Workplace Safety & Health Handbook

Revision Date – April 2018

Disclaimer Note:
The Senoko Handbook is currently still under review. To contact the WSH section if need any clarification

CONTENTS

Workplace Safety & Health (WSH) Policy

At Senoko Energy we aspire to excellence in Workplace Safety and Health performance and view this as fundamental to our business. We are committed to:

- Pursuing the goal of Zero Accidents
- Providing a safe and healthy work environment free of occupational injuries and illness
- Creating a culture through leadership, training and development that emphasizes Safety and Health as the priority
- Creating a business environment that minimizes disruptions and losses, safeguarding integrity and manage WSH as any other critical business activity
- Seeking input and working constructively with our employees, contractors and regulators to continually improve our Safety and Health performance
- Achieving targets for continuous improvement measures, appraises and reports performance
- Promoting a culture in which all Senoko employees share this commitment

We believe we are all responsible for Senoko Energy' s Safety and Health performance and we will:

- Implement safe practices and procedures to ensure workplace safety and health and for the protection of all personnel at our workplace;
- Ensure all personnel working in our power station has the necessary skill and competency to achieve workplace safety and health, and instill in each of them a positive attitude towards workplace safety and health,
- Seek to identify, eliminate and control hazards and implement safe systems of work to protect personnel from inherent dangers.
- Require contractors to manage WSH in line with this policy

It is the duty of all personnel at Senoko Energy to adopt best practices and procedures, and to comply with the Workplace Safety and Health (WSH) Act and any other applicable legislation or regulation as well as Senoko Energy's WSH Rules.

Every employee has the duty to stop any unsafe act or condition and make necessary suggestions to eliminate the hazard or reduce the risks to As Low As Reasonably Practicable.

BERNARD ESSELINCKX
PRESIDENT & CEO

Date: 21 Mar 2018

WORKPLACE SAFETY AND HEALTH (WSH): THE POWER TO MAKE A DIFFERENCE

Senoko Energy Pte Ltd is committed to providing a safe and healthy environment for all of our employees, as well as our contractors and visitors. We recognizes that safe operations depend not only on technically sound equipment and processes, but also on competent people and a strong safety culture. Hence workplace safety and health (WSH) issues have to be taken seriously to avoid and prevent any accidents and health problems.

Employees are encouraged to speak up and bring to the attention of management any WSH violations. Employees are encouraged to report “Near Misses” and suggestions to improve WSH. Employees and contractors are to report, without any reserve or fear of repercussions, any unsafe acts or practices immediately to any members of WSH team. No activity is so important that it cannot be done safely.

The information in this handbook provides references and guidelines for our employees and contractors to carry out their jobs safely. It outlines the key elements of various WSH practices and rules that must be adhered to in order to ensure safe working. It is by no means all encompassing, and we will aim to continually refine and update the handbook as and when the need arises.

Let us all take responsibility for and ownership of safety and health at our workplace. Nothing should take precedence over safety. You have the power to make a difference.

SECTION 1

WSH POLICY - RESPONSIBILITY

1.1 President & CEO

(a) Responsible for the setting and reviewing of the Company's WSH policy.

1.2 Chairman, Workplace Safety & Health Committee

(a) Responsible for the implementation of the Company's WSH policy and to ensure their compliance with the relevant statutory legislations on WSH and fire safety regulations.

(b) Ensure the composition of the WSH Committee consists of representatives from management and employees

(c) Members of the WSH Committee are to assist in the promotion of workplace safety & health such as:

- Feedback to the WSH Committee for discussion any WSH issues related to and concerning their section
- Conduct general inspection of the factory
- Assist in accident investigation
- Assist in organizing safety & health activities to promote safe conduct of work

1.3 Head of Division

(a) Responsible for the implementation of the Company's WSH policy in their Division.

(b) Ensure that the legislated safety regulations are adhered to and the Company's WSH rules are observed by all employees, contract workers, contractors and visitors under the charge of his Division.

(c) Provide and maintain safe working conditions and practices in his Division.

(d) Continually review reports on the progress of matters related to safety and health in the company and take corrective action where necessary.

1.4 Head of Section (including those non technical sections)

(a) Ensure that all those under him, including contractors, understand and comply with the Company's WSH policy, and rules and the Workplace Safety & Health Act.

(b) Provide adequate training to new entrants and to re-train employees who are transferred to new jobs to ensure that they are competent to undertake the jobs assigned to them safely.

(c) Ensure that adequate safety precautions are taken to protect employees under their charge from injury and exposure from hazardous substances and chemicals while at work.

(d) Conduct risk assessment prior to any work and establish safe working procedures for all jobs and to make known such procedures to his staff.

(e) Ensure that appropriate safety equipment is provided to his employees and to enforce on their usage.

(f) Take corrective action promptly to remedy unsafe conditions or practices reported to him.

1.5 Head of Section (Workplace Safety & Health)

(a) Advise the company on compliance with all industrial safety, health and fire safety legislation and also on all matters pertaining to industrial safety and health.

(b) To formulate, review and implement WSH programmes to inculcate and raise awareness among employees and contractors in the company.

(c) Make regular inspections to detect unsafe conditions and unsafe practices before they can cause any accident.

(d) Co-ordinate with the various sections to test and service all safety and fire fighting equipment regularly.

(e) Investigate all accidents and dangerous occurrences and to recommend corrective action to prevent their recurrence.

(f) Maintain proper WSH records and statistics.

(g) Conduct fire-fighting training sessions, fire exercises and safety awareness activities to educate and inculcate employees to be more safety conscious.

(h) Co-ordinate with the relevant authorities on matters pertaining to industrial safety, occupational health and fire safety.

1.6 Supervisory Staff (All)

(a) Be familiar and ensure subordinates and contractors comply with Company's WSH policy and rules, and the Workplace Safety & Health Act.

(b) Conduct risk assessment prior to any work and take reasonable action to safeguard employees and equipment under his control.

(c) Ensure that all employees under his control are aware of the hazards involved in their work and that they always adopt the safe methods of work.

(d) Be fully conversant with the 'Permit-to-Work' system and OHSAS 18001 system.

(e) Ensure that correct tools and equipment are issued and used by employees under his control.

(f) Provide or issue appropriate protective equipment to employees under his control and to insist upon the use of protective equipment when required.

(g) Ensure that all machinery and equipment are maintained in a safe condition, and that safety devices are fitted and maintained.

(h) Maintain good housekeeping at all times.

(i) Report all "Near Misses", accidents and dangerous occurrences promptly to the head of section.

(j) Investigate serious accidents and dangerous occurrences with a view of preventing recurrence.

(k) Liaise with the Head of Section (Workplace Safety & Health) on all matters concerning safety and health.

(l) Ensure contractors understand Company's WSH policy and rules and enforce compliance.

1.7 All Employees

(a) Be familiar with and adhere to the Company's WSH rules at all times.

(b) Conduct risk assessment prior to any work and practice all safe working procedures as instructed by his Supervisor.

(c) Wear the appropriate protective equipment and use the safety devices provided in correct manner.

(d) Report all incidents/accidents and dangerous occurrences immediately to his Supervisor.

(e) Report any hazards he may discover in the course of his work to his Supervisor.

1.8 All Contractors

(a) Comply with Senoko Energy Pte Ltd's WSH rules and the Workplace Safety & Health Act at all times.

(b) To provide appropriate personal protective equipment to all their workers and enforce on their usage at all times.

(c) To conduct risk assessment prior to any work and practice safe work procedures at all times.

(d) To provide suitably qualified Supervisors and workers that are relevant for the work.

(e) Responsible for the safe work environment for his workers at all times.

(f) Report all incidents/accidents and dangerous occurrences immediately to his Supervisor.

(g) Report any hazards he may discover in the course of his work.

SECTION 2

GENERAL SAFETY

2.1 Introduction

This WSH Handbook serves as a guide to remind all personnel, employees and contractors, to follow safe practices and work procedures when working in Senoko Energy Pte Ltd.

It is imperative that everyone, employees and contractors, adhere to our WSH measures to ensure that we establish a safe and healthy work environment for everyone to work in. Among our core values, SAFETY is No. 1 on the list as we always put safety first.

All employees, contractors and visitors are to adhere to and comply with all our Senoko WSH rules at all times.

2.2 WSH Orientation & Training

All new employees have to undergo WSH orientation briefing conducted by WSH section before they start their work. This is to ensure that all new employees are aware of the safety rules and also potential hazards around the plants. They will be briefed on the safety aspects of working in Senoko, which includes our PTW system, emergency procedures, demerit points system, no smoking rule and accident reporting.

All employees have to undergo relevant training and attend relevant courses to ensure that they are able to carriy out the work competently and safely. This can be in the form of in house courses, such as OJT or external courses conducted by WSQ.

2.3 Permit-To-Work (PTW) System

For the safety of plant and personnel, Senoko Energy uses a Fault Notification (FN) and Permit-To-Work (PTW) system that is incorporated into the Computerised Maintenance Management System (CMMS) to cover all maintenance/minor works carried out in the power stations except those works listed in the PTW exemption list. The necessary isolations and safety precautions for the job are clearly stated in the PTW. These procedures are to be strictly adhered to, allowing for the safe working environment. Greater attention is also given to the safety of personnel on the job. There should be strict compliance with WSH Act and also strong emphasis on Risk Management.

For job involving contractors, the Engineer in-charge is to read and acknowledge the special safety requirement stated in the PTW and obtain acknowledgement from the contractor or his qualified supervisor in charge of the work.

PTW is the system established to control and coordinate work, with an emphasis on maintenance, modification, and testing activities conducted in and around operating process units. In PTW, any action performed is analyzed to ensure that the safety requirements of that task and its interface with other tasks are defined, understood, and observed.

The comprehensive procedure of PTW is listed under the Operational Control Procedures – Safety Instruction Manual on OCP-5001: Permit-To-Work (PTW) System.

2.4 Natural Gas

Senoko Power Station possesses two sources of natural gas supply. Known as M-gas, the first source comes from Malaysia and is delivered to Senoko Power Station via a 30-inch diameter submarine pipeline laid across the Johor Straits for use as fuel by gas turbines and steam boilers. The second natural gas supply source is from Indonesia and is named I-gas. The gas originates from the Grissik field in South Sumatra and transported via pipelines through Batam to Sakra Natural Gas Station at Jurong Island. From there it is transported via pipelines to Senoko Gasworks and delivered to our Station via twin pipelines.

