



**PHILIP MORRIS  
(PAKISTAN) LIMITED**

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## **EHS SITE MANUAL**

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### **CONFIDENTIALITY NOTICE**

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## 1 Purpose

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The purpose of this manual is to outline the content guidelines, that is, basis and format for Health, Safety and Environment aspects of the Environment, Health and Safety (EHS) Manual of PMPKL Manufacturing, Sahiwal.

This document is developed in accordance with requirement set out in ISO 9001:2008, ISO 14001:2004 & ISO 45001 standards.

## 2 Scope

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This Manual has been produced as a tool that can be used when managing a Project and details the requirements needed to support the CLIENT Engineering Health and Safety Plan.

The intention of the Manual is to establish the minimum standard of safety that we require on our projects and within our premises, and is specifically aimed at improving the safety procedures and practices of our contractors / vendors. To this end, a project is seen as ranging between a simple maintenance contract or installation of equipment, to major refurbishment of production equipment or a structure, and new construction works.

In many cases it is apparent that the safety procedures of some contractors / vendors are not sufficient or adequate to meet our and legal requirements, consequently their adoption of this Manual may be a way of improving the situation.

The manual is a flexible document, in as much as sections that are not required, or not seen as pertinent to the situation, may be removed or adapted suit the needs of the work, task or project. Also, there is the matter of local customization, as it is impossible to produce a single document of this type that complies with the detailed rules and regulations of every country. Therefore, it is the responsibility of the user to ensure that the specific details contained in this document and all its appendixes are suitably amended to comply with all Local Laws and Regulations.

Obviously, some projects and locations will have their own established procedures and these will supersede / replace the duplicated sections existing within this Manual.

Please consider this document a foundation, on which you can build and improve.

## 3 EHS Philosophy, Policies and Safety Organization

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### 3.1 Dress Code Policy

#### 3.1.1 Purpose:

To provide clearly stated Dress Code for PMPKL Sahiwal employees and others while on the PMPKL Sahiwal site.

#### 3.1.2 Dress Code Policy Statement:

It is mandatory to wear Pant / Trouser, shirt, (Shalwar, short Kameez for ladies) & safety shoes.

#### 3.1.3 Operating areas Dress Code

- **Gents Dress Code:**

It is mandatory to wear Pant / Trouser & Safety Shoes.

**Note:** Loose clothes around neck or shoulders are not allowed in operating areas.

- **Ladies Dress Code:**

It is mandatory to wear Pant / Trouser / Shalwar, full sleeve shirt / short Kameez (maximum up to thigh) & Safety Shoes.

**Note:** Loose long head hair (down the shoulders), loose jewelry, rolled up sleeves, loose clothes around neck or shoulders are not allowed in operating areas.

- **Workshop:**

Half sleeves mandatory in machine Shop. Rolled up full sleeves are not allowed.

#### 3.1.4 Exemption

1. Employees, visitors and vendors are allowed in Pant / trouser, shirt, shalwar Kameez and closed non-slippery shoes in non-operating areas.
2. Visitor / Vendors and Truck Drivers allowed in Pant / trouser, shirt and shalwar Kameez.

#### Non-Operating Areas:

Following would be considered Non-Operating areas for this policy:

1. New Office Building
2. Canteen
3. Admin Office
4. Clinic
5. Security Office
6. Mosque

## **3.2 Contractors' Reprimand System**

### **3.2.1 Purpose**

This procedure defines a disciplinary policy for reprimand of contractors in case of any violation against PMPKL EHS standard, regulation, policy, or rule.

#### **Why it is Important for PMI Operations**

To avoid any violation with a probability of causing damage to human, property & environment.

### **3.2.2 Category - I Violation**

Any violation which can lead to/has led to an incident that is life threatening (to self or others) and/or may lead to business disruption & is committed with full awareness of human consequences.

#### **3.2.2.1 List Of Category – I Violations:**

1. Commencement of work without obtaining Permit to work and failure to follow confined space, hot work, work at height, excavation requirements.
2. Non-compliance of energy isolation requirements (LOTO).
3. Smoking is not allowed in plant & office premises except in designated areas.
4. It is mandatory to report all "On the Job" Health, Safety and Environment incidents.
5. Self-Indulgence into unsafe activity or encouraging / forcing someone else to indulge into unsafe activity.
6. Working in PMPKL premises under the influence of drugs or use of drugs in PMPKL premises
7. Disabling of Interlocks, guards, switches & security devices, without proper authorization, is strictly prohibited.
8. In case of recordable injury, investigation will be carried out to determine intentional or unintentional involvement for a decision about penalization.
9. Occurrence of near miss, first aid, property damage & environmental incident with high impact potential.
10. Presenting forged licenses & documentations to fulfill EHS requirements.
11. Use of damaged/uninspected electrical tools, work at height equipment, lifting equipment.
12. Blocking access to emergency equipment or hindering the Emergency Response Plan.
13. Walking under suspended load.
14. The contractor or his supervisor shall not at any time leave his employees unsupervised without prior permission from the company's representative.

### **3.2.3 Category - II Violation**

Any violation which can lead to/has led to an incident that is life threatening (to self or others) and/or may lead to business disruption & is committed with full awareness of human consequences.

#### **3.2.3.1 List Of Category – II Violations:**

1. Not investigating EHS Incident in a timely manner.
2. Not using required PPEs for the job or using damaged / substandard PPEs.
3. Not disposing waste according to PMI procedure.
4. Engaging medically unfit workers at the workplace.
5. Unauthorized operation of tools, machinery or equipment without training/appropriate experience.
6. Improper use or misuse of hand tools/powered tools.

7. Using uninspected gas cylinders.
8. No worker will be allowed to enter company premises without safety induction.
9. No chemical will be used in company premises without chemical approval form.
10. Violation of traffic rules within plant is prohibited including the use of seat belts.
11. No unfit vehicle /scissor lift will be allowed to enter in company premises.

### 3.2.4 Disciplinary Actions/ Penalties

S. No	Violation or Non-Conformance	No. Of Violations	Penalty
1	<u>Category-II Violation</u>	4	Warning
		5	Warning + Penalty of up to 10% of PO value
		6	PO Cancellation
2	<u>Category-I Violation</u>	1	Warning
		2	Warning + Penalty of up to 10% of PO value
		3	PO Cancellation & Blacklist

Table 4: Violation and non-conformance Penalties

#### Terms & Conditions:

- Disciplinary Committee has the discretion to terminate the PO / vary the penalty of PO at any time.
- The contractor will notify, in writing, of any violations of the safety requirements and provide corrective action(s) to rectify the situation within a timeline agreed between contractor and PMPKL.
- If the contractor fails to take corrective action within the agreed timeline, an order will be given for stopping all or part of the work until satisfactory corrective action has been taken.
- The contractor will not be eligible to use any part of the lost time incurred because of such stop orders as the subject of a claim for extension of time, additional costs or damages.

