

BSBPMG513 MANAGE PROJECT QUALITY

Practical Task 1	
Description of task: A suitable observer is to verify the participant's ability to manage quality within projects, including: - Determining quality requirements - Implementing quality control and assurance processes - Using review and evaluation to make quality improvements in current and future projects These tasks may be simulated or real. The participant is to gather evidence of how they have completed each component of the Practical Task, which is to be submitted with this Practical Assessment sheet. The observer is to provide detailed comments on the tasks completed by the participant. The assessor is to verify the observer's comments in the Assessor Comments section, and provide the Practical Assessment outcome on the front cover of this document.	
Resources required: Project documentation (including quality criteria, evidence of quality monitoring and improvement practices), Computer and appropriate software.	
Assessment of task	
Name of participant:	SARAH CONLEY
Name of observer:	ADAM STUART
Role of observer (Confirm suitability to sign)	CSG OPERATIONS MANAGER
Email address of observer	astuart@fredon.com.au
Signature of observer:	
Date:	Click here to enter a date. 23/09/19
When completing the task, did the participant:	Tick if satisfactorily completed. Provide comments if left unticked.
1 Determine quality requirements	
1.1A. Seek input from stakeholders to determine quality objectives and standards.	☒
1.1B. In a quality management plan, document: - Quality metrics for the project and product output - Agreed quality requirements	☒
1.1C. Select established quality management methods, techniques and tools to resolve quality issues.	☒
1.1D. Distribute, discuss and support quality requirements with project team and stakeholders.	☒
1.1E. Implement agreed quality requirements as the basis for performance measurement.	☒
2 Implement quality processes	
1.2A. Undertake a quality assurance audit of project processes for compliance with agreed plans.	☒

1.2B.	Assess quality control of project and product output according to agreed quality specifications.	☒
1.2C.	Identify causes of variance to quality metrics and undertake remedial action.	☒
1.2D.	Maintain a quality management system to enable accurate and timely recording of quality audit data.	☒
3 Implement project quality improvements		
1.3A.	Review processes and implement agreed changes continually throughout the project life cycle to ensure continuous quality improvement.	☒
1.3B.	Review project outcomes against performance requirements to determine the effectiveness of quality-management processes and procedures.	☒
1.3C.	Identify and document lessons learned and recommended improvements.	☒
The participant's performance was: ☒ Satisfactory ☐ Not Satisfactory		

OBSERVER COMMENTS

Project Health, Safety, Environmental and Quality Management Plan

for

Queensland Ambulance service

Southport

Project Number: 20S3890

Revision	Prepared by: (Project Manager)	Date	Reviewed by: (HSEQ Manager/ Coordinator)	Date	Approved by: (Divisional Manager)	Date
1	Sarah Conley	08/01/2018	Andrew Campbell	10/01/2018	Adam Stuart	10/01/2018

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Fredon's Integrated Management System is certified by Global-Mark to the ISO9001, AS4801 and ISO 14001 Standards.

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Company Overview

Fredon is an electrical and mechanical services business established in 1968. It is a leading provider of services to the commercial and industrial sectors. Fredon prides itself in its commitment to health, safety, environment and quality of workmanship, attention to detail, and customer satisfaction. Fredon offers the expertise required to design, supply, install and maintain a wide range of electrical, mechanical, security and communication service technologies. Fredon operates in various Australian jurisdictions. Its Head Office is located in Silverwater (NSW), with Branch Offices in Fyshwick (ACT), Underwood (QLD), Carlisle (WA) and Kensington (VIC).

Project Details, Overview and Scope of Work

<i>Principal Contractor's Name:</i>	Building and Asset Services
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<i>Customer Site Phone Number:</i>	(07) 5514 9400
<i>Customer Site Representative Name and Mobile No:</i>	
<i>Customer Site Contact for HSEQ Name and Mobile No:</i>	
<i>Start Date and End Date:</i>	18/12/17 – 09/03/18

Main switch board upgrade

Replacement of Submains to internal switch boards

New standby generator

New Property pole and Energex supply.

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1.0 INTRODUCTION

1.1 Purpose and Scope of the Plan

The purpose of this Project Health, Safety, Environment and Quality (HSEQ) Management Plan is to provide guidelines and direction to all Fredon project employees, service providers (sub-contractors), customer and visitors for the effective implementation of the Fredon HSEQ Management System.

This plan is written for specific site conditions, customer requirements and relevant legislation. When conditions change, this plan will be amended and reviewed by the relevant personnel.

It is not intended to substitute for specific legal advice, but to enable Project/Site Managers/ Supervisors to manage the Health, Safety, Environmental and Quality in a systematic manner.

This plan is applicable to all levels of Fredon Management, employees, service providers (sub-contractors) and visitors under the control or supervision of Fredon.

1.2 Fredon Health, Safety, Environment and Quality Management System

Fredon maintains a documented Health, Safety, Environmental and Quality Management System and provides appropriate support and resources. System implementation, maintenance and verification will be achieved through demonstrated leadership of all managers and supervisors and the commitment and involvement of all workers.

The scope of the Fredon Health, Safety, Environment and Quality (HSEQ) Management System covers the design, project management, installation and maintenance of electrical, communications, mechanical, security and audio visual services.

The management system has been developed in compliance with the following standards:

- [ISO 9001:2016 - Quality Management Systems Requirements](#).
- [AS/NZ 4801:2001- Occupational Health and Safety Management System](#) - Specifications with guidance for use.
- [ISO 14001:2016 - Environmental Management System](#) - Requirements with guidance for use.

The Fredon Group is certified by Global – Mark to the above three standards, click on link to view.

Policies, responsibilities and processes defined in this manual apply to all projects, sites and offices under the management of Fredon, including services provided by contractors and subcontractors.

1.3 Management System Processes (Policies, Procedures & Forms)

The Management System is made up of the nine key processes as described below.

1. Management System Policies
2. Human Resources processes
3. Administration and Payroll activities
4. Estimating and Tendering process
5. Engineering and Design process
6. Project Management processes (includes Construction etc.)
7. Purchasing practices and requirements
8. Health, Safety, Environmental and Quality procedures and requirements
9. Monitoring and Improvement (Reviews and Audits).

Note: A tenth section has been added to file the ITPs and ITCs templates.

1.4 Management System Documentation

The hierarchy and precedence of documentation includes the following levels:

- Policy Statements;
- Management System Manual;
- Procedures, Standards and forms; these include any entity or project-specific documents;
- Project specific plans, associated procedures/instructions, schedules, and deliverables;
- Records as specified by project system requirements.

To ensure the system remains consistent but has the flexibility to meet different operational and legislative requirements, systems documentation is subject to on-going review.

The table below lists the more commonly used Policies, Procedure and Forms within the Fredon Management System. Refer to the Management System to see the complete list of Fredon Policies, Procedures and Forms

Document Number	Document Title
1. Management Policy and Procedure	
MSP-001	Workplace Health and Safety Policy
MSP-002	Environmental and Sustainability Policy
MSP-003	Quality Policy
MSP-004	Young and Inexperienced Workers
MSP-005	Code of Conduct
MSP-006	Employee Training & Development Policy
MSP-007	Workplace Harassment and Bullying Policy
MSP-008	Equal Opportunity and Anti-Discrimination Policy
MSP-009	Drug and Alcohol Policy
MSP-010	Smoking Policy
MSP-011	Injury Management Policy
MSP-012	Mobile Phone Policy
MSP-013	Computer Use Policy
MSP-014	Company Vehicle Policy
MSP-015	Social Function Policy
MSP-016	HSEQ Management System Manual
MSP-017	Document and Record Control Procedure
MSP-018	Disaster Recovery Plan
MSP-019	Fitness for Work Policy
MSP-020	Objectives and Targets
MSP-021	Fatigue Management Policy
MSP-022	Privacy Policy
MSP-023	Ethical Code of Conduct
MSP-024	Anti-Corruption Policy
HSP-014	PPE Policy
HSP-018	Asbestos Management Policy
HSP-037	Live Work Policy
2. Human Resources	
HRP-001	Training, Competency and Induction Procedure
HRP-002	Recruitment and Employment Procedure
HRP-003	Employee Grievance Procedure
HRP-004	Counselling disciplinary and termination Procedure
HRP-005	Employee Guide – Silverwater
HRP-006	Employee Guide Factory – Silverwater
HRP-007	Fair Work - Information Statement
HRP-008	Fredon Group Organisational Chart
3. Administration and Payroll	
APP-001	Administration and Payroll Process
4. Estimating and tendering	
ETP-001	Estimating and Tendering Procedure
5. Engineering and Design	
EDP-014/015	Design Procedure
EDP-013	Design Flow Chart
6. Project Management	
PMP-001	Project Management Process
7. Purchasing	
PRP-001	Purchasing Procedure
8. Health, Safety and Environmental	
HSP-001	Incident/Accident Reporting and Investigation Procedure
HSP-002	Injury Classification Guide
HSP-003	Injury Management and Return To Work Procedure
HSP-004	Return to Work Programme
HSP-005	Medical Treatment Injury Administration: Employee Pack
HSP-006	HSE Performance Reporting Procedure
HSP-007	HSEQ Planning Procedure
HSP-008	Legal and other Requirements Procedure

Document Number	Document Title
HSP-009	Risk Management Procedure
HSP-010	Risk Matrix
HSP-011	HSE Risk Assessment Prompt List
HSP-012	HSE Consultation and Communication Standard
HSP-013	HSE Responsibilities and Authorities
HSP-014	PPE Policy
HSP-015	Working at Heights Procedure
HSP-016	Incident/Accident Reporting and Investigation Flowchart
HSP-017	Waste Management Procedure
HSP-018	Asbestos Management Policy
HSP-019	First Aid Procedure
HSP-020	Emergency Response Procedure
HSP-021	Specific Emergency Response Measures
HSP-022	Safe Work Method Statement Procedure
HSP-023	Safe use, inspection and maintenance of Plant and Equipment
HSP-024	Storage and handling of hazardous substances
HSP-025	Confined Space Entry Procedure
HSP-026	Hot Work Procedure
HSP-027	Noise Management
HSP-028	Permit to Work Procedure
HSP-029	Traffic Management Procedure
HSP-030	Excavation and Trenching Procedure
HSP-031	Isolation and Lock Out (LOTO) Procedure
HSP-033	Hazardous Manual Tasks Procedure
HSP-034	Pandemic Management Plan
HSP-035	Health Surveillance Procedure
HSP-036	Electrical Safety
HSP-037	No Live Work Policy
HSP-038	Subcontractor (HSEQ) Selection and Management Procedure
HSP-039	Site Safety Rules
HSP-040	Hazard Risk Control Reference Source and Guide
HSP-041	Legal and Other Requirements National Register
HSP-042	Environmental Aspect and Impact National Register
HSP-043	Visitor Site Safety Induction
HSP-044	Laser Safety Policy
HSP-046	Calibration Procedure
HSP-049	Working Alone or Remotely Procedure
9. Monitoring and Improvement	
MIP-001	Non-conformance / Corrective Action Procedure
MIP-002	Control of Non-conforming Product Procedure
MIP-003	Auditing Procedure
MIP-004	Workplace HSE Inspections Procedure
MIP-005	Customer Complaints Procedure

Forms

Document Number	Document Title
HSF-001	Incident/Accident Report Form
HSF-002	Incident/Accident Investigation Form
HSF-003	Incident/Accident Witness Statement
HSF-004	Incident Summary & Corrective Action Form
HSF-005	Monthly HSE Reporting Form
HSF-006	Return to Work Plan
HSF-007	Treating Doctor Letter
HSF-010	Risk Register Template
HSF-011	Hazard Report Form
HSF-012	Hazards/Risk Action Plan Template
HSF-013	HSE Responsibilities and Authorities Template
HSF-014	Toolbox Talk Meeting
HSF-015	Daily Pre-Start Meeting
HSF-019	First Aid Risk Assessment Form
HSF-022	Injury Register
HSF-024	Site Emergency Listing
HSF-028	SWMS Template

Document Number	Document Title
HSF-029	SWMS Register Template
HSF-030	SWMS Field Review Template
HSF-031	SWMS Review Checklist Form
HSF-055	Personal Protective Equipment Register
HSF-039	Electrical Equipment Inspection Register
HSF-040	Danger Tag Register
HSF-041	Equipment Isolation Register
HSF-042	Energisation/Isolation Permit
HSF-045	Hot Work Permit
HSF-051	Hazardous Chemical Risk Assessment
HSF-052	Hazardous Chemical Register
HSF-053	RCD Test Register
HSF-058	Test and Tag Register
HSF-078	Skills Register
HSF-077	Sign On/Off Register
HSF-083	Asbestos Management Plan
HRF-004	Site Induction Checklist
HRF-007	Site Induction Register
PMF-001	Plant and Equipment Site/Van Register
PMF-002	Lifting Gear Register
PMF-003	On Site Tool Transfer
PMF-005	Toolkit Inspection Checklist
MIF-001	Non-conformance / Corrective Action Form
MIF-002	Non-conformance / Corrective Action Register
MIF-003	Product Non-conformance Report Form
MIF-008	Weekly HSEQ Site Inspection Checklist
MIF-012	Customer Complaint Capture Form
MIF-013	Customer Complaint Capture Log

1.5 Accessing HSEQ Documents

The Fredon Health, Safety, Environmental and Quality Management System documents (policies, procedures and forms) are available through the Fredon Intranet. It is accessible through the **‘Quick Links & References’** link on the bottom of the front page of the Fredon intranet site.

Once you have clicked through to the Fredon Management System page, follow the links to find the document you require using the search engine.

Appropriate/specific documents are located under the various Branches / Divisions

1.6 Abbreviations and Definitions

Contractor	For the purposes of this manual, the term “Contractor” incorporate both contractors and subcontractors
Principal Contractor	The organisation or person that commissions or directs the construction project, usually the customer.
FMS	Fredon Management System
HSEQ	Health, Safety, Environmental and Quality
HSEQMS	Health, Safety, Environmental and Quality Management System
ISO	International Standards Organisation
SDS	Safety Data Sheet
RTO	Registered Training Organisation
Site	Construction or Services workplace
SWMS	Safe Work Method Statement
WHS	Workplace Health and Safety
Workplace	Field sites or offices

2.0 VISION AND POLICY

It is a core value of Fredon to pursue excellence in all its endeavours to the benefit of all its stakeholders – employees, customers and shareholders.

Fredon is committed to the health and safety of all workers and others that may be affected by its work activities. This includes the protection of all workers by complying with relevant legislation, demonstrating due diligence, the application of best practice strategies HSEQ policies and industry-based procedures. People are the most important asset and their health and safety is of upmost importance within a safe and productive work environment.

Managers and supervisors have the responsibility for implementing this and other policies as an integral part of their accountabilities; they may delegate their duties and activities, but not abdicate their Workplace Health, Safety and Environmental responsibilities.

Workers have an obligation to cooperate and comply with policies, procedures and instructions.

2.1 Policy

The Workplace Health and Safety Policy (MSP-001), Environmental Policy (MSP-002) and Quality Policy (MSP-003) are the principle documents of the management system. All HSEQ objectives, targets and practices are consistent with the commitments set out in each policy.

The above Policies and others below are included in Appendix 1.

Fredon policies form part of the Management System and are communicated to all personnel, including subcontractors:

- MSP-001 Workplace Health and Safety Policy
- MSP-002 Environmental and Sustainability Policy
- MSP-003 Quality Policy
- MSP-004 Young and Inexperienced Workers
- MSP-005 Code of Conduct
- MSP-006 Employee Training and Development Policy
- MSP-007 Workplace Harassment and Bullying Policy
- MSP-008 Equal Opportunity and Anti-Discrimination Policy
- MSP-009 Drug and Alcohol Policy
- MSP-010 Smoking Policy
- MSP-011 Injury Management Policy
- MSP-012 Mobile Phone Policy
- MSP-013 Computer/Mobile Device Use Policy
- MSP-019 Fitness for Work Policy
- MSP-021 Fatigue Management Policy
- MSP-022 Privacy Policy
- MSP-023 Ethical Code of Conduct
- HSP-014 Personal Protective Equipment (PPE) Policy
- HSP-018 Asbestos Management Policy
- HSP-037 Live Work Policy

This plan, in conjunction with all documents referenced from this document represents the Health, Safety, Environmental and Quality Management System for this project.

2.2 Leadership

It is incumbent on the leadership of the company to enunciate our vision in a clear and unambiguous manner and to ensure that the activities of Fredon are in keeping with these aims.

2.3 Health, Safety and Environment

Fredon has ZERO tolerance for any injury to workers, subcontractors, customers or any person involved in its activities or products. It also has ZERO tolerance to environmental incidents and will

strive to minimise any impacts to the environment. Fredon considers this viewpoint as being equal to the operational imperatives of quality, costs, production and employee management.

2.4 Customer Value

Fredon's belief is that its customers' business is a privilege and not an entitlement. Management ensures that customer requirements are determined and met with the aim of enhancing customer satisfaction. This is accomplished through regular, open and effective communication with customers, through effective management of project issues such as schedule and cost control, and through Fredon performance in meeting contractual, legal and regulatory conditions.

2.5 People Recruitment and Development

Fredon is committed to have people possessing the skills, knowledge and attitudes required to deliver a high level of customer satisfaction, and to continue to develop their skills and competencies and experience, and to reward exceptional performance.

2.6 Internal Systems

Effective and efficient internal systems are maintained and continually improved to support the work of Fredon and which actively support the Company's philosophies.

2.7 Objectives and Targets

Health, Safety, Environmental and Quality objectives and targets have been established and are communicated to all personnel. The success of the objectives and targets can be attributed to the shared goal of Fredon management and site personnel. A complete set of Objectives and Targets is available on request. Below is an abridged listing of those associated to site work.

Objective	Target (or milestone)	KPIs or Measurement Tools
Management System to be continually reviewed implemented with training delivered to all employees.	Continual Improvement Ongoing Employees Training	Training Records
Reporting of Non-conformances	All non-conformances, product or service, are to be formally reported	Nil Non-conformances without formal documentation
100% Customer Satisfaction	Nil Customer Complaints	All Complaints are to be registered addressed and closed out within the specified time.
Work towards achieving an incident free workplace and preventing work related injuries and illnesses. Nil injuries, improve injury frequency rate	Lost Time Injury Frequency Rate (LTIFR) continually reducing Reduce to ZERO Total Recordable Injury Frequency Rate (TRIFR) continually reducing Reduce to < 3	LTIFR = Total lost time injury cases / total hours worked x 1,000,000 TRIFR = Total recordable cases / total hours worked x 1,000,000 "Recordable cases" is defined as any medically treated plus lost time injury.
Management demonstrate commitment to HSE by active participation in Incident Reporting and Investigations	Senior Management to review all Recordable Cases	100% of all Medical Treatment, Lost Time Cases and Near misses to be reviewed by Senior Management
Workers are familiar with hazards / risk associated with the workplace activities and provided training to enable work practices to be undertaken that are safe	SWMSs list all specific hazards and appropriate risk control measures, specific for the site & applying the hierarchy of controls; provide induction & work activity training	All SWMS reviewed. Site Audits conducted for compliance to SWMS. All workers undergo Competency Assessments
Nil Environmental Incidents. Avoid water, air and ground pollution caused by our Works. Minimise noise and vibrations impacts caused by our works.	No release of hazardous substances to soil & waterways. Control release of contaminants to the atmosphere, Minimise noise impact on occupants, neighbours, or users of facilities	Recording of Environmental Incidents. Where incidents occur, impact shall be minimised by appropriate controls implemented.
Minimise the use of non-renewable resources	Manage the use of non-renewable resources in design and in our activities.	Review designs to minimise material use. Manage paper and energy usage.
Control of waste disposal and recycling to reduce landfill and the use on non-renewable resources.	Formalise Waste Management at Branch Offices, Warehouses and Sites.	Develop Waste Management Programs to include the "Reduce, Re-use, Re-cycle" notion.

