

HSE COMMITMENT MESSAGE TO YOU

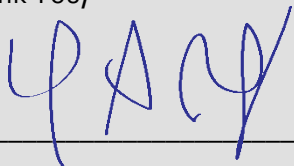
At MAPP, it is core business value that all personnel working for and with MAPP should have a safe workplace, and return home safely each day. We must also protect the environment, and respect the communities in which we work. In order to realize this, it requires a commitment from the MAPP Executive Leadership in terms of resources, systems, tools and training. I give you my personal commitment that I regularly verify that we are supporting this value, and that I remain well-informed of the HSE performance and concerns of our work sites.

To achieve my vision for the company in regards to HSE, I am calling upon every MAPP contributor to make a personal commitment to act safely, and look out for others. Fundamentally, the expectations are simple:

- A. For every single job and task, make sure YOU have identified the HSE risks, and have effective controls in place.
- B. If you don't know - ASK! We have a trained and experienced supervision and HSE team members who are there to assist you.
- C. Follow the MAPP HSE Policies – especially the MAPP Principle Safety Rules.
- D. YOU have a duty to stop unsafe work, not just a right.
- E. Respect those around you – especially the communities in which we work and clients.
- F. Make sure you are fit and well to do your job, and have the necessary training.

My message is a simple one – if you can't do it safely, without harm to the environment, in compliance with the law and MAPP policies, then I don't want it done. We will not do anything that jeopardizes the health and safety of a person or the environment.

Thank You,



Mike Polito, President/CEO
MAPP

MAPP HSE Goals and Objectives - 2016

GOAL	OBJECTIVES	TARGETS
Provide clients with total HSE Assurance	<ul style="list-style-type: none"> Interfacing and communication with client representatives Involvement into process managing client supplied items and contractors 	Client Survey HSE Score of 1
Highlight HSE Communication within the Organization	<ul style="list-style-type: none"> Daily update summary to include highlights of HSE related activities Disseminate Monthly Company & Project HSE KPI and information Incorporate Subcontractor involvement 	100 % Completion Client feedback and participation
Broaden HSE Training within the Organization	<ul style="list-style-type: none"> Ongoing Refresher Training for all personnel Quarterly Update and Compliance training Save Supervisor Training for Project Manager and Superintendents 	100% Trained First Aid/CPR 90 % Attendance to All Classes 90% Training Evaluation Score
Ensure risk has been identified to each job and task and controls measures in place.	<ul style="list-style-type: none"> Task Safety Analysis Pre Work Assessment Safety Observation Report Project HSE Plan CAVE Vendor Qualification Subcontractor Risk Evaluation 	Increase Quality Participation by 25% 85% or Better Audit Score Less than 20% High Risk subcontractors to be utilized on a project
Increase Compliance to MAPP and Regulatory Standards	<ul style="list-style-type: none"> Inspection Frequency & Findings OSHA Inspection and Citations Opportunity Participation Reward and Recognition Program 	Inspection Score Over 85% Action Item Closure Less than 1 Day Average No regulatory citations Quarterly employee recognition for HSE



Document Number: HSE100-001	April 1, 2014
HEALTH SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEM (HSE-MS)	
Author: A Holland	

<u>Rev Date</u>	<u>Rev #</u>	<u>Description</u>	<u>Revised By</u>
04/01/14	1	Development	A. Holland
08/17/16	2	Change Logo & Company name to MAPP	L. Blanchard

CEO COMMITMENT MESSAGE TO YOU

At MAPP, it is core business value that all personnel working for and with MAPP should have a safe workplace, and return home safely each day. We must also protect the environment, and respect the communities in which we work. In order to realize this, it requires a commitment from the MAPP Executive Leadership in terms of resources, systems, tools and training. I give you my personal commitment that I regularly verify that we are supporting this value, and that I remain well-informed of the HSE performance and concerns of our work sites.

To achieve my vision for the company in regards to HSE, I am calling upon every MAPP contributor to make a personal commitment to act safely, and look out for others. Fundamentally, the expectations are simple:

- A.** For every single job and task, make sure YOU have identified the HSE risks, and have effective controls in place.
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- D.** YOU have a duty to stop unsafe work, not just a right.
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- F.** Make sure you are fit and well to do your job, and have the necessary training.

My message is a simple one – if you can't do it safely, without harm to the environment, in compliance with the law and MAPP policies, then I don't want it done. We will not do anything that jeopardizes the health and safety of a person or the environment.

Thank You,

Mike Polito, CEO
MAPP

MAPP PRINCIPAL SAFETY RULES

	Only accept and undertake work for which you are trained and competent.
	Do not walk or work under a suspended load.
	Do not smoke outside of designated smoking areas.
	Do not work or drive under the influence of drugs or alcohol.
	Work with a valid Work Permit. (I.E. Task Safety Analysis with Hot Work, Confined Space, Crane Lifting, Excavation, Lockout/Tagout, or Energized Electrical Work Permit as required)
	Do not use your mobile device while performing work, driving (on site or on roadways), or walking in construction areas.
	Obtain written authorization before overriding, removing, or disabling safety critical equipment or devices.
	Protect yourself against a fall when working at heights in accordance with MAPP and regulatory requirements.
	Violence in any form is prohibited on all sites.
	Verify the isolation, de-energization, and lockout and tagging when required of all energy sources before work begins on any equipment or system and use the specified life protecting equipment for the task.
	Report all hazards, near misses, and incidents immediately.

REMEMBER - STOP WORK AUTHORITY

All persons on a MAPP project site (workers, visitors, clients, or authorities) who observe immediate unsafe conditions or acts shall have the authority and responsibility to STOP WORK.

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Governance, Accountabilities and Responsibilities
HSE Management System Document Hierarchy
HSE Management Standards
HSE Leadership and Commitment
Organization, Accountability, Responsibility and Authority
HSE Regulatory, Document Control, and Information Management
HSE Risk Management
Customers, Contractors and Suppliers
HSE Planning and Procedures
HSE Communication and Consultation
HSE Performance Monitoring, Measurement and Reporting
HSE Audits and Assurance
Emergency Management
Incident Management

Personal Safety Standards

Driving Safety
Confined Space Work
Electrical Safety
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Safe Isolation
Working at Heights
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Chemical Management
Drugs, Alcohol and Contraband
Fitness for Work
Occupational Noise and Hearing Conservation
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Appendix 1
HSE Standards and corresponding HSE procedures

I. INTRODUCTION

A. The MAPP Health Safety and Environment Management System (HSE-MS) is a company-wide system that describes the mandatory requirements for effective health, safety and environmental practices across all of MAPP's activities and operations. The HSE-MS consists of Standards, Policies, Plans, Guidelines, Forms, Checklists and Registers. **The relevant HSE Policies are in Appendix 1.**

B. We conduct ourselves and our business with due care and in accordance with relevant laws and regulations. The HSE-MS is established to have a systematic approach to continual improvement in HSE management.

C. The document you are reading is the MAPP HSE Standard. This document purposes to provide the framework and tools to manage evolving HSE concerns while meeting high standards of HSE performance and the expectations of both our clients and regulatory authorities.

D. The MAPP HSE-MS has been developed in accordance with the requirements of the general consensus standard; ANSI Z10:2012.

II. SCOPE AND APPLICATION

A. The Health, Safety and Environment (HSE) Policy commitments are communicated and implemented through the HSE Management System.

B. The MAPP HSE MS including the HSE Standards provide a set of consistent and objective requirements that have mandatory application across all of MAPP's business, including that of subcontractors, visitors, suppliers, etc.

C. Each Standard includes a number of clauses which spell out the minimum mandatory requirements. Some of the Standards refer to set processes that must be followed and these are defined in additional documents.

D. Where MAPP does not have operational responsibility, but has an equity stake (e.g. Joint Venture Partnership), these standards will be made available to the operator and at minimum the operators programs must meet or exceed this standard.

E. The Standards will be reviewed, at a minimum, every 3 years or as required.

F. Every MAPP project team must address these requirements and develop site specific plans and processes to manage the requirements in the form of a Project Health Safety and Environmental Plan (PHSEP).

G. MAPP Leadership believes that no set of standards, rules, or policies can be developed which can address every situation that may be encountered in our constantly changing work environment, thus no one may assume a safe operation will result by blindly following a single set of established guidelines. Our approach focuses on hiring the best and brightest people, providing exceptional training, and supplying adequate resources so all employees have the knowledge to perform their work in a safe and environmentally sound way.