### 3.2.5 Disciplinary Committee (PMPKL)

It is a committee consisting of 3 members charged with examining alleged breaches of discipline and adjudicating on them.

#### Members of Disciplinary Committee for Category-I Violation:

1. Manager Sustainability
2. Manager Engineering
3. Manager Procurement

## **Members of Disciplinary Committee for Category-II Violation:**

1. Sustainability Specialist
2. Project Engineer
3. Procurement Executive

## **4 Basic Site Safety Rules**

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### **4.1 General**

Safety rules and procedures provide a uniform guide for work habits and personal behavior of our employees and others while on the site. Following these rules minimizes the potential for personal injury and/or damage to facilities. Management is responsible to ensure that each employee understands the safety rules and procedures applicable to his or her job, knows, the reasons for them, and accepts the responsibility to observe them. All safety rules and procedures shall be firmly enforced. Each employee's compliance with all safety rules and procedures is a requisite for confirmed employment.

### **4.2 Safety Orientation Responsibility**

#### **4.2.1 PMPKL Employee:**

For any new PMPKL employee/Lateral Hire/Transfer, it is the responsibility of immediate supervisor to get his safety orientation done.

#### **4.2.2 Contractor, Contractor Employee and Visitor/Vendor:**

For any Contractor & Contractor's Employee, it is the responsibility of his /her Contractor or his supervisor to get his safety orientation done. However, his/her area PMPKL Supervisor will ensure his/her safety orientation has been done.

### **4.3 Personal Protective Equipment (PPE)**

Personal Protective Equipment (PPE) protects employees, contractors and visitors from workplace hazards. Adequate supplies of suitable PPE shall be maintained by the PMPKL for their employees. Contractor and sub contractors, who shall each ensure that the appropriate PPE is issued to and correctly used by their respective project personnel and authorised visitors.

Guidance for implementation:

1. Personnel required to wear PPE must be provided with instructions on personal fitting, use, cleaning, maintenance and storage. The PPE supplier or other competent parties may provide such instruction. PPE training provided should be recorded and passed on to the appropriate department for documentation and record keeping purposes.
2. Ensure that training is delivered by competent person(s) who understand the tasks that an employee will be performing and any specific needs related to health or capability.
3. How to recognize and understand the PPE signage that is used in the facility.
4. How to correctly fit, wear, store, maintain and dispose of PPE to ensure that it is effective in providing protection as designed.

5. General PPE training should be delivered at induction/orientation
6. Inform contractor managers and visitors of PPE rules, requirements and the need for compliance. Ensure that all contractors adhere to the same rules and requirements regarding PPE as PMI employees.

Hazards and types of PPE for various body parts (Matrix):

Body Part	Hazard/Risks	PPE
Eyes	Chemical or metal splash/projections; dust, particles, gas and vapour, radiations	Safety spectacles, goggles, face shields, visors.
Head	Impact from falling or flying objects, risk of head bumping, hair.	A range of helmets and bump caps.
Respiratory System	Dust, vapour, gas, oxygen-deficient atmospheres	Disposable filtering face piece or respirator, half or full face respirators, air fed helmets, breathing apparatus.
Hands and Arms	Abrasion, temperature extreme, cuts and punctures, impact, chemicals, electric shock, skin infection, disease or contamination.	Gloves, gauntlets, mitts, wrist-cuffs, armlets.
Feet and legs	Wet, electrostatic build up, slipping, cuts and punctures, falling objects, metal and chemical splash, abrasion.	Safety boots and shoes with protective toe caps and penetration-resistant mid-sole, gaiters, leggings, spats.
Other protective clothes	Temperature extremes, adverse weather, chemical or metal splash, spray from pressure leaks or spray guns, impact or penetration, contaminated dust, excessive wear or entanglement of own clothing. Including High Visibility needs.	Conventional or disposable overalls, boiler suits, specialist protective clothing, e.g. chain-mail aprons, high visibility clothing.

#### 4.3.1 Eye and Face Protection

All employees, contractors and / or visitors who enter a safety eyewear designated area or perform a task that requires them to be worn will be expected to wear safety glasses as a personal safety measure. In addition to the above, all employees working with compressed air or chemicals shall also be required to wear eye protection suitable for the task.

It is basically divided into three types:

##### 1. Spectacles (safety glasses)

Spectacles are suitable for low-risk hazards (low-speed particles such as machine swarf).



## 2. Goggles



Goggles are best to protect the eyes from dust or solvent vapours, as they fit tightly around eyes.

## 3. Face visors



Visors offer protection to the face as well as the eyes and do not steam up so easily in hot and humid environments.

### 4.3.2 Head Protection

Hard hats/helmets shall be worn by all contactors, visitors and employees on a construction site, to provide protection against falling objects, or when undertaking a task that requires the individual to perform a task above their head, or activities when incidental head contact/low head clearance may occur.

## 1. Helmet

Helmets are predominantly used in workplace environments such as industrial or construction sites to protect the head from injury due to falling objects, impact with other objects, debris, rain, and electric shock.

## 2. Caps

Depending on the machine shape and accessibility, protective caps can be equipped with long or short visors.



Caps are used in workplace environments such as industrial sites to protect the head from injury bumps against stationary objects and machines. They are provided with internal protection. They are useful in maintenance activities when the head gets close to the machine. In this case also the visor also helps alertness via possible bumps against the machine.

### 4.3.3 Respiratory System

Respiratory protective equipment are of following types:

#### 1. Filtering Half Mask

There are disposable respirators made of filtering material. They cover the nose and mouth and remove respirable size dust particles. They are normally replaced after 8-10 hours of use or following the recommendation of the producers.

#### 2. Half-mask respirator

Made of rubber or plastic covers the nose and mouth. Air is drawn through a replaceable filter cartridge. It can be used for vapours, gases or dusts, but it is very important that the correct filter be used.

#### 3. Full face mask respirator

Similar to the half-mask respirator, but covers the eyes with a visor.

#### 4. Powered respirator

A battery operator fan delivers air through a filter to the face mask, hood, helmet or visor.

#### 5. Breathing Apparatus

They are divided into three categories:

##### i. Self-containing breathing apparatus

Air is supplied from compressed air in a cylinder and forms a completely sealed system

##### ii. Fresh air hose apparatus

Fresh air is delivered through a hose to a sealed face mask from an uncontaminated source. The air may be delivered by a wearer, by natural breathing or mechanically by a fan.

### iii. **Compressed air-line apparatus**

Air is delivered through a hose from a compressed air line. The air must be filtered to remove contaminants.

#### **4.3.4 Hands and Skin Protection**

Different kinds of gloves are to be worn for various tasks within the workplace. This is to reduce the possibility of hand injuries & / or skin conditions and hand infections as well as to protect the integrity of the product. The types of gloves that are to be used need to be identified in the risk assessment.