Natural gas is comprised predominantly of methane with small amounts of other gaseous hydrocarbons. It is odourless, colourless and tasteless. Its specific gravity is approximately 0.65. It is lighter than air and hence it will rise and diffuse into the atmosphere. Its flammability range is between 5% to 15% of volume in air.

The main hazards associated with natural gas are fire and explosion. The company has incorporated a set of safety measures to prevent these potential hazards. The main safety measures include the use of gas leak detectors, patrolling by Operations staff, gas odorisation, stringent hot work endorsement requirements and an absolute **"No Smoking" rule**.

The entire power station is a "No Smoking" area. Smoking is only allowed at the designated smoking area ***(see Appendix VIII)***.

The safe procedure on utilization of natural gas is listed under the Operational Control Procedures – Safety Instruction Manual on OCP-2003: Safe Work with Natural Gas.

2.5 Other Likely Hazards

By nature, works in a power station cover a wide range of physical conditions and a variety of substances. It is perfectly safe when everyone plays their part in working safely. However, a lack of awareness and carelessness could produce a host of hazards.

(a) High Pressure and Temperature

Steam or water, in fact any liquid or gas at high pressure or temperature, can cause serious injuries. High internal pressure may exist in large as well as comparatively small diameter pipes. Accidents can occur through leaks in pipes or joints (superheated steam is hardly visible), wrong operation of vents or drains etc.

(b) Medium Pressures

Liquids and gases at medium and low pressures are also to be treated with care. There have been cases of horseplay with compressed air hoses causing injury and great pain when air under pressure enters the body.

Escaping hot oil not only causes scalds, it is also a fire hazard. In fact, the handling of all oil firing equipment must be in accordance with the instructions from Fuel Management section.

Even water hoses with strong jets have reaction forces, which can cause lashing actions.

(c) Chemical and Related Hazards

A wide variety of chemicals, including acids and alkalis, which are toxic or corrosive, are needed for our water treatment operations. All these must be handled in accordance with the instructions of the Station Chemists. Do not

be mistaken by appearance, e.g. some chemicals look like water. Plant cooling water systems, equipment drains etc. may have chemical contents.

Toxic gases such as nitrogen oxides (NOx) and sulphur oxides (SOx) are present in boiler exhaust gases while hydrogen sulphide (H_2S) and ammonia gas may be accumulated at seawater culverts.

Enclosed tanks, vessels and spaces, cable tunnels and basements may contain atmospheres that do not support sustained prolong working inside.

(d) Health Hazards

Continuous breathing in of Electro-static precipitator (EP) dust, cement and sand dust, boiler soot and paint fumes has injurious effects. Suitable respirators must be used.

Prolonged physical contact or in some cases direct contact with the substances, including fibre glass materials, fuels and oils, chemicals etc. be avoided by wearing suitable personal protective equipment and apparel.

To prevent noise induced deafness, ear plugs/muffs must be worn in high noise areas. In this case, company has established Hearing Conservation Programme that includes annual audiometric examination.

Some examples of safety signs available in the power station

Note: Safety signs are to be observed at all times

(e) Manual Handling

Manual handling occurs in one way or another on every working day. To avoid injuries, it is important that we adopt the proper manual handling techniques when lifting or carrying any load, e.g. back injury is minimized if lifting of heavy objects off the ground is done always with a straight back and using the bigger leg muscles.

Precautions to note when carrying out manual handling:

(i) You must not attempt to lift weights beyond your strength – get assistance and use the correct lifting methods.

(ii) When more than one person is involved with the manual handling operation, only one person should give instructions as to when to lift, lower, etc.

(iii) Before taking hold of an article, examine it and remove or avoid, rugged or sharp edges, protruding nails, splinters, grease, oil and corrosive materials.

(iv) Wear gloves or use other hand protection when handling glass, rough, sharp or hot goods or materials.

(v) Wear goggles, gloves, aprons and rubber boots when handling chemicals, such as caustic soda, sulphuric acid or other corrosive liquids or materials.

(vi) When fitting or guiding pieces of equipment together watch out for nipping points.

(vii) You must make sure that nails are immediately removed from battens when opening packing cases or cable drums as serious foot injuries can result from person stepping on the nails.

PROPER MANUAL HANDLING TECHNIQUES

Step 1:
Assess the load and plan the lift. Do you need help? Can you use some lifting equipment? Clear the path of any obstructions.

Step 2:
With feet apart and good posture, grasp the load firmly and hold the load close to the body.

Step 3:
Lift the load by pushing up on your legs. Avoid jerking or twisting your back.

Step 4:
Ensure feet is stable and have good grip on load before moving off. Keep the load close to the body.

SECTION 3

SAFETY OF PERSONNEL AND PLANT

3.1 Working in Confined Spaces

A confined space is be defined as an enclosed space not intended for human occupancy and it has the potential for containing or accumulating a dangerous atmosphere. Typical confined spaces in the power station are:-

(a) Boiler gas spaces, flue ducts, chimneys and drain sumps.

(b) Culverts and deep pipe trenches.

(c) Storage tanks for fuel, water and chemicals.

(d) Cable tunnels or shafts.



Before entry is made into any confined space, a Permit-To-Work (PTW) must be obtained from Operations Section. A Competent Person for gas-free test must conduct gas-free test of the atmosphere inside the confined space. This is to ensure that the atmosphere inside the confined space is safe and all potential toxic, explosive and asphyxiating gases have been adequately removed and proper ventilation has been provided by the relevant Asset Management Engineer-In-Charge. The atmospheric gas test readings will be recorded on the PTW by the Competent Person.

For gas-free tests of hazardous or major works such as first entry into boiler, furnace and fuel tank, etc. the Competent Person shall carry out the gas free tests in the presence of a staff from Workplace Safety & Health section.

The following items must be displayed conspicuously at the entrance of the confined space:-

- A copy of the PTW & Risk Assessment record
- Entry and exit list of personnel working inside the confined space
- A copy of the periodic gas test results
- Confined space warning sign

In the event that access is required in an emergency for a particular atmosphere, breathing apparatus or suitable respirator (gas mask) must be used. The Workplace Safety & Health section conduct training on the use of such equipment.

It is important to note that all portable hand-held lightings shall be below 55 volts. Gas cylinders shall not be brought into the confined space and their hoses shall be removed daily after the completion of day's work.

As part of the Risk Assessment for the confined space work, the PTW Holder has to indicate the mitigation measures and emergency rescue plan when an incident occurred inside the confined space.

Any work involving working in confined space is to comply with the WSH (Confined Spaces) Regulations.

3.2 Welding and Other Hotworks

All welding and other hot work must be covered by a Permit-To-Work, obtained by the respective Asset Management Engineer from the Operations Section. It must be endorsed by the respective section's Competent Person for gas test or staff from the Workplace Safety & Health section.

Welding

(a) You must always be aware of the potential of fire risk before starting to weld. Use a zinc sheet or fire retardant cloth to screen off or catch falling sparks. Make sure an appropriate type of fire extinguisher is on standby at site.

(b) In the event of fire, all gas cylinders should be removed from the vicinity.

(c) Welders must inform their assistants of the dangers of looking at welding or burning flame, and must ensure that they are provided with goggles or screens. The assistants must wear welding goggles or use the protective screen.

(d) Welders and assistants are responsible for the safe use of the equipment. Care must be taken in laying out the equipment and checking them before welding. This is to ensure there is no damage to regulators, nozzles, hoses etc. Bottled gases must be turned off at the cylinder when not in use.

(e) You must not use oil or grease where it will come into contact with oxygen. There is a risk of explosion.

(f) You must erect a portable screen wherever possible to prevent welding flashes and flying particles, and to display warning notices, where there is danger to persons passing by.

(g) When carrying out electric welding, ensure that the return lead makes good contact with the work being welded. This is in addition to an efficient earth where a separate earth is necessary.

(h) All persons working at close proximity to welders must wear tinted goggles or erect adequate screens to prevent welding flashes, which may not appear to affect the vision at the time, but can cause arc-eye some hours after the event.

(i) You must report any defect in the equipment to your Supervisor.

(j) Never wear wet clothing, gloves, shoes, etc. during any welding operations.

(k) Ensure that good ventilation is provided when welding in confined areas. Never use oxygen for this purpose. Oxygen itself is a fire risk!

(l) Never strip to the waist during any welding work, even when it is warm.

(m) Do not wear synthetic fibre clothing as welding sparks may set these alight.

(n) Never hold the electrode holder under your arm during off-times because of the risk of electric shock.

(o) Both gas cylinders, oxygen and acetylene, must be fitted with flashback arrestors at the cylinders' ends. The gas torch must be fitted with a one-way valve to prevent any back flow of the gases.

Other Hotworks

No welding or heating by torch, blow-lamp etc. should be carried out on the following:-

(a) Fully enclosed storage, vessels or drums of any nature.

(b) Pipes and vessels under internal pressure whether of steam, feedwater, air or gases.

(c) Pipes, tanks and spaces, which have been used to contain fuel and other inflammable substances unless they are fully vented off traces of explosive mixtures.

The following is prohibited:-

(a) Naked flames, hot or spark producing elements (including electric devices) and smoking in the vicinity of the hydrogen cooled generators, hydrogen feed and sealing system, natural gas receiving and regulating stations, LPG plants, fuel storage areas, oil, paint and bottled gas stores and where painting is in progress.

(b) Cleaning with petrol or highly flammable fluids or using them as solvent.

(c) Painting in poorly ventilated areas or when hot work is in progress.

3.3 Working at Heights

There are many hazards associated with working at height. Slipping, tripping, working from unstable structure, lack of proper guardrails – when you think about it, there are many ways you could fall from height. When working at height, workers need to exercise greater care and caution as they are exposed to higher risk.

All scaffolds must be erected by trained Scaffold Erectors and supervised by qualified Scaffold Supervisor. The scaffold must be provided with proper guardrails and closely boarded working platform. Toe boards must be provided to prevent equipment and material from dropping down. Proper and safe access to scaffold must be provided. All scaffolds erected must comply with the WSH (Scaffolds) Regulations. All scaffolds must be registered in the Scaffold Register placed in each Stage in the Control Room. They must be individually tagged with records of inspection by Scaffold Supervisor.