3.0 PLANNING AND RISK MANAGEMENT

The management of health, safety and environmental issues is carried out in such a way that all stakeholders will be left with no doubt that hazards to people and the environment have been identified and appropriately managed. This is achieved by conducting appropriate planning and risk assessments as required during the project on an on-going basis (e.g. where there are changes to the workplace, practices, equipment, etc.).

Fredon will identify the potential hazards of the proposed work, assess the risks involved, and develop risk control measures (using the hierarchy of controls) to eliminate or minimise the risk. The risk management process is to be carried out and reviewed in consultation with the workers.

Managers and workers should apply their knowledge, skills and understanding of risk management techniques in relation to their own workplace environment and the hazards therein to eliminate otherwise mitigate the risk of the hazard. Fredon Personnel at the place where the hazard originated can best control the factors that create hazards

Workplace hazards arise as a result of workplace activities performed, equipment / plant / goods used and the physical and environmental conditions of the workplace. Workers including subcontractors are to report all hazards.

3.1 Legal and Other Requirements

HSE legal and other requirements applicable to company projects and activities are identified, recorded and reviewed as per the Legal and other Requirements Procedure (HSP-008).

HSE legal and other requirements are monitored for changes on an ongoing basis using subscription services, internal/external specialists or regulatory websites. Where a change is identified, the Legal and Other Requirement National Register (HSP-041) is updated and a review of the impact is performed.

The Project will ensure all its activities comply with both Legal and Customer requirements. This plan will assist in identifying compliance with the following legislation and customer requirements.

All employees, contractors and the customer may access this plan and any other health, safety, environment and quality documents used to develop this plan.

All employees are informed at the Induction of how they can access any HSEQ information.

Various relevant Legislation and Codes of Practice are as listed below:

Legislation

QLD

- **Work Health and Safety Act 2011**
- **Work Health and Safety Regulation 2011**
- **Electrical Safety Act 2002**
- **Electrical Safety Regulation 2013**
- **Workers' Compensation and Rehabilitation Act 2003**
- **Workers' Compensation and Rehabilitation Regulation 2014**

WorkSafe Australia- Model Codes of Practice

- Confined Spaces
- Construction Work
- WHS Consultation Co-operation and Co-ordination
- Excavation Work
- Managing Electrical Risks in the Workplace
- Managing the Risk of Falls at Workplaces
- Managing the Risk of Hazardous Chemicals in the Workplace
- Labelling of Workplace Hazardous Chemicals
- Hazardous Manual Tasks
- Managing Noise and Preventing Hearing Loss in the Workplace
- Managing Plant in the Workplace
- How to Manage Workplace Health and Safety Risk

- Excavation Work
- First aid in the workplace
- Platforms, walkway, stairways and ladders – design, construction and installation.
- Managing the work environment and facilities

The above list includes most of the Model Codes of Practice developed by Safe Work Australia. Each State Authority has drawn from the full list of the Model Codes of Practice and adapted them for use in their State.

Access to these and all legislation and local authorities is via WorkCover (or state equivalents) Webpages through the internet. Alternatively access is available in the company's standards library.

3.2 Hazard Reporting

All identified hazards (health, safety and environmental) in the workplace, will be reported to their supervisor. Reported hazards are managed to ensure the hazard is addressed to prevent potential harm to people, the environment or property and is carried out in accordance with the Risk Management Procedure (HSP-009). Significant hazards shall be recorded using the Hazard Report Form (HSF-011) and dealt with as per the Corrective Action Procedure (MIP-001).

The initiator is informed of the status of the corrective action and notified when it is closed out.

3.3 Risk Assessments

Fredon uses a risk assessment process in determining the level of risk associated with the identified hazards, and establishing appropriate control measures to manage those risks. Risk assessments are conducted as described in the Fredon Risk Management Procedure (HSP-009). The key steps of the risk assessment procedure include:

- I. PLANNING** - communicating responsibilities, determining when a risk assessment is required, identifying stakeholders, approving methodologies to be used, etc.
- II. HAZARD IDENTIFICATION** - bringing together the risk assessment team, identifying hazards and establishing the context of the hazard.
- III. RISK ASSESSMENT** - determining the risk(s) associated with the identified hazard(s). Where the assessed risk is either Extreme or High steps shall be taken to determine and implement controls to reduce the risk to as low as reasonably practicable. Where the risk assessed is medium, action may be required before engaging in the activity; the supervisor is to apply the hierarchy of controls to reduce the risk to a low level, but if a low level risk cannot be reached, then the workers shall follow the associated SWMS specifically designed for the task and the activity must be closely supervised and monitored.
- IV. RISK CONTROL** - Eliminating the risk where practicable or identifying ways to reduce the risk to as low as reasonably practicable using the **Hierarchy of Controls**.

At first, risks must be eliminated as far as reasonable practicable.

If not reasonably practicable, they must be minimised as far as reasonable practicable by doing one or more of the following:

- a. Substitution (e.g. substituting a hazardous substance for a less hazardous one)
- b. Isolating the hazard from any person exposed to it
- c. Engineering controls (guarding, lifting mechanisms, etc.)

If the risk still remains, you must minimise the risk, so far as reasonably practicable, by implementing administrative controls (procedures, signage, etc.).

If the risk then remains, you must minimise the risk, so far as reasonably practicable, by ensuring the provision and use of suitable PPE (hearing protection, safety glasses, etc.).

Often a combination of all levels of the controls is required.

V. COMMUNICATION AND TRAINING - ensuring personnel are aware of the hazards in the workplace and the control measures in place to prevent harm; and providing training in the relevant control measures and safe systems or work.

VI. MONITORING AND REVIEW - ongoing monitoring of control measures to ensure their effectiveness and reviewing, evaluating and improving the risk assessment process.

3.4 Risk Register

At the outset of this project the Project Manager and Site Manager/Supervisor, together with any other relevant personnel, conducted a Risk Assessment for the project/site and record it in a Risk Register.

Risk Register is included in Appendix 2.

3.5 Environmental Risk Assessment (Aspects/Impacts Register)

Environmental risk assessments are similar to those used for health and safety and most efficiently carried out as part of integrated HSE studies. However, some are uniquely different and appropriate approaches may need to be identified and adopted by the project.

At the commencement of a project a review of the environmental aspects is undertaken for the Fredon worksite. The process involves the identification and review of aspects of any activities, products or services that can have an adverse effect on the environment.

Such aspects may involve:

- a discharge,
- an emission,
- consumption or reuse of a material,
- noise or
- other local environmental and community issues, and

Note: It should take into account normal operating conditions, start-up and shut-down conditions, and reasonably foreseeable or emergency situations.

An overall national review has been conducted jointly with all divisions and locations. The outcome of this review is recorded in the Environmental Aspects and Impacts National Register located in the HSEQ Homepage. The content of this document where applicable should be referenced and incorporated in this project. Any additional Aspects and Impacts should be documented in a project specific register using HSF-060 Environmental Aspects and Impacts Register (Sample).

The review is carried out by the HSEQ Coordinator in conjunction with the site management team. The output of this review is a register of significant environmental aspects for the site, with results communicated to all personnel during regular toolbox meetings and other communication means via the HSEQ Coordinator or management team.

Those environmental aspects rated with a risk of “extreme”, or irrespective of an assessed risk, where there is a licence, contractual or operating condition assigned to the environmental aspect, shall be categorized as ‘Significant Environmental Aspects’.

(A Significant Environmental Aspect has or can have a Significant Environmental Impact).

Should the Environmental Aspect assessed be extreme or high, work should not proceed until the Impact is controlled and reduced to a medium or low. A medium outcome will require the activity to be closely supervised and monitored.

External communication of Significant Environmental Aspects will not occur unless determined and approved by the Group Executive Director.

3.6 FredonSafe Process

The **FredonSafe** process is a STOP and THINK Risk Assessment tool that is designed to:

- Identify, evaluate and control Health, Safety and Environmental Hazards
- Give the technician the ability to review the task that is to be carried out
- Be a simple and quick process to make sure all work starts and ends safely
- Encourage worker task awareness and communication of hazards.

It is a Task Risk Assessment which is used to determine whether adequate controls are in place when:

- A Pre-start has not been conducted,
- At the beginning of the shift when the Daily Pre-start did not include one of the following:
 - o The SWMS being referenced,
 - o A Hazard Identification / Risk Assessment not having been conducted, assessed nor referenced.
- You begin your shift and there is no SWMS available.
- You begin a new task which is deviating from tasks in the SWMS.
- There is a change to the scope of work, change of workplace, conditions change, or something unexpected has occurred.
- You use different tools or equipment from what was discussed and planned, and lack of controls in place.
- Others working in the area that could affect you and not previously identified and addressed.
- When you are not happy with the existing controls.
- Whenever you feel you should do so.

The **FredonSafe** process should be used by all Fredon workers in all construction, service and maintenance activities (Service Vans with Electronic Tablets need not use the paper booklet version, as the Tablet has the process incorporated), in particular when working alone.

When a group of workers are working together, only one is required for the group, however all the workers must participate in its use.

After completion of the FredonSafe process, immediate and appropriate action (including stopping the job if high risk is evident) may have to be taken where the SWMS is not being followed or is inadequate and ineffective.

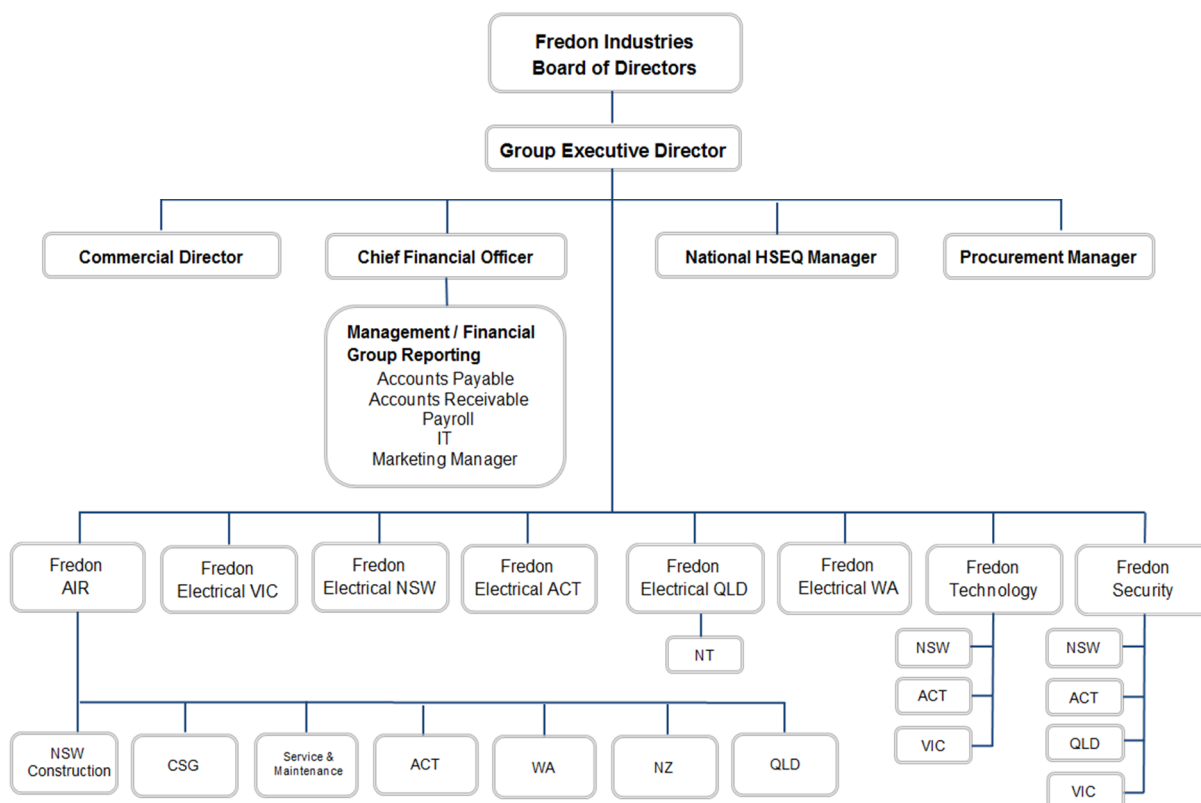
The completed pages are to be forwarded to the site supervisor who will attach to the day's Daily Pre-start meeting record.

3.7 Change Management

All risks potentially introduced through change are identified, assessed and managed to an acceptable level. Any changes to design, construction, commissioning, operations, processes, procedures, equipment, systems, services and personnel are recorded, assessed and approved.

4.0 RESOURCES AND ORGANISATION

4.1 Group Organisational Structure



4.2 Project Organisational Structure, Roles and Responsibilities

Roles and responsibilities are defined, assigned and communicated to each employee and are listed in this document in section 4.2.2. Roles and Responsibilities are also communicated through job descriptions, SWMS, inductions, documented procedures and associated training.

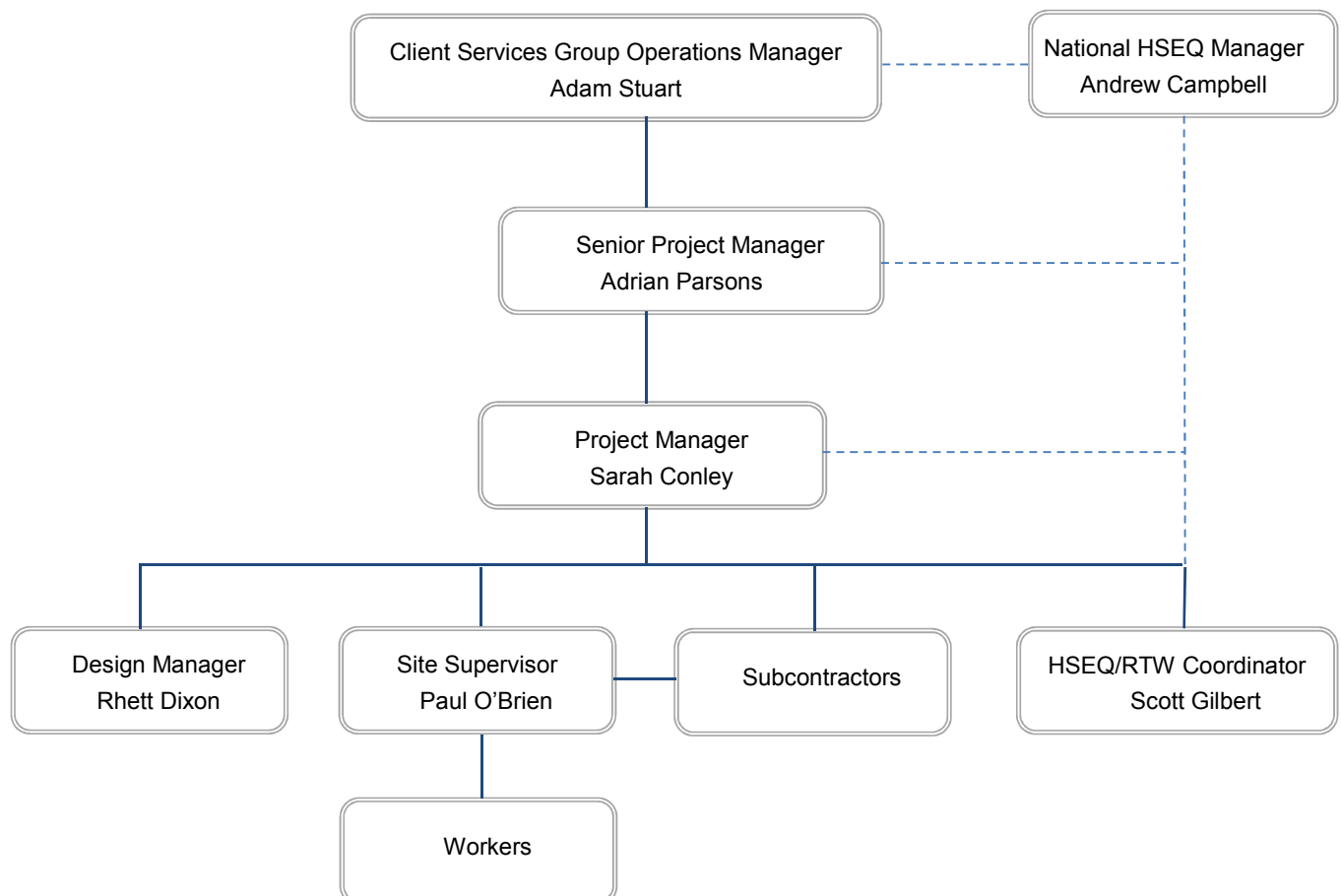
Employees are responsible for ensuring the conformance of their work. They have the right and responsibility to question correctness of work on the basis of deviation from specifications or variance from traditional practices and anticipated results.

Line Management, Project Managers, Project Engineers, and HSEQ Managers have a responsibility to investigate concerns related to health and safety, environment and product conformance or regulatory compliance, and take appropriate remedial action and verify the effective implementation. They have authority to take necessary actions to assure correctness of drawings, specifications, schedules, estimates and scope of work. Such authority includes placing work “on hold” for which inadequate information is available or delaying the issue of work found to be deficient in the review or verification process.

Every person in the organisation has a personal responsibility for the health, safety and environmental issues of persons and environment under their control and will be held accountable for controlling all hazards within their area of management. The successful operation of the HSEQ management system relies upon the co-operation and involvement of personnel at all levels.

4.2.1 Project Organisational Chart

The interrelationship of roles in the project is detailed in the chart below. An individual may well act in more than one role.



4.2.2 Project Roles and responsibilities

This sections describes the health, safety and environmental roles and responsibilities for the following project team members:

Divisional Manager

Divisional Manager, has the delegated responsibility for the company's health, safety, environmental and quality responsibilities to its personnel, customers and the community in relation to its activities on jobs in all company workplaces under their control.

They are responsible to implement the Company's Health, Safety, Environmental and Quality Management System on their jobs / sites / office, and therefore are to:

- Provide resources for employees to carry out the work in a safe and healthy manner that results in no impact on the environment;
- Ensure that all projects have a Project/Site-specific Health, Safety, Environmental and Quality Management Plan in place, and effectively implemented;
- Monitor and review the health and safety performance of all projects;
- Provide suitable and adequate information, instruction and training for personnel;
- Provide necessary supervision on jobs;
- Ensure that all HSEQ reporting to the HSEQ Manager and Management from their division/branch are timely and accurate;
- Ensure that all HSEQ activities / initiatives identified by management are implemented in their division/branch; and
- Assign HSEQ roles and responsibilities to project management, site management, supervisors, engineers and other staff to ensure HSEQ functions are carried out.
- Monitor the performance of sites by random HSEQ Inspection,
- Assist the Line Managers is exercising their responsibilities.

Name:		Signature:		Date:	
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Project Manager

The Project Manager has the delegated responsibility for the company's health, safety, environmental and quality responsibilities to its personnel, customers and the community in relation to its activities on jobs. Project Managers have responsibility for the overall project, including all site requirements for project management, health, safety, environmental, quality assurance and control.

Project Managers are responsible to implement all the requirements of the Health, Safety, Environmental and Quality Management System into projects/jobs, therefore shall:

- Verify that design engineers have considered legislative, Company and other requirements with respect to Health, Safety and Environment in design;
- Monitor and review the design and installation tasks to minimise/eliminate the risk to personnel in the workplace;
- In consultation with the Site Manager, develop a Project/site specific HSEQ Management Plan.
- Ensure the Health, Safety, Environment and Quality Management System / Site-specific Management Plan has been effectively implemented;
- Ensure the HSEQ Management Plan is regularly reviewed;
- Ensure that a risk analysis is conducted on the site before commencement of work;
- Ensure that a SWMS has been developed for High Risk Work in consultation with workers. Note: For non - High Risk Work, a JSA may be necessary;
- Ensure that a consultative mechanism for HSE issues has been established and agreed between management and workers;

- Conduct Safety Inspections on company project sites, and report findings to Management and the Health, Safety, Environment and Quality Manager;
- Ensure adequate resources for Health, Safety, Environment and Quality Management are available;
- Ensure all health and safety incidents are reported to management, Health, Safety, Environment and Quality Manager or authorities where required;
- Liaise with client for any Project/Site-specific HSEQ requirements they or Fredon may have;
- Ensure that all HSEQ activities / initiatives identified by management are implemented;
- Ensure that a Subcontractor Pre-qualification Questionnaire has been completed;
- Lead incident investigations and ensure closeout completed;
- Manage workplace injuries and rehabilitation;
- Ensure interaction with the customer's WHS and environmental operating systems and procedures.
- Assist the Line Managers is exercising their responsibilities.