**ATTENTION!** If the worker has to handle tobacco leaves/cut filler, especially if wet, special attention must be made regarding the selection of gloves. Nicotine is a highly toxic substance that can be absorbed through the skin.

A wide range of gloves are available. Select your gloves according to the Hazard and Risk Assessment. This is a non-exhaustive selection of gloves that we can find in our factories.

#### **4.3.5 Feet and Legs**

In manufacturing or warehouse areas, all production employees/contractors/visitors shall wear safety (steel or composite) toe capped shoes. Oil and acid resistant, and anti-slippery footwear might be required according to risk assessment.

As per site rules, signs shall be posted at all entrances. Contractors, including delivery and transport personnel, shall wear footwear suitable for their job. The plant may specify additional requirements based on the site-specific risk assessment.

The type of foot and leg protection should be related to the risk. In our factories it is generally sufficient that workers wear well-made safety shoes.

#### **4.3.6 Hearing Protection**

Earplugs or earmuffs as a personal safety measure shall be worn in the manufacturing areas and maintenance workshop as recommended by the Noise Monitoring Survey findings held by the EHS Department. Where mandatory (blue) signage is displayed, suitable and appropriate hearing protection shall be worn.

#### **4.3.7 Other Protective Clothes**

In our factories we might have the need for other protective clothes and use it as per risk assessment.

### **4.4 General Safety Rules**

#### **4.4.1 Procurement of Safety Equipment's & PPEs**

Any Safety Equipment's / PPEs which will be installed or used in the PMPKL operating area & Buildings should be procured & installed after review by PMPKL sustainability Specialist only.

#### **4.4.2 Compressed Air Use**

Do not use compressed air for cleaning equipment except where pressure is reduced to 30 or less than 30 psig and then only with face shield or splash goggles. Never apply compressed air to any part of the body.

#### **4.4.3 Jubilee clamp hose pipe use.**

Do not use jubilee clamp hose pipe at site, because it has a proven history (multiple industrial incidents) of shearing off at the couplings.

#### **4.4.4 Confined Space Entry**

Get authorization for Confined Space Entry (“Work Permit”) and follow all requirements mentioned in work permit procedure, particularly atmosphere check and stand-by rescue person, properly equipped with lifeline & retrieval system.

Check oxygen and explosivity using an oxygen deficiency meter/explosivity meter before entering a vessel or a confined space. Oxygen deficiency meter will be used continuously while working inside a vessel or a confined space.

#### **4.4.5 Use of Jerry Can for Gasoline / Diesel**

Gasoline (Petrol) or Diesel should NOT be disbursed / store in plastic Cans / drums. Metallic Cans / drums are recommended for Gasoline or Diesel handling.

#### **4.4.6 Smoking Policy**

Smoking is allowed only at designated locations. Do not dispose off cigarette butts without extinguishment. Also dispose it off at designated places.

#### **4.4.7 Horseplay**

Horseplay of all types is prohibited. Violators are subject to discharge and criminal prosecution.

#### **4.4.8 Miscellaneous**

- Handrails are to be used at all times when ascending or descending stairs.
- Know the proper method for lifting. If the load is too heavy or bulky to lift properly, get help.
- Car seal and Emergency Block Valves will be painted yellow with red stripes.
- Each employee at the PMPKL site is required to conduct him/her in a safe manner at all times and is responsible for calling attention to and when necessary, correcting unsafe acts and/or conditions.
- Welders must use screens around their working place in Shops and Plant operating areas, wherever possible.

#### **4.4.9 Reporting of Safety Incidents**

Report any unusual incident, unsafe act/practice, or unsafe condition to your supervision immediately.

Any injury/suspected injuries (no matter how slight), exposure to fumes; contact with hazardous chemicals, occupational illnesses, near miss, fires etc. must be reported promptly to your supervisor, Safety Section and to the PMPKL Clinic.

#### 4.4.10 Safety Equipment Obstruction and Instructions

- Safety and fire equipment, stairways, exits, firefighting equipment must never be obstructed in any manner.
- Employees are expected to be thoroughly familiar with the location and use of all safety and fire equipment in their area.

#### 4.4.11 Scissor Lift / Over Head Crane / Mono Rails

Scissor lift / Overhead Crane & Mono Rails will be used by certified and authorized personnel only. Relevant SH/UM will maintain the record of authorized personnel on evergreen basis.

#### 4.4.12 Scaffolding

- Scaffolding will be made according to PMPKL Specifications and approved by certified and authorized personnel only.
- Scaffolding installed at the site should be removed as soon as the job is complete. The validity of a scaffolding certification expires as specified on scaffolding certification tag. The concerned (authorized) Supervisor should re-certify the scaffolding accordingly.
- Use properly-constructed scaffolds and portable mobile platforms for work out of normal/step ladder reach, five feet or more above grade level.”

#### 4.4.13 Work Permit System

Each PMPKL person as well as the contract manpower is bound to abide by the rules and procedures described by the work permit system. No one is allowed to do his job without the proper work permit, unless otherwise permitted.

## 5 EHS Legal and Regulatory Requirements – non-exhaustive list

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Legal and Regulatory requirements as specific per market, but in general include:

EHS Legal and Regulatory requirements	
Labor Law	
○	Heavy duty labor regulation
○	Work time regulation
○	Shift work regulation
○	Overtime work regulation
Municipalities Law	
Public Health Law	
Social Security Law	
Zoning and Construction Law	
Environment Law	
Occupational health and safety regulation	
Regulation on hazardous, flammable, and explosive materials	
Indoor electrical system regulation	
Indoor and outdoor air quality regulation	
Noise control regulation	
Regulation on medical station and plant doctors	
Regulation on Radioactive Source Control	

## 6 PMI EHS General Requirements

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The Service Provider’s personnel must comply with any reasonable and legitimate instructions given by the PMI Service Coordinator and must not put themselves at risk, or through their action/inaction, put the health and safety of any person at risk, or cause damage to materials, services, plants, or

equipment, or affect the PMI's production or the environment. The PMI Service Coordinator must assist the Service Provider in any reasonably practicable way to facilitate a safe working environment.