Scaffolding and Ladders

(a) Do not use any make-shift ladder or scaffolding. You must use the proper equipment, which must be inspected before use.

(b) Toe boards and guardrails must be fixed to all scaffold working platforms.

(c) Nothing should be left in the ends of scaffold tubes.

(d) Use the right ladder or scaffolding for the job. Make-shift methods to reach a height can cause accident. Do not stand on boxes, drums or chairs.

(e) You must ensure that any ladder, which you use, is placed at the correct angle and is secured. Ladders erected against scaffolding should project at least 1m (3 feet) above the platform of the scaffold so as to act as a hand-hold.

(f) Ladders should be checked before use and should be of sound material, good construction and free from apparent defects.

(g) Ladders in use should stand on level and firm footing. Loose packing should not be used to support the base.

(h) Do not carry any objects up a ladder; always use a rope to haul them up.

3.4 Electrical Works

All electrical work must be carried out by qualified electrician or licensed electrical contractor. The dangers of high voltage electrical equipment are obvious. Physical interlocks are provided to prevent access to live equipment.

So far, more fatal accidents occur with low voltage electricity, which has widespread usage. In the Station, electrical supply points with 50 volts upwards, whether AC or DC, must be treated with respect.

For safety, portable hand-held lamps used in the Station are stepped down to 24 volts. Portable tools at 110 volts or 240 volts are usually considered safe but they are potentially dangerous if connected by an unqualified person. In case of the slightest doubt, the Electrical Asset Section (EAS) must be consulted.

For personnel who may have to work on or test live equipment, special precautions must be taken. Do not be mistaken by the term 'light current' equipment covering certain instruments, electronic and solid state devices, relays, etc. They may be supplied with voltages and current high enough to cause fatal accidents if worked on without sufficient understanding. If in doubt, always treat equipment or cables as 'LIVE' and consult EAS.

General Guidelines on the Safe Use of Electricity:

(a) To help prevent electrocution, ensure approved Residual Current Circuit Breakers (RCCB) or other protective devices are used.

(b) Do not use test lamps or other instruments unless they are of an approved type. Makeshift testers and long bare metal probes are dangerous.

(c) Never overload electrical equipment.

(d) Do take extra care when working at damp places, or where there are lots of earthed metal works. Keep all electrical equipment clean and dry. Do not stand on wet area while using electrical equipment.

(e) Switch off and disconnect any equipment that sparks or stalls.

(f) Do not interfere with or touch any electrical connection unless you are authorised to do so. Electrical repairs are an electrician's job.

(g) Always make a quick check before use to ensure that electrical plugs, sockets and glands are intact and that the cable is not worn, frayed or defective. Avoid kinking, twisting, binding or crushing cables.

(h) You must report immediately to your supervisor, any faulty electrical equipment, which in your opinion constitutes a danger to you or other workers.

(i) You must make sure that you know where the nearest 'ON/OFF' switch is situated. You may need to use it in during an emergency.

(j) Make sure that all electrical equipment used is effectively earthed and regularly serviced.

(k) Before commencing work, make sure that you are working on the right electrical equipment or plant and that it has been properly isolated and there is a PTW for the work.

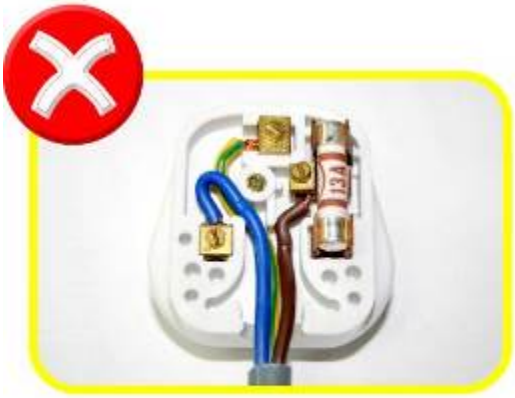
(l) Do switch off electrical appliances when not in use.

Frayed leads or exposed internal wires are fire risks

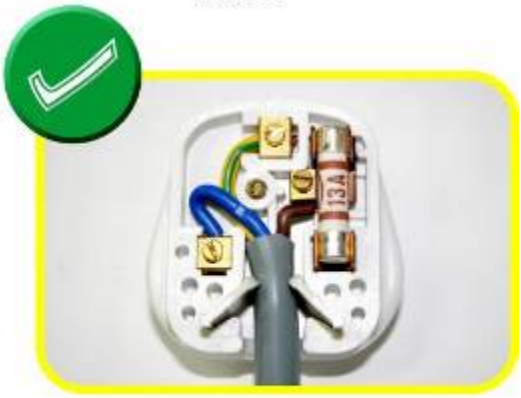
Electrical leads/plugs intact

Overloaded sockets - Potential electrical fire hazard

Good practice - Without overloading and causing fire hazard



--- Outer covering of the power lead exposed
--- Internal wires are not secured properly
--- Colour wires are not identified



--- Outer covering of the power lead secured inside the plug
--- Colour wires are identified & connections are done properly

SAFETY MARK
1 2 3 4 5 6 - 0 0

Use electrical appliances that carry the SAFETY MARK label.
These electrical appliances that carry the SAFETY MARK have passed the safety standards set by SPRING Singapore, the safety authority.
Such electrical appliances are therefore safe for use.

3.5 Falling

(a) You must barricade all access openings and holes in the ground with adequate warning signs including warning lights during the night.

(b) You must securely lash barriers around any opening to make them safe.

(c) Safety belts or body harnesses are essential when working at height. You must use them when working at height. Safety belts/body harnesses must be in good condition and properly anchored to a safe and secure anchorage point.

(d) You must always make use of crawling boards when working on layer of asbestos roof.

(e) When replacing gratings and cover plates, make certain that they are in their correct position.

(f) Make sure that oil, grease or any other spillage is removed as soon as it occurs.

(g) Keep walkways, stairways and working areas tidy, do not leave tools and equipment lying about where you or your fellow workers can trip over them. Remove scraps and rubbish and place them into proper bins for disposal.

3.6 Machinery

(a) No person under the age of 20 is allowed to operate any machinery.

(b) Do not use a machine unless you have been properly trained in its use and instructed of its dangers.

(c) You must know where the emergency stop controls are located on the machines.

(d) You must not wear loose clothing, gloves and flapping sleeves near moving machinery. These can get caught up and lead to accidents.

(e) Borings, turnings, swarf, etc. must always be removed with a brush or stick, never with the hands or rag. This should be done only when the machinery has been switched off or isolated.

(f) You must not distract the attention of a man working on a machine.

(g) When moving machinery is used, it is most important that the floor around the machine is kept clean and tidy.

(h) Do not remove any guards without instruction. Always ensure that they are in position before operating any machinery.

(i) Before using a grinding wheel, you must make sure that guards and tool rest are in the correct position. For portable grinding make sure that you use the correct stone for the item you are grinding (If in doubt - ask your supervisor). For all grinding operations, goggles must be worn to protect the eyes from flying particles.

3.7 Fumes

(a) At times, noxious fumes, such as sulphur dioxide, may be present in the plant. If coughing, sneezing or tightness of the chest is experienced whilst working in the area, you must leave the area immediately and report the matter to your Supervisor.

3.8 Hand Tools

(a) When working on a grating or open mesh flooring, you must lay out a tarpaulin or wooden plank. This is to prevent the tools from falling through the openings. You must secure tools when working at a height.

(b) You must not use worn-out, damaged or faulty tools. Replace them without delay.

(c) Always use the correct tools for the job and this includes the right size spanner for the nut.

(d) You must never use a file without a handle.

(e) Keep both hands behind the working end of screw driver, wood chisel and similar tools. If the tool slips, it will not pierce your hand.

(f) Do keep your feet out of the way when using a crow bar, in case it slips.

(g) Do not use a screw driver with a damaged handle, it may break and pierce the hand.

(h) Do not use a spanner with sprayed jaws. It may slip or fly off when weight is applied and can cause injury to the hands.

(i) Do not use a hammer, chisel or bar with a mushroomed head. They are dangerous because when struck, steel chips fly off at very high speed and can cause serious injury.

(j) Make sure the hammer heads are firmly fixed.

(k) All portable electrical hand tools and appliances must be checked and inspected by EAS annually. Any defective or unsafe hand tools and appliances must be disposed off.

3.9 Lighting

(a) You must ensure that lighting is adequate for the job.

(b) You must ensure that leads and cables for lighting are placed where they will not cause danger, obstruction or possible fire.

(c) All hand lamps for lighting used inside boilers, tanks or pipes should be totally insulated and should not exceed 50 volts. Report all defects immediately to your Supervisor.

(d) Do not use the lighting current for portable tools.

3.10 Compressed Air and Gases

(a) You must never use compressed air against your own skin, or that of anyone else - it can be lethal.

(b) You must not clean your clothes or swarf from a machine with compressed air.

(c) At all times, handle compressed air with care and never use it where a suction hose can do the job.

(d) Handle all gas cylinders with care and avoid spilling oil or grease over the equipment. Acetylene cylinder should be kept in an upright position, both in use and in storage.

(e) Do keep bottled gases turned off at the cylinder unless in use, and ensure that the work place is well ventilated.

(f) Do not use compressed air for testing or cleaning unless the method has been specially approved and authorised by the engineer.

3.11 Vehicles

(a) You must not attempt to board or alight from any vehicle whilst it is in motion.

(b) Drivers must check their vehicles before moving off to ensure that the load is safe and that any projecting loads are flagged.

(c) Speed limit in the Station is 20 km/hr and it must be strictly observed.

(d) Only authorised and trained personnel are allowed to drive the battery trucks, mobile crane and forklift.

(e) No passengers are allowed on trolleys, trailers, tractors and forklifts.

(f) Road corners must be negotiated at a safe speed.

(g) It should be emphasised strongly that no overloading of vehicles is permitted.

(h) Unattended vehicles should not be left with their engines running.

(i) Do not drive near any live machinery.

(j) Vehicles, including bicycles should be parked in their respective designated parking bays and should not obstruct walkways, fire boxes, etc.