H. Our HSE Management System is based on the continual improvement methodology of "Commit-Plan-Do-Check and Review".

I. The elements of the continual improvement ring are executed through HSE standards which interpret, support and provide further details to the requirements of the HSE Policy.



III. AUTHORITY

- A. Authority for the HSE-MS is provided by the MAPP HSE Steering Team.
- B. The role of the **Corporate HSE Steering Team** is to support and advise Executive Leadership in meeting its responsibilities in relation to HSE matters arising out of the activities and operations of MAPP.

IV. ACCOUNTABILITY & RESPONSIBILITY

- A. The **Chief Executive Officer** of MAPP is responsible for communicating his passion for HSE throughout the Company and at all times when representing MAPP. He will:
 1. Provide leadership and direction to ensure the thorough and consistent implementation of the HSE Management System, and HSE standards and policies;
 2. Hold direct reports accountable for HSE performance;
 3. Communicate MAPP's HSE commitment and expectations to all contributors;
 4. Regularly attend and participate in HSE training sessions; and require participation from all employees in HSE training;
 5. Lead by example to keep HSE on his daily agenda.
- B. The **MAPP HSE Steering Team**, which is comprised of the CEO, CFO, Sr. Division Vice Presidents, and the Corporate HSE Director, is responsible for:
 1. Overseeing the company's HSE commitment to its principles and values as they relate to employees, subcontractors and other contributors;
 2. Setting goals and objectives consistent with the HSE Policy for the organization and providing resources for successful implementation of HSE Policies and HSE Standards.
 3. Reviewing HSE performance to ensure company objectives are met and to drive continual improvement;
 4. Implementing leadership requirements specified in the HSE Management Standards;
 5. Ensuring that the reputation of the company is protected and enhanced.
 6. Ensure that Project Executives are appropriately aware of operational HSE matters;

7. Ensure the HSE program and operations comply with contractual and regulatory requirements;
8. Shall establish participation objectives for reports and selves; and help identify and improve areas of insufficient performance;
9. Review significant HSE issues, approve recommended actions, and report outcomes to the company, as needed.
10. Perform quarterly assessments to verify compliance with the expectations established in the MAPP HSE-MS. Reviews of each divisions HSE performance and processes are conducted during the assessments.
11. Implement a recognition program to recognize individual and team safety leadership and performance.
12. Provide role modeling and mentorship through personal behaviors, and team leadership activities.

C. The **MAPP Project Executive** is responsible for the health and safety of all personnel and projects under their direction and the protection of the environment. This includes both office and field operations. They shall:

1. Assure compliance with established MAPP HSE-MS standards, and MAPP HSE policies.
2. Provide adequate budget and resources for implementation of HSE process.
3. Approve the implementation of Project HSE Plans that meet the requirements of the MAPP HSE Standards.
4. Exercise accountability, and provide for the delegation of accountability to a responsible manager for the HSE performance of sites.
5. Reviewing HSE performance to ensure company objectives and expectations are met.
6. Assess the existence and effectiveness of HSE Plans through appropriate audits and reviews.
7. Regularly attend and participate in HSE training sessions.
8. Reviewing and recognizing good HSE performance by individuals and teams.
9. Inform clients of the MAPP's HSE commitment.
10. Implementing leadership requirements specified in the HSE Management Standards.
11. Participate in accident investigation processes; if necessary.
12. Discuss safety and health as a value-adding topic of discussion at all meetings.

D. The **MAPP Project Team** is responsible for the health and safety of all personnel and projects under their direction and the protection of the environment. The team is responsible for:

1. The development of a Project Specific HSE Plan (PHSEP) for each site, in coordination with the MAPP Safety Department, and obtaining approval from the Client and the MAPP Corporate Safety Department prior to conducting any on site activities.
2. Assure compliance of the PHSEP with established MAPP HSE-MS standards, and MAPP HSE policies and procedures.
3. Implement, and assess the involvement and effectiveness of the PHSEP through appropriate audits and reviews.
4. Involve all site employees in the development of HSE Plan for projects.
5. Ensure the allocation of funding and resources necessary to meet HSE goals and objectives,
6. Develop, communicate, monitor, and update project goals for HSE performance and verify that they are being met through periodic review;
7. Exercise accountability, and provide for the delegation of accountability to a responsible persons for the HSE performance of sites.
8. Provide prompt, personal feedback to employees' HSE concerns.
9. Continuously communicate directly with all site personnel regarding any and all information on safety-related matters and concerns.
10. Promote safety as a value-adding topic of discussion at all meetings.
11. Conducting daily field activity inspections to assure client, company and regulatory compliance; hazard correction and risk review, and adherence to site policies.

12. Review of, and development of, corrective actions in response to lessons learnt, incidents, defects, hazards, inadequacies of procedures and suggested improvements reported within their area of responsibility.
13. Ensure that HSE corrective actions are promptly corrected and documented.

E. The MAPP Corporate Safety Department will be responsible for ensuring that the site staff has the necessary information to lead a safe worksite. The MAPP Safety Department will:

1. Maintain all safety documentation records such as: the OSHA 300 log, incident investigation files, and employee safety training records.
2. Provide guidance on the development of the PHSEP and ensure it is updated as required;
3. Developing and improving the HSE Management System to meet the needs of the company and the expectations of its contributors.
4. Communicating and coordinating the implementation of the HSE Policy and HSE Management System in an effective and efficient manner.
5. Providing access to and advice regarding HSE laws, regulatory requirements and applicable standards that the company and its operations must meet across the various jurisdictions in which it operates.
6. Issue and promote communications related to safety and health to all personnel.
7. Develop, distribute, review, and maintain HSE policies and procedures;
8. Identify HSE training requirements for employees, develop, and, in some cases, present HSE-related training. Also evaluating the qualifications and training of subcontractor workforce through random subcontractor audits.
9. Lead incident investigations process.
10. Maintain and report to the HSE Steering Team corporate HSE statistics and metrics, determining performance trends.
11. Promote safety as a value-adding topic of discussion at all meetings.

F. The MAPP Site HSE Supervisor will be responsible for ensuring site leaders have the necessary information to lead a safe worksite. If assigned to a project safety assurance will include:

1. Assist the project team with their duty to implement the PHSEP, and all applicable HSE policies and procedures.
2. Reporting of incidents and other HSE reporting requirements for their site.
3. Provide the project staff with technical guidance and assistance on injury free efforts, and compliance with company, state, federal and client regulations
4. The preparation and primary delivery of site safety meetings and site safety orientations;
5. Coordinating HSE related training needs for their site.
6. Communicating HSE alerts of interest to Corporate HSE for wider communication.
7. Contributing to the development of company-wide HSE documents.
8. Implement, and assess the involvement and effectiveness of the PHSEP through appropriate audits and inspections.
9. Assist site superintendents in the review and authorization of daily work permits.
10. Conducting daily field activity inspections to assure client, company and regulatory compliance; hazard correction and risk review, and adherence to site policies.
11. Participate in the investigation and management of all reported site incidents.
12. Highlighting employee concerns about workplace hazards, unsafe practices and HSE performance
13. Formally escalating HSE issues to management.
14. Promote safety as a value-adding topic of discussion at all meetings.

G. Each Subcontractor shall retain primary responsibility for the safety of its employees. They will be required to provide safety coverage for their particular work scope. Also including:

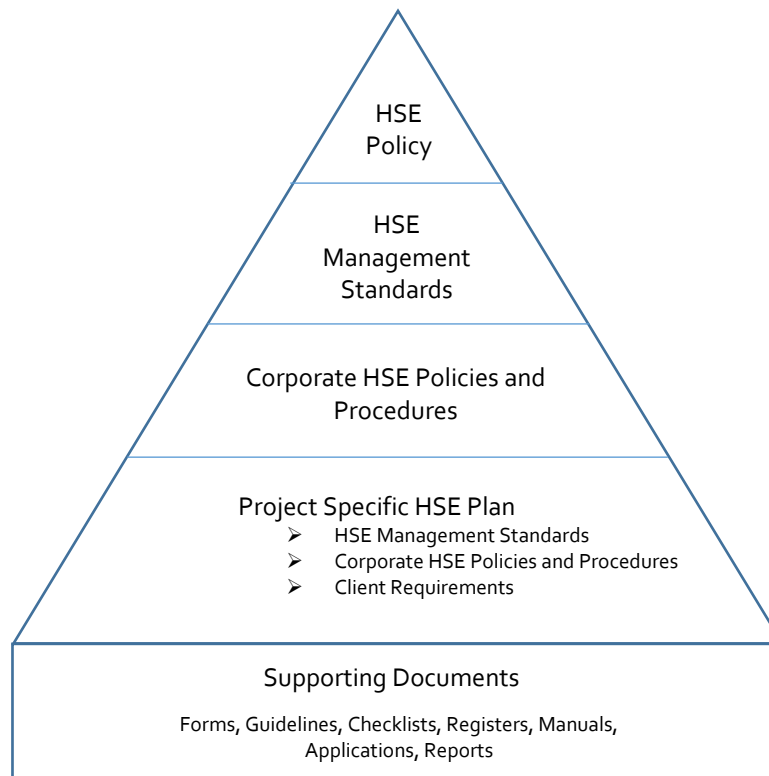
1. Effectively communicate HSE goals, objectives, the PHSEP, MAPP HSE policies and procedures to each member of their work group prior to beginning work on site and for the duration of the project.