The Service Provider must comply with the general requirements A. to R. listed below:

<b>A. EHS MANAGEMENT</b>
Service Providers must provide details of their EHS management structure, EHS records and their technical and commercial ability, for consideration when their suitability for the work is assessed.
<b>B. DOCUMENTED EHS REQUIREMENTS</b>
The written contract, or in short-term cases the letter of engagement to carry out the specific task, must both include commitment to meet the Service Provider's or Sub-Contractor's own EHS management standards and a reference to meet PMI EHS standards.
<b>C. INSURANCE, LICENCES, REGISTRATIONS, &amp; CERTIFICATES</b>
The PMI Service Coordinator must ensure that the Service Provider's or Sub-Contractor's employees possess the insurances, licenses, registrations, and certificates required by local legislation or by the Manufacturing Sustainability representative while defining specific requirement during the Planning phase.
<b>D. EHS INDUCTION</b>
All personnel working for the Service Provider at PMI facilities must attend an EHS Induction/Orientation prior to beginning work. Unless agreed otherwise, the training must be delivered by a trainer nominated by PMI, and all relevant details must be documented. The contents of the induction/orientation must be specific to the type of work and the area where the work is to be done. It must identify and give information on the main risks associated with the work, local EHS rules, and any local requirements regarding the work and related behavior/emergency procedures.
<b>E. ENTRY TO THE PMI FACILITY</b>
On initial arrival at the facility/factory, the Service Provider must report to Security and comply with the requirements for site access. The Service Provider's vehicles must not be parked in PMI's car parks, inside any structure, or on the site/work area without express permission, which must indicate where said vehicles may be parked. PMI reserves the right to check the content of said vehicles both upon entry to and exit from the facility/factory premises and if necessary to conduct searches of said vehicles and their occupants.
<b>F. AUTHORIZATION FOR ACCESS</b>
The Service Provider's personnel can only enter the facility/factory areas in connection to their work or services. They may not enter any other part of the facility/factory or premises without prior authorization. The Service Provider must obtain the approval of the PMI Service Coordinator for all visitors coming to the facility/factory. Where approved, such visitor(s) must be accompanied at all times by the PMI Service Coordinator or Service Provider Coordinator on-site and comply with all EHS rules for visitors. PMI reserves the right to carry out random checks or targeted checks on the Service Provider's personnel, both upon entry to and exit from the facility/factory premises.
<b>G. SERVICES AND OPERATING PROCESSES</b>
The Service Provider's personnel must not interfere with, intervene on, or otherwise modify any equipment throughout the PMI facility/factory unless they have been authorized by the PMI Service Coordinator and hold the appropriate training certificate/have received training from PMI. This includes, but is not limited to, manufacturing, building, construction, equipment. The Service Provider's personnel must immediately report any perceived faults or problems on any of the above to both PMI and Service Provider's Coordinators.
<b>H. PERSONAL PROTECTIVE EQUIPMENT (PPE)</b>
Unless agreed otherwise, the Service Provider must provide indicated PPE to their personnel and comply with all facility/factory and legal requirements (e.g. wearing of safety shoes, safety glasses, ear protection, etc.). Before starting work, PPEs must be inspected and approved by the Manufacturing Sustainability representative. PMI reserves the right to remove employees or visitors from the facility/factory if the indicated PPE is not worn.
<b>I. REPORTING OF ACCIDENTS, INCIDENTS, AND DANGEROUS OCCURRENCES</b>
The Service Provider's personnel must report immediately to their Coordinator any accidents (all Total Recordable Incidents-TRI: Loss Time Injury-LTI, Medical Treatment Cases-MTC, and Restricted Work Cases-RWC or incidents (first aid, near-misses, fires) resulting directly from their work or services and that could have resulted/have resulted in injury or damage to persons, property, or the environment. The Service Provider's Coordinator must report any such accidents or incidents to the PMI Service Coordinator within 24h of occurrence, who must inform the Manufacturing Sustainability representative. All accidents must be investigated and reported following the instructions of the PMI Service Coordinator and the Manufacturing Sustainability representative. Any person on-site (PMI employees, contractors, sub-contractors, visitors) are invited to report any unsafe/safe conditions or behaviors observed on-site, including observation of Service Provider activities. If detected, these observations must be reported to the PMI Service Coordinator, who must communicate with the Service Provider coordinator and agree on corrective actions or recognition.

<b>J. TRAINING AND INSTRUCTION</b>
<p>The Service Provider's personnel must be suitably experienced, trained, and certified to use/operate the tools and equipment as appropriate to their work/tasks with full respect for PMI and or local requirements. Evidence of training and competence must be provided to the PMI Service Coordinator.</p> <p>Where deemed appropriate, PMI reserves the right to verify the Service Provider's personnel skills and training, through internal or external skills testing/validation.</p> <p>PMI reserves the right to require that the Service Provider's personnel attend special EHS training and instruction sessions, whether delivered in the facility/factory or otherwise.</p> <p>The Service Provider personnel must be competent to carry out the type of work required by PMI, and PMI reserves the right to remove any person who is not deemed to be sufficiently competent.</p>
<b>K. SUPERVISION / MANAGEMENT</b>
<p>Unless agreed otherwise, the Service Provider must supervise their personnel. A Service Provider Coordinator must be nominated and his/her duties, responsibilities, and reporting line must be clearly defined.</p> <p>PMI must nominate a PMI Service Coordinator to be the single contact and communication point, to monitor the Service Provider's performance, and to ensure that PMI standards and procedures are respected.</p> <p>If the Service Provider or their subcontractors do not work to expected EHS standards, the PMI Service Coordinator must discuss the deficiencies with the persons concerned and work with the Service Provider to resolve the problems. On completion of the work or contract, feedback must be provided to the Service Provider on their EHS performance.</p>
<b>L. EMERGENCY PROCEDURES</b>
<p>Emergency procedures must be explained to Service Providers and Sub-Contractors during the PMI EHS Induction. Service Providers and Sub-Contractors must be required to take part in practice drills should they occur when the Service Provider or Sub-Contractor is on-site. If the Service Provider undertakes any tasks or brings onto the site any tools, equipment, or product that may affect the site's emergency management, the PMI Service Coordinator must be notified prior to work to allow for a risk management strategy to be developed.</p>
<b>M. ENVIRONMENTAL PROTECTION</b>
<p>PMI environmental standards must be clearly outlined prior to entering into a contractual agreement with the Service Provider, with the Service Provider or Sub-Contractor understanding that strict adherence to these standards is required. This applies to, but is not limited to:</p> <p>noise, dust, gas or fume emissions, water management, spillages, and preservation of the local ecology.</p>
<b>N. ALCOHOL AND DRUGS</b>
<p>No drugs or alcohol whatsoever can be brought within the boundaries of the facility/factory. Persons under the influence of alcohol or drugs must not be permitted access to the facility/factory.</p> <p>Subject to local laws, PMI reserves the right to carry out alcohol and/or drug testing on the Service Provider's or Sub-Contractor's employees. In the interests of personal health and so that an emergency situation can be quickly and safely dealt with, it is strongly advised that the PMI medical center be informed of any person working in the facility/factory who is required to take regular medication to control a specific health condition. All such cases must be dealt with in the strictest confidence.</p>
<b>O. DISCIPLINARY PROCEDURES</b>
<p>All personnel must comply with the EHS and Security Rules, Regulations, Standards, and Procedures in force for the site and the country of work. Individuals failing to comply with any such rules will be subject to appropriate disciplinary procedures in accordance with local employment law.</p> <p>PMI retains the right to immediately remove, or have removed, person/s involved in any wrongdoing.</p>
<b>P. SECURITY</b>
<p>The Service Provider's personnel must comply with PMI Security Rules and Procedures.</p> <p>The Service Provider is responsible for the security of all equipment, tools and any other items owned or hired by them.</p>
<b>Q. PANDEMIC RESPONSE</b>
<p>The Service Provider must comply with any additional requirements communicated by the PMI Service Coordinator as result of any special protocol for pandemic response.</p>
<b>R. ADDITIONAL REQUIREMENTS FOR LONG-TERM DURATION OF WORK ON-SITE</b>
<p>Long-term Service Providers are an integral part of PMI's business. Long-term Service Providers must have their own EHS Management System and Standards that are equal to or more stringent than PMI standards. Should a long-term contractor not having such standards, the agreement and application of PMI's EHS Standards is satisfactory.</p> <p>As well as the general EHS requirements outlined above, the following procedures must be observed:</p> <ol style="list-style-type: none"> <li>i. <i>Written Contract.</i> A long-term Service Provider's contract must include more than a directive to 'work safely'. The contract must detail all the requirements of EHS compliance and methodology of work (subject to changes) and include the points detailed below.</li> <li>ii. <i>EHS Induction.</i> A long-term Service Provider must be given a full site-specific EHS Induction training program as would be provided to a PMI employee.</li> <li>iii. <i>Routine Health Surveillance.</i> If a specific hazard is identified where risk of illness or injury to a person may result from exposure to this hazard, a risk assessment must be undertaken. The purpose of this risk assessment is to determine the requirements to schedule health surveillance. If there is any doubt, the PMI Coordinator must be consulted to reach a solution.</li> <li>iv. <i>EHS Committee.</i> It is essential that Service Providers' input and involvement with EHS issues is sought and that Service Providers are invited, where appropriate, to be represented on PMI EHS committees.</li> <li>v. <i>Safe Working Procedures.</i> As well as ensuring that long-term Service Providers are conversant with all relevant safe work procedures, it is essential that the Service Provider's input is sought when procedures that relate to their work are to be changed or developed. Particular emphasis must be given to lock-out and tag-out procedures or workplaces of high-risk.</li> <li>vi. <i>Incidents, Injuries, and Property Damage.</i> As well as the requirement to report incidents, injuries, and property damage as</li> </ol>