Name:		Signature:		Date:	
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Supervisor /Foreman/ Leading Hand

The supervisor/foreman/leading hand shall:

- Inspect the workplace on a daily basis to identify and eliminate/control hazards and potential harm to the environment;
- Respond to reported hazards and other HSEQ issues;
- Consult with employees and sub-contractors on HSEQ matters as per the site's HSE Consultation Statement;
- Facilitate HSEQ toolbox meetings and provide feedback ;
- Conduct pre-start meetings;
- Participate in formal workplace inspections;
- Facilitate, review and authorise SWMSs prior to hazardous task commencement;
- Monitor work to ensure it is carried out as per the SWMS;
- Investigate incidents and generate corrective action;
- Monitor competency and training requirements and feed back to site manager;
- Implement and raised corrective actions;
- Ensure that all personnel are properly using the correct Personal Protective Equipment (PPE) and safety devices for the work being performed, and that they are properly trained in the use of their tools and equipment;
- Ensure that personnel report all incidents / accidents, and ensure that prompt First Aid is administered to injured personnel;
- Should an injury occur that requires off-site medical treatment then the Supervisor will ensure the injured person is accompanied to the medical facility to ensure proper initial treatment is received?
- Ensure waste materials are kept and disposed of in accordance with SDS and Local Site Requirements.

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HSEQ Coordinator/Manager

HSEQ Coordinators shall provide HSEQ specific, technical expert advice regarding Company's requirements and other recognized best practices in HSEQ.

They shall:

- Ensure that project team are aware of their responsibilities and their deliverables in terms of both work output and their personal behaviours;

- Maintain knowledge of current governing regulations, codes and practices, and inform the Management whenever revisions to the HSEQ management plans are required;
- Provide timely advice to the project management team regarding opportunities to achieve the highest standards of HSEQ;
- Develop and implement initiatives to engage management, supervision and personnel in achieving the HSEQ vision;
- Demonstrate leadership and commitment to the achievement of HSEQ objectives, and to the success of any HSEQ initiatives;
- Review and report on HSEQ performance in their area as required;
- Assist, where appropriate, in Contractor Safe Work Method Statements and ensure copies are maintained for records;
- Provide HSE topics and other information to Company and Contractor management as required for pre-start meetings, toolbox talks, etc.;
- Ensure that Contractors supply, maintain, operate and locate all safety and emergency equipment in accordance with legislated, Company and Customer requirements;
- To actively promote HSEQ excellence and so create a strong HSEQ culture;
- Challenge unsafe behaviour and correct inappropriate HSEQ performance;
- Understand and apply legislative HSE requirements;
- To have and apply a full working knowledge of all applicable HSEQ Management Systems;
- Monitor and review site HSEQ inspections and reporting;
- Ensure the undertaking of, or to conduct investigations and reviews of all incidents such as all injuries, accidents, incidents, health exposures, and fatalities, and produce investigation reports for circulation to Company, Customer, Contractors and the required authorities where required;
- Consult on and resolve HSEQ issues including supporting incident investigations, etc.; and
- To generate contingency plans to respond to emergencies.
- Assist with and review Site Specific HSEQ Plans including those of subcontractors.
- To develop and maintain local environmental and waste management programs (including any measuring and monitoring requirements).

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Return to Work Coordinator

If an employee suffers from an injury or illness while in the course of work and requires time away from workplace, Fredon will ensure that injury management activities commence as soon as possible after injury and every effort is made to provide suitable and meaningful duties consistent with the nature of the injury / illness.

The skills and responsibilities of a return to work coordinator include:

- Developing and implementing a return to work program, educating the workforce, keeping injury and return to work statistics and developing policies and strategies;
- Providing information to injured workers on benefits and the return to work process;
- Determining an injured worker's needs by discussion with the worker, their nominated treating doctor and other treating practitioners;
- Identifying suitable duties and developing and implementing a return to work plan;
- Working with the insurer to develop injury management and return to work plans;
- Being the main point of contact for the injured worker;
- Coordinating and monitoring the workers progress in treatment, rehabilitation services and return to work plans;
- Supply the insurer all necessary workers' compensation details and documents.

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Employees, contractors and subcontractors

All employees and contractors/subcontractors shall:

- Attend work in a physically and mentally fit state for work;
- Work safely and follow SWMSs where required;
- Abide by all established rules and regulations;
- Participate in the activities of the HSEQ programme;
- Report unsafe conditions and/or practices using the hazard report form;
- Report all injuries, near misses and incidents; (including environmental);
- Ensure that he/she does not carry out any work that may harm themselves or any other person or the environment;
- Assist in any investigation of incidents;
- Understand and apply Fredon HSEQ requirements; (including correct PPE);
- Utilize the resources provided and the processes in place for the achievement of HSE objectives;
- Participate in the compiling of Safe Work Method Statements;
- Ensure that the correct tools and equipment are used for all tasks;
- Use the safety equipment and protective clothing supplied as appropriate;
- Actively participate in the implementation of all Fredon HSE initiatives including hazard reporting and elimination;
- Report to their Supervisor, any defects in plant or equipment;
- Notify their supervisor of any incident or near miss that occurs and to support the investigation into the same;
- Challenge unsafe behaviour and correct inappropriate HSE performance;
- Avoid any improvising which entails additional risk;
- Warn other personnel of known hazards;
- Participate in emergency response exercises as required;
- Dispose of all waste materials in the correct manner;
- Report to their Supervisor, all health, safety and environmental incidents and near misses at the time of their occurrence;
- At all times, to comply with the relevant guidelines and regulations formulated and disseminated through inductions, pre-start and toolbox meetings and Company's instructions.

Contractors and subcontractors, in addition to their responsibilities above shall

All contractors/subcontractors shall:

- Develop and submit a site-specific HSEQ Management Plan for approval and implementation;
- Participate in HSEQ performance reviews with management as required;
- Develop SWMS for their scope of work;
- Provide representation to all project meetings when requested;
- Consult with line management to coordinate work place activities ;
- Conduct formal and informal work place hazard inspections;
- Conduct toolbox/pre-start meetings; and
- Immediately report/investigate all incidents and report back findings and close out actions .

Contractors' and subcontractors' supervisors

The contractors' and subcontractors' supervisors shall manage the day to day activities of their personnel and thus ensure that the works are executed in a safe, environmentally responsible and productive manner. They shall:

- Ensure and assure that all their employees and subcontractors comply with all Fredon HSE requirements;

- Visibly demonstrate and enforce safety, industrial hygiene and environmental rules, regulations and standards;
- Set expectations and hold their employees and subcontractors accountable for delivery of HSE deliverables and meeting agreed performance metrics;
- Instruct personnel under their supervision on safe work practices, and the hazards associated with the assigned tasks;
- Ensure that all personnel are properly using the correct Personal Protective Equipment (PPE) and safety devices for the work being performed, and that they are properly trained in the use of their tools and equipment;
- Perform frequent checks on serviceability of all Personal Protective Equipment (PPE) and tools / equipment;
- Conduct daily "pre-start" meetings to explain the safety measures associated with the tasks for the day, and discuss safety information that is issued by the Contractor's site HSE representative such as the Daily HSE Topic;
- Actively promote HSE excellence;
- Encourage HSE suggestions from the personnel;
- Conduct weekly toolbox meetings iterating specific HSE topics;
- Ensure waste materials are kept and disposed of in accordance with MSDS and Local Site Requirements;
- Conduct, document and implement SWMS and relevant requirements of same;
- Ensure that personnel report all incidents / accidents, and ensure that prompt First Aid is administered to injured personnel;
- Should an injury occur that requires off-site medical treatment then the Supervisor will ensure the injured person is accompanied to the medical facility to ensure proper initial treatment is received?
- Lead in the investigation of Contractor's accidents / incidents to determine all the facts necessary to take corrective actions and complete those actions;
- Monitor, review and report on HSE performance as required, to the Site Manager;
- Challenge unsafe behaviour and correct inappropriate HSE performance;
- Understand and apply applicable legislative HSE requirements;
- To have and apply a full working knowledge of their own, and Company's, HSE Management Systems, e.g. SWMS, etc.;
- Consult on and resolve HSE issues including leading incident investigations, etc.; and
- Recognize and reward people who have positively impacted on HSEQ.

4.3 Selection, Competency, Awareness and Training

Company Selection, Competency and Training requirements and processes are detailed in the Training, Competency and Induction Procedure (HRP-001). Those requirements are to be complied with unless approved otherwise by senior management.

4.3.1 Selection and Competency

Fredon management ensures employees performing work affecting quality are appropriately selected for their competence and will, in conjunction with employees, identify and facilitate on-going training where necessary.

All personnel, including contractors are also required to be competent to perform their work without harm to persons (including themselves) or the environment.

Where discrepancies are identified between competence requirements and those of available personnel, and unless alternative resources can be found, training plans should be supported by interim measures to bridge the competence gap during the training period.

Records of employee selection, qualifications, competency, work history and training are maintained in employee personal files and listed in the Skills Register (HSF-078).

The competency of contractors is ensured through:

- The contractor prequalification process; which includes Subcontractor HSE Pre-qualification Questionnaire (HSF-036);
- Checking of relevant certificates of competency, licenses and qualifications;
- Verification of competency by Project/Site Managers (e.g. through asking the contractor questions, requesting a safe demonstration from the contractor, observation, etc.).

Project/Site Managers keep on file all competency and training records (including induction records, High Risk licences, trade certificates, licences to operate plant and equipment, licences to erect scaffolding, copies of insurance documents, maintenance and certification documents for power operated plant, test equipment etc) of employees and contractors engaged by the company.

NOTE: Operators of plant and equipment shall be trained and competent, and hold the relevant High Risk Licence or Certificate of Competency. Verification of competency may be required of personnel including contractors. If a person is working on a logbook training system he/she shall only operate the piece of plant or equipment whilst under the direct supervision of a competent person and approved by the Site Manager/Supervisor.

4.3.2 Training and Awareness

Fredon is committed to providing HSEQ training to employees as deemed necessary in order to support this HSEQ Management System, Company Policies and Legislation, and to assist employees in carrying out their responsibilities under this plan.

Appropriate practical experience and on-the-job training is provided to reinforce learnings from training and to achieve required competency.

Records of training and competency (such as formal qualifications and training certificates) for all personnel, (including statutory training of contractors/subcontractors engaged by the company) are held on file Skills Register and maintained by the Project/Site Manager on the sites.

A training matrix detailing all staff; their current certificates and courses they have completed in relation to HSEQ is maintained.

The minimum training for a site employee is:

- WHS Induction for Construction Work (WorkCover approved certificate);
- Asbestos Awareness;
- Fredon Induction into the Site Health, Safety and Environment Rules;
- Training as required by the Principle Contractors;
- Other training will be provided as required eg. Scissor Lift competency, First Aid training etc.

Fire Wardens, First Aid Officers, Return to Work Co-ordinator and HSEQ Co-ordinator are some examples of roles to which specialised training will be provided.

4.3.3 Inductions

All personnel in the workplace including contractors/ subcontractors undergo all essential inductions before commencement of work.

Inductions to be provided and conducted to all workers on site are as follows:

- Principal Contractor's Induction (mandatory)
- Company Site Specific Induction (mandatory)
- Customer Induction (as required)
- Contractor/Subcontractor Induction (as required)

The following information is included in the site inductions:

- Workplace Health and Safety, Environmental and Quality Policy
- Site Health, Safety and Environmental Plans
- Site Health, Safety and Environment Rules
- Hazards specific to the office or site
- Significant Environmental Aspects

- HSEQ procedures, programs, plans and safe and environmentally sound systems of work to be followed relating to the activities to be performed
- Personal protective equipment required for the site
- Health, safety and environmental awareness
- Hazard reporting and incident reporting
- Emergency response and evacuation
- Site amenities, access and egress
- Site familiarisation and Exclusion zones.

A Company Site Specific Induction is developed incorporating Company, Principal Contractor as well as Customer requirements.

For a detailed list of requirements refer to Site Induction Checklist HRF-004.

As listed above, in addition to the company induction, all employees and contractors working at a customer site must undergo all necessary customer inductions.

Records of inductions, detailing the content of the induction, for all employees and contractors are kept and maintained by the Project/Site Manager.

Refresher training will be provided where and when required.

4.3.4 Apprentices and Young Workers

Due to the lack of experience and absence of awareness of existing or potential risks, young workers and apprentices are generally more vulnerable to the hazards and risks present in the workplace and will require special and ongoing training and supervision.

The common hazards that young workers and apprentices are face with in the workplace are:

- Manual handling
- Work Environment (e.g. uneven surfaces, noise, heat, dust)
- Machinery and power tools
- Electricity
- Harassment
- Hazardous Substances and materials (e.g. asbestos)

Young workers and apprentices are protected from these hazards in the following ways:

- By identifying control measures and carrying out Safe Work Method Statements (SWMS);
- By ensuring young workers and apprentices understand and follow SWMS;
- By ensuring young workers and apprentices always work under the supervision of a foreman or leading hand;
- By providing suitable training and instructions.

4.3.5 Visitors

All visitors to a company controlled site are required to sign the visitors register and are given a brief induction using the Visitor Site Safety Induction which includes the following:

- Site Specific Hazards and health, safety and environmental requirements
- Significant Environmental Aspects
- Personal protective equipment required to be worn
- Emergency evacuation
- Exclusion zones
- Site amenities, access and egress.

Where the length of visit does not warrant a formal induction, the Emergency Procedures, no-go zones and specific hazards shall be explained to the visitor who must then be accompanied by an inducted site employee whilst on site.

Un-inducted visitors must be accompanied by a fully inducted site person at all times.

4.4 Consultation and Communication

All consultation and communication requirements are detailed in the company HSE Consultation and Communication Procedure (HSP-012).

4.4.1 Consultation

Consultation is the effective exchange of information where the health and safety of workers and the soundness of the environment can be affected. Appropriate consultation arrangements for health, safety and environment matters are established, agreed, documented and communicated for each company workplace. These arrangements may be as elected and implemented by the Principal Contractor.

Consultation may occur during or by the following mechanisms:

- Health and Safety Representatives (HSRs)
- Committees
- Daily Pre-starts
- Toolbox Talks
- SWMS development and reviews

The Project Agreed Consultation Arrangement is included in Appendix 3.

4.4.2 Communication

Communication internally within the company and with external interested parties (e.g. customers, authorities, contractors, visitors etc.) in regards to HSEQ matters is conducted as listed below:

- Inductions
- Notice boards
- Email
- Training session
- Safety Alerts
- Toolbox talks meetings
- Pre-starts meetings
- WHS consultation arrangements

4.4.3 Environmental Incidents and Complaints

Internal communications with respect to environmental incidents including complaints will be carried out in accordance with the Incident Reporting Procedure.

Fredon site management may consider communicating significant environmental aspects with neighbours or other potentially interested parties. HSEQ Managers/Coordinators are to consult with the National HSEQ Manager prior to initiating any external communication.

HSEQ Managers/Coordinators shall record management decisions and outcomes of any external Communications with copies forwarded to the National HSEQ Manager.

Unless determine otherwise by the Group Executive Director, Communication of Significant Environmental Aspects to the public will **not** occur.

4.4.4 Issue Resolution

HSE issues arising in the workplace are to be reported to the supervisor. The issue may also be reported to the designated workforce HSE Representative and / or HSE Coordinator / Manager.

Wherever possible the issue is to be resolved within the local work area. When an issue cannot be resolved to the satisfaction of all concerned, then the issue will be referred to the Project Manager. If still unresolved, then either or both parties are entitled to obtain outside advice / assistance. The appropriate statutory authority may be invited on site or consulted to provide recommendation in resolving any impasses.

In implementing solutions to HSE issues, agreement is reached between management and those concerned on the actions to be taken, the timing and who is responsible for implementation. Details of this agreement are to be brought to the attention of all personnel affected by the issue; e.g. discussion at tool box meetings or a notice on the notice board, or other means of communication may be adopted.

5.0 PROJECT DELIVERY (OPERATIONS)

5.1 Document and Record Control

The Document and Record Control Procedure (MSP-017) will be applied to control records (electronic data and hard copies) including provision for record identification, storage, protection, retrieval retention time and disposition.

All documents are reviewed and approved for adequacy by authorised personnel prior to issue. Changes to the documents are communicated and superseded documents are retained for legal, references or knowledge preservation purposes.

Records are established to provide evidence for conformance of the services provided and the effective operations of the business.

Where files are kept on site, Project Managers are responsible for confidentiality and security of documents. Strict Control of all documentation must be maintained by site management/supervision during the course of the project.

Drawings Control

Drawings for project use must be strictly controlled as follows:

- All drawing must be appropriately identified (number, project etc.)
- Any drawing used for site work MUST be registered on the system drawing register;
- Any drawing or part of drawing being photocopied must also show drawing number to cross-reference if title block is not part of photocopy;
- Drawings that are for reference only i.e.: Architectural, other services etc., must be stamped 'FOR REFERENCE ONLY' on the drawing holder and not registered or stamped as it is not required to register 'Reference Only' drawings.
- Any customer imposed system (e.g Aconex)

Other Documents and Records Control

- Administration, transmittals, project correspondence and any other related documentation must be filed appropriately in co-ordination with the Project Manager.
- Transmittal forms must be used for any documentation (especially drawings) handed over to client/client representatives, builders, sub-contractor and any other third party.
- Regular recording in the company's site diary forms part of the day to day routine of documentation.
- When a PC/Laptop is used on site, regular back-up must be carried out and access to the PC/Laptop should be limited to authorised personnel.
- All records of site work must be filed as per Fredon Document and Record Control Process, where full back-up of any electronic data must be carried out daily. Hard copy information must be filed appropriately and consistent with other files and records.

5.2 Project Management

The Fredon Project Management process ensures quality, efficiency and consistency in the company's approach to the project, and is intended to be applied to all divisions throughout its operations.

Project quality assurance initiatives focus on risk identification and mitigation through the application of appropriate levels of independent verification and validation of both company and supplier systems, process and output products and services.

Project quality management and assurance requirements are developed on the basis of outputs and of applicable contractual and legislative requirements.

5.2.1 Contract Implementation

A comprehensive handover meeting with appropriate minutes shall be held between the Tender Team and the Project Execution Team.

Subsequent to handover the Project Manager is responsible for the overall performance of the project within the specification, allocated time and cost during the Contract Execution Phase. The Project Team members are responsible to the Project Manager for the performance of their particular area and shall report progress and costs to the Project Manager on a regular basis.

The purpose of the meeting is:

- To ensure that engineering and project departments clearly understand contractual and customer requirements;
- To ensure full understanding of the Scope of Work;
- To ensure any questions and concerns are resolved; and
- The handover of all tender documentation and correspondence.

Any information that cannot be provided by the Estimating Manager should be the subject of an action in the minutes of meeting within identifying the outstanding item and the necessary timing of its supply to allow the work to proceed in line with the Contract program.

At the completion of the handover meeting all parties present shall sign the Contract Handover Form.

5.2.2 Project/Contract Review Meetings

A Contract/Project Review Meeting is to be held monthly for each project. The meeting is to be attended by the Project Team, which includes the Divisional or Operational Manager, Design Leader, Finance Manager and Project Manager allocated to the project.

During the meeting an overview of progress will be provided by the Project Manager. This is to highlight any areas of risk, plan and monitor the progress of the project in the line with project plan, identify any areas where corrective action may be required to achieve the defined targets within the overall project plan.

Typically, the following areas may include but will not be limited to:

- Documentation;
- Design;
- Procurement;
- Construction;
- Schedule;
- Budget;
- Health, Safety, Environmental and Quality; and
- Non-conformance.