2. Plan each task with HSE as an integral part, and conduct pre-job risk assessments of all work activities.
3. Orient the worker with respect to:
 - a) The work group (new worker),
 - b) The work area and hazards that may exist,
 - c) General and specific safety hazards,
 - d) Accident (non-injury and injury) reporting requirements, and
 - e) The employee's HSE responsibilities;
4. Assign employees only to tasks for which they are trained and qualified;
5. Monitor worker and work group performance for quality and safe work practices;
6. Correct any deficiencies noted and educate the worker to improve work methods;
7. Report, help manage, and investigate all incidents by
8. Lead by example, and encourage workers to actively participate in the HSE process.
9. Enforce MAPP and project HSE policies and procedures at all times.

H. Employee/Worker acceptance of the MAPP PHSEP and HSE policies and procedures is the ultimate key to the success of the HSE program. All employees and workers on site are responsible for:

1. Complying with HSE standards, policies, and procedures established for his/her safety and health and for preservation of the environment.
2. Carrying out their work in a manner which does not present a risk to themselves, others and the environment.
3. Assisting management and supervision in positive development of their co-worker's attitudes toward HSE and workplace morale.
4. Reporting all incidents, defects, hazards and inadequacies of procedures so that appropriate review and corrective action can be taken.
5. Suggesting improvements and being active in the general improvement of all systems and methods of work to ensure operations are carried out in a personally and environmentally safe, reliable and cost effective way.
6. Correct immediately any imminent danger situations, e.g., exposure to falls from elevations, electrocution hazards, exposure to improperly protected excavations, etc.
7. Notify their supervisor and ask for help if they have an insufficient understanding of any standard, policy, requirement, tool, task, or procedure.
8. Plan your work and try to anticipate any hazards you might encounter.
9. Observe safe practices off the job as well as on the job.
10. Ask for help if their skills, physical capabilities and/or knowledge are not adequate to do the work.
11. All persons on a MAPP site have the authority and responsibility for adhering to the MAPP Stop Work Policy.

V. HSE-MS DOCUMENT HIERARCHY



- A.** MAPP's HSE Management System is hierarchical. Mandatory requirements are established by the HSE Policy, HSE Management Standards and directives. Requirements at any level must meet and support the requirements at higher levels.
- B.** The HSE Policy, HSE Management Standards and directives are mandatory and apply to all company controlled sites and activities.
- C.** Application to Project HSE Management Plans
 - 1. The company wide HSE Policies and Procedures are mandatory and must be embedded into the Project Health Safety and Environment Plan.
 - 2. Projects will establish their own HSE Plan in order to implement and comply with the overarching MAPP HSE Standards.

VI. MAPP HSE POLICY

- A.** There is a single MAPP HSE Policy, approved by the HSE Steering Team and signed by the CEO. It establishes a framework for common HSE practices and expectations across all levels of the company.
- B.** The HSE Management Standards - interpret, support and detail the requirements of the company's HSE Policy and form the basis for the development and application of project HSE plans.

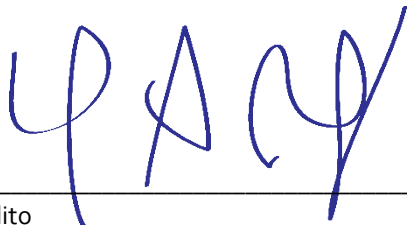
MAPP HSE POLICY

It is the commitment of **MAPP** to perform **ALL** work in the safest manner possible, while maintaining the highest level of construction practices. We are committed to protecting the health and safety of each employee as the prevailing priority of our organization. **MAPP** will uphold its position as a leader in the construction industry by implementing actions to help realize a healthy, injury-free work environment.

Through management leadership and employee participation, the organization commits to:

- Create, and strive to continually improve upon, a safe and healthy workplace for all;
- Build a respect for and implement strategies to protect the environment;
- Continually improve our HSE performance;
- Meet specified client requirements and ensure continuous client satisfaction;
- Conform to MAPP HSE and legal requirements.
- Plan for, respond to and recover from any emergency, disaster or business disruption;
- Integrate HSE considerations into all business planning, decision making, and daily activities;
- Set HSE performance objectives, measure results, assess and continually improve processes and services, through the use of an effective management system;
- Provide resources and training to carry out this policy;
- Foster conception and involvement in the HSE process by all contributors, while holding each contributor accountable for personal HSE commitment;
- Communicate with openness our HSE policy to all contributors to the organization.

The management and supervision of **MAPP** considers no aspect of our work of greater importance than the safety of our employees, subcontractor employees, and the protection of the public and the environment.



Mike Polito
President/CEO

08/10/16

Date

VII. HSE MANAGEMENT STANDARDS

- A.** The Standards are consistent with MAPP's HSE Policies, ANSI Z10:2012 and were designed to meet MAPP's legal HSE obligations. The objectives of the Standards are to:
1. Set and formalize expectations;
 2. Provide auditable criteria; and
 3. Provide a basis from which to drive continual improvement.
- B.** The Standards have been developed and grouped into Systems and Hazard Based categories which are:
1. Management System
 2. Personal Safety & Health
 3. Environment
- C.** The Standards are the minimum high level mandatory HSE requirements that employees and contractors have to comply with to meet the intent of company policy. They define what must be achieved, rather than how to achieve it.
- D.** Policies and procedures are the mandatory instructions that provide details on how to implement the standards. The supporting core HSE policies and procedures are listed in the Appendix 1.
- E.** Each Standard contains the following components:
1. Title;
 2. Intent Statement; and
 3. A list of detailed requirements that describe the specific arrangements and behaviors that must be met to demonstrate compliance.
- F.** Application to Subcontractor HSE Management System
1. Where subcontractors work under their own management system it is required that their HSE Management System meet or exceed the requirements of MAPP's HSE Standards.
 2. The MAPP standardized contractual HSE Terms and Conditions require that contractors comply with the MAPP's HSE Standards. There is also a requirement to have equivalent policies and procedures that align with the contents of the MAPP HSE policies and procedures.

STANDARD 1

HSE LEADERSHIP AND COMMITMENT

Intent

1. To create and sustain a culture within MAPP that drives our commitment to zero harm to our people, and to protect the environment.
2. The CEO and HSE Steering Team establish the HSE Policy, set expectations and provide resources for successful implementation of the HSE Policy and HSE Management System.
3. All MAPP employees are responsible for implementation and compliance with this Standard, and their Project HSE Plan.
4. Subcontractors are responsible for compliance with the requirements of this Standard through application of their Management System and/or use of MAPP's HSE Management System.

Requirements:

1. MAPP maintains a HSE Policy that reflects the nature, scale and potential HSE impacts of the company's activities and services.
2. The HSE Policy is reviewed every two years and approved by the HSE Steering Team and signed by the CEO.
3. Systems are in place to recognize, reinforce and reward HSE innovation, initiatives, desired behaviors and outcomes.
4. MAPP projects define and document the scope, and integrate the requirements of the HSE-MS Standards in their HSE plans.
5. The company and its subcontractors have systems in place to ensure employees and subcontractors are aware of expected HSE behaviors and have a clear understanding of the consequences of inappropriate conduct.
6. Managers demonstrate visible leadership and proactive behaviors by personal example, and reinforce HSE excellence by communicating HSE issues, setting HSE goals, objectives and targets, promoting HSE improvement initiatives, participating in audits and by conducting frequent site inspections, which include HSE reviews and behavioral observations.
7. All Employees demonstrate by their day-to-day actions a visible commitment to HSE.
8. Managers promote the sharing of HSE lessons learned inside and outside their project.