(k) Cycling on pavements and in the plant areas is strictly prohibited.

3.12 Mobile and Overhead Cranes

a) All lifting operations must be carried out by qualified and approved operators, in the presence of qualified lifting supervisors.

b) A lifting plan is needed for all lifting operations

c) You must keep clear of all suspended loads.

d) You must ensure that crane tracks are clear.

e) You must not attempt to board or alight from a crane whilst it is in motion.

f) When using lifting tackle, be sure that it has been tested/inspected by an Authorized Examiner.

g) Ensure that the weight to be lifted is known and is less than the safe working load stamped on the tackle.

h) Halt when the load is just clear of the floor and examine for security.

i) Return all lifting tackle to the respective supervisor immediately after use.

j) Take your hands away from chains and ropes and stand clear before the crane takes the load.

k) Proper signals according to those practiced must be given to the crane-driver. Signals to lift the load, must be given by the signalman or the lifting supervisor.

l) You must report any defect to your Supervisor.

m) You must not leave the control unattended when a load is suspended.

3.13 Personal Protective Equipment (PPE)

(a) Personal protective equipment is provided for all types of work. You must use them as and when necessary and in an appropriate manner.

- For Visitors visiting the plant, below PPE is mandatory and host need to ensure the below items were provided accordingly before escorting them into plant.

Safety helmet, eye protection, hearing protection (dispensable ear plug), high visibility vest and covered shoes (ladies are not allowed to wear high heel shoes).

- For Staff and Contractors, it is mandatory to wear the basic PPE, such as safety shoes, safety helmet and safety eye protection when at site and other site/ work specific PPE such as, hearing protection, hand protection, etc.

(b) Protect your eyes. Do wear goggles or protective spectacles when grinding, using a chisel, drilling above eye level, chipping metal, concrete, stone or scale, turning non-ferrous metals or cast iron. Eye protection should also be worn where there is danger from dust, corrosive substances and from welding operations.

(c) You must wear gloves provided, when handling hot, sharp, rough or corrosive materials.

(d) You must wear a safety helmet, properly strapped with a chin-strap when entering a 'hard hat' area, or when headroom is restricted.

(e) When work is being carried out overhead, persons working below must wear safety helmets.

(f) Dust respirators must be worn when removing lagging or working in dusty environment.

(g) All damaged or defective personal protective equipment must be replaced immediately.

3.14 Lifting Appliances & Lifting Machines

(a) No lifting appliance or lifting machine shall be used unless it has been tested and certified by approved person, properly maintained and in good working condition.

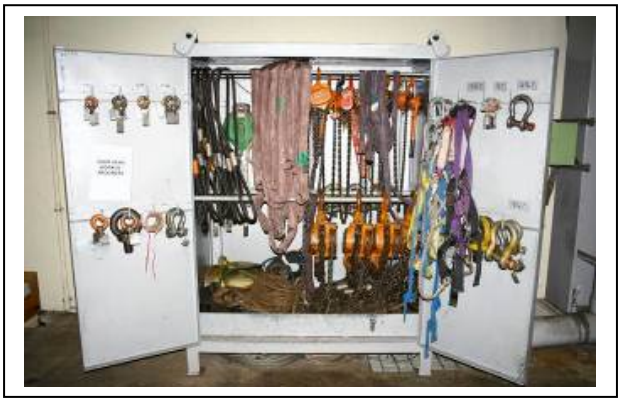
(b) No person below the age of 18 shall be allowed to operate any lifting appliance or lifting machine.

(c) Only trained and competent persons are allowed to operate the lifting appliance or lifting machine.

(d) You must not use kinked slings or wire ropes or those showing signs of wear and fraying.

(e) No lifting appliances shall be loaded beyond their safe working load.

(f) A lifting plan must be included for all lifting operations.



3.15 Underwater Works

(a) No diving work is allowed if the number of divers is less than 3.

(b) Check the divers' names against the authorised list submitted by the diving firm. Ensure that they are covered by valid workman compensation and/or insurance.

(c) The Engineer-in-charge must brief the lead diver on the Scope of Work.

(d) Apply PTW and request for suspension of chlorination, bandscreen operation and where possible shutdown of pumps. Ensure that lead diver endorses the PTW.

(e) Set up walkie-talkie (one in Control Room and one held by Engineer-in-Charge) between Engineer-In-Charge and Shift Manager. Check for proper functioning of the walkie-talkie at Control Room and test again on site.

(f) Relevant gate or manhole cover shall only be opened when it is required and it will be opened just before the commencement of diving. No manhole, gate or door shall be left open if diving work is completed or suspended.

(g) Ensure all divers are in full diving gears at all times while diving is in progress. Diving gears must be in good conditions, eg, air cylinder pressure more than 1000 psi or 6895 kN/m^2.

(h) The lead diver is fully responsible for the safety of his diving crew.

(i) No diving is allowed in the absence of an Engineer-In-Charge. Divers are only allowed to dive at the assigned location as instructed and no where else.

N.B. : If conditions (a), (b), (d) or (g) cannot be enforced, seek the advice of Head of Section.

(j) Engineer-In-Charge is to ensure diver is attached with life/communication line before diving commences. Proper communication must be maintained among the divers at all times. The standby diver shall monitor and co-ordinate all diving movements.

(k) Divers shall check the condition of water current at each new location before commencement of diving.

(l) Divers must be alert at all times while diving and to take additional precautions against hazardous conditions.

(m) After diving work, Engineer-In-Charge is to ensure the closing of all manholes and doors and also departure of all divers.

3.16 Safety Precautions for "Live-Leakage Sealing" Works

Senoko Energy Pte Ltd's Responsibilities

(a) Apply "Permit-To-Work" for working on "live" plant.

(b) No work is allowed if the number of contractor's technicians is less than 2.

(c) Check the contractor's technician names against the authorised list submitted by the firm.

(d) The Engineer-in-charge is to brief contractor's technicians on the scope of work to be carried out.

(e) Assign one officer to the work site where the work is carried out and set up walkie-talkie communication between Officer-In-Charge and relevant Shift Manager at the control room.

Contractor's Duty and Responsibilities

(a) To acknowledge and endorse on PTW after briefing on the scope of work by Engineer-In-Charge.

(b) Shall provide the relevant safety equipment to his workmen to work safely as required under the Workplace Safety & Health Act and to comply with the safety rules and regulations at all times.

(c) Shall provide all the necessary tools and equipment required for the jobs and only non-sparking tools and equipment shall be used in hazardous areas. This includes cables of sufficient length and RCCB with rated sensitivity of not more than 30 mA for their electric tools.

(d) Ensure that all the relevant safety gears and equipment are in good working condition.

(e) Whilst carrying out the sealing works, the Contractor's technicians must be alert at all times and to take up additional precautions if conditions are hazardous.

(f) Contractor's technicians must use their professional judgements to assess each individual job in respect of safety and to use the correct compound for each particular leak etc. prior to commencement of works. Contractors shall be fully responsible for the safety of his workers.

(g) To put up "Danger, No Entry" sign at the vicinity of the leakage area prior to commencement of work.

(h) No work shall be carried out if the assigned officer is not present at the work site.

3.17 Cleanliness and Tidiness

(a) On completion of any job, you must check your work area, and ensure that it is clean and tidy. You must return all equipment after you have finished with it.

(b) Surplus oil or grease is a potential danger. You must clean it up immediately. It is particularly dangerous on stairs and steps, on hand railings and along passageways.

(c) Vacuum appliances must be used for cleaning purposes wherever possible in preference to compressed air.

(d) You must keep gangways and passageways clear. If this is unavoidable, adequate fencing and warning notices must be displayed.

(e) Waste oil rags or cotton waste are fire hazards. They should always be disposed appropriately into their appropriate container, separate from other rubbish.

(f) Senoko is a clean working environment to be enjoyed by all – Let's keep it that way.

3.18 General

a) Always conduct a risk assessment before commencement of any works to ensure it is safe to carry out the work.

b) You must not tamper with or remove 'Danger' or 'Caution' notices and any form of isolations on the plant. The person responsible for displaying these notices must ensure their removal when the danger is over.

c) No one must enter confined spaces such as tanks, condensers, pit, vessel etc. to do work unless you are authorized to do so and gas free tests have been carried out.

d) When painting is carried out, or there is presence of flammable gases, no 'hot work' is permitted.

e) When issued with a Permit-To-Work or a Fault Notification, read it and satisfy yourself that there is no danger before beginning work.

f) You must not take unnecessary risks. Remember that other peoples' limbs or their lives may be endangered as well as your own.

g) In any case of injury, however slight, you must seek first aid treatment.

h) When handling fluids or compounds, which have or may have an irritant effect on your skin, you must wear suitable rubber gloves.

i) Avoid taking short cuts.

j) You must not play jokes on your friends, they may result quite differently from how you have intended. It may be fun but it can also be fatal.

k) Ignorance of the law and safety rules is no excuse.

l) No unauthorised activities (eg. fishing, swimming, etc.) should be carried out at the circulating water intake and outfall.

m) Senoko Energy Pte Ltd has a list of Operational Control Procedures (OCPs) or Safety Instruction Manual, which you can refer to when carrying out similar works. ***The list of Operational Control Procedures is in Appendix I.***

n) Staff are encourage to suggest any safety and health related improvement to their work environment or procedure to ensure safety at work. The form is in Appendix X.

Safety Pledge signed by all employees – “Safety Is In My Hand”

SECTION 3A:

SAFETY OF EMPLOYEES IN THE OFFICE

Slips, Trips and Falls

Slips, trips and falls are common forms of workplace accidents with wide-ranging injuries: A minor sprain to bone fractures and head injuries.

Majority of slips, trips and falls can be attributed to:

(a) wet or contaminated walking surfaces (e.g., liquids, dusts and grease);

(b) uneven walking surface, potholes, changes in level, broken or cracked flooring;

(c) uneven placement, loose or wrinkled carpet, mats or rugs; or

(d) obstruction or protruding objects along walkways (e.g., boxes, wires, cables and open drawer).

Other factors that can increase the likelihood include:

(a) poor lighting;

(b) poor housekeeping;

(c) wearing incorrect footwear;

(d) rushing and carelessness; and

(e) poor sense of stability due to medication, age and poor eyesight.