Records of each meeting are to be retained in the form of Contract/Project Review minutes of meeting, which details the status, the action, and by whom.

5.2.3 Variations to a Contract

The Project Manager is to review variations to the contract and seek advice from the top management as necessary. All variation to the contract shall be recorded by the Project Manager on the Contract Variation Register.

A copy of contract variation shall be sent by the Project Manager to each Department directly affected by the variation along with any necessary supporting documentation.

Design Planning

Activities are planned in logical sequences to facilitate effective control; each phase ends in appropriate review, verification and/or validation; and interfaces between different groups involved on the same work ensuring they are suitably coordinated. The Design Project Plan (EDF-106) shall be used to detail relevant information.

Upon receipt of construction and/or installation drawings involving design, the Project Manager will supply all necessary documents (requirements) for the project. The Project Manager is responsible for preparation and approval of design plan.

The Design plan shall be on the Design Check Plan form (EDF-101) and shall identify development and checking activities, investigating and verification personnel.

It is the responsibility of the Project Manager to ensure that the nominated personnel are adequately qualified to undertake design and are equipped with adequate resources and information where required.

Design Inputs

Design inputs are documented, controlled and reviewed for functional, performance and regulatory requirements.

In cases where definition of design input is identified by the customer, the company confirms that design input data provided is consistent and sufficient with relevant statutory and regulatory requirements to provide a suitable basis for the design and its verification.

The following input criteria should be considered:

- Functional and performance requirements;
- Data specified by client or agreed with client;
- Statutory and regulatory requirements (including hazard identification/Safety and Environmental Control, relevant Australian Standards and Codes of Practice);
- Safety in Design; and
- Specification.

Design Outputs

Design outputs or deliverable documents should enable verification they:

- Meet design input requirements;
- Include reference/acceptance criteria where applicable;
- Provide appropriate information for subsequent activities in procurement, construction and installation phases; and
- Identify design characteristics that are crucial to safe and proper function of the product.

Design output documents are reviewed, checked and approved by authorised persons prior to issue.

Design Review

At suitable stages, systematic review of design and development shall be performed. Details of the review, any problems identified and proposed necessary actions are recorded and maintained.

Design Verification

Design outputs are subject to appropriate verification by a competent person to ensure they meet design input requirements.

Where any independent design verification is required by a customer's contract, this shall be implemented in accordance with the independent design verification process.

Records of this verification and any required actions are retained.

Design Validation

Validation that the equipment/installation derived from design outputs can meet the requirements for its intended use is demonstrated by the continued satisfactory performance of plant performance test runs where they are included in the Scope of Work.

Records of validation activities and any follow-up actions are controlled and maintained.

Design Changes

Proposed design changes are identified, documented and reviewed by appropriately authorized personnel. The review includes the effect of the proposed change on interfacing items and on the integrity of the overall design. Each proposed change is verified, validated and approved before implementation.

Records of the review and approval of changes and any follow-up actions are retained.

Where design is subject to review/approval by a third party as part of a statutory requirement, design changes are communicated to that organization.

Changes identified prior to release of final design shall be handled by any convenient means. These changes are normally identified by the verifier during investigation stages. All such changes shall be brought to the attention of design person who shall take necessary action.

Consideration must also be made in areas of Health, Safety and Environment that may reflect in the Project.

Where design has been verified, approved and released, all requests for revisions shall be through a Design Change Request (EDF-103) form and or by the utilisation of the actual drawing to show all respective changes passed through the project manager.

All design changes shall be subject to the same verification, authorisation, approval and distribution as the original.

Any design changes that do not conform, shall be documented on a Design Change Request Form (EDF-103) and refer back to the Project Manager.

When design changes have taken place, relevant Task Risk Assessments shall be reassessed and amended if necessary. All relevant parties associated with the changes shall be clearly notified.

Forms used for Design shall include:

- Design Check Plan (EDF-101) / (EDF-102) for implementation
- Design Change Request (EDF-103) and Design Change Request Register (EDF-104) for any design changes
- Design Procedure: Fredon Design Procedure (Air) (EDP-001) for mechanical works and Design Procedure (Electrical) (EDP-015) for electrical works for all design requirements
- Design Flow Chart (EDP-013) and Incoming Drawing Procedure (Air only EDP-014)
- Design Input (EDF-107) and Design Output V1.0 (EDF-108) for electrical works

All design changes must be documented and reflected as part of the task risk assessments.

Safety in Design

The Safety in Design process includes the requirement for a hazard identification and risk assessment to be done early in projects, the scope of which covers not only the construction phase, but also all phases of the asset's lifecycle, including operations, maintenance, decommissioning and disposal.

The design process will include a formal review which is carried out in order to assess the design and the potential impacts of risks that are introduced.

Each Project is required to conduct a design review that includes a health and safety risk assessment. Actions are taken so that risks of injury or damage are at an acceptable level to meet the objective of no harm to anyone involved in any stage of a Project life cycle.

Hazard studies may include Construction Hazard Assessment Implementation Review (CHAIR) based reviews.

Where Fredon has no input into the design, the risk assessment provided by the designer will be incorporated into the site-specific project plan and the documented risk assessment will include design-related constructability hazards.

Controls to manage these risks will be assessed and managed prior to the construction commencement.

All residual risks will be documented in the Risk Register with controls for all identified risks and will be provided to the Project Manager. In turn the Project Manager is required to ensure that all risks and nominated controls are provided to contractors and the customer.

5.3 Procurement/Purchasing

Procuring Goods and Services (Subcontractors)

Procurement for the project will be in accordance with Fredon Procurement Procedure (PRP-001).

Suppliers and subcontractors are selected based on their ability to work with the company to effectively and efficiently meet specified requirements for both materials and services.

Purchases Orders and Contracts are only placed with suppliers who have been selected as suitable to perform that specific work.

The initial and continued suitability of suppliers to receive work is assessed by review of earlier performance on similar work and/or by quality, health and safety and/or technical audit. Records of supplier evaluation, the acceptance criteria used, any follow-up actions and the current listing of those considered acceptable are maintained.

When selecting subcontractors the Subcontractor Selection and Management Procedure (HSP-038) shall be followed and the (HSF-036 Subcontractor HSE Pre-Qualification Questionnaire) adopted. Following receipt of the completed form from the proposed subcontractor, the evaluation is completed and approved stipulating any specific requirements before an order or contract is issued. Approved subcontractors shall forward a Site Specific HSEQ Management Plan incorporating Fredon and Principal Contractor requirements for approval. Where the plan does not meet the requirement, a commitment is sought in writing from the subcontractor accepting compliance to the Fredon HSEQ Management Plan.

All subcontractors shall be added to the Subcontractor Register in Appendix 5.

Purchasing Information

Purchase Orders and Contracts contain all information necessary and sufficient to describe the product or service required, and are reviewed and approved prior to issue. All health, safety and environmental requirements are stipulated on the order.

Purchase Orders and Contracts describe the requirement for the supplier and/or customer to carry out in-process verification of purchased products and/or services.

Verification of Purchased Product

Upon delivery to site of major items of plant and equipment the Site Manager shall verify that the goods delivered are in accordance with the requirements of the purchase order.

Conformance with requirements specified in Purchase Orders and contracts is verified by:

- Monitoring and measurement of product characteristics;
- Monitoring the control of processes; the outputs of which cannot be fully verified by subsequent inspection and testing;
- Confirming compliance with referenced regulatory requirements, standards and codes;
- Reviewing supplier documents including Safe Work Method Statements and Inspection and Test Plans defining the manner of production installation and servicing;
- Verification and approval of process and personnel qualifications; and
- Review and acceptance of associated supplier records.

5.4 Maintenance and Services division

Construction work is defined as any work carried out in connection with the construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, refurbishment, demolition, decommissioning or dismantling of a structure, infrastructure, facility or part thereof, excavation and as defined in the legislation and Code of Practice for Construction Work.

Planning and Control

Planning of field construction, commissioning and operations services is undertaken in accordance with the applicable Fredon Project Management Process tasks.

5.4.1 Production & Service Provision

The Project Manager in conjunction with the Site Manager/Supervisor shall identify and plan the appropriate manufacturing/fabrication and installation processes which directly affect quality and ensure they are performed under controlled conditions.

The Project Manager/Supervisor or subcontractor will develop/provide appropriate Safe Work Method Statements and Quality Control documents (Inspection and Test Plans [ITPs], Inspection and Test Certificates [ITCs] or other) to document how a process will be carried out and progressively checked against these documents.

Prior to commencement of significant work activities, such documents shall be reviewed and assessed for compliance and approval.

Processes requiring regulatory control such as electrical installation, high pressure or high temperature liquids shall be carried out by licensed and competent operators. Each subcontractor will provide Fredon with a register of competent operators and the activities they perform. These are contained within each subcontractor's Site Specific HSEQ Management Plan.

Monitoring and processing parameters and progressive inspection shall be identified on ITP's, ITC's or SWMS and verified by the identified competent operator(s) and subcontractor management.

5.4.2 Customer Property

If the Customer/Principal Contractor supplies materials for use in the works, it is to be inspected and documented as per any other materials and/or equipment as detailed elsewhere in this document, thereby ensuring that the materials or equipment are protected and returned as agreed.

If any property or equipment is lost or damaged or it is deemed unsuitable for use the Customer/Principal Contractor shall be notified.

5.4.3 Product Identification and Traceability

Installed equipment shall be identified with a unique identification number which can be used to confirm the intended location and all technical requirements of the product. The interface with other trades or part supply of similar services shall be clearly indicated on the approved drawings.

Review of identification of products or services shall be included in ITC's where appropriate.

5.4.4 Packaging, Storage and Preservation

All procured stock shall be stored in their allocated locations. Wherever possible, products are to be identified with job number as required for individual projects, areas, locations and kept separate for ease of identification.

Receipt and dispatch of products are through the use of transmittal forms and/or other delivery or receipt documentation.

Regular checks of incoming products and equipment for security, loss, damage (transit and/or environmental), should be done and recorded in the site diary. Regular checks may be done for items that are known not to be used) or part of for long periods i.e. more than 1 month.

Goods shall be preserved as specified by the supplier and/or manufacturer or specification (if required).

5.4.5 Delivery

Where specified in the contract or order, the consignment is delivered to the customer and/or site by agreed means. If any deliveries are to be made by Fredon, the Project Manager, Site Management and Installers shall ensure that bulk and heavy products are loaded onto the appropriate transport with adequate supports and fixtures to prevent shock, vibration and damage during transit. Suppliers must be made aware of any special delivery requirement for certain site condition.

5.4.6 Verification of Construction, Commissioning and Services Provision

Conformance with requirements specified is verified by:

- Review and approval of Quality Control/Inspection and Test Plans, work instructions/method statements defining the manner of production, installation and servicing;
- Monitoring and control of processes;
- Confirmation of control of monitoring and measuring equipment;
- Confirmation of compliance with referenced standards and codes.

Inspection and Testing (Quality Control)

Criteria (specification, standards, legislation etc.) requirements are achieved through inspection and testing of the installation, facility or service with the use of Inspection and Test Plans (ITPs) and Inspection and Test Check Lists (ITCs) as necessary and in accordance with customer specification and/or requirements.

It is a Company requirement that all projects (other than services and maintenance) managed by Fredon, a control/check in a systematic manner is carried out to verify the actual [physical] work carried out in the field. Where work is subcontracted, that portion of work shall undergo the same scrutiny by the subcontractor.

The Conditional checking requirements are:

- Projects/work \$100k and above;
- Where determined by management;
- As per contractual requirement (can be any value);
- All projects and work that have an agreement utilising the General Conditions of Contract – where it entails clauses of a Quality check requirement for work in progress.

ITP's must be initiated by the project manager enlisting ITC's as required by the specification and or other documentation by the client that could also nominate witness and hold points as nominated.

Site personnel will be made aware of the above requirement where contractually Fredon is obligated to carry out checks as evidence of work completed in addition to checking approved drawings, checklists, technical data schedules and other relevant records.

Final Inspection

Final inspection as applied to Fredon will take the form of checking systems prior to handover to the Customer or Principal Contractor. Where there is a defect or suspected defect in a system, it is the responsibility of the Project Manager to check the system whether it is by an internal or external party.

Before despatching finished product or handing over completed systems, Fredon checks to ensure that all receiving, and in progress inspection actions required have been fully, correctly and satisfactorily completed.

Validation of Processes for Construction, Commissioning and Service Provision

When applicable, requirements are established to ensure that processes whose results cannot be fully verified by subsequent inspection and testing are subject to validation.

Validation may include:

- Qualification before use to ensure processes comply with specified requirements;
- Process certification or validation by acceptable independent parties;
- Continuous monitoring to confirm the achievement of planned results;
- Maintenance of records of qualified processes, equipment and personnel as appropriate;

- Such processes are revalidated at appropriate intervals.

Control of Monitoring and Measuring Equipment

Standard Conditions of Purchase and Standard Contract Conditions determine the monitoring and measurement to be undertaken, and requires suppliers and contractors to determine the monitoring and measuring equipment needed to provide evidence of conformity to the determined requirements. All inspection, measuring and testing equipment shall be calibrated in accordance with the Fredon Calibration of inspection, measuring and testing equipment procedure (HSP-028).

Suppliers and contractor compliance with these requirements is verified during visits to carry out routine surveillance and to witness specific inspections and tests.

6.0 HEALTH, SAFETY, ENVIRONMENTAL AND QUALITY SITE REQUIREMENTS**6.1 Health, Safety, Environment and Quality (HSEQ) Management Plans**

This Project HSEQ Management Plan is developed to address site-specific HSEQ requirements. Project HSEQ Management Plans are signed off by the senior manager who has overall responsibility including HSEQ, for the project.

Where deemed necessary for a contractor/subcontractor to develop a Site HSEQ Management Plan, the Plan shall be submitted and reviewed with feedback provided to the contractor.

6.2 Pre-starts Meetings

Daily Pre-start meetings are conducted at locations where services, manufacturing or construction activities are being performed on a daily basis (before commencement of the daily activities) to communicate to workers:

- The work to be conducted for the day
- Hazards in the workplace
- Any incidents, near misses or hazards reported from previous day
- Progress of work on site and any proposed changes
- Program and deliveries
- SWMS and permits in place for the day.
- Relevant quality issues
- Other health and safety issues

Pre-start meetings must be recorded on the Daily Pre-Start Meeting Form (HSF-015).

Where subcontractors conduct separate Daily Pre-start meetings, Fredon site management must forward all necessary and relevant information and attend on a random basis to ensure the system is followed appropriately.

6.3 FredonSafe Process

The FredonSafe process should be used by all Fredon workers in all construction, service and maintenance, in particular when working alone.

It is a Task Risk Assessment used to determine whether adequate controls are in place and used as detailed in section 3.6 of this document.

6.4 Toolbox Talk Meetings

Onsite HSEQ Toolbox Talk meetings are held on a **fortnightly basis**

Toolbox talks are conducted by **Project Manager**

Details from the meeting and attendance are recorded on the Record of Toolbox Meeting Form (HSF-014).

The agenda for HSE toolbox meetings includes:

- Status of items from previous meetings
- HSE awareness topics (e.g. presentations)
- Customer safety items
- Results of workplace inspections and audits
- HSE Committee feedback (where applicable)
- Incidents and near misses
- Non Conformance Action Report form
- Environmental concerns
- Progress of work on site
- Proposed changes to workplace, processes, equipment, etc.
- Employee feedback/concerns and continuous improvement items
- Other items, comments on topics and further information required.

Members of senior management should be encouraged to participate in Toolbox Meetings when visiting site.

Where subcontractors conduct separate Toolbox Talk meetings, Fredon site management must forward any necessary and relevant information and attend on a random basis to ensure the system is followed appropriately.

Meeting minutes are distributed to interested parties and records filed and maintained.

6.5 Safe Work Method Statements (SWMS)

As part of the Risk Assessment process, SWMS are prepared for all construction, maintenance and other non-routine activities occurring on a company controlled sites. SWMS should be developed in accordance with the Fredon SWMS Procedure (HSP-022) and include all high risk construction work as defined by the local legislation.

The SWMS Template (HSF-028) is used to develop SWMS. A contractor may use their own SWMS worksheet provided it complies with Fredon requirements and local legislation.

When preparing a SWMS, the WHS management plan prepared by the principal contractor for the construction project and the Fredon Risk Assessment conducted for the project must be taken into account as well as the circumstance at the workplace that may affect the way in which the high risk construction work is carried out.

Generic SWMS may be used for those work activities that are carried out on a regular basis. Prior to each new job/activity the generic SWMS must be reviewed and revised in consultation with those carrying out the task to ensure it applies to the work and is specific for the actual job and workplace.

All SWMS are forwarded to the Principal Contractor and once accepted the company supervisor will ensure its implementation. SWMS are reviewed using the SWMS Review Checklist (HSF-031) and feedback is provided to the responsible contractor accordingly. The checklist is also used to record follow-up action options that can be and/or are taken if a SWMS does not meet the criteria. (i.e. re-submit, re-do with Fredon, or re-do using Fredon SWMS Template (HSF-028) etc.). For work carried out by subcontractors, SWMS are forwarded to Fredon and reviewed before forwarding to the principal contractor.

All SWMS are allocated a specific number (revision where required) and entered into a SWMS Register (HSF-029) at each site by the Project Manager so that all SWMS are traceable. SWMS must be made available to any person engaged to carry out the work and for inspection until the work to which it relates is completed or for at least 2 years following the occurrence of a notifiable incident.

All workers required to undertake a task shall receive instruction and/or training in the SWMS, and must be competent to perform their tasks safely. Once instruction has been provided, all team members sign the SWMS to acknowledge the instruction provided, their understanding of how the task is to be performed safely and their personal commitment to comply with the SWMS.

After the commencement of job, the Project/Site Manager or his delegate is responsible for monitoring the work to ensure the SWMS is being complied with and to verify the adequacy and effectiveness of the control measures. The frequency of inspections/monitoring is appropriate to the risks associated with performing the job. Immediate and appropriate action (including stopping the job if high risk is evident) is taken where the SWMS is not being followed or is ineffective.

6.6 Personal Protective Equipment (PPE)

The Fredon Personal Protective Equipment Policy (HSP-014) shall be followed by all workers, visitors and subcontractors in the proper use of PPE.

All workers, visitors and subcontractors entering the designated work area, under the control of Fredon, shall conform to the minimum site requirements for personal protective clothing and equipment, i.e.

- Long sleeve shirt and long trousers (cotton drill clothing)
- Steel capped safety footwear

- Hearing protection (for designated areas)
- Respiratory protection (for designated areas)
- Safety helmet
- Safety spectacles
- Gloves (appropriate to the task) with minimum cut resistance of 3
- High visibility vest (or Hi-Vis shirt or jacket) where Hi-Vis shirts are not used.
- Additional PPE may be required by Principal Contractor or Customer;

Diversion from these requirements shall only be through risk assessment, formerly approved (by the Branch/Divisional Managers) and documented e.g on the SWMS.

Additional PPE requirements shall be identified through SWMS, Safety Data Sheets (SDS) and site procedures.

Only PPE carrying the mark of Standards Australia shall be used on site.

Instruction on the correct use and maintenance of PPE shall form part of the nominated training and toolbox sessions and reiterated through the pre-start meeting process.

Personnel who do not make proper use of the necessary PPE will be instructed to do so by the Site Manager. If this instruction is not followed then the person may be subject to disciplinary action.

6.7 Drugs and Alcohol

Fredon has a Drug and Alcohol Policy (MSP-009) which endorses an allowable alcohol limit of 0.00% in the workplace. Being under the influence, the use, possession, distribution or sale of alcohol, illegal drugs and controlled substances by any employee or contractor/subcontractor while on site or while performing services for Fredon is strictly prohibited and may be subject to disciplinary action. Testing may be carried out on reasonable suspicion or following an accident or incident. Fredon also reserves the right to introduce random testing where it is considered appropriate or where requested by the principle contractor or customer.

