard/risk assessment and control of hazards/risks by the organisation's OHSMS. The organisation is to establish and maintain documented procedures for hazard identification, hazard/risk assessment and control of hazards/risks for operations and services in which the organisation has control, including contractors and suppliers who provide activities and services.

Legal and other Requirements

An organisation is to establish procedures to identify and maintain a register of legal and other requirements related to OHS issues, for operations and services, in which the organisation has control, including contractors and suppliers. Relevant information is to be communicated to employees.

Objectives and Targets

An organisation will provide, implement and maintain documented OHS objectives and targets at each relevant level and function within the organisation. Appropriate performance indicators should be used. The objectives and targets are to reflect the organisation's OHS Policy.

Occupational Health and Safety Management Plans

The OHS Management plan will describe how the targets are to be achieved, time lines and management responsibilities. The plan will also include a review of current and new activities.

Implementation

Structure and Responsibility

An organisation is to identify and provide adequate resources, identify areas of accountability and responsibility (including legal requirements) of all employees required to meet the OHSMS (contractors to be included). Commitment is to come from the highest level of management and would include designating a management person responsible for implementing the OHSMS. The main OHSMS responsibilities are to be communicated to relevant personnel.

Training and Competency

The organisation is required to determine its training requirements and competencies. The organisation's management is also to develop a training plan to meet the determined competencies. Contractors are to provide supporting documentation to show their employees have the desired level of training.

Consultation, Communication and Reporting

The employees are to be engaged in the OHS decision-making process. The organisation is to elect Safety and Health Representatives from the employee group who will represent employees on OHS matters. Elected representative are to receive training for their roles. Employees are also to be provided with adequate opportunity and support to take part in OHS activities in their daily work.

A documented procedure on how OHS information is passed to and from employees is to be communicated and implemented.

Reporting of OHS performance (audits and reviews), incidents and system failures, hazards identified, hazard/risk assessments, preventative and corrective action and statutory reporting requirements are all to be established. Reporting timeframes are to be determined by the organisation, to ensure the OHSMS is monitored and performance improved.

Documentation

The organisation will create, apply and maintain documentation in a suitable form to describe the core elements of the OHSMS and provide direction to related documentation.

Documentation and Data Control

The Organisation will establish, implement and maintain procedures for controlling relevant OHS documents.

Hazard Identification, Hazard/Risk Assessment and Control of Hazards/Risks

Hazards associated with the organisation's activities and services are to be identified, hazard/risk assessment conducted, control measured implemented and evaluated to ascertain if risk reduction was achieved. This usually includes design, construction, commissioning and purchasing controls, contractor management and management of change.

Emergency Preparedness and Response

The organisation is to identify any emergency situations and ensure that emergency procedures are documented.

Measurement and Evaluation

Monitoring and Measurement

The organisation is to establish, implement, and maintain documented procedures to monitor and measure on a regular basis the key operations and activities, which can cause illness and injury. Records

of equipment for monitoring and measuring (related to health and safety risks), their calibration, storage and maintenance shall be maintained and stored.

Health Surveillance

The organisation will identify situations where employee health surveillance is required. Employees shall have access to their individual results. Where specified by legislation, employees' health will be monitored and recorded when exposed to specific hazards.

Incident Investigation, Corrective and Preventative Action

The organisation is to establish, implement and maintain procedures for, investigating any incident that cause harm, investigate system failures and initiating appropriate corrective and preventative actions. The organisation shall implement and record any changes to OHSMS procedures resulting from incident investigation, corrective and preventative action.

Records and Records Management

An organisation will establish, implement and maintain procedures for identification, maintenance and disposition of records needed for the implementation and operation of OHSMS and to record the extent to which planned objectives and targets have been met.

Occupational Health and Safety Management System Audit

The organisation is to establish, implement and maintain an audit program for regular reviews of the OHSMS. The audit is to be carried out by a competent person.

Management Review

Review of the Occupational Health and Safety Management System

Senior management will at regular intervals conduct a review to ensure continuing suitability and effectiveness in satisfying the targets and objectives set for the OHSMS. The review includes, policy, objective, targets and performance indicators, audit findings, and corrective actions.