outlined in the General Requirements above, such incidents involving Service Providers must be the subject of a full investigation. The PMI Incident Investigation Standard must be applied. The investigation team must involve a PMI representative. The purpose of the investigation is to identify the root cause of the incident. On identification of the incident root cause and any other gaps, risk controls must be determined and implemented by Service Provider to prevent recurrence. Any reported incident must be included in the EHS committee agenda for review.

- vii. *Injury Management.* Despite the fact that Service Providers have their own workplace injury insurances, support and counseling can be provided by PMI following serious incidents if impaired performance becomes a problem.
- viii. *EHS Training and Instruction.* When undertaking a training needs analysis, Service Providers are considered and will be included and assessed as necessary. Service Providers will be included in any training that is required to meet PMI or legislative requirements. Records of Service Providers' training provided by PMI will be maintained by PMI. If a Service Provider has completed the required training external to PMI, training records will be requested and kept by PMI.

## 7 Contractors' Safety Responsibilities

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### 7.1 Pre-Qualification of Subcontractors

- Each Contractor must ensure that his pre-qualification procedures for his Subcontractors fully take into account the ability of the proposed Subcontractor to comply with the Project Safety Plan, CLIENT requirements and the local regulations related to safety, health, welfare and security.
- The Contractor(s) will advise the CMS/Clients project management of the arrival on site of any Sub-Contractor Company by completing and submitting Appendix 8 (Incoming Sub-Contractor notification form) at least one working day in advance.

### 7.2 Contractor's Safety Representative

- The Contractor shall employ a suitably qualified full time Safety Adviser / Manager (this includes subcontractors unless otherwise agreed) and shall have safety cover for all overtime and shift works.
- All Contractors and Sub-contractors will inform the CLIENT/CMS of their nomination for Safety Adviser / Manager; by submitting Appendix 35 (Safety Provision Undertaking Form) and Appendix 36 (Application for Safety Officer to work) this position is subject to approval by CLIENT/CMS.
- An up to date list of safety personnel will be maintained by the Project Safety Manager on Appendix 37 (Project Safety Officers and Site Safety Supervisors)
- The Safety Adviser / Manager shall have operational authority in matters affecting health and safety and will be responsible for alerting Contractor's and CLIENT/CMS management to any existing or potential hazards until they are corrected or prevented.

### 7.3 Site Inspection

- All personnel on the Project are responsible for Health & Safety and protection of the environment, and have a duty to take action on any matter quoted within this manual, or any local laws or regulations.
- The Contractor's safety personnel will constantly monitor the works and take action to ensure that all operations and items are in compliance with local laws and regulations, as well as complying with any CLIENT rules, guidelines or requirements.
- A formal inspection of the Project will be carried out on a weekly basis. The attending members for this inspection will be, CLIENT/CMS Management, Contractor Management, Sub-contractor Management and Safety Personnel.

#### **7.4 Materials Handling**

Where the Contractor brings materials to site that are intended to be manually handled, all such materials shall be of a weight and size that complies with any local laws and regulations regarding manual handling.

The Contractor shall give instruction to operatives on safe handling methods and techniques.

As well as the normal personal protective equipment, operatives shall wear gloves while handling rough or sharp materials

#### **7.5 Materials Storage Area**

Materials shall be stored in accordance with the suppliers or manufacturer's recommendation. The following rules shall be observed:

- Designated storage areas and material must not block access and shall be protected from damage, theft and vandalism.
- Store material off the ground or floor to allow drainage, levelling up and handling by equipment.
- Store materials as close to the installation point as possible to reduce handling.
- Store as little material as possible to reduce double handling and the risk of injury, damage and theft.
- Identify containers by both content and destination. This can reduce sorting time and make it easier to trace material.
- Materials are secured from tipping, rolling or blowing away.
- Cross-pile material for greater stability.
- Stack no higher than 2 m
- Lag or block between layers to reduce pressure and ease handling.
- Lock up material and equipment to prevent vandalism and theft.
- If materials are stored near opening or slope, ensure they cannot roll or slide in the direction of the opening or slope.

#### **7.6 Lighting**

- The contractor shall be responsible for providing and maintaining general/safety lighting at a minimum level compliant with local requirements in all work areas including:
  - Buildings, until the permanent lighting is operational
  - Access to and from the workplace
  - Temporary workshops
  - Contractors compound
  - Stores
  - If required, Clients compound
  - Preparation areas i.e. re-bar bending, pre-cast work etc.
  - Any remote workplace
  - The site entrance/s (vehicle and pedestrian)
  - Wheel wash areas
  - Concrete batcher plants

- Craft work i.e. joinery, all work with power tool and circular saws, plastering, electrical, plumbing, etc. will require a higher level of lighting. (task lighting)

Note: a high level of lighting may be required in some areas for security purposes

The provision and supply of task lighting at a higher level shall be the responsibility of each individual contractor/sub-contractor.