STANDARD 2

ORGANIZATION, ACCOUNTABILITY, RESPONSIBILITY AND AUTHORITY

Intent

1. For employees at all levels, their accountabilities, roles, responsibilities and authority relating to HSE are clearly defined, documented, communicated and understood throughout MAPP.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirement

1. HSE roles, responsibilities, authorities and accountabilities, including those arising from the HSE Policy and HSE Management Standards and personal HSE goals, objectives and targets, are documented, known, communicated, exercised and adhered to.
2. The CEO of MAPP is ultimately responsible for the HSE performance of the business, including the effective implementation of the HSE Policy and supporting HSE Standards.
3. Executives and Managers provide sufficient resources (i.e. human, financial and infrastructure) to maintain legal compliance and to support effective HSE management including the implementation, maintenance, monitoring and reporting of the HSE Management System and the provision of competent HSE advice.
4. Personnel with appointed or elected HSE responsibilities provide employees with HSE advice, assistance and expertise relevant to their position as required.
5. All personnel are responsible for the HSE implications of their own actions and have a duty to carry out their work in a manner which does not present a risk to themselves, others and/or the environment. Individual performance will be monitored and reviewed against agreed responsibilities and accountabilities.
6. Systems are in place to clearly communicate to personnel that they have both the right and the responsibility to stop work or refuse to work in situations that may cause harm to health, safety or environment, and to immediately bring these situations to the attention of those at immediate risk and to supervision.

STANDARD 3 HSE PLANNING & OBJECTIVES

Intent

1. A systematic risk based approach to the management of HSE is in place as an integral part of business planning, with HSE goals, objectives and targets established and measured. A philosophy of continual improvement is applied to HSE.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements

1. Business planning activities at all levels of MAPP include HSE considerations.
2. On an annual basis MAPP sets company-wide HSE goals, objectives and targets consistent with the HSE Policy and HSE Management System to drive performance improvement. These goals, objectives and targets are linked to leading and lagging indicators that are measurable, documented, communicated and reviewed.
3. MAPP project teams set project goals that support the achievement of MAPP company-wide goals and take into account significant risks, legal and other compliance requirements and the interests of relevant contributors.
4. Team and individual key performance indicators (KPIs) are set that support the achievement of company and project goal. These KPIs are assessed as part of reward systems and individual performance evaluation.
5. HSE action plans are established which include clearly designated responsibilities, time-frames, resources and actions to achieve goals, objectives and targets. HSE risks are considered in the development of goals, objectives and targets in HSE action plans.
6. Systems are established to periodically monitor and report the implementation of these goals, objectives and targets including the tracking of KPIs.

7. Where conflicts exist between HSE goals, objectives and targets and other business goals, objectives and targets, resolution is consistent with the requirements of these HSE Standards.

STANDARD 4 PERSONNEL, COMPETENCE, TRAINING AND BEHAVIORS

Intent

1. Employees' competence and appropriate behaviors are critical for the safe control of operations and general company success. Employees are carefully selected, trained and supported. Competence and behaviors are regularly assessed and monitored. Subcontractors are to provide competent workers and regularly assess and monitor their competence and behaviors.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements

1. Recruitment, selection and placement processes ensure that personnel are competent for their assigned tasks.
2. The company and its subcontractors have systems in place to provide inductions for employees, subcontractors and visitors new to the office, site, or activity to cover MAPP HSE Standards, Policies, Procedures, HSE risk assessment methods, behaviors, objectives, HSE regulatory requirements and site specific inductions. Compliance with HSE requirements covered by the induction will constitute a condition of entering or remaining on company property.
3. Personnel have the required skills and training to competently perform their tasks in a healthy, safe and environmentally sound manner.
4. The company has systems in place to ensure:
 - a. Qualifications and competency requirements for positions are documented and periodically reviewed.
 - b. Training needs are identified in consultation with employees.
 - c. Meets regulatory training requirements along with any other requirements set out in MAPP HSE policies and procedures.
 - d. Training schedules and programs are developed and include ongoing periodic refresher training.
 - e. Training is provided by people with appropriate knowledge, skills and experience.
 - f. Include processes to validate training effectiveness.
 - g. Training and assessment records are maintained.
5. Each safety critical task and the personnel who perform these tasks are assessed for necessary competencies and skills, utilizing formal competency-based assessment.
6. The company and its subcontractors shall train and assess their respective workers in the control and elimination of at-risk behaviors, including the consequences of departure from company procedures.
7. Safe behaviors shall be actively promoted through communications, policies, training, posters, educational sessions, recognition systems, and other mechanisms.
8. Responsibilities for HSE for project duties, as well as supervision of contractors, must be clearly stated in the Project HSE Plan.

STANDARD 5

HSE REGULATORY, DOCUMENT CONTROL, AND INFORMATION MANAGEMENT

Intent

1. To ensure the activities of MAPP and subcontractors comply with HSE legal requirements.
2. To ensure personnel have access to current and practical HSE documents to perform their work.
3. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements

1. MAPP must establish and maintain a **HSE Compliance Register** which includes: list of applicable HSE regulatory requirements; interpretation of what actions need to be taken to comply; responsibility for each action item as necessary; and compliance verification monitoring schedule.
2. Wherever possible, legislative and other external requirements are incorporated into the relevant HSE policies and procedures to ensure consistent, ongoing compliance with these requirements. Ensure compliance with legal and other requirements is demonstrated through the maintenance of relevant and appropriate documents and records.
3. Ensure systems are in place to identify all applicable HSE laws, and access regulations, approvals, licenses, permits and other requirements (e.g. codes, policies, standards, protocols, and commitments).
4. MAPP will ensure that there is a nominated person responsible for tracking and monitoring all HSE legal requirements.
5. Ensure systems are in place to confirm that HSE records are established and maintained, accurate, legible and identifiable.
6. Reports will be presented in a structured and uniform manner, providing clear, correct and consistent information.
7. Company will conduct periodic reviews or audits to assess compliance. Findings identified in periodic reviews/audits must be tracked and monitored to ensure closure.
8. Systems are in place to ensure that HSE records are established, maintained, accurate, legible and identifiable and also to manage the archiving and disposal of HSE records.
9. Identify and make readily available the most current version of all controlled HSE documents.
10. HSE documents and records are identified, securely stored, readily retrievable, have established retention times based on legal requirements and/or knowledge preservation, and responsible custodians are assigned. Disposal is in accordance with the MAPP HSE Document Control Procedure.
11. Personnel involved in information management are trained and competent to carry out the task.

STANDARD 6 HSE RISK MANAGEMENT

Intent

1. HSE hazards and risks associated with the company's activities are identified, assessed and managed to prevent or reduce the likelihood and consequence of incidents.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with **MAPP's Risk Management Procedure.**
2. All activities, operations and projects must have their associated HSE risks assessed. This includes:
 - a. Identification of hazards; assessment of consequences; assessment of likelihood of consequences occurring; risk ranking; generation of actions to address risks and tracking of the actions through to implementation.
3. HSE risks and opportunities are assessed, prioritized and managed as appropriate to the nature, scale and HSE impacts of the operations and activities. The hierarchy of control is used in the development of risk mitigation activities.
4. After risk mitigation activities, the residual risk shall be deemed tolerable provided that it has been determined that this risk is as low as reasonably practicable, (ALARP).
5. The HSE risk assessment and management process involves people with relevant knowledge and experience including employees, subcontractors and other contributors as appropriate.
6. Shall maintain a companywide MAPP Risk Register containing those risks generally identified on MAPP projects. The risks are reviewed and updated at least annually, and following a significant incident, learnings and changes, or more often if the nature of the risk requires.
7. Project teams must identify all critical activities/tasks that have the potential to result in serious injury to people, serious environmental impact or a major accident event. Critical controls must be recorded in the Project HSE Plan.
8. A project level formal hazard identification/risk assessment process will exist. Potential hazard/risk elements will be considered depending on the scope of work to be performed, including the task itself, work environment, skill and competence, third parties, behavior, human factors, emergencies and change management, as well as legal and regulatory obligations
9. The requirements of the Risk Management Standard and associated procedures are communicated to personnel involved in the risk management process.
10. Where MAPP retains a HSE risk, liability or obligations following closure or divestment, management plans are documented, responsibilities assigned and actions tracked.