All employees of the company and subcontractors are advised to report to work in a condition capable of safely carrying out the required tasks. Any person considered being under the influence of alcohol or illicit drugs will be prevented from commencing or continuing to work.

If drugs are prescribed for medical use, objective evidence should be provided i.e. letter from medical practitioner or other. Any decision not to allow a person to commence or continue to work will be made in consultation with site Foreman, Project Manager and Divisional Manager.

6.8 Smoking

Fredon Smoking Policy (MSP-010) recognises the health hazards caused by exposure to tobacco smoke in the working environment. Fredon is committed to provide a healthy, safe and smoke free workplace to all its employees and visitors.

Smoking anywhere on company premises (offices, warehouses, storerooms, amenities), in any company owned vehicles or customer workplaces other than in designated locations is **not permitted**.

6.9 Plant and Equipment

All plant and equipment shall be used and maintained in accordance with the Fredon Safe Use, Inspection and Maintenance of Plant and Equipment Procedure (HSP-023).

Appropriate controls are to be implemented to eliminate the risks where practicable or reduce the risks to as low as reasonably practicable.

New and current plant/equipment is entered into the planned maintenance schedule and all planned maintenance, inspection and testing is set-up within the schedule. Plant & Equipment (Site/Van) Register (PMF-001).

Any plant or equipment identified as unsafe must be locked out/tagged out and the supervisor notified immediately. Where the equipment is required to undergo maintenance or repair, a maintenance request is raised.

Only competent personnel with the appropriate licence shall conduct maintenance, repair, inspection or testing of plant/equipment. Competencies are verified by supervisors and copies of relevant licences or certificates obtained and filed.

All testing equipment (e.g. gas monitors, multimeter, mega tester) must be calibrated with records kept on file using the Testing and Measuring Equipment Register (PMF-004).

All plant/equipment is to be operated as per documented Safe Use, Inspection and Maintenance of Plant and Equipment Procedure (HSP-023), or manufacturer's instructions, in conjunction with any applicable permits to work. Before using any plant/equipment, maintenance logs are reviewed and pre-start checks conducted.

All regulatory authority standards for machinery guarding and warning devices shall be included prior to the operation of the plant / equipment.

6.10 Portable Power Equipment and Tools

Only appropriate tools are to be used tested and tagged in accordance with legislation.

Residual Current Devices (RCDs) shall be used when using portable tools and/or equipment. This ensures the maximum safety and protection for all personnel. The RCD shall have no more than 2 metres of flexible lead permanently connected to it. Double adaptors and piggy back plugs shall not be used.

Electrical extension leads and cables shall be kept off the floors or ground and be secured at a height by insulated hangers that do not interfere with or hinder the work area. The electrical extension leads across pedestrian access ways/floors shall be adequately protected from damage and to reduce trip hazards. Electrical extension leads shall not be longer than 30 metres.

All equipment shall be visually inspected by the operator prior to use and tested with details of the inspection being recorded in the Electrical Inspection Register and on the appropriate colour coded tag for the period. Tool guards shall be fitted and used whenever practicable. Tools shall be appropriately stored when not in use.

In addition, work requiring the use of hand-held tools shall only proceed when:

- Carried out by competent and trained personnel familiar with the tools,
- Appropriate PPE is used, and
- Long hair or loose clothing is tied back

6.11 Electrical Tools and Work

Fredon is committed to ensuring that the use of electrical wiring, portable tools and extension leads are in accordance with the electrical code of practice for construction work. Where a more specific provision is required, conformance will be made to AS3000 Wiring Rules; in addition to any instructions issued and documented by the local electricity provider.

All electrical plant and equipment brought on site must be listed in an appropriate register and updated prior to commencement of the works and maintained for the duration of the contract.

All electrical leads, power tools and earth leakage devices will be inspected, tested, tagged and recorded in an appropriate register by a competent qualified electrical tradesperson prior to use on site at intervals as required by the latest regulation/standard; *AS/NZS 3760 In-service safety inspection and testing of electrical equipment* or equivalent national standard.

All electrical equipment must be tested and tagged in accordance with the local regulatory requirements. Testing and tagging schedules for electrical equipment are maintained using the Test & Tag Register (HSF-058)

Residual Current Devices (RCDs) within switchboards shall be tested, tagged and certified. The test/tag/certification process shall include the trip time and current value. A record must be kept of these results.

Whilst on site, any electrical equipment found without a tag of current date issued by a qualified person, will be disconnected (if connected), removed from the workplace and record made in a site diary or equivalent documentation.

Extension leads will NOT be joined together and all plugs and sockets will be non-rewireable moulded or transparent type. Any electrical equipment will not be placed on or near wet areas unless the equipment is specifically designed for that purpose. All electrical leads must be kept off the ground and placed on insulated hangers or stands.

All electrical isolation and lockout must be carried out by a licensed electrician in accordance with Fredon Isolation and Lockout Procedure (HSP-031). Switchboards shall be kept locked at all times. The key shall be secured in a safe place to prevent unauthorised access. All persons carrying out electrical isolation and lockout have been trained in this procedure. This procedure should be discussed at toolbox meetings.

Daily checks (recorded) must be carried out on any type of equipment that is a movable item and or have a power type plant (winch/hoist etc.), where monthly service reports from the hiring company becomes a mandatory requirement.

Mobile portable lighting shall be inspected daily for broken switches, exposed or damaged wiring, blown bulbs and damage to trailer and trailer frame.

Conductors, switchgear and electrical apparatus is always regarded as being Alive until it is proved to be Dead by means of approved test lamps, suitable indication devices or voltmeters. Where practicable, test equipment must be proved to be in good working order immediately before and after use.

For detailed information please refer to the following documents:

- Fredon Electrical Safety Procedure HSP-036
- Live Work Policy HSP-037
- Code of Practice Managing Electrical Risks in the Workplace,

Hired Electrical Equipment

Where electrical equipment is hired the same conditions apply as above as well as any other required procedures from the hire company as a condition of the hire agreement and service reports.

Note: Where electrical operated equipment is being used on a site, it must be connected to an earth leakage protection device at all times.

6.12 No Live Work

Fredon has adopted the Live Work Policy (HSP-037) which specifies that no “live work” or work on energised electrical equipment shall be carried out unless under certain strict conditions and senior management approval, all in accordance with the Company Policy.

Under no circumstances, are employees to place themselves at risk when dealing with electricity. Any breach may result in disciplinary action.

6.13 Isolation and Lockout

Any isolation required shall be performed, as a minimum, in accordance with the Fredon Isolation and Lock Out Procedure (HSP-031) and associated documents or as required by the Principal Contractor. Isolation shall only be conducted by an approved and competent person.

Notification of any isolation shall be given to the operators and supervisors/coordinators in charge of the area containing plant and equipment to be isolated.

Dependent on the plant and/or equipment to be isolated, the method of isolation is to be determined by reference to the approved Isolation and Lock-out Procedure (HSP-031) or by way of instruction from the Project Manager.

6.14 High Voltage Awareness

Project Managers/Site Supervisor must ensure that all site personnel are continually aware of any potential hazard from existing high voltage lines or equipment that could be within the vicinity of the work areas of the project to be worked on.

6.15 Faulty or Defective Plant and Goods

All plant and equipment (including hire equipment and equipment belonging to contractors/subcontractors) which have been recognized as being faulty shall be immediately acted upon and tagged by an “Out of Service” tag and isolated from the work area. Fault repair and maintenance shall be carried out off site. Where this is not practical and site repairs are required, the work shall be carried out on site by competent personnel. Verification of competency shall be presented prior to being permitted to undertake any repair, inspection, maintenance of any item of plant/equipment.

Faulty or defective goods received shall also be tagged "out of service" and removed off site, with a non-conformance report NCR to be issued to the supplier. Corrective Action Request Form (MIF-001)

6.16 Public Areas and Traffic Management

Pedestrian access is via designated walkways. All Vehicle and Pedestrian routes, entries, access, etc. are signposted throughout the site.

A "Traffic Management Plan" may be implemented where required in accordance with local/state/territory government Traffic Control Plan (HSF-043)

6.17 Hazardous Substances/Chemicals

All chemical substances required for use in the workplace are accompanied by a Safety Data Sheet (SDS) and each workplace maintains a Hazardous Chemical Register (HSF-052). A copy of all SDSs (which are no older than five years) are located in the site office and/or adjacent to the first aid kit or where readily accessible from the point of use of the chemical (more than one may be required).

All chemicals shall be used, stored, transported, handled and disposed of according to the requirements of the SDS. They shall be appropriately labelled.

All chemicals identified as Hazardous Substances are subject to a risk assessment before the substance is delivered to site or used. Chemicals are managed in accordance with the Fredon Storage and Handling of Hazardous Chemicals Procedure (HSP-024).

6.18 Working at Heights

Working at heights and using ladders have a continual element of danger. There are various factors and elements that could end up in a fatal or a major health risk.

Fredon has a Working at Height Procedure (HSP-015) that should be adopted on every occasion where height becomes part of the works.

Fredon Working at Heights Policy is part of the site induction for all site workers including all sub-contractors. Site management must ensure that the policy is acknowledged by everyone on site with continual regard to extreme dangers where work is to be conducted at heights and/or where ladders are used.

Each Site must develop processes to identify tasks which involve fall hazards. This will involve the use of a Safe Work Method Statement (SWMS) as well as an informal hazard identification session. The hierarchy of control for the prevention of falls shall be been considered prior to allocating tasks requiring the use of fall restraint equipment.

EWP includes booms, scissor lifts and any other raised platforms used for working at height. Use of EWP (mobile or other) must be as per manufacturer's specifications, instructions and recommendation. All personnel using EWP must be appropriately trained and where required refresher training will be undertaken. Safety checks and log books must be completed prior to use of any EWP. When an EWP is capable of reaching more than 11 metres the operator must have a High Risk Construction Licence.

Fall arrest system components (such as lanyards, wire ropes and attachment points) shall be installed by qualified and competent persons certifying the capacity of the attachment points and the rope for attaching any lanyards. A certificate or other suitable record signed by the certifier should be obtained to verify the capacity of the attachment points (ie. how many persons and what weight can be attached in case of an arrested fall situation etc).

Fall arrest system components shall be inspected at suitable intervals to verify ongoing integrity.

Where work is performed/or lifted to heights greater than 2.0 metres above the ground, the potential drop zones must have an exclusion zone. Pipe work and structures that could deflect falling objects shall be considered when assessing the potential drop zone.

6.19 Working with Ladders

When using ladders Fredon Working at Heights Procedure (HSP-015) shall be complied with and the following shall apply:

- Only platform ladders shall be used to work from.

- Extension ladders shall be used exclusively for access and egress to elevated areas, and in some cases for works of minor nature and fit for purpose (use a second person to foot the ladder) and included in the SWMS.

When used they shall:

- o be tied off and footed as appropriate
- o Adequately barricaded and signed to alert others of the potential danger
- o Visually inspected prior to use, along with the surrounding work area
- o Used at the correct angle,
- o Used by competent and trained personnel
- o Only one person shall use the ladder at a time, and

Personnel using ladders shall:

- Maintain three points of contact and climb one rung at a time
- Not over reach when using a ladder, and
- Not carry out any cutting or work involving the use of power tools from a ladder
- Only use fibreglass or timber ladders (especially when working on electrical installations).

Unused ladders shall not be left in locations where there is a potential for the ladder to be used to access an area where a person can fall and potentially suffer an injury.

Ladders shall be inspected and recorded on a weekly basis as well as an informal inspection prior to each use.

6.20 Cranes, Rigging and Lifting

When an external Craneage contractor is employed they are to take control of the crane lifting operation. Fredon are to advise where items are to be located. At **NO** time is a Fredon employee to get physically involved in the lift. A documented lift-plan and traffic management plan should be in place by the contractor. **NO** person shall walk or work directly under a suspended crane load. Adequate signage, and/or barriers to ensure a safe work location shall be provided.

Only persons who are the holder of the required certificate of competency for the class of crane to be operated shall be authorised to operate such equipment.

Rated load capacity charts, recommended operating speeds, special hazard warnings and other essential information shall be clearly posted in all cranes and hoists and on other relevant equipment.

All lifting gear shall be clearly marked with the Safe Working Load (SWL) in line with the relevant standards.

Regular documented inspections of all lifting equipment shall be carried out by a certified person, rigger / dogger on a monthly basis.

Any equipment found to be defective will be removed from service and tagged for repair or destroyed if repair is not practical.

All lifting equipment shall be designed, manufactured, marked, stored and used in accordance with the relevant standard. All chains, ropes, slings and other gear used for hoisting or lowering shall be inspected at least once a month by a competent person in accordance with relevant State Regulations.

Lift boxes used for lifting persons or materials shall be of a type specifically designed for that purpose and such design shall be approved by the relevant state Authority.

All lifting shall be subject to a SWMS as a minimum and shall be in accordance with the relevant statutory requirements, codes of practice and regulations.

6.21 Barriers

Barriers are normally setup by the principal contractor however, all contractors/sub-contractors have a responsibility to ensure that all barriers/barricades and hazardous areas that require protection to others are adequate. All potentially hazardous areas or processes shall be adequately highlighted by the appropriate warning sign and where deemed necessary, be bunted off.

Regular inspections must be carried out to ensure adequate protection with appropriate signage as required and recorded.

Fixed temporary guardrails shall be erected at entry points to areas requiring the removal of permanent guard railing or other means of fall protection.

Other activities potentially requiring barricading include:

- Overhead work
- Enclosed space entry
- Scaffold erection and protection
- Chemical and product spills
- Traffic and pedestrian control
- Excavations
- Road works
- Hot work

6.22 Hot Works

Hot Work is any work activity which can generate sufficient heat to ignite any materials in the work area. Such work shall include but not be limited to, welding, burning, grinding, soldering, etc. Hot work shall not be carried out in a hazardous area unless a hot work permit is authorised and a SWMS for the task has been prepared.

Prior to any hot works being carried out i.e. Welders, Grinders or any device capable in igniting a flame, a "Hot Works Permit" (HSF-045) must be raised and signed off when the job is complete.

Before hot work in a hazardous area is performed, the person(s) performing the hot work shall:

- Provide suitable locations for equipment, including emergency firefighting equipment
- Ensure firefighting equipment is available,
- Consider any possible changes in circumstances during the hot work, which may render the area unsafe, and
- If required, fire blankets shall be provided to protect areas that could combust due to sparks

Welders shall not work alone and shall be provided with assistance as considered necessary. One of the duties performed by the assistance shall be of fire watcher.

6.23 Working with Compressed Gases/Fluids

- Equipment shall be tested, dated and in compliance.
- Personnel shall not use compressed air to clean equipment.
- Gas cylinders shall be segregated by type and full/empty, stored upright, secured correctly and clearly marked and SDSs are available in an accessible location.
- Only competent personnel shall work with compressed gases,

6.24 Excavation

Excavation and Trenching Procedure (HSP-030) shall be followed. Prior to any excavation, services searches and "dial before you dig" (1100) shall be carried out. The facility diagrams shall be used to identify underground buried services.

- Any ground penetration over 500mm deep shall be regarded as excavation. Underground services shall be isolated appropriately.
- Site/Project Manager shall check with Principal Contractor if an Excavation Permit is required, if required Excavation Permit must be completed and sign off.
- Shoring/sloping/stepping shall be adequate for conditions.
- Work shall be carried out by competent and trained personnel as per the approved SWMS.

6.25 Hazardous Manual Tasks

Many activities involve hazardous manual tasks such as pulling, pushing, lifting twisting, squatting etc. hence the Hazardous Manual tasks Procedure (HSP-033) needs to be followed. In particular:

- All employees should practice proper lifting procedures.

- Employees should not attempt to lift bulky or heavy objects without assistance; and team lifting should be considered
- Manual handling activities shall be assessed for potential risk during the preparation of the task's SWMS.
- Recommended practices for the prevention of manual handling injuries shall be addressed during induction and reiterated during the SWMS review by the area supervisor and the allocated team.
- Suitable rated trolleys and/or mechanical lifting aids shall be made available and used whenever possible.

6.26 Slips, Trips and Falls and House Keeping

While it is difficult to prevent slip/trip/fall hazards, these hazards can be minimised through use of appropriate footwear, good housekeeping, proper site control measures and keeping the work area free of obstructions.

Housekeeping standards on site shall be maintained to a satisfactory standard, as determined by the Site / Project Manager.

Contractors/subcontractors employed on the site are responsible for maintaining acceptable housekeeping standards.

To control slip, trip and fall hazards the following control measures will be put into practice:

- Ensure all pathways and access and egress routes are clear of debris and materials as far as is practicable;
- Spills to be cleaned up immediately or area cordoned off;
- All areas to be kept clear of trailing leads and cords – lead stands to be used;
- All employees to wear appropriate safety foot wear at all times;
- Provide adequate lighting to all work areas;
- Reminding staff to be extra careful when working after/during wet weather conditions;
- Provide adequate hand rails to all work platforms;
- Ensure scaffolding has been signed off by competent person prior to use;
- All floor penetrations to be covered up or barricaded;
- All ladders to be check for defects before use and secured to prevent movement.
- EWP's to be kept free of debris and build-up of material.

6.27 Hot and Cold Environments

During hot or humid days, or during the performance of strenuous work, extra precautions will be necessary to reduce the potential for heat stress.

Implementation of worker rotation and rest period schedules and adjustment of the workday to take advantage of the cooler parts of the day may be used to prevent exposure to heat stress hazards.

Frequent consumption of water or an electrolytic beverage is necessary to prevent dehydration (drink approximately 500 ml before starting work and approximately 200 ml every 15 to 20 minutes while working).

Factors which increase the risk of heat induced problems are:

- High physical exertion.
- Being unaccustomed to working in heat.
- Wearing protective clothing that traps body heat.
- Age (older people may have less body water and lower sweat gland efficiency).
- Being overweight, which makes the body work harder to perform tasks.
- Medications that can interfere with normal body reactions to heat.

6.28 Noise Management

Noise control will be managed in accordance with the relevant Code of Practice and in conjunction with AS/NZS1269 standard for Occupational Noise Management.

Fredon will ensure that workers are protected against harmful levels of noise. Initial checks and measurement of noise levels of equipment may be required to be carried out. Exposure to noise will be controlled by providing hearing protection and ensuring that signage is displayed where hearing protection is to be used.

Sites with relatively low noise levels (where machinery or equipment is not in use), may not require measurement of noise levels. However, hearing protection must be available at all times for when required and or requested by individuals.

Site management will ensure at all times that appropriate PPE is used by all site personnel (including all sub-contractors and visitors) to control and minimise noise levels. Noise Management Procedure (HSP-027)

6.29 Confined Space

Confined spaces are fully or partially enclosed areas which are not designed to be normal places of work; where entry and exit are restricted and engulfment may occur (See Fredon Confined Space Procedure (HSP-025) for complete definition.

The Fredon Confined Space Procedure (HSP-025) and AS/NZS 2865: Safe working in a confined space standard shall be strictly complied with, and includes the following requirements:

- Access to confined spaces is not permitted without a Confined Space Entry Permit. These areas will be identified prior to site work.
- No confined space work is to be carried out without a SWMS.
- Personnel working in an area classified as confined space must be appropriately trained and qualified in the task and in using appropriate safety equipment (e.g. PPE, gas monitors or harnesses).
- Test equipment (e.g. atmospheric monitor) shall have current calibration with records available.

6.30 Asbestos

Fredon's Asbestos Management Policy (HSP-018) is generally that no worker is to carry out, direct or allow a worker to carry out any major work involving Asbestos.

Asbestos is not easily recognised and requires specialist laboratory testing.

Asbestos is not a risk when it is undisturbed, not damaged or is located somewhere where it cannot be damaged. Likely sources of Asbestos Exposure are: thermal insulation lagging, construction materials, fire retardant, compressed asbestos, acoustic insulation, heat resistant textiles, electrical switchboards, other products.

Prior to commencement of work on a work site, the Site Asbestos Register shall be requested and referenced to establish the presence of any asbestos.