Lighting and all associated cables and wiring shall comply with the requirements of 'Temporary Electrical Installations'.

All festoon lighting, hand lamps, or any other type of fixture with an exposed bulb, must be guarded to prevent contact with personnel or materials.

All light fittings located at height must have a safe means of access, or system for maintenance / replacement.

Halogen lights (where authorised) must be mounted at a height, or protected in such a way, that personnel or materials cannot come into contact with them.

See 'Confined Space Entry' for low voltage lighting.

## **7.7 Temporary Utilities Supply Maintenance Requirement**

### **7.7.1 Power supply and electrical installation**

- All switch boxes, distribution boxes etc. shall be locked at all times and the keys kept by qualified electrician. Monthly inspections shall be carried out. (Appendix 25, Electrical Installations Inspection)
- All electrical equipment shall be inspected prior to use and inspected/tested in accordance with 4.17 TEMPORARY ELECTRICAL INSTALLATIONS.
- All electrical appliances shall be isolated after work. (where appropriate)

### **7.7.2 Water supply**

- All water mains/pipes should be protected against damage from frost, plant, vehicles or construction activities.
- Potable and non-potable water sources/containers must be appropriately signed
- Regular inspections are to be carried out to water mains/pipes to ensure there is no leakage, misuse or damage.
- Non-return valves will be fitted to all standpipes.
- It is forbidden to take water from any fire hydrant or hose reel.

## **7.8 Temporary Electrical Installations**

- All temporary electrical systems must be planned and under the control of a competent person.
- The system and connections will be in strict compliance with local / CLIENT requirements.
- A circuit / distribution drawing must exist and be updated to reflect any additions / alterations.
- All equipment (distribution panels) will be industrial quality, in good condition, fit for purpose and lockable.

- Cables will be of industrial quality and where appropriate, be fitted with an armoured casing.
- Underground cables must be at least 0.5m below ground level. Be adequately protected by tiles or covers and route markers positioned at regular intervals
- The height of overhead cables will be in compliance with local standards or as agreed with CLIENT, and sufficiently protected to prevent accidental damage by site plant / transport.
- Overhead cables must not be subject to tension or strain.
- Distribution inside buildings must be in a position where they do not cause a trip hazard. Do not create an obstruction and are not liable to come into contact with water, or be subjected to any type of damage.
- A permit to work (Appendix 33) will apply to all work done on the distribution system.

#### **7.8.1 Identification**

- All electrical appliances and outlets shall be clearly marked to indicate their purpose and voltage.
- When the layout of an installation cannot be clearly distinguished, the circuits and appliances shall be identified by labels or other effective means.
- Circuits and appliances carrying different voltages in the same installation shall be clearly distinguished by conspicuous means such as coloured markings.

#### **7.8.2 Protection against Direct and Indirect Contact**

Protection against excessive contact voltage in case of direct or indirect contact shall be provided in all kinds of installations.

Protection shall be afforded by one or more of the following:

- enclosure
- complete insulation (double insulation, reinforced insulation)
- extra-low voltage
- safety isolation (safety isolating transformer)
- earthing of the neutral
- isolated neutral
- earthing of the normally dead parts
- current-operated earth-leakage circuit-breakers

No bare conductors or other bare current-carrying parts of equipment shall be permitted unless adequate precautions are taken to prevent direct or indirect contact, for example by fencing or screening.

#### **7.8.3 Conductors**

All wiring shall be supported on proper insulators, and not looped over nails, brackets, etc.

- Overhead lines shall be carried on supports of adequate strength and at a height that prevents contact with persons or equipment passing underneath.
- Only conductors built to withstand rough treatment (heavy-duty conductors) shall be laid on the ground and, if necessary, they shall be protected against damage from vehicles, mechanical equipment passing over them.

- If plug and socket connections are necessary for connecting cables to the mains, they shall be properly paired and of adequate design.
- Hand-held apparatus, and where practicable, portable apparatus shall be supplied by a single flexible cable.

Flexible cables for portable and hand-held apparatus shall:

- contain an earthing conductor if the fed apparatus is protected by earthing;
- be protected against kinking by a steel spring, rubber tube or other suitable device at the motor end; and
- be relieved from mechanical strain at connections to terminals.
- All flexible cables shall be maintained in good repair; they shall not be joined except by means of a proper connection or by appropriate plugs and sockets.
- The flexible cable shall not be used to lift a portable tool.
- Only heavy rubber-insulated or industrial quality flexible cables and waterproof connectors shall be used on construction sites.

#### **7.8.4 Electrical Equipment**

- Voltage in excess of 220V shall only be used for heavy equipment such as hoists, winches, etc. and only in strict accordance with Regulations and when an earth leakage circuit breaker is in place and operating.
- Portable and hand-held tools and temporary site lighting shall be from a 220V centre tapped to earth system. In confined and damp situations, the voltage of temporary and hand-held tools shall not exceed 25V.
- Control appliances such as switches, fuses and circuit breakers shall not be installed at places where there are flammable liquids or flammable gases unless they are approved for that environment.
- Circuit breakers shall be of adequate breaking and making capacities to perform their normal function.
- Conductors shall be joined, branched or led into apparatus through junction boxes, sleeves, bushings, glands or equivalent connecting devices.
- When parts of conductors are joined together, or conductors are joined to one another or to apparatus, the attachment shall be made by screwing, clamping, soldering, riveting, brazing or equivalent means.
- Hand-held and portable machines shall be equipped with a built-in switch that shall break the circuit automatically when the tool is released by the hands.
- All types of temporary lighting fixtures will be treated as a heat source.
- Hand lamps shall be equipped with strong covers of glass or other transparent material.
- Portable lamp holders shall have all current-carrying parts enclosed together with an insulated handle.
- Halogen lights must be in a fixed position where they cannot come into contact with personnel or combustible materials.

#### **7.8.5 Inspection and Maintenance**

- All electrical equipment shall be inspected before it is taken into use to ensure that it is suitable for its proposed use.

- Electrical conductors and equipment shall only be repaired by qualified electrician.
- As far as practicable, no work shall be carried out on live conductors or equipment.

Before any work has begun on conductors or equipment that does not have to remain live:

- the current shall be switched off;
- adequate precautions shall be taken to prevent the current from being switched on again; (lockout-tagout)
- the conductors and the equipment shall be tested to ascertain that they are dead;
- the conductors and equipment shall be earthed; and
- neighbouring live parts shall be adequately protected against accidental contact.
- After work has been carried out on conductors and equipment, the current shall only be switched on again on the orders of a competent person.