Preventive Measures

Here are some recommended preventive measures employees can take:

Potential slip and trips sources	Recommended preventive measures
Wet or contaminated Walking surfaces e.g.,liquids, dusts and grease)	• Keep floors and stairs dry and clean at all times. • Wipe any stains or spillage of liquids immediately. • Use anti-slip flooring or non-slip working shoes. • Place anti-slip mat at areas prone to wet conditions. • Place proper warning signs to warn against liquid spills.
Uneven walking surfaces, potholes, changes in level, broken or cracked flooring	• Make a report of these unsafe conditions. • Take prompt actions to repair such defects • Incorporate high visible tread makers such as reflective edges or floor marking to highlight changes in level or slope. • Give undivided attention and watch where you are walking.

Uneven placement, loose or wrinkled carpets, mats or rugs	• Ensure carpets and rugs are free of holes and loose edges. • Replace worn and torn carpets if they cannot be repaired
Obstruction or protruding objects in walkways (e.g., boxes, cables and open drawer)	• Keep work area neat-do not leave materials and objects boxes lying haphazardly around • Keep drawers or doors of cabinets closed after use. • Position equipment with cord to avoid power cords crossing pedestrians' routes or use cable cover to secure power cords to surfaces.

OFFICE SAFETY - DO'S & DON'TS

Practice good housekeeping habits by keeping the cables/wires tidily to prevent tripping

Do not place items on levels too high or carelessly to prevent items from dropping

Observe good posture when picking up heavy objects from the ground

Remember to close the drawers or cabinet doors after use with consideration for others

Anytime, Anywhere
Danger Sneaks Around You
Even In Your Comfortable Office Space
Don't Let Your **Negligence** Get To You

Keep the sharp objects in the pantry appropriately after use

Keep power points stress-free to prevent hazards from over-laden circuits

Make sure you have a clear visual of where you are heading when carry many items

Keep fire extinguishers easily accessible and all staff should know how to use in emergency "PASS" – Pull, Aim, Squeeze and Sweep

Struck by or against objects
Accidents can also occur as a result of being struck by or against an object and it can occur anywhere.

Injuries can range from minor bruises to serious injuries such as head injuries and bone fractures.

Struck by an object	Struck against an object
Situations: • Overloaded storage shelves, racks or cabinets. • Retrieving items stored above eye level and without using step stool or ladder. • Inadequate warnings of overhead works e.g., object falling off from overhead platform and striking employee standing underneath. • Overhead fixtures e.g., pictures, ceiling fan and ceiling boards not properly secured.	Caused by bumping into a glass door, persons or against protruding objects.

Preventive Measures
Here are some recommended preventive measures employees can take:

Potential slip and trips sources	Recommended preventive measures
Over stacked or overloaded shelves.	• Do not store boxes, papers and other materials on top of lockers or file cabinets. • Stack material in such a way that it is stable and not fall over. • Do not overload shelves and storage cabinets. • Regular inspections to detect and rectify any unsafe stacking.
Fixtures such as pictures, ceiling fans and ceiling boards not securely fixed.	• Ensure all fixtures such as ceiling fans, ceiling boards and pictures are well secured
Storing heavy or frequently used objects above shoulder height.	• Store heavy or frequently used objects on lower shelves.

Employees having to reach for objects stored on shelves where objects cannot be clearly seen.	• Use step-ladder or ladder to assess higher shelves. • Educating employees on safe use of step ladder or A-adder.
Standing or working underneath works being carried out at height.	• Put up proper barricades or signs to warn others about overhead work.
Bumping into person or permanent object or strike against open file drawers or open cabinet door.	• Maintain adequate space in work area particularly the common passageways
Strike against sharp objects such as protruding nails.	• Maintain adequate space in work area. • Regular inspection to detect and rectify • any unsafe condition

Safety in the Pantry

The pantry is an integral part of any office environment visited by employees throughout the day. Apart from safe handling of electrical appliances, employees should be mindful of other forms of safety hazards and take steps to prevent accidents from happening.

Potential hazards	**Recommended preventive measures**
Wet floors due to spills or leaks  	• Clean up any spills when it happens • Report leaking pipes/water dispenser • Place a sign over wet areas
Burns/scalding due to hot water 	• Don’t dispense hot water at a strong flow to prevent splashing • Exercise caution when emptying containers of fluids

Cuts from knives/scissors

- Separate sharp objects from other utensils
- Do not store sharp objects pointing upwards

Food poisoning

- Throw out expired products
- Exercise proper hygiene when handling food
- Keep food in proper containers

A SENOKO CASE STUDY

On 30 November 2012, at the end of an appreciation lunch, one of our colleagues from the General Office sustained a slight superficial burn to her abdomen and a burn mark on her blouse. It is fortunate that she managed to extinguish the flame quickly by rolling on the floor.

Her injury was caused by hot melted wax from a warmer container that rolled off the table on to the floor as another of our colleagues tried to extinguish the flame from the warmer.

In addition, the melted wax caused a small fire and left a burnt mark on the table cloth.

Warmer containers for heating and keeping food warm.

The results of the investigation revealed the following:

(1) The caterer did not provide proper equipment and utensils.
(2) The organizer of the lunch did not ensure that all flames from the warmer had been extinguished at the end of the event.

LESSONS TO BE LEARNT:

(1) Always perform a risk assessment exercise when planning for the event. It is a good practice.

(2) Ensure that the caterer (whether it is an external party or our in-house canteen operator) provides all the essential equipment as well. These items include holders for the metal warmers used for keeping the food warm. Where possible, **avoid the need to heat up the food to eliminate the risk of potential fire.**

(3) Always ensure that any fire should never be left unattended at all time.

(4) Always have a fire extinguisher on standby and within reach from the food table.

Good Workstation Sitting Posture

Due to the nature of desk-bound jobs, office workers spend long hours sitting in front of a computer. Without good sitting postures, employees may be exposed to a range of health risks which includes:

- Carpal tunnel syndrome
- Muscle strain
- Back pain
- Tension neck syndrome
- Epicondylitis (golfer’s elbow)

All these risks have similar symptoms, which includes aches, pain and strains in the affected areas. The main body parts that usually suffer from such injuries are the neck, shoulders, back, elbows and wrists.

To prevent such musculoskeletal injuries, employees are encouraged to follow this 12-pointer workstation sitting posture checklist:


Top of monitor casing should be 5-8 cm above eye level
Centre monitor and keyboard in front of you
No glare on screen, use an optical glass anti-glare filter where needed
Use a document holder, preferably in-line with the computer screen
Use a good chair with a dynamic chair back and sit back
Use a negative tilt keyboard tray with an upper mouse platform or downward tilt-able platform adjacent to keyboard
Wrists flat and straight in relation to forearms for keyboard or mouse
Arms and elbows relaxed and close to body
Use a stable work surface and stable keyboard tray
Sit at arm's length from monitor
Feet on floor or stable foot rest
Take frequent short breaks

SECTION 4

ACCIDENT / INCIDENT REPORTING

4.1 Definitions

4.1.1 Accident:
An undesired event, giving rise to injury, death, ill-health, and other event that could result in damage to facilities. This will include all reportable industrial accident, dangerous occurrence and occupational diseases under the Workplace Safety & Health Act.

4.1.2 Incident:
An event that had the potential to lead to an accident, including near misses.

4.1.3 Work Injury & Lost Time Injury (LTI)
The definitions of work injury and loss time injury are intended to provide greater clarity for the Company's internal reporting and which shall be consistent with, if not, exceed the minimum statutory requirements defined under Workplace Safety and Health (WSH) Act.

a) **Work Injury** - Any injury or occupational disease (as defined under the WSH Act) suffered by a person arises out of and in the course of his employment, i.e, resulting from work activity or environment of employment. It does not include any bodily injury sustained by a person in the course of commuting to and from his or her workplace using a mode of transport provided by the employer or on his or her own mode of transport.

b) **Self or Purposely Inflicted Injuries** – An injury self inflicted or purposely inflicted by another person shall **not** be considered as a work injury unless it arises out of the course of employment or in the course of the work. Under the WSH Act, any person at work who, without reasonable cause, wilfully or recklessly does any act which endangers the safety or health of himself or others shall be guilty of an offence.

   i. **Example 1** - An employee who had lent money to a co-worker lost his temper and assaulted the borrower when he failed to repay the loan as promised. The resulting injury to the borrower would not be considered a work injury even though it occurred on the company premises during work hours. **This is not a work related injury.**

   ii. **Example 2** - A worker was called into the Foreman's office and was told he was discharged. He reacted by knocking the Foreman out and then returned to his workplace where he attacked a co-worker whom he accused of making unfavourable reports about him. Since both assaults were associated with the employment, the injuries to both the Foreman and the co-worker would be considered work injuries. **Both injuries are work related injuries.**

c) **Lost Time Injury** – An injury which arises in the course of work and results in the person being unavailable to work, whether scheduled to work or not, for one or more subsequent consecutive days or shift (i.e. excluding the day or shift when the accident occurred) for which sick leave was granted by a registered medical

practitioner for that injury or ill health sustained at work. It shall include the person being admitted in a hospital for at least 24 hours for observation or treatment.

d) **Calculation of Man-days Lost due to Injury** - Man-days lost is calculated as the number of calendar days the employee was unable to work as a result of the injury or illness, regardless of whether or not the employee was scheduled to work on those day(s). Weekend days, holidays, vacation days or other days off are included in the total number of days recorded if the employee would not have been able to work on those days because of a work-related injury or illness. This calculation is based on Occupational Safety and Health Administration (OSHA) standard which is also in line with IPR GDF practices.

e) **First Aid or Non Lost Time Injury** – An injury which arises in the course of work and results in a person being treated for his or her injury. However, after medical treatment, the person is able to return to work the next day.

f) **Non Occupational Injury** – A non occupational injury which occurred during an event sanctioned by the company, whether it is in the workplace premises or off site, is considered as a lost time injury and the accident should be reported.

g) **Frequency Rate (FR) of Lost Time Injury** – Number of lost time injuries multiplied by 1 million and divided by the number of hours worked.

$$\text{Frequency Rates(FR)} = \frac{\text{No. of Lost Time-Injury} \times 10^6}{\text{No of Man-hrs worked}}$$

h) **Severity Rate (SR) of Lost Time Injury** – The total number of days of absence as a result of the Lost Time Injury multiplied by 1 million and divided by the number of hours worked.

$$\text{Severity Rates(SR)} = \frac{\text{No. of Man Days Lost} \times 10^6}{\text{No. of Man-hrs Worked}}$$

i) **Reporting of Statistics** – The Company's report on Work Injury and LTI shall include work injury and LTI suffered by our contractors, contract workers and visitors at our premise at that time of the incident. A record of all incident reports as required by the law is to be kept for three years from the time the report is made.