A survey of the work location shall be conducted to identify any signage referencing asbestos.

6.31 Hazard Management Procedures

Formal procedures and programs required to manage the risks associated with workplace activities are available in the Fredon Management System and are listed in section 1.4 of this plan.

Unless stated otherwise, the company procedure is the default procedure.

6.32 Environmental Management

ENVIRONMENTAL COMMITMENT AND PLANNING

Ecological sustainable development can be summarised as; using, conserving and enhancing the community's resources so that ecological processes are maintained and the total quality of life, now and in the future, can be increased. The principle legislative requirements are contained in the Protection of the Environment Operations Act 1997.

For this project, Fredon has determined the environmental aspects and impacts that may result from Fredon's project activities, products or services that may have an effect on air, water, land and non-renewable resources. This assessment takes into account reasonably anticipated events such as

spillages, plant breakdowns or inclement weather that could affect day to day activities. The control measures to manage the environmental aspects and impacts are identified and implementation is put into place. This may include measures for the protection of local fauna and flora. The site manager monitors and inspects the workplace environment to assess environmental risk and performance.

When considered necessary Fredon will arrange for external or specialist advice and testing to ensure that industry standards and statutory requirements are met.

The environmental aspects and impacts associated with the work are identified in relation to standards derived from:

- client requirements;
- environmental policy;
- statutory obligations;
- specific undertakings arising from any environmental impact assessment;
- environmental risks; and
- any local government consent conditions, pollution control approvals and any conditions attached to the approvals;

SPECIFIC ENVIRONMENTAL OBJECTIVES AND TARGETS

The Project Manager shall ensure that relevant controls are implemented and utilised for the protection of local flora and fauna, soil contamination, quality of water, quality of air and the control of noise complying with Fredon Policies, legislation and if applicable the Client's Environmental Policy during the Project.

The aim is to achieve the targets scheduled by implementing the controls set out in this Plan, as well as the Fredon Environmental Aspect Impact Register and any supportive Environmental Programs.

Objective	Target
To comply with all Fredon and Customer environmental policies and applicable environmental statutory requirements (i.e laws, regulations and 'instruments of approval').	No Non-Compliances Notification / Reporting as required No spills
To instil a culture within the organisation to reuse, reduce and recycle waste.	To identify and segregate as many waste reduction streams as reasonably practicable with the resources available at the
Do not cause and prevent damage to flora and fauna.	No adverse impact to flora and fauna. No spills.
To ensure Heritage values are maintained	No adverse impact to significant cultural or historical items
Communicate Environmental requirements	All personnel are appropriately inducted

IMPLEMENTATION – MANAGEMENT/MITIGATION

To meet the requirements of the Customer, Fredon policies and legislation, the management of environmental issues will be carried out in such a way that all stakeholders will be left with no doubt that hazards to the environment have been identified and appropriately managed.

Environmental management programs set out how a particular environmental aspect is to be managed, including control, mitigation and monitoring requirements. The management of environmental aspects is conducted through the risk assessment approach where a review of work activities, processes, products and services in relation to the project site and environment is conducted.

The most Significant Environmental Aspects or Issues for which Management/Mitigation may be required in this project are listed and outlined below, and shall be implemented as required: i.e:

- ❖ Noise Management;
- ❖ Chemicals and Oil Management
- ❖ Stormwater and Water Quality Management
- ❖ Traffic Management
- ❖ Control of Waste Disposal and Recycling (i.e Liquid, Recyclable, Non-Recyclable Waste);

Noise control

- Ensure that noisy plant and equipment (mobile and stationary) are fitted with suitable noise suppression equipment (e.g. suitable muffler in good repair);
- Ensure no truck is left standing with its engine on for extended periods;
- Ensure that tailgates on trucks are securely fitted to avoid unnecessary “clanging” noise, particularly during movement of empty trucks;
- Where using pneumatic equipment, select silenced compressors or use quieter hydraulic equipment;
- Avoid using noisy plant/equipment concurrently when adjacent to sensitive receivers;
- Equipment having direction noise characteristics (emits noise strongly in a particular direction) shall be oriented such that noise is directed away from sensitive areas.
- Employ respite periods for particularly noisy activities where possible; and
- Manage working hours, meet EPA and council noise limits, co-operate with occupants.

Chemical & oil management

No significant chemical spillage is to occur (ie. no release of chemicals or oil to the environment)

- Waste oils shall be stored appropriately and shall be removed off site for recycling by approved contractors;
- Spills shall be cleaned up immediately. Contaminated runoff, contaminated soil and waste clean-up materials shall be collected and re-mediated or disposed of in accordance with relevant requirements;
- Chemical cleaning residue is to be disposed of through the sewer drain or by an appropriate licenced contractor; and
- All construction and maintenance staff will be fully inducted and trained in appropriate handling and storage requirements and spill clean-up requirements.
- Safe handling and storage practices of hazardous materials will continue to be maintained in accordance with Regulations and Standards.
- Safety Data Sheets (SDSs) are kept in a register at the site office along with a copy located near the chemical storage

Stormwater Management and Hydrology & water quality

- Prevent stormwater runoff in construction area from contacting wastes or contaminants on the site;
- Minimise the potential for suspended sediments, chemical or oil residues or other residues in stormwater from the construction site;
- All chemicals and oils will be stored in bunded areas, preferably under cover.
- All chemicals will be stored and handled in accordance with relevant Australian Standards to minimise the potential for contamination of stormwater runoff from the site.
- Plant and equipment shall not be used if there were any signs of fuel, oil or hydraulic leaks.
- All leaks shall be repaired immediately or the equipment shall be removed from site.
- Clean surface runoff water shall be directed around and away from work areas to prevent erosion and sediments;
- Minimise the area of exposed surfaces and undertake progressive rehabilitation;
- No excavation is to be carried out during or immediately after heavy rainfall;
- Carry out necessary covering and /or bunding of stockpiles;
- Use appropriate of sediment controls (silt fences or other sediment control devices, such as hay bales wrapped in geotextiles), where appropriate.
- Liquids to be properly contained.
- Used passive absorbent materials and oil/water separator wastes will be stored in an appropriate manner for disposal as approved by the relevant authority.
- Vegetation not designated for removal shall be left untouched.

Traffic Management

- All traffic movement shall adhere to the Fredon Traffic management Procedure (HSP-029).
- Traffic movements shall adhere to sign posted speed limits and warning signs.
- Obstruction of footpaths, driveways or other access points by parked work vehicles, plant or equipment shall be avoided as far as practical; where temporary obstructions are unavoidable, appropriate notification shall be provided.
- Construction vehicles shall be parked within the boundaries of the work site where possible or (where no on-site parking is available) in the nearest available roadway parking space in a manner that minimises disruption to other road users, businesses and the public.
- Construction vehicles are required to stay on formed roads or designated lay-down areas.

- Vehicles shall not be driven when overloaded.
- Personnel shall not jump from vehicles.
- Vehicle engines must be turned off when refuelling/not in use.
- Passengers shall only be seated in proper seats with seatbelt fitted and used.
- Vehicles must be left parked in gear and with handbrakes engaged.

Control of waste disposal and recycling

- All wastes to be minimised, reused or recycled
- Material purchasing should favour products that avoid waste generation.
- Waste streams will be sorted to maximise the recycling potential and minimise disposal costs, separated for storage and prepared for transport and disposal.
- Waste from general construction and maintenance activities may be disposed of through the customers disposal or recycle bins.
- Waste unable to be reused or recycled shall be disposed of in appropriate bins (eg. food waste, cans/bottles, steel, concrete). When the bin gets full an authorised waste disposal contractor collects the waste.
- All wastes shall be securely stored while on-site and where practical covered to ensure that any pollutants are prevented from escaping.
- Work sites shall be left clean and free of waste materials and debris at the completion of construction; as required.
- Waste oil and grease shall be stored in a suitable facility, away from drains or watercourses, in bunded, roofed (where practicable) and sealed areas prepared for collection by a licensed waste recycler or contractor.
- Waste is to be conducted as indicated in the protocol below;
- Refer to Waste Management Procedure (HSP-017) in Toolbox Talks

WASTE DISPOSAL AND RECYCLING PROTOCOL

RECYCLABLE WASTE

Waste type	Receptacle, location, contractor
Metal	Scrap bin at site,
Cable	Remove from site and us scrap bins at depot
Cable drums	Recycle, contractor

NON-RECYCLABLE WASTE

Waste type	Receptacle, location, contractor
General waste	Waste bin at site,

6.33 Subcontractor Management

All subcontractors must be evaluated, selected and managed in accordance with the Fredon *Subcontractor Selection and Management Procedure (HSP-038)*.

In summary all subcontractors must be evaluated and approved prior to a Contract/Order being raised and issued.

Subcontractors must comply with all Fredon procedures, site rules, safety and environment management plans and other requirements, and managed in accordance with the appropriate processes.

Each subcontractor is to be listed on the Contractor/Subcontractor Register (HSF-059). A separate file for each contractor's HSEQ information should be established at the beginning of a new project.

Fredon has a responsibility for the actions of workers under its control including workers of subcontractors. Organisations and individuals that subcontract to Fredon have the obligations to Fredon, as the Contractor to the Principal Contractor.

Work shall be carried in compliance with the Site-Specific Management Plan applicable to the job as well as the approved Safe Work Method Statement.

The plan and statements shall be maintained and kept up to date and submitted to and agreed by Fredon prior to use. Any deviations from agreed procedures must have been agreed upon by the Fredon site team.

HSEQ deficiencies are identified, communicated and corrected accordingly.

An initial documented risk assessment shall be provided for the job and subsequent risk assessments shall be undertaken as when the work environment and site conditions change.

No worker will commence work until they have completed general, site specific and task related induction training.

Supervision

Subcontractors have the obligation to supervise their workers to assure the quality of service and compliance to safe work practices and agreed safety and environmental measures. Fredon applies broad site supervision to subcontractors with the view to monitor compliance to agreed safety measures.

When a risk to the health or safety of a person arises because of non-compliance with the SWMS, the work shall be stopped immediately and not resumed until the SWMS is complied with. Where immediate cessation of work is likely to increase the risk to health and safety, work must stop as soon as it is safe to do so.

All workers have the right and obligation to safely stop work and report safety issues in relation to their work.

Steps to follow when engaging subcontractors:

- Prior to a subcontractor starting on site, the Project/Site Manager must complete a contractor 'Prestart Check' in accordance with the Subcontractor Selection and management Procedure (HSP-038); to ensure all relevant documents are obtained from the contractor. No subcontractor is to start work on the project without this documentation being provided and recorded on site.
- Prior to the subcontractor starting work, ensure that the subcontractor is inducted into the Site-Specific Induction Training, which includes, but is not limited to the review of the Fredon Project-Site HSEQ Management Plan (this document) and advise them of any particular site risks associated with Fredon contract.
- Subcontractors are required to prepare and submit Safe Work Method Statements (SWMS) prior to commencing any task. All subcontractor SWMS are first reviewed by Fredon and then submitted to the Principal Contractor for review. No work shall commence until communication of acceptance by the Principal Contractor is received.
- Before work is commenced carry out a check of all power tools to ensure that they are equipped with current tags and the details are entered into an electrical equipment register. This also applies to all other plant being used on site.
- Once subcontractors have started work, visit the area they are working in to observe if they are complying with their SWMS. A review of the actual work practices being carried out must be in place on a continual/regular basis. If there are any non-conformances, the subcontractor is to carry out a risk assessment and provide an amended SWMS and immediately conduct a toolbox meeting to ensure work is to the required corrective action.
- Copies of subcontractor pre-start and toolbox talks shall be kept on file.
- Copies of all subcontractor employees' competencies and licences must be kept on file.
- At the end of the month, ensure that all of the contractor's accident and injury data is captured in the Fredon Monthly HSE Reporting Form (HSF-005). Contractors must provide this information at the end of each month.
- All information relating to each contractor should be retained in their separate folder for inspection and auditing purposes.
- Subcontractors must report all incidents and near misses to their Project/Site Manager as well as Fredon Site Manager and shall support fully any resulting investigation and measures recommended to prevent a similar incident or near miss occurring.

- Workplace inspection and monitoring programs are established to confirm contractor compliance to the Fredon Project-Site HSEQ Management Plan. The inspection process is carried out in accordance with the schedules and requirements contained in this plan.
- At the completion of a job or at the expiration of a contract, an evaluation of the contractors' HSE performance is conducted. Where practicable the evaluations are conducted with contractor representatives and include a meeting to review, discuss and evaluate contractor performance.
- These post work evaluations are used for future pre-qualifying and selection of the contractor.

Responsibilities of Subcontractors

- Commit and comply with the Fredon policies, procedures and the Project HSEQ Management Plan
- Embrace overall responsibility for HSEQ.
- All workers complete the Fredon and Principal Contractor Site Induction before commencement of work.
- Develop and comply with Safe Work Method Statements appropriate to their work activities
- Conduct/participate in Daily Pre-start meetings
- Participate in consultation processes with employees.
- Conduct weekly Toolbox Talks and provide meeting minutes. Should contractors not hold their own toolbox meetings they may attend Fredon tool box meeting.
- Report all incidents and participate in accident reporting and investigation.
- Resolve HSEQ issues raised.

It is mandatory that all contractors comply with the Fredon management system and all principal contractor, customer, legislative and statutory requirements.

Contractors must supply appropriate evidence of insurances, safety induction, competency certificates, licenses and any other statutory documentation to comply with relevant work that is to be carried out.

The Contractor/Subcontractor Register is included in Appendix 6.

7.0 EMERGENCY MANAGEMENT

Emergency management is implemented in accordance with the Fredon Emergency Response Procedure (HSP-020) and Customer requirements.

As part of the initial site induction, all employees will be made familiar with the emergency response plan. All activities on site will be risk assessed with consideration given to the need for emergency evacuation and site-specific rescue plan.

7.1 First Aid

The First Aid Facility and Procedure for the site with names and contact numbers of **First Aiders**, and the details of the nearest **Medical Centre** and **Hospital**, are communicated at the induction and posted on the Site Notice Board.

All Fredon first aid facilities, equipment and supplies are inspected on a regular basis to ensure facilities are clean and orderly and supplies are fully stocked and within use-by dates.

First aid is reviewed in response to workplace changes (e.g. change in number of employees, nature of work performed, legislation, hazards, etc.) and, at a minimum, annually.

First aiders are appropriately trained and refresher training is provided to ensure their certification remains current at all times.

First Aid

When an injury occurs on site, the injured person is to attend the site First Aid facility for attention. Once adequate attention is administered the injured person returns to the workplace and notifies the supervisor of his incident, injury and return to work.

Where an injured person is required to attend a Medical Centre/Doctor, the injured person shall be accompanied by a staff member to the company nominated Medical Centre/Doctor who will inform the Doctor of the Company's policy of Suitable Duties and forward the Company Treating Doctor's Letter.

The injured person will then return to work unless directed otherwise by the doctor. The accompanying person and/or the injured person will notify the supervisor of the incident, injury and outcome.

The Supervisor will register and report on the incident as required and detailed below.

Medical Emergency and Ambulance / Transport Procedures

In the event of an accident or incident involving a medical emergency requiring transport for any person, ensure the following procedures are followed:

- Immediately on becoming aware of an emergency situation, contact the First Aid facility, provide details of the situation and assist First Aider to reach the casualty.
- Operating under instructions from the First Aider, Paramedic, or Occupational Health Nurse, go to the accident scene and assist with securing the safety of injured person(s).
- Evacuate others from the area if necessary.
- If medical assistance or transport is required, or is likely to be required, the First Aider or responsible person should contact the appropriate service(s) as soon as possible, and provide as much information as is necessary e.g.,
 - o Answer all questions clearly;
 - o Number of persons affected and details of condition;
 - o Location of injured worker(s) and means of access;
 - o Are injured persons conscious or unconscious, breathing, haemorrhaging;
 - o Any other information that may assist the Emergency Services.
- Having secured the safety at the accident scene, and provided assistance to the First Aider, stand-by until help arrives, but also ensure Management has been advised of the circumstances. The HSEQ Coordinator/Manager is also to be informed as soon as is practical, and if necessary, the WorkCover Authority (in consultation with the National HSEQ Manager) and Return to Work Coordinator.
- If the injured worker requires hospitalisation, the appropriate management person will contact next of kin and advise details.

- Commence investigation as soon as is practical after the event.

Reporting and Notification

All first aid and medical emergency treatment is recorded in a first aid treatment log/register and reported to management in accordance with the Fredon Incident/Accident Reporting and Investigation Procedure (HSP-001) and to the principal contractor or customer as required. If treatment is due to a work-related illness or injury, then the first aider notifies the supervisor and the requirements of the Incident/Accident Reporting and Investigation Procedure (HSP-001) are followed.

The First Aid and Emergency Contacts List is included in Appendix 4.

7.2 Emergency Response and Evacuation

An Emergency Response Plan in accordance with the Australian Standard AS3745-2010 Planning for emergencies in the project site has been developed for the site by **Fredon**

The **Evacuation Plan and Emergency contact list**, including contact details of relevant authorities, closest Doctor/Hospital is displayed on the Notice Board and communicated at the induction.

Adequate communications, emergency response equipment and facilities are provided at the time of site mobilisation to manage the readiness for, response to and recovery from a critical incident. Personnel are trained in their role in managing critical incidents; including the use of first response emergency services as required.

The Emergency Response/Evacuation Plan is included in Appendix 5.

Emergency Evacuation Plan

In the event of an emergency:

- Notify of the Emergency and ensure site safety, move people from immediate area.
- Workers are to proceed in an orderly manner to the designated muster point.
- The wardens, as appointed by the project manager, shall conduct a review of the current worker sign on sheet and verify that all personnel are accounted for.
- No worker is to proceed back to the work area until authorised by the warden.

The following shall apply as appropriate:

- Take any practical steps necessary to contain the hazard and prevent it from spreading.
- Warn traffic of any hazards that affects traffic (use lights, warning signs, etc.).
- Notify the client's project manager (or delegated representative) and relevant authorities.
- If possible, intercept any discharge before they enter waterway, stormwater drains etc. with an earth bund or sock from spill kit. Spill kits are to be retained on site at all times.
- Where appropriate, spread absorbent material from emergency spill kit to soak up any spills. If discharge enters waterway and mixes with water, isolate it by floating booms.
- Drills and exercises are conducted to increase readiness and identify opportunities to improve the Emergency Response Plans.
- Outcomes of drills and exercises are included in the project management review process.
- All emergency response equipment (e.g. fire extinguishers and spill kits) are suitably inspected, tested and maintained by competent persons or approved contractors.

8.0 INCIDENT REPORTING AND INVESTIGATION

Where an incident or near miss has occurred, management is notified at the earliest opportunity. All Notification including to authorities is in accordance with the Incident/Accident Reporting and Investigation Procedure (HSP-001) and Customer requirements.

All incidents (including near misses, product/service non-conformances and environmental incidents) will be reported to Fredon using the Fredon On-line reporting facility located on the intranet.

8.1 Reporting Process

The following reporting process must be followed by all workers and management:

- Report the event immediately to your supervisor or your next relevant / immediate manager.
- The relevant supervisor/manager must report all incidents to their direct manager.
- The supervisor or relevant manager shall report the incident using **the Fredon Online Reporting System located on the Fredon Intranet Homepage. To access use the “Report All Incidents” Icon or the Online Forms under the “Useful links”**.
- Where there is absolutely no access to the Fredon Online Reporting System, complete an Incident/Accident Report Form (HSF-001). A copy shall be sent to the Project Manager and/or Branch/Divisional Manager and the Local HSEQ Manager/Coordinator;
- The injured person may need to be consulted when necessary and possible. For a serious incident and where required, any available witnesses are to be consulted and asked to complete an Incident/Accident Witness Statement Form (HSF-003).
- At any time you may consult with the HSE coordinator/manager for assistance.
- Reporting to the Customer /Principal Contract shall be carried out as required and detailed.

Investigation and corrective action is undertaken to prevent future recurrence of the incident, in accordance with Incident/Accident Reporting and Investigation Procedure (HSP-001) and Corrective Action Procedure (MIP-001).