STANDARD 7 CUSTOMERS, CONTRACTORS AND SUPPLIERS

Intent

1. To ensure that HSE risks associated with subcontractor and supplier activities are effectively managed.

2. Ensure suppliers are fully aware of MAPP HSE standards. Managers may wish to provide project support to their suppliers to meet these, by sharing available HSE knowledge, good practice and providing feedback.
3. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All projects are to comply with MAPP's Contractor HSE Management Procedure and in the case of subcontractors, they shall have an equivalent Procedure.
2. Identify and assess the level of HSE risk associated with the services, contracts, agreements or partnerships and rank in accordance with the requirements of MAPP's Risk Assessment Guidance Policy.
3. A HSE pre-qualification shall be performed of all suppliers, partners and subcontractors depending on the level of risk identified to assess their ability to manage the HSE risks associated with the contract work scope.
4. Selection criteria include the subcontractors' and/or suppliers' commitment to HSE, their HSE Management Systems, requirements and specifications related to their equipment, materials, products, services and performance.
5. Once pre-qualification has been completed and evaluated by the HSE Steering Team, the results will determine if the subcontractor can enter negotiations. Contracts and agreements shall contain relevant MAPP HSE obligations and requirements, including but not limited to, the requirement to comply with Policies, MAPP HSE Standards, Procedures, and relevant legislation.
6. Appointment of key roles which have HSE specific responsibilities under this Standard and associated documents shall take place i.e. CO - Contractor Owner, CH – Contractor Holder, C and P – Contracting and Procurement staff and HSE Advisor.
7. High level contracts shall have an approved HSE plan before contracted work commences.
8. Contractor HSE performance shall be assessed and opportunities for improvement identified, implemented and verified. This is to occur at both pre-qualification stage and at periodic audits throughout the life of the contract. Opportunities for improvement are to be put into a corrective action plan.
9. If a subcontractor chooses to utilize their own HSE-MS and policies, then they must provide bridging documentation, dependent on the nature of the contract, and it must be approved to relevant parties prior to execution of the services in the contract.
10. Where there is a conflict between the MAPP HSE-MS requirements and those used by the subcontractor or suppliers, the higher level performance requirements must be applied and implemented.
11. Contractor activities must be monitored and inspected to ensure compliance with relevant MAPP HSE Policies, Standards, Procedures, regulatory requirements and agreed HSE performance requirements. The Project Executive must ensure that appropriate MAPP personnel carry out contractor monitoring and inspection activities.
12. Where a JVOA (Joint Venture Operating Agreement) is to be agreed, appropriate HSE expectations must be included within the agreement. Communicate the requirements of this standard and associated procedures to personnel involved in contractor management activities.
13. Contract Owners, Contract Holders and MAPP supervisors of subcontractors shall have appropriate HSE Competencies, including specific knowledge of MAPP HSE requirements and legislation.

STANDARD 8 HSE PLANNING AND PROCEDURES

Intent

1. To ensure that all activities are covered by Project HSE Plans, and for sound management of risks using the Management of Change and Permit to Work Procedures.
2. To ensure all temporary and permanent changes to the organization, personnel, systems, and procedures are identified and managed to ensure HSE risks arising from these changes remain at an acceptable level.
3. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with the requirements of MAPP's **Management of Change Procedure, Permit to Work Policy**, and Project HSE Plan. In the case of subcontractors, they shall have equivalent Procedures.
2. All site operations and activities must be covered by the Task Safety Analysis (TSA), general permit to work process.
3. Managers, TSA authorities, permit holders and authorizers must:
 - a. Maintain the MAPP Permit to Work policy and ensure compliance with all the elements therein;
- b. Ensure subcontractors abide by the MAPP Permit to Work policy
- c. As a minimum the implementation of the Permit to Work System should:
 - i. detail work to be performed and relevant approvals;
 - ii. schedule and manage work effectively to eliminate incompatible tasks occurring simultaneously;
 - iii. control work activities and eliminate or minimize risks;
 - iv. verify all necessary precautions have been taken prior to work commencing;
 - v. notify relevant personnel of all work being carried out; and
 - vi. confirm work is complete and equipment and services returned to operational state.
4. Managers and Management of Change Process Owners are required to:
 - a. Verify that all relevant contributors know how to recognize changes and initiate the Management of Change process;
 - b. Maintain the MAPP Management of Change Procedure; and
 - c. Track the development and progress of change proposals from initiation to closeout.
5. The process for managing changes addresses the authority for approval of changes, compliance with all relevant regulations, applicable standards and permits, licence or authority requirements, documentation (including reasons for the changes), deadlines and training requirements.
6. All projects are to develop and implement a Project HSE Plan that covers: HSE risks; HSE regulatory requirements; compliance with the MAPPs HSE Standards; list of tasks and activities; responsibilities; general schedule; interface and management of contractors; specific controls and plans to address critical risks. Plans are to be reviewed annually.
7. Training and competency requirements for personnel involved in Management of Change, Permit to Work and HSE Planning are to be identified, undertaken, and completed.

8. Communicate the requirements of this Standard and associated policies and procedures to appropriate personnel.

STANDARD 9

HSE COMMUNICATION AND CONSULTATION

Intent

1. To ensure appropriate consultation and communication processes are in place to enable employees, contractors and external contributors is valued to that they understand MAPP's HSE requirements and help improve HSE performance.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's HSE Communications Procedure and in the case of Contractors, they shall have an equivalent Procedure.
2. Open and proactive communications are established and maintained with employees, subcontractors, regulatory agencies and communities regarding the HSE Policy, HSES Standards, and other support documents.
3. Internal communication and consultation processes are in place to deal with HSE matters. These processes include HSE Committee meetings, toolbox meetings and other site HSE meetings. Meetings include relevant HSE issues. Consultative arrangements shall be in place to provide employees, contractors and external contributors with an opportunity to contribute to HSE and process safety decision-making and these shall be communicated to all personnel.
4. Operations that have a significant impact on the local community shall establish consultation mechanisms for affected groups.
5. Consultation with government agencies, authorities and other organizations shall be maintained in order to contribute to the development of public policy, relevant legislation, improved industry performance and educational initiatives.
6. A HSE Directors' Forum shall be maintained to establish company-wide HSE objectives and plans.
7. Meetings, where appropriate, should start with a HSE brief or moment. Regular toolbox meetings shall be held for workgroups including the relevant MAPP personnel, supervisor, employees and relevant site personnel.
8. Where community health hazards are identified, these are assessed, managed and communicated to potentially impacted communities and other relevant contributors, for example public health and other authorities.
9. Arrangements are established for communication with, and the provision of relevant HSE related information to, governments, authorities and other organizations and local communities.

STANDARD 10

HSE PERFORMANCE, MONITORING, MEASURING AND REPORTING

Intent

1. Health, Safety, and Environmental performance data is collected, analyzed and reported to monitor and evaluate ongoing HSE performance and drive continual improvement.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. Processes are in place to ensure HSE performance is regularly measured, monitored, recorded and analyzed with results reported to internal and external contributors as appropriate.
2. The reported data is collated and analyzed, as appropriate, and reported to personnel who have the responsibility to take action on the basis of this information. Reporting of consolidated data including HSE key performance indicators, shall be carried out at project level, and for the entire business of MAPP, as the basis for decision making.
3. To ensure continuous improvement, HSE Performance shall be accurately monitored, measured, recorded and an analysis conducted. The results of analysis shall be reviewed and provided to internal contributors.
4. Projects shall measure and report HSE performance data on a monthly basis or more frequently if appropriate to the MAPP HSE Department.
A process shall be in place to ensure that HSE performance is reported to external contributors as part of legislative, business and compliance requirements.
5. HSE performance shall be reported to Senior Management to facilitate a basis for decision making in compliance and business improvement decisions.
6. The requirements of this standard and associated policies and procedures are communicated to personnel involved in performance monitoring, measurement and reporting.
7. Subcontractors must report HSE performance and incident data as specified by MAPP policies, procedures, and Project HSE Plans.
8. Ensure HSE Performance is reviewed with respect to the following:
 - a. KPI's, lead and lag indicators;
- b. Achievement of HSE Plan and objectives;
- c. Audits, reviews, self-assessments;
- d. Compliance with legislation;
- e. Corrective actions closeout; and
- f. Pending amendments to legislation and the introduction of new legislation.
9. Systems are established to ensure the appropriate reporting of HSE performance to relevant authorities and/or other contributors, as required by legislation or company voluntary commitments.