#### **7.8.6 Work in the Vicinity of Electrical Installations and Overhead Catenary**

- When any excavation is to be made or any borehole sunk, it shall be ascertained whether there are any underground conductors in, or in dangerous proximity to, the zone of operations.
- Work near the overhead catenary system shall be controlled as specified by local and CLIENT requirements
- No work shall be done in dangerous proximity to a conductor or an installation until it has been made dead.
- Before work begins, the electricity supply companies shall certify that the conductor or installation has been made dead.
- If the conductor or an installation in the neighbourhood of which work is to be done cannot be made dead, special precautions shall be taken and special instruction given to the workers so as to prevent danger.
- If mobile equipment has to be employed in the neighbourhood of conductor or installations that cannot be made dead, its movements shall be controlled so as to keep it at a safe distance from them.

#### **7.9 Ground Fault Protection**

An effective Grounding Conductor Program will be established, to provide a method for accident prevention while using electrical equipment during the construction of this project.

Assured Equipment Grounding Conductor Program:

- All electrical tools or equipment, cord sets, leads and receptacles, new or used, shall be inspected, tested, colour coded and recorded prior to the first issue or use and quarterly thereafter pending no repair.
- Any repair requires re-inspection and testing.
- Colour codes shall be per Colour Code Schedule and shall be applied "For Approved Use Only." (See attached exhibit "Colour Code Schedule.")
- Each person subject to using or being issued any electrical tools, cord sets, etc., shall inspect same at the time of issuance or prior to use each day.

- If any defects are detected, use shall not be permitted, Return it to the tool room and assure that it is tagged out accordingly.
- Any tool or cord set with no colour code or an out-dated colour code shall be considered defective, and the tool or cord set removed from service.

## **7.10 Fire Prevention**

The Contractor shall implement a detailed Fire Prevention Plan and Emergency Procedures that take into account any local law, regulation or by-law as well as the general standards laid-out below.

Where the duty imposed by local standards is greater, these will supersede the general standards set by the Client. All personnel will co-operate and comply with the "Plan". Contractors/Sub-Contractors will provide suitable and adequate Emergency Procedures, fire fighting equipment as well as detection / alarm / emergency lighting systems in their site offices and facilities.

### **7.10.1 Responsibility**

The Contractors' Project Manager shall be responsible for the operation of these arrangements. He shall appoint a Site Fire Co-ordinator who shall assess the degree of risk(s) on site as the project develops, regularly advise on status of preventative measures provided, maintain records to that effect and where necessary assist in the regular review of the safety plan. The Site Fire co-ordinator shall be assisted in these duties where necessary by all levels of personnel and contractor involved on the project.

### **7.10.2 Fire Prevention - Administrative**

- Fire marshals shall be appointed from the Contractor's staff.
- Emergency procedures will be drawn up and posted as appropriate on the site and in offices. (see Appendix 13, Emergency Procedures and Appendix 14 Emergency Contacts)
- Site fire precautions shall be discussed and explained at the site safety induction for all operatives and at the pre-works safety meeting for all contractors.
- Regular fire drills shall be arranged and implemented.
- Liaison with the local Authority/Client fire service shall be regularly maintained.
- General arrangement drawings denoting floor layout, access/egress, fire points, electrical distribution points, rising mains, hydrants etc. shall be made available in the form of a fire log to the fire service attending site either during routine visit(s) or an emergency situation.
- Records of precautionary measures shall be maintained on site.

### **7.10.3 Fire Prevention - General Guidelines**

- Good Housekeeping shall be maintained in all work areas. Accumulation of combustible/flammable material/substances is prohibited.
- Fire protection equipment should be provided in all areas where combustible materials are present. Regular inspections should be made by the Contractor's Safety engineer in order to assure that fire extinguishers and hose reels are in good working order and not obstructed. The use of fire hydrants, hose stations and PIV (post indicator valve) will be permitted only with authorisation from CLIENT EHS Department, or an actual emergency.
- A clear access to all fire protection equipment will be maintained.
- Fire protection equipment is to be used only for the intended purpose.

### **7.10.4 Fire Prevention – Site Accommodation**

- No site accommodation shall be located within building(s) being built/refurbished.

- Site accommodation shall, where practicable, be located no closer than 6 m from buildings being constructed.
- Where accommodation is double stacked, the roof/floor assembly, and members supporting it shall achieve at least 30 minutes fire resistance.
- The space beneath raised floors of site accommodation shall be enclosed to prevent the accumulation of rubbish whilst still allowing under-floor ventilation.
- No combustible substances/materials shall be stored under any temporary buildings.
- Where applicable, Fire certification shall be applied for in accordance with local regulation.
- Electrical installations/testing and inspection shall be in accordance with local regulations or any additional requirement of the Client or CMS.
- Temporary electrical installations shall be inspected every 3 months and records maintained.
- Electrical distribution panels and electrical equipment shall have the appropriate type extinguishing agents positioned alongside/nearby.
- Means of raising the alarm shall be provided and maintained - type shall be dependent on configuration of accommodation complex.
- Emergency procedures (see Appendix 13, Emergency Procedure and Appendix 14, Emergency Contacts) including appointment of fire marshals together with the appropriate training needs shall be in accordance with company requirements and drawn up reflecting site conditions.
- Fire points/extinguishers shall be established throughout the site offices and welfare accommodation.
- Extinguishers shall be fitted to the wall adjacent to exit points on suitable brackets with the operating handle approximately 1 m from floor level.
- The position of each fire extinguisher shall be highlighted with sign "Fire Point".
- Each exit shall have an emergency procedure prominently displayed adjacent to it.
- Fire escape routes shall be signed, clear access maintained at all times and where necessary provided with emergency lighting.
- All protective measures shall be regularly inspected and records maintained.
- A good housekeeping regime shall be imposed.
- Highly flammable liquids shall be properly stored in the designated storage area.
- Heaters used in drying room accommodation shall be fixed to walls above floor level, adequately guarded, thermostatically controlled and have enclosed elements.
- Appropriate fire detection system(s) shall be installed in welfare facilities used for cooking.

## **7.11 Other Emergencies Bomb Alert**

### **7.11.1 Purpose and Scope**

This procedure defines responsibilities and details the actions to be taken if a threat is received by telephone that an explosive or incendiary device has been placed in some part of the facilities or project area.

It should be noted that good housekeeping, both internally and externally, reduces the opportunity for such devices to remain undetected. All supervisors are responsible for checking offices and work areas both at the beginning and end of shifts and any suspicious objects should be reported to the CLIENT Project Manager for investigation.

### **7.11.2 Responsibilities of Incident Controller**

- The Project manager or his deputy will assume overall control of the emergency as Incident Controller (IC).
- The IC will ensure that any senior managers and contractor managers are fully informed and will liaise with the IC on any question of evacuation or return.
- The IC will ensure that all employees, contractors and visitors are made aware of the situation.
- The IC will contact the emergency services and maintain contact.
- The IC may nominate Incident Wardens to cover specific areas.