4.2 Accident / Incident Reporting

(a) Reporting of Incident, including near misses

All incidents, including near misses, must be reported to the Supervisor immediately so that appropriate preventive measures can be taken to prevent an accident. Today's near misses not reported will become tomorrow's accident. ***The Near Miss / Incident Report is shown at Appendix II.***

(b) Reporting of Accident

Supervisor/Foreman must report all accidents promptly and accurately by completing the ***Statement Form, which is shown at Appendix III***. Minor accidents must also be reported so that corrective action can be taken to prevent a recurrence. All accidents must be reported within 24 hours. Failure

to report an accident promptly might prejudice the victim's claim for workmen's compensation.

4.3 Contacts

Any personnel within the premise can report any unsafe act or practices to any members of the WSH team via the following contact numbers: 67500139 / 049.

4.4 Accident Reporting Procedure

The following procedure for reporting of accidents must be complied with. Please study the procedure carefully and ensure that you know your role when an accident occurs :-

(a) Minor Injuries

(i) Following an injury, the injured person should seek first aid treatment from a First Aider, preferably the nominated First Aider of his Section. Heads of Section are responsible for making known to the workers of his Section the name of the nominated First Aider and the location of the first aid box. He should also affix in every workroom a notice stating the name of the person in charge of the first aid box.

(ii) After first aid treatment, the First Aider should advise the injured person to obtain medical treatment at the nearest Outpatient Polyclinic.

(iii) The injured person should report the accident to his Supervisor as soon as possible.

(b) Serious Injuries

In case of serious injuries where an ambulance is required, anyone witnessing the accident should :-

(i) request for an ambulance from the Singapore Civil Defence Force Ambulance Service, Tel No. : 995 stating :-

(a) the location of the accident;
(b) the nature of the accident; and
(c) the number of persons involved.

(ii) inform the Head of Section or, in his absence, a senior officer of the Section concerned. The Head of Section/Senior Officer should then :-

(a) contact Head of Section (Workplace Safety & Health) or staff of Workplace Safety & Health section.

(b) arrange for a senior or supervisory staff from his section to accompany the injured person in the ambulance to a Hospital.

(c) All Injuries

(i) The supervisor in charge should complete the ***Supervisor's Accident Report Form (see Appendix III)*** in triplicate and forward these to his Head of Section.

(ii) The Head of Section should :-

(a) forward one copy of Supervisor's Accident Report Form, to the Head of Section (Workplace Safety & Health) within 24 hours of the accident;

(b) forward one copy each of Supervisor's Accident Report Form and ***Notice of Accident / Dangerous Occurrence / Occupational Disease (see Appendix III)*** to the HR Section within 3 days of the accident;

(c) retain one copy of Supervisor's Accident Report Form and Notice of Accident / Dangerous Occurrence / Occupational Disease in his Section for record.

(d) Flow Chart for Reporting Accident

The flow chart for reporting accident is in Appendix IV.

Note : If the accident occurs in a registered factory and the injury results in disablement for more than 3 days or, the injured is kept for observation in a hospital for more than 24 hours, the Head of Section should, within 3 days of the accident, forward one original copy of Notice of Accident / Dangerous Occurrence / Occupational Disease, to the HR Section for transmission to the Commissioner for Workplace Safety and Health, Ministry of Manpower, via the iReport system.

(i) The Head of Section should keep the HR Section and Head of Section (Workplace Safety & Health) informed of all medical leave granted to the injured person until he resumes his duty.

(ii) After the injured person has been discharged from the hospital, the Ministry of Manpower may request for the injured to be examined by the doctor who treated the injured employee. This is to assess the nature and extent of the injury for the purpose of determining the quantum of Work Injury Compensation.

4.5 Useful Information

(a) First Aid Boxes and First Aiders

Respective Section offices and Control Rooms.

(b) Nearest Hospital

i) Khoo Teck Puat Hospital, 90 Yishun Central Tel: 6555 8000

ii) Tan Tock Seng Hospital Pte Ltd, Moulmein Road, Tel: 62566011

(c) Ambulance Service from Singapore Civil Defence Force

Direct line or Tel. No. : 995

Yishun Fire Station

Direct line or Tel. No.: 68522328

(d) Emergency Shower

Emergency showers are available at Water Treatment Plants where corrosive chemicals are handled. In the event of any person receiving a chemical splash, the affected part of the body must be washed with copious amount of fresh water until qualified medical attention can be obtained.

4.6 Fire and Dangerous Occurrence Reporting

(a) ***All dangerous occurrences, listed in the First Schedule of the WSHA (see Appendix V)***, should be reported by respective Head of Section using the Notice of Accident / Dangerous Occurrence / Occupational Disease form.

(b) Observers of fire shall complete the ***Fire Report form in Appendix VI***, and submit to Head of Section (Workplace Safety & Health).

4.7 Accident Investigation

All incidents, including near misses, will be investigated for follow up action to prevent recurrence. Incident investigation findings and lesson learnt will be discussed in the WSH Committee meeting and broadcast to all for their information.

SECTION 5

EMERGENCY PROCEDURES

5.1 General

No industry is immune from disaster. Incidents can still occur in spite of efforts to prevent them. Advance planning for emergencies is the only way to minimise the full potential loss to people and property during an emergency.

The purpose of this emergency procedure is to ensure that any emergency situation, which interrupts normal and safe working conditions in Senoko Power Station, can be dealt with quickly in a systematic manner. Operational procedures are spelt out to enable a co-ordinated plan of action to be carried out to control the emergency situation and to restore it back to normal.

Drills and exercises with SCDF are held regularly to enhance our emergency preparedness.

5.2 Emergency Telephone Numbers

The person who discovers an emergency shall immediately contact the Shift Manager in the Control Room.

The Control Room telephone numbers are:

Main Control Room	-	67500120 / 22 / 24
CCP1/2 Control Room	-	67500195 / 96

5.3 Action to be taken during an Emergency

In the event of an emergency, all staff, contractors and visitors are to remain calm and follow the instructions listed below;-

(a) When an emergency occurs, the emergency siren will sound continuously for 1 minute. Announcement will be made over the Public Address (PA) System.

(b) When evacuation has been announced, all visitors, contractors and staff are to proceed quickly to the ***Evacuation Assembly Area***, located in front of the landscaped garden and Admin. Building as shown ***in Appendix VII***.

The complete operational procedure is listed clearly under the Emergency Operations Manual (EOM) and also in the Intranet.

(c) At the Evacuation Assembly Area, a roll call will be conducted to account for everyone.

(d) Listen to the PA system for further instruction.

(e) Do not move away from the Evacuation Assembly area or re-enter buildings until the all clear message has been announced.

An “All Clear” or “Emergency Terminated” message will be announced over the PA system when the emergency is over.

5.4 Emergency Operations Manual

The company has established an Emergency Operations Manual (EOM) which detailed the emergency procedures for the various possible emergencies, such as fire, chemical leak, gas fires, etc. The roles and responsibilities of Fire Fighters, First Aiders and Key Personnel are documented in the Emergency Operations Manual (EOM). Please refer to the EOM for more details information.

5.5 Company Emergency Response Team (CERT)

Our company has been participating in the Company Emergency Response Team (CERT) Audit by SCDF since 2008. The audit by SCDF Officers is carried out during joint exercises with other SCDF Division at our premises. The SCDF Auditors will audit us on how our CERT responded to the “simulated” emergency at our premises and how we ‘gel” and work together with the other responding SCDF Division personnel to mitigate the emergency. The CERT Audit is conducted annually by the SCDF as part of the Fire Safety Regulations.

Emergency Exercises

SECTION 6

DEMERIT POINT SYSTEM

6.1 Demerit Point System for Employees

The Demerit Point System replaces the old Ticketing System for employees, which previously covers only safety violations involving the use of personal protective equipment. The new system covers a wider range of WSH violations, including unsafe acts and unsafe conditions. It was implemented from June 2004 onwards after the successful implementation of the Demerit Point System for contractors in January 2003. This demerit point system aims to encourage sections to self regulate and take ownership of their safety.

Similar to the demerit point system for contractor, however, in this case, demerit points will be given to both the employee and his respective section for every safety violation. Depending on the number of demerit points accumulated during the 12 months period, the offender and his section will be penalized accordingly. For serious offence like smoking in the plants, the offender will be subjected to disciplinary action under the company conduct & discipline rules. The demerit points accumulated will be wiped off after a 12 month period when no new violation has been committed.

6.2 Demerit Point System for Contractors

(a) In order to have a consistent and fair system in penalizing any safety violation by contractors and its workers, a demerit point system has been introduced. It was implemented from 1st January 2003 onwards. This demerit point system aims to ensure that the relevant contractor pays attention to the safety training of his workers. It also encourages the contractor to self regulate and promote WSH awareness among its employees.

(b) Demerit points will be given to both the offender and his company for every WSH violation. Depending on the number of demerit points accumulated during the 12 months period, the offender and his company will be penalized accordingly. For serious offence like smoking in the plants, the offender will be debarred from working in Senoko Energy Pte Ltd. The demerit points accumulated will be wiped off after a 12 months period when no new violation has been committed.

6.3 Enforcement of Demerit Point System

Senoko Energy Pte Ltd's staffs, from the level of Technical Officer upwards, are authorized to act as Safety Enforcement Officers. They have been given the authority to "book" any employees and contract workers violating any safety rules and regulations under the Demerit Point System. However, section which self regulate and "book" their own employees for violating any safety rules and regulations under the Demerit Point System, will not be awarded the demerit points. This is to encourage respective section to keep their own "house" in order.