When an incident or near miss occurs, immediate action shall be taken to make the workplace safe, followed by an investigation to identify actions required to prevent further occurrence.

Investigation findings shall prompt, where necessary, a review of company procedures, processes and work methods, to ensure learning's are captured to help prevent recurrence.

Corrective actions arising out of incident investigations shall be implemented in accordance with the Hierarchy of Controls.

The following forms are associated with the Incident/Accident Reporting Procedure:

- HSF-001 Incident Accident Report Form
- HSF-002 Incident Accident Investigation Form
- HSF-003 Incident Accident Witness Statement
- HSF-004 Incident Summary & Corrective Action (optional)
- HSP-016 Incident Accident Reporting and Investigation Flowchart

8.2 Environmental Incidents and Complaints

Internal communications with respect to environmental incidents including complaints will be carried out in accordance with the Incident Reporting and Investigation Procedure (HSP-001) and the Non-conformance/Corrective Action Procedure (MIP-001).

A Non-Conformance Report in accordance with the Management System procedure for non-conformance may be generated including investigation, analysis and corrective action.

An environmental alert will be produced for significant issues.

9.0 INJURY MANAGEMENT AND RETURN TO WORK

Consistent with the company's Injury Management and Return to Work Policy, management will make every effort to return injured employees to sustainable and productive employment as soon after the injury as possible.

All personnel must notify their immediate supervisor following injury or at the onset of symptoms of disease or illness.

All personnel must seek immediate first aid and/or medical treatment following an injury or onset of symptoms of illness or disease, and notify their supervisor. The Supervisor notifies the Project Manager and HSEQ Manager, who escalates reporting as appropriate. Reporting and investigation of the injury or illness will be conducted as per the Incident/Accident Reporting and Investigation Procedure (HSP-001) and any relevant customer processes as detailed in sections 7 and 8.

All rehabilitation and return to work processes to be adopted are detailed in Fredon Injury Management and Return to Work Procedure (HSP-003).

Where external medical treatment is required, the Supervisor accompanies or arranges the medical appointment and transportation for the injured person. A company staff member should accompany the injured person to the medical centre. The Doctor shall be given the company's Treating Doctor HSF-007 which includes the company's policy regarding the availability of suitable duties.

Where it is deemed that an employee can return to work but cannot return to normal duties, a Return to Work (RTW) Program (HSP-004) is developed by the RTW Coordinator and approved by all relevant parties. The RTW Plan is implemented, following medical guidelines at all times and progress reviews are conducted as documented within the program.

Supervisors and the RTW Coordinator maintain ongoing contact with injured persons throughout their rehabilitation and observe their daily progress. Prior to returning to unrestricted work, the injured person needs to provide an appropriate medical certificate stating that he/she is fit for pre-injury duties.

Any disputes and grievances regarding the RTW process should be resolved internally via cooperation between all affected parties. Where a dispute or grievance cannot be resolved internally, the injured person may contact their local Work Cover office for advice and mediation as appropriate.

Workers Compensation

A supervisor or staff member will have escorted the injured person to the appropriate medical centre / hospital for examination or treatment.

- Where possible, the injured person will be referred to the nominated project Medical Practitioner, who will assist in developing a Return to Work Plan and identifying suitable alternative duties.
- The medical certificate and accounts relating to the treatment of the injured worker will be obtained and sent along with the completed Claim for Compensation form to the Workers Compensation Officer.
- The claim will be processed in accordance with insurance company and regulatory requirements.
- The HSEQ Manager is informed.

The Project HSEQ Manager and/or Return to Work Coordinator will be responsible for the implementation of the company's program for rehabilitation through the use of a Rehabilitation Provider, in accordance with the process.

10.0 MEASUREMENT, MONITORING, EVALUATION AND IMPROVEMENT**10.1 Health Surveillance**

Health surveillance is conducted where workers are exposed to specific occupational hazards (e.g. dust, lead, noise) as well as when identified in risk assessments and as required by legislation, all in accordance with the Fredon Health Surveillance Procedure (HSP-035).

Identified health hazards shall undergo a risk assessment with controls applied as per the Hierarchy of Controls. Where a health hazard cannot be eliminated, it shall be controlled to reduce the risk to as low as reasonably practicable. A health surveillance program shall also be established to identify any changes in the health status of employees due to occupational exposure to the specific hazard.

10.2 Workplace Inspections and Monitoring

Workplace Inspection and Monitoring are conducted to ensure that effective controls are in place for identified hazards, to monitor changes in the workplace and ensure compliance with work procedures, SWMS, Site Rules, Customer requirements and Legislation. The Workplace HSEQ Inspection and Monitoring Procedure (MIP-004) will be adopted.

When conducting inspections, workplace specific checklists (available in the management system) are used as appropriate and carried out by the site personnel.

Formal HSEQ inspections of workplaces are arranged by the Project/Site Manager or the HSEQ Management Team, with input from employees and contractors.

Any required actions are noted on the checklist and correction initiated.

Immediately following inspection, results are discussed with relevant supervisors after which corrective actions shall be initiated in accordance with the Non-conformance/Corrective Action Procedure (MIP-001).

10.3 Environmental Monitoring

Where a deviation from a workplace's controlled conditions could result in significant harm to persons or the environment, or breach of legal obligations (e.g. licence conditions), appropriate monitoring programs are established and documented.

Examples of hazards in the workplace that may require monitoring include, but are not limited to: noise, dust, biological agents, lead, asbestos, etc. Exposure Monitoring/ Environmental Monitoring shall be conducted by a suitably qualified/competent/licensed person or organisation.

10.4 Review and Auditing

An integrated review and audit schedule is implemented to ensure that company and site specific procedures and requirements are effectively implemented, suitable for our business in respect to customer, regulatory and stakeholder obligations.

Audits are planned on the basis of the importance and potential risks of the activities to be assessed, and the results of previous audits. Audits are conducted in accordance with the Fredon Auditing Procedure (MIP-003) and performed by assessors who are independent of responsibility for the activities being assessed.

Audit results are documented and in principle agreement reached on the recommended action at the time of the audit. Agreed findings are subject to corrective action.

10.5 Non-conformance

Products or work which are below standard or do not conform to specification requirements need to be controlled so that these nonconforming product or services are not inadvertently delivered, installed or used.

Fredon will take action to eliminate the cause of non-conformities in order to prevent recurrence. Corrective actions shall be raised to facilitate this process.

HSEQ non-conformances may be identified from the following sources:

- Internal and external assessment and audit findings;

- Incident investigations and reports;
- Inspection, monitoring and testing results;
- Community complaints;
- Issues from the Principal Contractor or Customer;
- Breaches of legal and other requirements (e.g. emissions agreements);
- Informal inspections and walkabouts.

A Non-conformance / Corrective Action Form (MIF-001) will be raised for all non-conformances and potential non-conformances in accordance with the Non-conformance / Corrective Action Procedure (MIP-001).

In summary, the steps taken in addressing HSEQ non-conformances and determining corrective action are as follows:

1. Where possible, immediate action is taken to mitigate any impact relating to the non-conformance. The Non-conforming Product shall be segregated and appropriately labelled "**NOT FOR USE**" until a decision can be taken on what shall be done with it.
2. Non-conformances are investigated, their root cause determined and corrective action taken to avoid recurrence. Actions taken are appropriate to the severity of the non-conformance and any resulting impacts.
3. The results of any corrective actions taken are recorded. A concession to use a product or service that differs from specified requirements shall be submitted for consideration prior to incorporation into the works if the use of it is required.
4. The effectiveness of any corrective actions are reviewed.
5. Any necessary changes are made to related HSEQ procedures or documents and/or risk registers.
6. Records are maintained of the actions taken to address non-conformance and potential non-conformances.

Products will be held at required hold points and witness points until the required inspection and tests have been carried out and results recorded.

10.6 Corrective Action

The Non-conformance/Corrective Action Procedure (MIP-001) shall be followed for implementing corrective action. Any action taken to eliminate the causes of actual non-conformities shall be in line with the magnitude of the problem and the risks encountered. In keeping with the policy for quality improvement, an analysis of any recurring requirements for corrective action shall be submitted for management review.

The procedure identifies methods for:

- Handling customer complaints and reports of product non-conformances;
- Classifying the level of risk associated with an event or instance of non-conformance Investigating the cause of nonconformity, recording the results of investigations and determining corrective action to prevent recurrence;
- Applying controls to ensure corrective actions are taken and that they are effective; and
- Recording and implementing changes in procedures resulting from corrective action.

HSEQ Coordinators are responsible for verifying the implementation of agreed corrective actions to ensure that the action is suitable, effective and that objective evidence is recorded to substantiate conformance.

11.0 APPENDICES:**Appendix 1. Company Policies**

Workplace Health and Safety Policy MSP-001
Environmental Policy MSP-002
Quality Policy MSP-003
Young and Inexperienced Workers MSP-004
Injury Management Policy MSP-011
Mobile Phone Policy MSP-012
Fitness for Work Policy MSP-019
Fatigue Management Policy MSP-021
Personal Protective Equipment (PPE) Policy HSP-014
Drug and Alcohol Policy MSP-009
Asbestos Management Policy HSP-018
Live Work Policy HSP-037
Smoking Policy MSP-010
Equal Opportunity and Antidiscrimination Policy MSP-008
Workplace Harassment and Bullying Policy MSP-007

Appendix 2. Risk Register**Appendix 3. Consultation Arrangement Fredon template HSF-081****Appendix 4. First Aid and Emergency Contact (Site Emergency Listing Form HSF-024)****Appendix 5. The Emergency Response/Evacuation Plan Fredon****Appendix 6. Contractor/Subcontractor Register HSF-059****Appendix 7. Commonly used HSEQ Policies and Forms HSF-073**

Location	NSW	ACT	QLD	WA	VIC	NT	NZ	Other:
			X					
Division	Electrical	Air	Technology	Security	Asset Services	Fire	HV	
	X							
Department	Construction	CSG	Service	Infrastructure				
		X						
Project Manager	Sarah Conley		Date	2/03/2018		Audit Number	1	
Project name	QAS Southport		Auditor	Sarah Conley, Scott Gilbert		Job number	20S3890	
Comments								
Audit Scope	Internal Audit							
Number of Areas Audited			Number of Non Conformities Raised			Number of Observations Noted		
1			0			2		
Where fingerless gloves are being used, workers are to complete a FredonSafe for the task 90 day inspection by Hireach fitter had not been completed on the scissor lift.								
Key								
Non Conformities		Observations			Compliant			
NC		O			C			

Aspect	Requirements /Guidance	No.	Audit Questions	Findings			Evidence / Comments / N/A
				NC	O	C	
1 Policy and Commitment & Vision	Fredon considers all interested parties , thus policies must be communicated accordingly. Fredon's Management System covers all business units: project management must be aware of its elements and function	1.1.	Have interested parties been consulted & informed about FREDON's Quality , Workplace health and Safety , Environment and sustainability policies? Including where to access them and to whom they apply?			X	HSEQ plan onsite and reviewed and signed by Fredon employees. Note site management have also reviewed and sign relevant sections
		1.2.	Is FREDON's site and project management acquainted with: * The FREDON Management System (including accessing it)? * The key Management System processes?			X	
2 Document and Record Control	All project documentation must be controlled to ensure: * Correct information is available for the project * Current versions are available All documents are reviewed and approved for adequacy . * Changes to the documents are regulated and communicated * Superseded documents are retained for legal, references or knowledge preservation purposes.	2.1.	Is there a document control process in place for the project? (give example)			X	Aconex used onsite
		2.2.	Are the latest up to date management system documents and forms being used (current version)?			X	Aconex used onsite - drawings uploaded by Fredon design team onto Aconex
		2.3.	Are drawings reviewed and approved by authorised personnel? Are all drawings indicated in the Drawing Register? (Is ITC-1, ITC-1A being used?)			X	Aconex used onsite
		2.4.	Are Drawing approval tables completed and signed before given to external parties?			X	Aconex used onsite
		2.5.	Are transmittals used and kept in the project file?			X	Aconex used onsite
		2.6.	Are Superseded documents/drawings marked and filed into a accordingly ?			X	Aconex used onsite
3 Responsibility Training and competency	Employees with an impact on HSEQ performance must have suitable competence. Fredon will provide WHS training to support the Management System, Company Policies and Legislation; Visitors induction and sign-ins are mandatory	3.1.	Have Fredon workers and subcontractors completed the Principal Contractor's Induction?			X	
		3.2.	Have Fredon staff and sub-contractors completed a Fredon Site Specific induction, with site Safety Rules been communicated?			X	completed and records saved on SP
		3.3.	Is the Skill Register current and up to date with all Fredon staff/subcontractor competencies included?			X	Skill register develop and maintained. includes all Fredon and subcontractors onsite
		3.4.	Has appropriate HSE training been provided to Fredon site management personnel? (with well maintained training records)			X	
		3.5.	Have personnel with HSE responsibilities been appropriately trained? E.g. Fire Wardens, First Aid Officers, HSE Committee members.			X	Trained Fredon first aiders onsite
		3.6.	Is the Sign-in Sign-out Register being used by all Fredon employees, sub-contractors and (Customer, Principal Contractor or Fredon)			X	sign in and out register completed and records saved on SP, note additional spreadsheet used to track labour
4 Consultation and Communication	Appropriate consultation arrangements for health and safety matters shall be in place. Selected Fredon project personnel shall participate HSE consultation and communications (client site) .	4.1.	Is there a formal HSE consultation arrangement in place? Is it communicated or displayed?(e.g Daily Pre-starts, Toolboxes, HSE committee).			X	daily prestarts completed records saved on SP. Weekly toolbox talks completed.
		4.2.	Where applicable is Fredon represented in Customer or Principal Contractors' Health and Safety Committees?			X	No committee required onsite
		4.3.	Are minutes and issues raised during onsite consultation communicated (notice board etc) , investigated and resolved?				N/A
		4.4.	Are Daily Pre-Start Meetings completed and minutes filed in the site project folder (HSE matters included for Fredon and Subcontractors) Are previous issues raised suitably closed out?			X	records saved on SP. soft copies only
		4.5.	Are Toolbox Talks being conducted weekly? Are Fredon HSEQ Alerts being communicated to all employees during Toolbox Talks and then displayed?.			X	

Aspect	Requirements /Guidance	No.	Audit Questions	Findings			Evidence / Comments / N/A
				NC	O	C	
5 Incident Reporting and Investigation	Incident management procedure shall be implemented including : Notification (internal and external) Investigation and corrective and preventive actions Communication	5.1.	Are the Fredon requirements of incident reporting communicated to employees? (including completion of applicable tools& reports: Form HSF-001 , HSF-002.			X	yes, HSF 001 used and incident details and any CA communicated through toolbox talk
		5.2.	Is the root cause determined and corrective actions put in place after an incident or near miss? Is the Hierarchy of Controls used to determine the suitable corrective action?			X	as above
		5.3.	Is the Project Manager and/or Supervisor involved in the investigation?Does the Project Manager/Supervisor send notification to the Divisional and HSEQ Manager? (within the specified time)?			X	
		5.4.	If the incident was a notifiable incident, was it notified to the authorities?				Nil notifiable incidents
6 Injury Management and Rehabilitation	Management of first aid facilities and application of first aid shall be in line with the procedure. Return to work procedure and process shall be implemented.	6.1.	Are there adequate facilities to provide First Aid on site?. Are facilities well labelled and suitably maintained (with records) ?			X	Fredon first aid kit as well as being an ambulance station
		6.2.	Is the Fredon First Aid Kit accessible to all Fredon staff? Is the MSDS folder available near the First Aid Kit/Station?			X	Fredon first aid kits located in site office and site vehicles
		6.3.	If not supplied by the Principal Contractor or Customer, does Fredon (or subcontractors) have First Aiders on site? Do they have a current First Aid Certificate?			X	1 x First aider
		6.4.	Is a copy of the Letter to the Treating Doctor (HSF-007) made available when an injured person is sent to the medical centre?			X	
		6.5.	When an injured person is partially incapacitated, are suitable duties made available for the injured worker? Is there a Return to Work Plan?				Nil requirement to date
7 Emergency Management	All sites shall implement a suitable emergency preparedness process including : Availability and maintenance of emergency facilities and equipment	7.1.	Are emergency preparedness measures in place ? (emergency procedure, displayed evacuation plan or map, location of extinguishers , emergency listings {including phone numbers, location of doctor & closest hospital/medical centre})?			X	
		7.2.	Are emergency drills conducted? When responsibility lies with Fredon, are emergency evacuations drills scheduled and conducted? Is the Fire Safety Drill Form HSF-027 available?			X	Due to operational nature of station, unable to conduct drills
		7.3.	When supplied by Fredon, is emergency equipment, exit signs and alarm systems inspected tested and maintained at regular intervals?				N/A
		7.4.	Do the response procedures include rescue of workers from excavation, working at heights and confined space incidents? Are these circumstances covered in Permitry?			X	EWP - all operators are VOC'D on EWP.
		7.5.	Are fire extinguishers tested and tagged and records kept? Are maintenance records for emergency equipment available? Is there a spill kit available on site?			X	Tagged and records kept onsite
		7.6.	Are outcomes of drills & exercises reviewed and communicated to all contractors and sub-contractors on site?				N/A

Aspect	Requirements /Guidance	No.	Audit Questions	Findings			Evidence / Comments / N/A
				NC	O	C	
8 Planning Project Management & Purchasing	Project budget, HSEQ objectives shall be managed through specific project plans. Focus should be on continuous risk identification and mitigation. Suppliers and subcontractor selection procedure must be implemented. COINS have an extensive database containing the suppliers that are currently used. Purchase Orders and Contracts contain all information necessary to describe the product or service required. Where required, identification and traceability systems are agreed with each customer, supplier and contractor. Applicable requirements for handling, protection, storage, preservation and delivery are specified in Contracts.	8.1.	Does FREDON have an approved HSEQ / related plan ? Has the plan been plan communicated to all employees and subcontractors involved in the project?			X	HSEQ plan onsite and reviewed and signed by Fredon employees. Note site management have also reviewed and sign relevant sections
		8.2.	Is there a Program identifying how/when all key activities (e.g. Design, procurement, manufacture, installation and commissioning) take place?				Yes, regularly reviewed
		8.3.	Has a Risk Assessment been conducted for the project? Is the Risk Register HSF-010 used? (Revised and current)				Not inspected during audit
		8.4.	Does Fredon site management have access to legislation and other legal requirement? (WorkCover or state equivalent Websites)			X	access to F drive & internet
		8.5.	Are Contract Variations formally raised and registered? Is the Variation Summary Schedule PMF-008 available?			X	Variation register in place
		8.6.	Are variations presented and accepted by the client within the time specified in the contract?				Nil to date
		8.7.	Is the Subcontractor (HSEQ) Selection and Management Procedure followed when selecting subcontractors? Is the Subcontractor Pre-qualification questionnaire HSF-013 used?			X	Yes, asbestos contractor
		8.8.	Is contractor performance reviewed and evaluated? Was there a review of earlier performance of suppliers or product characteristics?			X	Nil to date
		8.9.	Are all the Subcontractors contact details entered in the Contractor/Subcontractor Register HSF-059?			X	Site skills register used
		8.10.	Do subcontractors have a HSEQ Management Plans that aligns to Fredon's HSEQ Management System? If not, do they work under Fredon's HSEQ Management System?			X	subcontractors sign onto HSEQ plan when required
		8.11.	Upon completion of the work; is the Subcontractor Post Work Performance Evaluation HSF-038 completed by the Project Manager? Provide evidence.				Not inspected during audit
		8.12.	Are incoming goods checked to ensure they comply with the requirement of the purchase order?			X	Delivery dockets check and saved on SP
		8.13.	Is the Product Non-conformance procedure followed for when faulty material or products have been received, and has a Product Non-conformance Report been raised and registered? (Was Report Form MIF-003 used)?				Not required to date
		8.14.	Does the project allow for client supplied product to be recorded and appropriately and adequately stored until incorporated in the works?				All Fredon supplied
		8.15.	Are the ITP's and ITC's initiated as required by the specification and/or legal requirement associated with the state?			X	ITC completed by workers onsite
		8.16.	Do the ITPs and ITCs specify what to test, how and when?			X	
		8.18.	Are ITPs and ITCs completed by Fredon personnel during the course of the work?			X	
		8.19.	Are non-conformances raised recorded and managed in line with the procedure				N/A
		8.20.	If any claims are generated against the company, what is the process? How are Customer Complaints handled? Is the Customer Complaints Procedure followed and Non-conformance Report completed?				N/A