STANDARD 11

HSE AUDITS AND ASSURANCE

Intent

1. HSE performance and systems are monitored and assessed through periodic reports and audits to identify trends, measure progress, assess conformance and drive continual improvement. Management system reviews are conducted to ensure the continuing suitability, adequacy and effectiveness of the HSEMS.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Audit and Inspection Procedure and in the case of Contractors, they shall have an equivalent Procedure.
2. HSE performance and management system status are regularly reported to, and reviewed by the Executive Management Team and the HSE Steering Team.
3. HSE inspections are scheduled and conducted at sites at frequencies appropriate to the assessed level of HSE risk. Inspections monitor key operational characteristics that can cause illness, injury or adverse environmental effects.
4. Surveys are conducted to assess Employees' and subcontractors' perceptions of HSE.
5. Company HSE-MS audits are scheduled and conducted in accordance with a formal audit process addressing all the requirements of these Standards and specifying the corresponding levels of conformance. A self-assessment shall be done at least every two years, and a 3rd part audit every 5 years.
6. Maintain a process to ensure audits are carried out by competent and accredited personnel.
7. Maintain an action tracking mechanism to ensure actions from audit findings are completed and verified as effective.
8. Subcontractors shall be audited against the HSE standards where appropriate. These Standards are reviewed at least every two years and revised as required.

STANDARD 12

EMERGENCY MANAGEMENT

Intent

1. To plan and prepare for a safe and effective emergency response to incidents that mitigates the consequences, prevents further harm and enables a safe efficient resumption of normal operations.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. Systems are in place to identify potential emergency situations and their impacts.

2. Crisis, emergency and business continuity plans are documented, assessed and clearly communicated. Emergency equipment is made available and maintained in good order.
3. Emergency response plans must consider and document external interfaces, for example with the emergency services.
4. Emergency planning and response priorities are to be considered in the following order: the health and safety of people, protection of the Environment, preservation of MAPP's reputation and operability.
5. Personnel are trained to understand and implement crisis, emergency and business continuity plans, with respect to their own roles and responsibilities in the event of an emergency.
6. Sites shall establish and maintain project specific emergency response plans as part of their PHSEP to meet legislative requirements, business needs and response objectives.
7. Establish and maintain divisional office Emergency Response Systems and Plan including:
 - a. Emergency Response Team Organization Structure - roles and responsibilities;
 - b. Interface with Emergency Services;
 - c. Contact details;
 - d. Criteria for escalation of an Emergency Response to Crisis Management;
 - e. Transition back to normal operations;
 - f. Risk assessed scenarios that may require an emergency response;
 - g. Environmental Emergencies e.g. loss of containment, spills, contamination;
 - h. Emergency Response Plan Review and update guidelines;
 - i. Medical emergency response; and
 - j. Emergency notification and escalation.
8. Simulations and drills are periodically conducted including liaison with, and involvement of, relevant external contributors.
9. Plans are updated to incorporate learnings from previous incidents, incident investigations, drills and exercises and audit outcomes.
10. Identify training / competency needs and conduct necessary training.
11. Maintain Emergency Response Documentation and Manage Emergency Response Records:
 - a. Standard Forms for Emergency Response Teams use;
- b. Scenarios and Risk Assessment records;
- c. Drill and Exercise Records;
- d. Training Records; and
- e. Records of actual Emergency Responses.
12. MAPP will maintain a crisis management capability that includes:
 - a. Crisis Management Team with appropriate competencies and experience to handle significant
 - b. crises from a company perspective;
 - c. External affairs, media and stakeholder communication;
 - d. Interface with the Site/Operation Emergency Response Teams; and
 - e. A current Crisis Management Plan that details actions and responsibilities.

STANDARD 13 INCIDENT MANAGEMENT

Intent

1. HSE incidents, including near misses, are reported, investigated, and analyzed to ensure that preventive actions are taken and learnings are shared throughout the organization.
2. All sites are to comply with MAPP's Incident Investigation Procedure.

3. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. Systems are in place for timely reporting, investigation and appropriate communication of all HSE incidents to meet MAPP's incident management requirements.
2. Incidents, near misses and hazards are reported and used as valuable opportunities for learning.
3. Make an initial classification of the incident based on an assessment of the actual consequence severity and a realistic potential risk rating.
4. Systems are in place for full compliance with applicable legislative requirements related to incidents, including reporting to authorities, keeping of records, investigations and other actions as required in each jurisdiction.
5. Incident investigations, including identification of root causes and preventative actions, are conducted. The level of the investigation is appropriate to the actual or potential consequence of the incident.
6. Significant Incidents are immediately notified to General Counsel who will provide such initial legal advice to MAPP as may be required (including advice on the steps to be followed) and commission (where needed) an investigation by a multifunction team led by a competent independent investigator, who will report to General Counsel to enable appropriate legal advice to be given to the company.
7. In the event of a Significant Incident, systems are in place to prevent resumption of work until the risk is assessed, and actions have been taken to reduce the risk of recurrence, to the satisfaction of regulators/relevant authorities (if required). Authorization to resume work is then given by the appropriate level.
8. Where possible, information gathered from reported incidents and incident investigations is analyzed to identify trends and is used in the improvement of systems and procedures.
9. Systems are in place to follow up and close out all identified corrective actions within acceptable timeframes.
10. Ensure that personnel who are involved in incident reporting, recording and investigation activities are trained and competent to carry out the task.
11. Communicate the requirements of this standard and associated procedures to personnel involved in incident management activities.

STANDARD 14 ENVIRONMENTAL SYSTEMS MANAGEMENT

Intent

1. Potential adverse environmental effects resulting from the company's operations and activities are identified, assessed and monitored and as far as reasonably practicable, eliminated or minimized.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. Potential and actual environmental effects of any of the company's activities, operations, or proposed new projects are identified, assessed and monitored. Specialist advice is utilized where appropriate.
2. Environmental risks to be addressed cover the lifecycle of the project and/or operations or other activities and include, but are not limited to, the following: spills to land or water, accidental discharges to the environment, emissions to air, odors, ozone depleting substances, fire, noise, ecosystem disturbance, soil conservation, contaminated land and its remediation and heritage impacts.
3. Environmental risks are entered into the MAPP Risk Register, are formally reviewed on a regular basis, and where required, appropriate actions are taken and monitored.
4. Environmental risks are addressed and controlled consistent with policy, regulatory requirements and business plans.
5. Where statutory requirements apply, the assessment of environmental effects or environmental impact assessment is compliant with applicable acts and regulations and/or by laws and/or undertaken to the level required by the authorities.
6. Programs are in place to ensure that wastes are eliminated, reduced, reused, recycled, treated and/or properly disposed of.
7. Systems are in place to identify, quantify and monitor all wastes generated. Records are kept to ensure that all wastes can be tracked from source to disposal, and waste receiving facilities are audited to ensure conformance to appropriate waste standards.

STANDARD 15

HEALTH AND FIT FOR WORK

Intent

1. MAPP encourages a healthy lifestyle for its employees, and provides appropriate medical treatment, and assistance for return to work in the event of employees sustaining work related injuries.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. First aid facilities, ready access to adequate medical services and relevant health monitoring programs shall be provided to all Employees at all work locations.
2. A risk based approach is taken to assessing Employees' fitness for work. Employees are assessed for their fitness for work, where appropriate.
3. Confidentiality of medical records is maintained in all cases. Subcontractors assess the fitness for work of their own employees.
4. Programs to promote health and fitness for work are in place and appropriately evaluated.
5. Preventative and corrective measures are taken to manage risks associated with fitness for work including alcohol and drugs, fatigue and medical conditions.
6. Systems are in place for the rehabilitation of Employees following work-related injury or illness or other adverse health effects. Employees suffering non work-related injuries or illness are assisted in their return to work, as appropriate.
7. Where appropriate and available, alternative duties are offered to Employees who are unfit for their normal duties. Employees who are unfit for any duties are assessed at regular

intervals to determine their continued unsuitability. Alternative duties or return to normal duties are encouraged as soon as it is medically possible.

8. Timely medical services are made available to all Employees who have sustained a work-related injury, illness or other adverse health effects; and arrangements are established and maintained for the injury management and rehabilitation of employees following a work-related injury, illness or other adverse health effects.

PERSONAL SAFETY STANDARDS DRIVING SAFETY

Intent

1. To manage the HSE risks of driving vehicles used for transportation on company business.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Driving Safety Policy.
2. Ensure all drivers possess mandatory driver competency certification for driving on a sealed road.
3. Communicate the requirements of this standard and associated policies and procedures to all personnel.
4. At a company-wide level, the risks associated with driving shall be assessed and appropriate training implemented.