DEMERIT POINT FOR WSH VIOLATIONS - EMPLOYEES

S/No	Description	Senoko		Remarks
		Employee(s)	Remarks	
NOT USING PERSONAL PROTECTIVE EQUIPMENT WHEN REQUIRED				
1	Ear plugs, Safety shoes, Safety helmet	10	10	
2	Safety glasses, Gloves, Respirator	10	10	
3	Goggles, Face Shield / Welding Shield	10	10	
4	Safety Belt/Harness	10	10	
TRAFFIC VIOLATION INCLUDING BICYCLES				
5	Exceed Speed Limit	10	10	
6	Carrying unauthorized No. of passengers or overloading of vehicle	10	10	
7	Unauthorized and indiscriminate parking	10	10	
TOOLS AND EQUIPMENT				
8	Using tools incorrectly / not right for the job or tools, equipment not in safe condition / expired or not certified electric hand tools	10	10	
9	Unauthorized use or improper use of equipment	10	10	
10	Gas cylinders not chained or secured	10	10	
11	Using defective lifting equipment / gears without valid certificate.	10	10	
HOUSEKEEPING				
12	Poor housekeeping : failure to upkeep workplace	10	10	See note 1
13	Obstructing access, fire fighting equipment, etc	10	10	
OTHERS				
14	Unauthorised feeding of birds, cats & dogs in the Station	10	10	
UNSAFE ACTS AND CONDITIONS				
15	Smoking in a non designated smoking area (outside plant areas)	20	20	
16	Using mobile phone in unauthorized areas	20	20	
17	Horseplay e.g. using air hose spraying each another	20	20	
18	Welding sparks not screened off during welding process	20	20	
NOT FOLLOWING SAFETY INSTRUCTION				
19	Working without following safety requirements stated in work permit / instruction / procedures	30	30	
SERIOUS OFFENCES				
20	Working without an appropriate Permit To Work (PTW)	40	40	Penalised under C&D rules
21	Unauthorized operating of process equipment e.g. open or shutting of valves etc	40	40	Penalised under C&D rules
21	Unsafe scaffold – no proper guardrails, toeboards, etc.	40	40	Scaffold Supervisor to be penalised – C&D rules
23	Smoking in “No-Smoking” plant areas	40	40	Penalised under C&D rules
24	Driving without a valid driving licence, eg. forklift truck	40	40	Penalised under C&D rules
25	Unauthorized discharge of hazardous material / chemicals	40	40	Penalised under C&D rules

NOTE:

(1) PTW Holder shall be given the demerit points for these offences.

(2) Respective HOS is expected to investigate into their staff's violation and if necessary, may appeal to the Management within 7 days after award of demerit points.

DEMERIT POINT SYSTEM FOR EMPLOYEES- PENALTIES

S/No	DEMERIT POINTS ACCUMULATED BY EMPLOYEES	PENALTY	ACTION TO BE TAKEN BY HOS	REMARKS
1	Less than 30 points	Verbal warning by HOS.	To counsel the offender. To record the counseling & verbal warning	12-month period
2	30 points and above (accumulated from several violations or repeated violations)	Written warning by HOS.	To counsel the offender. To record the counseling & written warning	
3	Employees, who violated serious offences, like smoking in the plant.	To be penalized under the company's Conduct & Disciplinary rules	Action to be instituted by HR	

S/No	DEMERIT POINTS ACCUMULATED BY SECTION	ACTION BY SECTION	REMARKS
1	50 points and above	HOS to submit propose improvement action plan to WSH Committee for discussion.	12-month period
2	100 points and above	HOS to submit propose improvement action plan to relevant HOD	
3	150 points and above	HOS to submit propose improvement action plan to EMT	

* NOTE:

Section, which self-regulate (booking their own employees for safety violation) will not be awarded any penalty points, which have been awarded to their employees.

DEMERIT POINT SYSTEM - EMPLOYEE

REPORT OF WSH VIOLATION

To : Head of Section (Workplace Safety & Health)

Please award demerit points to the Employee and Section***** for the WSH violation as stated below:

Location : _____

Date of safety violation : _____ Time : _____

Name of Violator : _____ Employee No : _____

Division / Section : _____

Description of WSH Violation	Demerit Points	
	Violator	Section*****

***Section, which self-regulates (booking their own employees for WSH violation) will not be awarded with any Demerit Points.**

_____	_____	_____
Name & Designation of Enforcement Officer	Signature	Date

Supported By HOS

Signature: _____

Name: _____

Section: _____

Date: _____

Note:
1. To refer to the list of WSH violation & demerit points stated overleaf
2. The original copy to be forwarded to the Head of Section (Workplace Safety & Health)

cc :

HOD/HOS
Enforcement Officer

DEMERIT POINT FOR WSH VIOLATIONS - CONTRACTORS

S/No	Description	Contractors		Remarks
		Employee(s)	Company	
NOT USING PERSONAL PROTECTIVE EQUIPMENT WHEN REQUIRED				
1	Ear plugs, safety shoes, safety helmet	10	10	
2	Safety glasses, gloves, respirator	10	10	
3	Goggles, Face Shield / Welding Shield	10	10	
4	Safety Belt/Harness	10	10	
TRAFFIC VIOLATION INCLUDING BICYCLES				
5	Exceed Speed Limit	10	10	
6	Carrying unauthorized No. of passengers or overloading of vehicle	10	10	
7	Unauthorized and indiscriminate parking	10	10	
TOOLS AND EQUIPMENT				
8	Using tools incorrectly / not right for the job or tools, equipment not in safe condition / expired or not certified electric hand tools	10	10	
9	Unauthorized use or improper use of equipment	10	10	
10	Gas cylinders not chained or secured	10	10	
11	Using defective lifting equipment / gears without valid certificate.	10	10	
12	Using fire extinguisher without proper seal / expired date of inspection or under pressure	10	10	
HOUSEKEEPING				
13	Poor housekeeping : failure to upkeep workplace	10	10	See note
14	Storing material /equipment in unauthorized location, eg, obstructing access, fire fighting equipment, etc	10	10	See note
UNSAFE ACTS AND CONDITIONS				
15	Smoking in a non designated smoking area (outside plant areas)	20	20	
16	Using mobile phone in unauthorized areas	20	20	
17	Horseplay e.g. using air hose spraying each another	20	20	
18	Welding sparks not screened off during welding process	20	20	
NOT FOLLOWING SAFETY INSTRUCTION				
19	Working without following safety requirements stated in work permit / instruction / procedures	30	30	
SERIOUS OFFENCES				
20	Working without an appropriate Permit To Work (PTW)	40*	40	*Debarment of employee
21	Unauthorized operating of process equipment e.g. open or shutting of valves etc	40*	40	*Debarment of employee
22	Unsafe scaffold – no proper guardrails, toeboards, etc.	40*	40	*Debarment of Scaffold Supervisor
23	Smoking in “No-Smoking” plant areas	40*	40	*Debarment of employee
24	Driving without a valid driving licence	40*	40	*Debarment of employee
25	Unauthorized discharge of hazardous material / chemicals	40*	40	*Debarment of employee
26	Failure to report any lost-time accident	40*	40*	*Debarment of Supervisor

NOTE:

(1) Person in charge at worksite (Foreman/Supervisor) shall be given the demerit points for these offences.

(2) Contractor supervisor is accountable for their worker's performance hence he will be similarly given the demerit points for specific violation.

(3) Contractor supervisor/manager is expected to investigate into their worker's violation and if necessary, may appeal to Senoko Energy Pte Ltd Management within 7 days after award of demerit points.

DEMERIT POINT SYSTEM - PENALTIES

S/No	POINTS ACCUMULATED BY WORKERS	PENALTY	ACTION TO BE TAKEN BY CONTRACTORS	REMARKS
1	Less than 30 points	May continue to work in Senoko Energy Pte Ltd. However, for repeated offences, suspension from Senoko Energy Pte Ltd for 1 week.	Counseling by Contractor's management and submit to relevant HOS on action taken.	12-month period
2	30 points and above (accumulated from several violations)	Suspension from Senoko Energy Pte Ltd for at least 2 weeks.	Counseling by Contractor's management and submit to relevant HOS on action taken.	
3	30 points and above (accumulation of repeated offences)	SENOKO ENERGY PTE LTD MANAGEMENT WILL DECIDE ON APPROPRIATE ACTIONS TO BE TAKEN		
4	Workers who violated serious offences, like smoking in the plant.	Debarred from working in Senoko Energy Pte Ltd		

S/No	POINTS ACCUMULATED BY CONTRACTORS	ACTION BY SENOKO ENERGY PTE LTD	ACTION TO BE TAKEN BY CONTRACTORS	REMARKS
1	50 points and above	Project/Site Manager to meet relevant HOS	Propose improvement plans to be taken and present to relevant HOS	12-month period
2	100 points and above	Project/Site Manager to meet relevant HOD	Propose improvement plans to be taken and present to relevant HOD.	
3	150 points and above	SENOKO ENERGY PTE LTD MANAGEMENT WILL DECIDE ON APPROPRIATE ACTIONS TO BE TAKEN		

DEMERIT POINT SYSTEM - CONTRACTOR

REPORT OF WSH VIOLATION

To : Head of Section (Workplace Safety & Health)

Please award demerit points to the worker and contractor for the WSH violation as stated below:

Location : _____

Date of safety violation : _____ Time : _____

Name of Violator : _____ *Work Permit or NRIC/No : _____

Name of Contractor / Main Contractor : _____

Description of Safety Violation	Demerit Points	
	Violator	Company

_____ _____ _____

Name & Designation of Enforcement Officer | Signature | Date

Supported By HOS

Signature: _____

Name: _____

Section: _____

Date: _____

Note:
1. To refer to the list of WSH violation & demerit points stated overleaf
2. The original copy to be forwarded to the Head of Section (Workplace Safety & Health)

cc :

HOD/HOS
Enforcement Officer
Contractor

SECTION 7

CONTRACTORS

7.1 Safety Orientation for Contractors

(a) To reinforce and create WSH awareness among contractors, all contractors' supervisors and Engineers are to attend a safety orientation cum induction briefing before they are allowed to start work in Senoko Energy Pte Ltd. They in turn will have to brief all their own workers before commencing work in Senoko. They are to acknowledge that all their workers have been safety briefed in the Security admission form.