Continual Improvement

Management from the review, will change were appropriate any deficiencies identified. Continual improvement is based on the continuous evaluation of OHS performance for the purpose of identifying opportunities for improvement.

Appendix 3. Example – Manual Handling Training

- 1) PPI – ensure that employees have received Structured Manual Handling Training (with practical assessment);
- 2) PPM – what requires measurement
 - Input Measure - number of documented/complete Training Needs Analysis (TNA). This is calculated by counting the number of completed TNAs from the Departments. The TNA has either been completed or it has not.
 - Output Measure - % of employees who have completed Manual Handling Training. Calculated by examining the department TNA ($\% = \text{projected/actual} \times 100$).
 - Input Measure – number of employees who have attended Manual Handling Training per month/quarter (calculated by examination of the individual training records).
- Process Measure – Examine the % of employees who demonstrate correct manual handling techniques (calculated by examination of behaviour observation records).
- 3) Create PPM Table – Using the framework illustrated below, ensure that for each PPM the:-
 - Method Of Approach (*how are you going to collect the information and how are you going to manipulate/calculate the data*),
 - Monitoring Strategy (*how is this information to be reported to you and how often; and*
 - Review Period (*How often are you measuring that the targets are being met and when will a judgement be made on whether the objective has been achieved*).

PPI	PPM	Method of Approach		Monitoring Strategy		Review
		How Collected	How Calculated	How Reported	Report Frequency	
Structured Manual Handling Training with Practical Assessment	No of complete TNA	Dept to provide documented TNA	Training is either performed or not	Dept Safety Report	Monthly or Quarterly	Measure training PPMs quarterly for achievement of targets and adjust if required
	% MH training undertaken	Training Records	$\% = \text{Training Performed} / \text{Training Required} \times 100$	<ul style="list-style-type: none"> Dept Safety Report Corporate Safety Report HR Training Report 	Monthly	Review Annually
	No of employees that have completed MH training	Training Records	Sum of = Total		Quarterly	
	% of MH injuries post MH training	Injury records	$\% = \text{No of MH Injuries} / \text{No of total injuries} \times 100$ post training, compared to the % of manual handling injuries pre training	Quarterly site OSH Report (with analysis)	Quarterly	Measure Quarterly Review Annually

Figure 4. Positive Performance Table

The PPMs have been written to quantify the response with a measurement, not to direct you to respond whether you have performed a function or not. The questions are not asking *IF the action has occurred*, but rather, to *what extent*.

Examination of the results can be used to emphatically demonstrate the extent of, and by extrapolation, the weaknesses and strengths of OHS activity.

- a. **Input measures** - how many TNA completed and how many employees trained (*compliance*)
- b. **Output measure** - % completed (*was the target met? - what needs to be completed vs. what has been completed*)
- c. **Process measure** - examination of the incidence of LTIFR prior to training compared with the number of LTIFR after the training (*effectiveness of training*)

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Glossary

Objective

*States the **purpose** of collecting the measurement i.e. to demonstrate management commitment to OHS activities*

Performance Indicator

*Defines **what** is the item for measurement i.e. management commitment to OHS activities identified in OHS Plan*

Performance Measurement

States how the item is to be measured i.e. % of managers participating in audits

Method of Approach

States how the information will be collected i.e. track training completed via departmental OHS performance reports

Monitor and Review

*States how frequently the measurement will be **monitored and reviewed** i.e. monitor monthly, review quarterly as per OHS Management Plan and annually as per OHSMS Audit*

Abbreviations

ALARP	As low as reasonably practicable	MSDS	Material Data Safety Sheet
CIRP	Critical Incident Response Plan	OHS	Occupational health and safety
DG	Dangerous goods	OHSMP	Occupational health and safety management plan
DIFR	Disabling injury frequency rate	OHSMS	Occupational health and safety management system
EAP	Employee assistance program	PPIs	Positive performance indicators
FFR	Fatality frequency rate	PPMs	Positive performance measures
Hazobs	Hazard observations	SHR	Safety and Health Representative
JSAs	Job safety analysis	SOP	Standard operating procedure
KPI	Key performance indicator	TNA	Training needs analysis
LTI	Lost time injury		
LTIFR	Lost time injury frequency rate		



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