PERSONAL SAFETY STANDARDS CONFINED SPACE

Intent

1. To manage the HSE risks associated with personnel required to enter confined spaces.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Confined Space Entry Procedure and in the case of subcontractors, they shall have an equivalent Procedure.
2. When working in confined spaces conduct the appropriate risk assessments, implement controls and manage the risks to as low as reasonably practicable.
3. Personnel who are associated with the confined space work are trained and competent to carry out the work.
4. The MAPP Confined Space Permit must be used for confined space work.
5. Processes must be implemented to ensure compliance to relevant legislation and company requirements associated with confined space work.
6. Communicate the requirements of this standard and associated policies and procedures to all personnel.
7. Ensure an emergency response capability is in place prior to conducting the confined space work.

PERSONAL SAFETY STANDARDS ELECTRICAL SAFETY

Intent

1. To manage the HSE risks associated with personnel working on, or in the vicinity of, electrical equipment.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Electrical Safety Policy and in the case of subcontractors, they shall have an equivalent procedure.
2. When conducting electrical work, the appropriate risk assessments shall be conducted, controls implemented and risks managed to as low as reasonable practicable.
3. Compliance with relevant electrical legislation e.g. NFPA 70E, and Occupational Health and Safety Regulations must be maintained.
4. Only Authorized and Qualified Persons are to undertake work on electrical equipment and perform high voltage switching operations.
5. The permit to work process and or the Energized Electrical Work Permit must be used for carrying out electrical work.
6. Where practicable, ground fault circuit interrupters (GFCI's) either fixed or portable, to be used where electrical equipment is plugged in to a source.
7. Inspection and test programs to be in place to ensure all electrical apparatus to be used in safe condition.
8. Communicate the requirements of this standard and associated policies and procedures to all personnel.
9. Ensure an emergency response capability is in place prior to conducting electrical work.

PERSONAL SAFETY STANDARDS EXCAVATION

Intent

1. To manage the HSE risks associated with excavation activities.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Excavation Policy and in the case of subcontractors, they shall have an equivalent procedure. If a Confined Space is involved in the excavation process, the Confined Space Management Standard and associated policies shall be used.
2. When undertaking excavation activities, the appropriate risk assessments shall be conducted, controls implemented and risks managed to as low as reasonably practicable.
3. Personnel who are associated with the excavation work are trained and competent to carry out the work.
4. The MAPP Excavation Permit process must be used for excavation activities.
5. Processes must be implemented to ensure compliance to relevant legislation and company requirements associated with excavation work.

6. Communicate the requirements of this standard and associated policies and procedures to all personnel.

PERSONAL SAFETY STANDARDS HOT WORK

Intent

1. To manage the HSE risks associated with flammable materials during hot work.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Hot Work Policy and in the case of subcontractors, they shall have an equivalent procedure.
2. When undertaking hot work, conduct the appropriate risk assessments, implement controls and manage the risks to as low as reasonably practicable.
3. Personnel who are associated with the hot work are trained and competent to carry out the work particularly in Hazardous Area Zones.
4. The MAPP Hot Work Permit must be used for Hot Work activities.
5. Selection, inspection and maintenance regimes to be in place for equipment used in hot work activities.
6. Processes must be implemented to ensure compliance to relevant legislation and company requirements associated with hot work.
7. Communicate the requirements of this standard and associated policies and procedures to all personnel.

PERSONAL SAFETY STANDARDS LIFTING & HOISTING

Intent

1. To manage the HSE risks associated with lifting and hoisting operations.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPPS's Material Handling, and Lifting and Hoisting Policies, particularly noting the differing requirements between critical and non-critical lifts. In the case of subcontractors, they shall have an equivalent procedure.
2. When undertaking lifting and hoisting activities, conduct the appropriate risk assessments, implement controls and manage the risks to as low as reasonably practicable.
3. Personnel who are associated with the lifting and hoisting work are trained and competent to carry out the work.
4. If the lift involves mechanical equipment, then the MAPP Lifting Plan must be used for lifting and hoisting activities.
5. Confirm inspection, maintenance and certification regimes are in place for equipment used in lifting and hoisting activities.

6. Before all lifts, confirm that all lifting and hoisting equipment is fit for purpose, and that safety devices are installed and operational.
7. Processes must be implemented to ensure compliance to relevant legislation and company requirements associated with lifting and hoisting.
8. Communicate the requirements of this standard and associated policies and procedures to all personnel.

PERSONAL SAFETY STANDARDS

LOCKOUT TAGOUT

Intent

1. To manage the HSE risk of exposure associated with energy and hazardous substances by isolation of equipment and placement of locks and tags.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Lockout/Tagout Procedure and in the case of subcontractors, they shall have an equivalent procedure.
2. When isolation is required, conduct the appropriate risk assessments, implement controls and manage the risks to as low as reasonably practicable.
3. Personnel who are associated with safe isolation activities are trained and competent to carry out the work.
4. The Lockout/Tagout Permit must be used for isolation activities.
5. Processes must be implemented to ensure compliance to relevant legislation and company requirements associated with safe isolation work.
6. Communicate the requirements of this standard and associated policies and procedures to personnel conducting the isolations.
7. This Standard does not apply to:
 - a. Equipment with flexible wiring and a plug (to insert into a socket) under the exclusive control of the user;
 - b. Isolation of equipment solely for the purpose of process control using operating procedures;
 - c. Isolation of equipment using emergency response procedures;
 - d. Testing of energized electrical equipment (see Electrical Safety Management Standard); or
 - e. Tagging of equipment to show that it is out of service or not safe to use (information tags).

PERSONAL SAFETY STANDARDS

WORKING AT HEIGHTS

Intent

1. To manage the HSE risks associated with working at heights.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with the requirements of MAPP's Fall Protection Policy and in the case of subcontractors, they shall have an equivalent procedure.
2. This Standard applies where work is conducted at a height of 6 feet or greater and to work below 6 feet where there is a risk of injury to persons as a result of a fall or from falling objects.
3. When working at heights conduct the appropriate risk assessments, implement controls and manage the risks to as low as reasonably practicable.
4. Personnel who work at heights and those that inspect and maintain fall protection equipment, shall be trained and competent to carry out their work.
5. The daily permit to work system is to be used.
6. Confirm inspection, maintenance and certification regimes are in place for equipment used in working at heights activities. These are to include, but not be limited to, fall protection equipment, temporary work platforms, ladders, scaffolding and climbing safety devices.
7. A fall rescue plan shall be established for all work activities performed at heights.
8. Processes must be implemented to ensure compliance to relevant legislation and company requirements associated with working at heights.
9. Communicate the requirements of this standard and associated policies and procedures to personnel working at heights.

PERSONAL SAFETY STANDARDS

MOBILE EQUIPMENT

Intent

1. To manage the HSE risks associated with mobile equipment use on site.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Mobile Equipment Policies and in the case of subcontractors, they shall have an equivalent procedure.
2. When working with mobile equipment conduct the appropriate risk assessments, implement controls and manage the risks to as low as reasonably practicable.
3. Confirm training, competency and licensing requirements of personnel who operate mobile plant.
4. The daily permit to work system is to be used for every task.
5. Ensure that processes are implemented to ensure compliance to relevant legislation and company requirements associated with mobile equipment.
6. Ensure that inspection, maintenance and where required, certification regimes are in place for mobile plant and equipment.
7. Communicate the requirements of this standard and associated policies and procedures to personnel using mobile equipment.

PERSONAL SAFETY STANDARD CHEMICAL MANAGEMENT

Intent

1. To manage the HSE risks from the use of hazardous chemicals and/or dangerous goods in order to protect people and the environment.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with the requirements of MAPP's Hazard Communication Policy and in the case of subcontractors, they shall have an equivalent procedure.
2. When working with hazardous chemicals and/or dangerous goods, conduct the appropriate risk assessment, implement controls and manage the risks to as low as reasonable practicable.
3. Ensure personnel who are exposed to hazardous chemicals are trained and competent to handle them.
4. Ensure there is a system for the identification, inventory management, and use of the hazardous chemicals and/or dangerous goods.
5. Processes must be implemented to ensure compliance to relevant legislation and company requirements associated with hazardous chemicals and/or dangerous goods.
6. Communicate to employees the hazards of exposure to the chemicals they come into contact within their work environment.
7. Ensure a process is established to respond to a hazardous chemicals and/or dangerous goods emergency or spills.