Aspect	Requirements /Guidance	No.	Audit Questions	Findings			Evidence / Comments / N/A
				NC	O	C	
9 Monitoring and Improvement	Workplace Inspection and Monitoring must be conducted to ensure effectiveness of controls. Corrective Action procedure shall be implemented	9.1.	Does Fredon participate in the regular HSE inspections conducted by the Site Safety Committee members and coordinated by the Principal Contractor?				N/A nil committee on site
		9.2.	Are weekly inspections conducted by the Fredon supervisor or nominated personnel using the Site HSEQ Inspection Checklist MIF-008?			X	site supervisors complete weekly. Site are also using Lucidity
		9.3.	Do subcontractors and management participate in the safety inspections?				
		9.4.	Are resulting corrective actions from the weekly inspection documented and closed out promptly?			X	Yes, closed out immediately
		9.5.	Are Non Conformance / Corrective Action Forms (MIF-001) raised and closed out (on time) for non-conformances and potential non-conformances?			X	CA now raised on Lucidity
		9.6.	Are there any outstanding Corrective Actions from previous Audits (internal and external)?				Nil
10 Work Environment		10.1.	Are all access/egress ways kept clear? Are emergency exits clearly sign posted? Are walking surfaces in good condition?			X	Yes operational station
		10.2.	Are amenities and offices adequate for the number of employees? Is the Food area clean and hygienic? Are amenities /offices kept clean and tidy?			X	
		10.3.	Are there adequate noticeboards in place including HSE noticeboard? Are safety signs in good condition (not faded or damaged)? Clearly visible?				Unable to put any up due to nature of site
		10.4.	Are fire extinguishers available at the amenities area and offices and is there clear access to fire safety equipment and emergency exit doors?			X	By QAS
		10.5.	Have all reasonably practicable control measures been implemented to minimise the risks of working in extreme hot or cold conditions?			X	
		10.6.	Is there a designated smoking area?			X	Govt building, no smoking on site
		10.7.	Are materials stored off the ground and easily identified? Are storage areas weather proof? Are materials protected against damage? Are defective materials quarantined and tagged?			X	Fredon container onsite
		10.8.	Do vehicles have warning devices? Flashing lights, reverse warning signals?				N/A
11 Personal Protective Equipment	Where hazards remain (after application of risk management heirachy) personnel & visitors shall use issued PPE. Compliance must be monitored. PPE procedure must be implemented based on the risk assessment requirements	11.1.	Are Fredon workers and subcontractors complying with Fredon PPE policy and any other site/customer requirements?		X		Noted PPE stock onsite. noted no googles or foamed backed glasses onsite. Maxiflex gloves being used onsite. Note that employees using fingerglass gloves, however have not completed a take 5 (risk assessment).
		11.2.	Has the correct PPE appropriate for the task been identified, issued and registered? (Task specific requirements.)			X	
		11.3.	If any deviation from the correct PPE requirements is evident, has the formal approval process been adopted?				N/A
		11.4.	Is there any defective or damaged PPE evident, has it been removed from use? Do workers inspect PPE prior to use?			X	PPE registers completed and records kept

Aspect	Requirements /Guidance	No.	Audit Questions	Findings			Evidence / Comments / N/A
				NC	O	C	
12 Manual Handling	Manual tasks must be managed in accordance with the procedure	12.1.	Are all Hazardous manual tasks identified assessed and controlled? Are they addressed in SWMS ?		X		
		12.2.	Is the Hierarchy of control used to minimize the risk of injury caused by manual tasks?		X		Generator lift conducted by franna
		12.3.	Are mechanical aids provided for heavy or awkward loads?		X		
		12.4.	Are Hazardous manual tasks activities and control measures included in toolbox talks or in specific training sessions?		X		
13 Safe Work Method Statements	Safe Work Method Statements (SWMS) shall be developed and reviewed for all High Risk Construction Work.	13.1.	Have site specific SWMS been developed for all high risk construction work (whether Fredon or subcontractor)?		X		Yes and MOPs
		13.2.	Are the SWMS reviewed, approved , signed off and recorded in the relevant register ? Is the work taking place on site in compliance with the SWMS?		X		
		13.3.	Has the 'hierarchy of controls' been adopted for the selection mitigating controls? Are the controls well defined?Has the risk level been reduced?		X		
		13.4.	Are the work activities in the SWMS set out in a logical sequence and include all necessary tasks?		X		
		13.5.	When are SWMS reviewed? Are changes being recorded and communicated to the workers involved? Have the appropriate operatives been consulted during this process?		X		Doc superseded on SP and hard copies maintained in site office
		13.6.	Are the workers trained in the tasks and provided with the instructions that will assist them to implement the SWMS, and have they signed off?		X		
14 Work Permits	Permit system requirements shall be met accordingly	14.1.	Are Permit requirements by the Principle Contractor complied with?(Eg. Excavation, Hot Works, Confined Space)		X		All permits are Fredon permits
		14.2.	Are all relevant sections of the Permits completed and signed off by an authorised person?		X		
		14.3.	Is the Energisation/Isolation Permit HSF-042 used for specific electrical work?		X		Yes and MOPs
15 Hot Works, Welding and Cutting	Hot Work management procedure must be implemented (including pre-assessment)	15.1.	Is a Hot Works Permit used (HSF-045) when performing hot works?If the Principal Contractor issues the Hot Work Permit, does the Hot Work Permit specify what safety requirements are required to mitigate hazards? What are these requirements?				Not inspected during audit
		15.2.	Is the hot works area isolated/barricaded with signage? Are Principal Contractor Rules being adhered to?Is there a fire extinguisher on hand?				Not inspected during audit
		15.3.	Has the Hot Works Permit been signed off by a Permit Officer after work completion? Is a copy of the permit kept?				Not inspected during audit

Aspect	Requirements /Guidance	No.	Audit Questions	Findings			Evidence / Comments / N/A
				NC	O	C	
16 Confined Space	Confined spaces management procedure must be implemented (including pre-assessment)	16.1.	Are the following in place confined Space Hazard Identification Checklist HSF-046§ Confined Space Risk Assessment HSF-047§ Confined Space Entry/Exit Log HSF-049§ Confined Space Entry Atmospheric Evaluation HSF-050 § Confined Space Entry Permit HSF-048				N/A - confined space works been not been completed onsite
		16.2.	Is the Confined space Entry Permit signed and completed?				N/A
		16.3.	Are all personnel involved in the confined space work trained in confined space entry? Do they have a current certificate?				N/A
		16.4.	Is there a trained stand by worker present at all times?				N/A
		16.5.	Are all confined spaces sign posted?				N/A
		16.6.	Is atmospheric monitoring equipment available?				N/A
		16.7.	Have relevant emergency procedures been developed and tested? Is First Aid and other emergency equipment provided close by?				N/A
17. Hazardous substances dangerous Goods	All chemicals shall be used, stored, transported, handled and disposed of according to the requirements of the Safety Data Sheets SDS	17.1.	Are all substances on site approved and listed in the Hazardous Chemical Register HSF-052?			X	register developed for site and saved on SP
		17.2.	Is there an SDS available for each chemical on site? And is it in date?			X	regsiter onsite
		17.3.	Are chemicals stored away from other combustible substances and correctly labelled?			X	
		17.4.	Are gas cylinders segregated and stored up right in a lock up cage?				N/A
		17.5.	Are hazardous substances warning signs being utilised in and around storage areas? (eg. No smoking)			X	
18 Excavations	Excavation procedure shall be implemented for any ground penetration over 500mm deep	18.1.	Is there a Risk Assessment conducted and a SWMS developed for excavation work?			X	Yes and MOPs
		18.2.	Is a 'Dial Before You Dig' survey completed prior to commencement of work?			X	Yes
		18.3.	Is the excavation classed as a confined space, if so, is the confined space procedure followed?				N/A
		18.4.	Where sides of trenches exceed 1.5m deep, are they adequately supported?			X	Trench depth did not exceed 1.5m
		18.5.	Is the area barricaded with suitable signage and is there adequate access/egress?			X	barricaiding used onsite
19 electrical safety and isolation	Electrical work: wiring, portable tools and extension leads must be in accordance with the electrical code of practice and or AS3000 (latest edition) Wiring Rules. Any isolation shall be performed in accordance with the Fredon Lock-out and Tag-out Procedure and associated documents, or as required by the Principal Contractor.	19.1.	Are workers and subcontractors aware of the "No Live Work Policy"?			X	during site induction
		19.2.	Is there a suitable SWMS for electrical work being carried out? Are there control measures in place to manage the Electrical Risk?			X	
		19.3.	Do the SWMS include any activities on or near energised installations? Are control measures in place?			X	
		19.4.	If Live Work is unavoidable, has written approval from the Branch Manager been given? Provide evidence with adjoining Risk Assessment and SWMS.				N/A
		19.5.	Is electrical equipment tested and tagged? Is equipment being listed in the Test and Tag Register HSF-058?Is Hire Equipment inspected, tested and tagged?			X	

Aspect	Requirements /Guidance	No.	Audit Questions	Findings			Evidence / Comments / N/A
				NC	O	C	
Electrical		19.6.	Have Subcontractors conducted Testing & Tagging of their electrical equipment? Have they provided evidence?				Not inspected during audit
		19.7.	Is testing of electrical installations conducted before the commencement of work?			X	
20 Tools, equipment plant and mobile equipment	Plant /equipment introduced to the site by all must conform to the manufacturer's specification. Plant and equipment shall be used and maintained in line with Fredon Safe Use, Inspection and Maintenance of Plant and Equipment Procedure. All testing equipment (e.g. gas monitors, multimeter, mega tester) must be calibrated with records kept on file.	20.1.	Is all plant maintenance carried out as per maintenance schedules and manufacturers' specifications? Recorded)		X		noted that maintenance history of EWPS to be saved on SP. 90 day inspection required
		20.2.	Are Plant Pre-start checks completed?Is the Plant Logbook completed?			X	
		20.3.	Is there a procedure for faulty equipment on site? Is it locked out tagged with an "Out of Service and removed from operation?"				Not inspected during audit
		20.4.	Do operatives using the plant have relevant licenses?Evidence skills register and cross reference site activities.			X	Scissor lift tickets
		20.5.	Are electrical extension leads placed on hangers and kept off the floor?				Not inspected during audit
		20.6.	Has all Measuring and Testing Equipment been calibrated? Is it listed in the Testing and Measuring Equipment Register PMF-004?				Not inspected during audit
21 Working at heights	The Working at Height Procedure must be implemented where falling from heights becomes a risk. All equipment used for fall-arrest should be designed, manufactured, selected and used in compliance with the AS1891 series of standards. Scaffolding requirements shall be applied where required	21.1.	Is there a SWMS or a Risk Assessment conducted for Working at Heights?Have operatives signed off?			X	SWMS for scissor lift only required
		21.2.	Are there appropriate control measures or other means implemented to complete the work?			X	
		21.3.	If fall arrest systems are required, provide evidence that the operatives are suitably trained. Has the equipment been recently tested and tagged? Have the lanyard attachment points been certified by a competent person?				N/A
		21.4.	Are EWPs being used appropriately? On a solid level surface, lowered before traveling to a new work point, etc?			X	
		21.5.	Do workers using EWPs have relevant Competency Certificates or a High Risk Licence for Boom Lifts over 11m?			X	Skills register maintained onsite
		21.6.	Are Platform ladders utilised for work activities? Are they being used the way they were intended to be used and visually inspected prior to use?Are fiberglass ladder used where electrical work is being carried out?			X	ladder register maintained onsite.
		21.7.	Are scaffolds over 4m built and dismantled by a licenced scaffolding sub-contractor?Are scaffolds under 4m built and inspected by a competent person?				Nil onsite
		21.8.	Are scaffolding sub-contractors inspecting scaffolding every 30 days? Does scaffold have edge protection?				Nil onsite
22 Cranes and lifting Equipment	Only qualified personnel may carry out work associated with:movement of plant and equipment, placement of pre-cast concrete steel, safety nets /static lines erection. Only qualified personnel may carry out work associated with particular hoists, mast climbers, perimeter safety screens and shutters, cantilevered crane loading	22.1.	Does the lifting activity addressed in a suitable working SWMS?				Not inspected during audit, lifting had already been completed
		22.2.	Does the crane driver hold a relevant licence?				N/A
		22.3.	Is the lifting gear clearly marked with the Safe Working Load? Is there a safety latch on hooks? Is it operational?				N/A
		22.4.	Is the lifting equipment inspected, tagged, logged and correctly stored?				N/A
		22.5.	Is the area barricaded to prevent people from walking under the suspended crane load? Is the operational area clear of all power lines? Are tag lines used?				N/A

Aspect	Requirements /Guidance	No.	Audit Questions	Findings			Evidence / Comments / N/A
				NC	O	C	
23 Environmental Management	Environmental aspects shall be effectively managed through management plans. Environmental Inspections shall be implemented and maintained	23.1.	Where determined by the customer or by risk assessment, are the relevant Environmental Management Plans developed and implemented?				Not inspected during audit
		23.2.	Is the Environmental Aspect & Impact Register kept up to date? HSF-060				Not inspected during audit
		23.3.	Is an Environmental Inspection conducted and the Checklist completed? HSF-061				Not inspected during audit
		23.4.	Have the correct measures been taken to ensure hazardous substances stored on site do not enter surrounding waterways?				Not inspected during audit
		23.5.	Is waste covered to ensure that any pollutants are prevented from escaping? Are receptacles emptied when full?				Not inspected during audit
		23.6.	At the completion of the work, is the site left clean and free of waste materials?				Not inspected during audit
		23.7.	Are stockpiles covered or bunded to prevent soil from entering water course?				Not inspected during audit
		23.8.	Is plant and equipment free from mechanical leaks? Are refuelling hazards taken into consideration and have they been mitigated through control measures?				Not inspected during audit
		23.9.	Are dust generating activities stopped if windy weather?				Not inspected during audit
		23.10.	Is Noise exposure controlled? How?				Not inspected during audit
		23.11.	Is Noise management included in working SWMS?				Not inspected during audit

Commissioned by : Paul O'Brien Date: 30/04/2018

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[illegible]

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The information provided within this report is for the purpose of learning which should be seen as an opportunity for all sides of the business

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1 Overview

The Lessons Learned report is created for the purpose of recording and sharing lessons learned to:

- Avoid making the same mistakes
- Improving on current delivery standards by adopting proven good practice
- Responding to changes in the Project Management environment including new priorities, initiatives and strategies
- Contributing to organisational growth and maturity by effecting long term improvements in the way an organisation embeds and shares Project Management best practice.

2 Project scope

Fredon estimating team negotiated and were formally awarded the project on 1st December 2017.

The QAS Southport facility (generally abbreviated to QAS), is a 24/7/365 operational 000 emergency command and ambulance station. The ability to have reliable backup infrastructure is imperative to the operational functions of the facility. This upgrade was to ensure that reliable backup contingencies are in place. The intention was to have the project completed prior to the Commonwealth Games in March 2018.

3 Project Commercial summary

Contract (tendered)		Contract report (July 2018)		Differential
Value	\$417,561	Value	\$484,058	+\$66,497
Margin 15%	\$62,634	Margin 3.55%	\$ 17,198	-\$45,436
Project labour \$	\$129,800	Project labour used \$	\$121,196	+\$8,604
Project labour Hrs	1,615 Hrs	Project labour Hrs used	1,738 Hrs	41 Hrs
		Variation hours.	82 Hrs	
Labour gang rate	\$65.00		\$70.00	\$5.00
Project duration	16 weeks	Actual duration	29 weeks	+ 13 weeks

4 Could Do Better

The below are findings / observations which presented during the project journey.

Whilst in most project scenarios there is generally a pendulum effect (risks v opportunities) which ultimately find a point of balance.

ID	Subject	Issue	Actual Impact	Next time
1	CONTRACT	Contract was issued Dec 2017. The Project Manager (PM) was not placed on the project until the end of January 2018. Another PM had been given the project to start however he was due to go on paternity leave	Delayed start in the project meant that essential items were not covered, resulting in a temporary measure being constructed to allow for Comm Games period.	Allocate a PM at project commencement that is able to commence the project when required. If removing from another project ensure contingencies are in place to cover the other project.
2	PROJECT TIME FRAME	The initial project period was 16 weeks. The PM was allocated with approx. 6 weeks left to go prior to the lock out period.	No undergrounds had occurred No Energex connection No paperwork had been completed No metering done or organised No property pole No consultation with lightning protection	If a PM is unable to start on the project, allocated another resource to commence essential items. Energex connections required approx. 12 week lead time.
3	SWITCHBOARDS	Initial PM placed the order for switchboards, however no approvals had been given, or manufacturing had commenced. Second PM had to follow up	PM had to accelerate the switchboard builder, at additional cost to enable weekend work.	If a PM is unable to start on the project, allocated another resource to commence essential items, and monitor until handover to permanent PM
4	ENERGEX	Consultant had stated they had organised Energex to help out. No contact was made with Energex until PM commenced on the project. Energex contact was given during the kick off meeting with estimator and initial PM.	Energex lead time is approx. 12 weeks, which resulted in no permanent connection and Fredon failed to meet the Comm Games cut off.	If a PM is unable to start on the project, allocated another resource to commence essential items, and monitor until handover to permanent PM
5	PLAN B OPTION	Due to not meeting deadlines because of the above. Labour and material had to be used in order to give QAS a plan "B" option. Which gave them their N+1 backup for the Comm Games.	PM designed and reused parts of the current system in order to re-route the generators in a way that achieved this goal with what QAS had on site	If a PM is unable to start on the project, allocated another resource to commence essential items, and monitor until handover to permanent PM
6	POST COMM GAMES	Work recommenced after the Comm Games lock out period	As there was no longer a push for works to be completed, minor hurdles and cut overs would regularly be pushed back resulting in extra time required. To avoid lost time workers were allowed to take RDOs and annual leave, or sent to other sites.	Complete works in initial timeframe.
13	DESIGN	The project was supposed to have a Discrimination study done before the boards were built. This was done based on consultant's design which was found to be flawed. The Discrimination study as per contract was meant to be done 1 week after	This held up switchboard manufacture and Energex as the project was unable to confirm site supply requirements	If a PM is unable to start on the project, allocated another resource to commence essential items, and monitor until handover to permanent PM

ID	Subject	Issue	Actual Impact	Next time
		contract issue. It wasn't done until February.		
14	TRENCHING	The trenching budget was \$4,000 material plus 40 hours approx. Vac trucks were required to be used (in contract due to asbestos contamination in soil)	Actual cost came to \$35,000-\$40,000 plus 160 hours for spotters and supervision	Estimator to confirm trenching requirements before assuming excavators are acceptable
15	METERING	The metering allowed for was EDM1 which was below specified and not an adequate equivalent.	The metering allowed for was EDM1 which was below specified and not an adequate equivalent.	Estimating checklist of all specified materials to be completed during tender phase
16	LOAD BANK	There was meant to be two load banks on the project. Only one was picked up on the tender.	Each load bank was \$16,000, this resulted in a short fall in the budget	There was meant to be two load banks on the project. Only one was picked up on the tender.

5 What we must do better

- Tendering - Scope needs to be understood in its entirety – inclusive of any existing site conditions, builders' safety requirements, make good requirement, external provider timeframes and client programming restrictions.
- More efficiently allocate appropriate management to the Project on award, to ensure fast moving deadlines are met.

The information provided within this report is for the purpose of learning which should be seen as an opportunity for all sides of the business.