### **7.11.3 Procedure on Receipt of a Bomb Threat**

- The person receiving the call will follow the bomb alert procedure and carry out the actions included in Appendix 45 (Bomb Threat Checklist) for dealing with telephone warning and recording details of the caller.
- The IC will initiate the search procedure BUT will remain at his desk to undertake the actions listed above under “Responsibilities”.
- The object of the search is to establish if any suspicious parcel, package or object has been left on or near the project or any related facilities.

If a suspicious item is found the following precautions must be taken:

- All VHF transmitting radios, mobile telephones and personal radios must be switched off.
- Suspect items **MUST NOT BE HANDLED OR MOVED**.
- Suspect items **MUST NOT BE PLACED IN WATER**, as an electrical connection may be made.
- Few materials are capable of minimising blast. **NONE SHOULD BE TRIED**

If a suspect object is found, it's position must be immediately reported to the IC and a suitable marker posted to enable rapid identification by the Emergency Services.

- The IC will take immediate steps to evacuate the area in an orderly manner and instruct security to stop all further access.
- The IC will inform the police that a suspicious object has been found and, if appropriate, that an evacuation has commenced.

### **7.11.4 Evacuation Rules**

- Only the IC or his deputy has the authority to order a general evacuation of all or any part of the project or facilities, or a return following an evacuation.
- If the location of the suspect item is known, safe evacuation routes will be determined by Project Management and clearly indicated where practical.
- All persons evacuated will make their way in an orderly manner to their designated assembly point where a role call will be taken by an Incident Warden.

Before leaving their place of work all persons should ensure that:

- All non essential equipment is turned off and/or disconnected
- All personal belongings are collected and taken away Incident Wardens will report their area roll calls to the IC

#### 7.11.5 Incident Wardens Duties

- Incident Wardens will be informed of an incident by telephone radio or runner.
- The message will indicate, if known, the part of the project or facility affected.
- They will ensure that all VHF transmitting radios, mobile phones and hand held radios are switched off.
- On completion of the inspection of their area, they will report their results to the IC.
- In the event of an evacuation they will inform all persons in their area where to assemble and which route to take.
- When the evacuation is completed, they will report to the IC.

#### 7.11.6 Bomb Threats Received by Telephone

- Calls may be received through either through the main switchboard or a direct line to an individual. On receipt of such a call the person receiving it will:
  - complete the Bomb Threat Checklist
  - let the caller finish his/her message without interruption
  - record the message verbatim on the checklist
- The person receiving the call should try to get another person to listen to the call. If the caller is prepared to enter into conversation, encourage them to do so and try to get answers to the following:
  - the location of the object
  - the time it is set to go off
  - the reason for placing the object
  - when and how it was placed
- Immediately pass the checklist to the IC
- Complete the "Details of Caller2 Form as soon as possible
- The person receiving the call should expect to remain available for Police interview and must not leave without permission from the IC.

Emergency Procedures will also be put in place as appropriate to deal with the following:

- Serious accident or incident
- Earthquake
- Typhoon or extreme storm

#### 7.12 Hand Tools

All portable hand tools will be properly maintained in a good condition and the necessary PPE will be worn by the user of hand tools. Damaged or worn tools are to be replaced with serviceable equipment suitable for the type of work being undertaken.

- Hand tools shall be of materials of good quality and appropriate for the work for which they will be used.
- Hand tools shall only be tempered, dressed and repaired by competent persons.
- Heads of hammers, wedges and other shock tools shall be dressed or ground to a suitable radius on the edge as soon as they begin to mushroom or crack.

- Unless adequately protected, sharp-edges and sharp-pointed tools shall not be carried in pockets.
- When not in use sharp tools shall be kept in sheaths, shields, chests or other suitable containers.
- Hand tools shall not be left lying in places where persons have to work or pass, or on scaffolds or other elevations from which they might fall on persons below.
- Only insulated or non-conducting tools shall be used on or near live electrical installations if there is any risk of electric shock.
- All hand tools shall be inspected monthly. (see Appendix 22, Hand Tool Inspection)

### **7.13 Portable Power Driven Tools**

All portable power-driven tools and extension leads must be inspected each time before use and regularly inspected and tested in compliance with local /CLIENT requirements. (see Appendix 24 Power Tools Inspection)

The use of a residual current device (RCD) is recommended while using any portable power-driven tool.

The following precautions will be observed before and during operation:

- Ensure that the correct tool is being used for the job
- Check that the cable and plug are in good condition
- Check that the tool is the correct voltage for the power supply socket to be used
- All guards must be secured and adjusted correctly
- The machine or tool must be disconnected from the power source before cleaning or adjustment
- When not in use, the machine or tool must be disconnected from the power source
- The operation switch must never be tied or taped in the "on" position
- The electrical supply lead/cable must never be used to carry the tool or machine or to pull the plug from the socket
- Never attempt to repair a machine or tool unless qualified to do so
- Never operate a portable power-driven tool in wet conditions and ensure that supply leads/cables are not in contact with water
- Ensure that extension cables are in good condition and not overloaded
- If an extension lead or tightly coiled cable is used, always unwind to prevent overheating
- During the use of most portable power driven tools, personal protective equipment is compulsory i.e. eye/face protection, ear protection, respiratory protection and where necessary, gloves for vibrating tools

### **7.14 Ladders**

#### **7.14.1 Use of Ladders:**

Job built wooden ladders (where allowed) must be approved by the construction CMS/Client Safety manager and will be used only as a means of egress from excavations.

- All ladders must be secured in place by one or more of these methods: someone holds the ladder until the person reaches where they can tie/secure the ladder, by blocking or chocking the ladder where it cannot be displaced

- Maintain at least one (1) metre above the object it is resting on or being secured to.
- Do not use a stepladder as a straight ladder or vice versa. Do not use the centre section of an extension ladder as a step ladder or straight ladder.
- Do not use a conductive metal ladder in the energised area/units.
- Always face the ladder when you are on it. Do not stand partly on the ladder and on another object.
- As soon as you step on the ladder or reach where you are going, tie off your safety harness immediately.
- Do not carry objects in your hands while you are climbing a ladder. Use a bucket and rope or other arrangement to get the materials and tools where you have to work.
- Maintain three points of contact at all times on the ladder - two feet and one hand or two hands and one foot, as you climb on the ladder.
- Do not block a door or walkway without making sure ladder will not be displaced by other personnel, vehicles or equipment.
- Do not work on the top rungs of a stepladder. The stepladder must be level to be safe.
- Loose objects must not be used to maintain a level footing, you must clean up as necessary to maintain your ladder in a level position.
- Moving a ladder with a person on it is specifically forbidden.
- Defective ladders will be destroyed immediately, a ladder without safety feet will be repaired immediately.
- Sliding down the runner or jumping from the ladder is forbidden.
- Maintain a pitch of one out to four in height on portable ladders.
- Ladders shall be maintained when not in use in a dry location and protected from damage. Ladders will be secured from accidental displacement while not in use.
- Some jobs may also require the use of a safety harness – check!

## 8 Approval

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	Written By	Approved By
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