PERSONAL SAFETY STANDARD DRUGS, ALCOHOL, AND CONTRABAND

Intent

1. To manage the HSE risks caused by the use of drugs, alcohol and contraband when working on a MAPP site.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPPS's Drug, Alcohol and Contraband Policy and in the case of subcontractors, they shall have an equivalent procedure.
2. Projects must implement the requirements of MAPP's Drug, Alcohol and Contraband Policy including:
 - a. Design of drug and alcohol testing;
 - b. Communication, education and prevention;
 - c. Out of hours work;
 - d. Violation;
 - e. Preventative measures to control drug and alcohol abuse;
3. Persons administering testing must have the relevant training and competencies completed.

4. Processes must be implemented to ensure compliance to relevant legislation and company requirements associated with drug and alcohol testing.
5. 6. Communicate the requirements of this standard and associated policies and procedures to personnel.

PERSONAL HEALTH STANDARDS HEARING CONSERVATION

Intent

1. To manage the risks to health and safety associated with occupational noise hazards.
2. All project team members are responsible for implementation and compliance with this Standard, via their project HSE Plan. This standard applies to all MAPP, Subcontractor, Vendor, Client Provided Vendors, Visitors, and other contributors.

Requirements:

1. All sites are to comply with MAPP's Hearing Conservation Policy and in the case of subcontractors, they shall have an equivalent procedure.
2. This Standard applies to all locations, tasks or processes where the noise levels may exceed the OSHA Action Limit, 85 dBA.
3. Conduct the appropriate risk assessments, implement controls and manage the risks to as low as reasonably practicable.
4. Where required, implement noise assessments in accordance with OSHA regulations, and document results of testing/monitoring. Ensure audiometric testing is organized where required.
5. Ensure the appropriate personnel are trained on noise management and monitoring, hearing conservation and selection and use of hearing protection.
6. Processes and arrangements must be implemented to ensure compliance to relevant legislation and company requirements associated with noise exposure.
7. Ensure records of noise assessments, implemented noise controls, audiometric testing results and any related training and information sessions are maintained.
8. Ensure noise emissions are considered in purchases with the objective of "buying quiet" i.e. only introducing plant and equipment that is acoustically as quiet as reasonably practicable.
9. Communicate the requirements of this standard and associated policies and procedures to personnel required to implement noise management.

VIII. DEFINITIONS

Activity

A task, role, pursuit or condition at a site or workplace.

ALARP

As Low as Reasonably Practicable. The ALARP principle is that the residual risk shall be as low as reasonably practicable. For a risk to be ALARP it must be possible to demonstrate that the cost involved in reducing the risk further would be grossly disproportionate to the benefit gained.

Audit

A systematic examination against a defined criteria to determine whether activities and related results conform to the requirements of the HSEMS and are being implemented effectively and are suitable to achieve MAPP's Policies, objectives and targets.

Change Management

The systematic process for dealing with change to manage HSE risk.

Checklists

Checklists provide a record of the requirements that need to be met for a process or activity. They normally summarise the key points of a procedure and/or guideline in a table format allowing personnel to check-off each statement ensuring compliance.

Community

A group of interacting people, living in some proximity (i.e., in space, time, or relationship) that share common values and have a social cohesion.

Company Worksite

The whole area of any Company premises, sites, locations or installations, including temporary accommodation and Company provided transportation.

Competent Person

A person who has acquired, through training, qualification or experience or a combination of these, the knowledge and skills including HSE knowledge and skills, qualifying that person to perform a specified task.

Compliance

To meet the requirements of applicable legislation.

Subcontractor

An individual, company or other legal entity contracted to carry out work for, and on behalf of MAPP, including self-employed persons and sub-contractors.

Control Measure

Action or activity used to manage and control risks. They must be capable of preventing or eliminating hazards or reducing them to ALARP.

Continual Improvement

Process of enhancing the HSEMS to achieve improvements in overall HSE performances in line with the Arrow Energy HSE policies, objectives and targets.

Controlled Documents

Must be current, uniquely identifiable, regularly reviewed (with changes and revision status recorded) and can only be changed through a formalized change process ensuring that only the current versions are available to users.

Corrective Action

An action implemented to eliminate the cause of a non-conformity or incident in order to prevent recurrence.

Critical equipment

A piece of equipment or a structure whose failure to perform to design specification has the potential to result in a major incident

Emergency Response Plan (ERP)

ERP's are established to reflect the likely frequency of events and the magnitude of their impact and consequences. These Plans document the human, physical and financial resources needed to respond to an emergency, reduce its severity and long-term effects on people and business continuity.

Environment

Defined as a) Ecosystems and their constituent parts, including people and communities; b) All natural and physical resources; c) The qualities and characteristics of locations, places and areas, however large or small, that contribute to their biological diversity and integrity, intrinsic or attributed scientific value or interest, amenity, harmony and sense of community; and d) The social, economic, aesthetic and cultural conditions that affect or are affected by things mentioned in paragraphs (a) to (c).

Environmentally Sensitive Area

An area which contains a natural feature, such as the habitat of a rare species and which is protected by government regulations.

Forms

Used to record information and the results of activities such as inspections, testing, monitoring and/or data collection. Can become historical records used to analyze trends so that preventative/corrective actions can be implemented.

Guidelines

Provide information and guidance on how to manage and implement the requirements of legislation, plans and/or procedures.

Hazard

A source or a situation with a potential for harm in terms of human injury or ill-health, damage to property, damage to the environment or a combination of these.

Health Surveillance

Monitoring of individuals for the purpose of identifying changes in health status that may be due to occupational exposure to a hazard.

Hierarchy of Controls

A series of controls which should be considered in the following order (a number of these options may be considered and applied individually or in combination):

- Eliminate – the complete elimination of the hazard;
- Substitute – replacing the material or process with a less hazardous one;
- Engineering – redesigning the equipment or work processes;
- Administrative – providing controls such as training, procedures, etc;
- PPE – wearing safety glasses, etc.

HSE Guidelines

Advisory documents to provide guidance on the effective implementation of the Standards and policies and procedures.

HSE Performance

The measurable results of the HSEMS implementation.

HSE Policies

Indicates the overall HSE objectives, expectations and intentions of the Company. Aligns with MAPP's philosophy, commitments and values.

HSE Tools

Includes forms, checklists, registers and are used in conjunction with HSE Procedures.

Incident

Any unplanned event resulting in, or having the potential for injury, ill health, damage or other loss.

Interested Parties

Individuals or group concerned with or affected by the HSE performance of MAPP.

Likelihood

The chance of something happening.

Manager

An individual to whom staff report directly, and who is responsible for the performance and development of those staff.

Mandatory

Mandatory describes something that is compulsory.

HSE Manual

Comprehensive and step-by-step guide to particular topics that also serves as a reference book. A manual details what is given and what is required, explains how to put the presented information into practice and instructs how to solve problems as they occur.

Partners

Includes joint venture partners and other stakeholders executing projects or programs of work with MAPP (excluding subcontractors).

Plans

A high level document detailing management strategies, responsibilities and relates to existing MAPP standards, procedures and guidelines that steer operations and activities.

Practicable

The extent to which actions are technically feasible in view of cost, current knowledge and known best practices.

Procedures

Procedures are the mandatory instructions that provide details on how to implement the standards.

Register

A master list detailing information necessary to achieve effective control of specified processes, equipment or activities.

Risk

Is the possibility that harm (death, injury or illness) might occur when exposed to a hazard.

Risk Assessment

A systematic process for identifying hazards, assessing risk and identifying controls in order to reduce the likelihood of a hazard causing harm to people, property or the environment.

Shall

Used where a requirement in a standard is mandatory and is a minimum requirement.

Should

Used where a requirement in a standard is preferred or recommended.

Simultaneous Operations

Any instance where an activity at a particular location has the potential to impact on, or be impacted by, other activities at the location at the same time including existing operations the location.

Site Safety Manager (SSM)

Position required by legislation. The SSM carries the primary responsibility for safety at the site. They ensure that each person at site performs their functions safely, follows relevant procedures and other measures, necessary for the safety of the site and the person.

Standard

Standards are the minimum high level mandatory HSE requirements that employees and subcontractors have to comply with to meet the intent of company policy.

Visitor

A person visiting MAPP's site who is not assigned to that project and routinely perform work there.

Workplace/Site/Project

Means any place (whether or not in a building, installation, moveable structure, vehicle or vessel) where one or more employees are required to be or are working or present as a condition of their employment.