(b) During the orientation briefing, the safety aspects of safe working in Senoko Energy Pte Ltd, PTW system, "No smoking" rule, emergency procedures, accident reporting and the demerit point system for safety violation will be highlighted.

7.2 Contractors Engagement

(a) Quarterly dialogue sessions with contractors and their representatives are conducted regularly to gather their feedbacks and comments for safety improvements.

(b) Contractors and their representatives are encourage to participate in our annual safety exhibitions which showcase safety procedures and safe work practices in various work situations, such as working at height, confined spaces, etc. They are also invite to attend out safety milestone celebrations and events.

List of OPERATIONAL CONTROL PROCEDURES (OCPs) or SAFETY INSTRUCTION MANUAL (SIM)

S/n	Reference OCP No.	Titles
(1)	OCP-1001	Boiler Washing and Cleaning Procedures
(2)	OCP-1002	Working in Confined Spaces
(3)	OCP-1003	Working at Electrostatic Precipitators
(4)	OCP-1004	Refractory, Lagging and Masonry Works
(5)	OCP-1005	Working at Heights / Scaffolding
(6)	OCP-1006	Diving Works
(7)	OCP-1007	Hot / Welding Works
(8)	OCP-1008	Mechanical Workshop
(9)	OCP-1009	Safe Use of Power, Air Operated and Hand Tools
(10)	OCP-1010	Dismantling of Pipe and Equipment Containing Steam
(11)	OCP-1011	Hydrostatic Pressure Testing of Pressure Vessel and Pipes
(12)	OCP-1012	Hydrostatic Pressure Testing of Steam Boiler and Tubes
(13)	OCP-1013	Repair and Maintenance of Pressurized Hydraulic System
(14)	OCP-1014	Commissioning of Diverter Damper Hydraulic Oil System
(15)	OCP-1015	On Load Fuel Oil Burner Nozzle Cleaning / Replacement
(16)	OCP-1016	Radiography Work
(17)	OCP-2001	Handling, Storage and Use of Compressed Gases
(18)	OCP-2002	Handling and Use of LPG and Flammable Materials
(19)	OCP-2003	Safe Use with Natural Gas
(20)	OCP-2004	Liquefied Petroleum Gas Delivery by Road Tanker
(21)	OCP-2005	Odorisation of Natural Gas
(22)	OCP-3001	Handling of Anhydrous Ammonia
(23)	OCP-3002	Handling of Bulk Chemicals Used in Water Treatment
(24)	OCP-3003	Working in Electrochlorination Plant
(25)	OCP-3004	Working in the Odorizer House

List of Operational Control Procedures (OCPs) or Safety Instruction Manual (SIM)

S/n	Reference OCP No.	Titles
(26)	OCP-3005	Ash Removal
(27)	OCP-3006	Fuel Oil Transfer Operation
(28)	OCP-3007	Fuel Oil Consignment Delivery
(29)	OCP-3008	Servicing of Marine Unloading Arm
(30)	OCP-3009	Changing of Spool Piece for Town Water or Newater Piping
(31)	OCP-3010	Emergency Response for Water Supply Interruption
(32)	OCP-4001	Electrical Safety in Hazardous Areas
(33)	OCP-4002	Safe Handling Procedures for SF6 Equipment
(34)	OCP-5001	Permit-To-Work (PTW) System
(35)	OCP-5002	Lifting Operations Procedure
(36)	OCP-5003	Loading and Unloading of Materials
(37)	OCP-5004	Use of Personal Protective Equipment (PPE)
(38)	OCP-5005	A Guide on First Aid
(39)	OCP-5006	Noise Mapping and Control
(40)	OCP-9011	Ergonomics
(41)	OCP-9012	Action Plan for Outdoor Work during Haze
(42)	OCP-9013	Procedure for Fault Reporting

Appendix II

NEAR MISS / INCIDENT REPORT

Incident Date: _____ Location: _____

Reported by: _____ Section/Company: _____

Signature: _____

Describe the Near Miss/Incident.

_____

_____

_____

Any idea what acts or conditions led to the incident?

_____

_____

_____

What steps do you think can be taken to prevent a similar incident?

_____

_____

_____

Safety Suggestion.

_____

_____

_____

To submit completed form to Workplace Safety & Health Section for evaluation.

.....

To be completed by Workplace Safety & Health Section Ref No: NMR / /

Evaluation of Risks:

Potential Consequences:	☐	Critical	Probability of Recurrence:	☐	Probable
	☐	Marginal		☐	Occasional
	☐	Negligible		☐	Remote

Corrective Action / Comments:

_____

_____

_____

Evaluator's Name: _____

Evaluator's signature & date: _____

Further action taken? ☐ Yes _____

_____

_____

☐ No

Appendix III

Occupational Safety and Health Divisi
Ministry of Manpower
18 Havelock Road
Singapore 059764

Fax No : 63171220
Tel No : 64385122

NOTICE OF ACCIDENT/ DANGEROUS OCCURRENCE / OCCUPATIONAL DISEASE

INSTRUCTIONS

1. This Incident Notification Form is to be used for the Reporting of:
   - Accidents, Dangerous Occurrences and Occupational Diseases under the Workplace Safety and Health Act (Incident Reporting) Regulations and/ or
   - Accidents and Occupational Diseases under the Work Injury Compensation Act.
2. This Notification Form is to be completed by the Responsible Party: Employer or Occupier.
3. You are encouraged to submit through the iReport system at http://www.mom.gov.sg/iReport
4. You will require the particulars of the incident, the employee, employer and occupier to complete this form
5. Please use a separate form for each employee.
6. It will take about 20 minutes to complete this form.

SECTION A - GENERAL INFORMATION

I am a/an (Please tick one)

☐ Employer of employee(s) ☐ Occupier of incident premises

I want to report a/an (Please tick one)

☐ Accident ☐ Dangerous occurrence which did not result in death and injury ☐ Dangerous occurrence which resulted in death and injury ☐ Occupational Disease

I want to reporting this incident under (Please tick one)

☐ Workplace Safety and Health Act ☐ Work Injury Compensation Act ☐ Both Workplace Safety and Health Act and Work Injury Compensation Act

SECTION B - PARTICULARS OF INFORMANT

Name:

Designation:

NRIC No. (for Singaporeans only)

Foreign Identification No. (FIN) (for foreigners only)

Passport/Travel Document No.

SECTION C - PARTICULARS OF INFORMANT'S ORGANISATION

Name of Organisation:

Factory No./ ACRA Reg. No.#/ ROS Ref. No.* (if available)

#ACRA - Accounting and Corporate Regulatory Authority

*ROS - Registry of Societies

Address of Organisation:

Blk/Hse No ☐☐☐☐ **Floor No.** ☐☐ **Unit No.** ☐☐☐☐ **Postal Code** ☐☐☐☐☐☐

Building Name : _____ **Street Name :** _____

Nature of Business:		**No of Employees in the Organisation:**
Contact No:	**Fax No:**	**Email Address:**

SECTION D - DETAILS OF ACCIDENT/DANGEROUS OCCURRENCE

Complete this section if you are reporting for accident/dangerous occurrence

Date of Incident

☐☐☐☐☐☐☐☐
D D M M Y Y Y Y

Time of Incident

☐☐ : ☐☐ *AM/PM

***Delete where applicable**

Name of Occupier:

Factory No./ ACRA Reg. No.#/
ROS Ref. No.^ (if available) ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

ACRA - Accounting and Corporate Regulatory Authority ^ROS - Registry of Societies

Important Note: Factory No. is compulsory if the incident occurred in the occupier's factory premises.

Nature of Business of Occupier

Address where incident happened (Please complete this section if different from the address stated above)

Blk/Hse No ☐☐☐☐ **Floor No.** ☐☐ **Unit No.** ☐☐☐☐ **Postal Code** ☐☐☐☐☐☐

Building Name : _____ **Street Name :** _____

Type of of Incident Premise: (eg Warehouse, Production area, Workshop, Kitchen etc)

Did the incident involve crew working onboard vessel?
(Please tick one)

☐ Yes ☐ No

Did the incident occur onboard a Singapore registered vessel?
(Please tick one)

☐ Yes ☐ No

Description of Accident/Dangerous Occurrence:
Guiding Questions:
-- Describe the incident step by step.
-- Specify the tasks and operations involved.

Type of Hazardous Machines/Agencies:

SECTION E - PARTICULARS OF EMPLOYEE(S)

Complete this section if there are employees involved

Name: (as in identity card/passport)

NRIC No. (for Singaporeans only)

Foreign Identification No. (FIN) (for foreigners only)

Passport/Travel Document No. (applicable for seaman only)

Occupation:

Commencement Date of Employment

D D M M Y Y Y Y

Gender (Please tick one)

☐ Male ☐ Female

Date of Birth

D D M M Y Y Y Y

Nationality:

Race:

Address:

Blk/Hse No **Floor No.** **Unit No.** **Postal Code**

Building Name : _____ **Street Name :** _____

Foreign Address: (as in passport)

Contact No:

Email Address:

Is the injured employee **(Please tick one):**

☐ my employee ☐ An employee of another company (Please complete section F) ☐ Self-employed ☐ Member of public

SECTION F - PARTICULARS OF EMPLOYEE'S EMPLOYER

Complete this section if employee is an employee of another company as indicated above

Name of Company:

Factory No./ ACRA Reg. No.#/

ROS Ref. No.* (if available)

#ACRA - Accounting and Corporate Regulatory Authority *ROS - Registry of Societies

Address:

Blk/Hse No **Floor No.** **Unit No.** **Postal Code**

Building Name : _____ **Street Name :** _____

Nature of Business:

SECTION G - DETAILS OF INJURY

(Complete this section if you are reporting for accident/dangerous occurrence)

Did the accident result in death? (Please tick one)

☐ Yes ☐ No

Was the employee hospitalized for at least 24 hours? (Please tick one)

☐ Yes ☐ No

Is the employee currently hosptialized? (Please tick one)

☐ Yes ☐ No

No of days of medical leave

☐☐☐

Nature of Injury (You may tick more than one)

☐ Abrasions scratches
☐ Amputation
☐ Asphyxia, drowning
☐ Burns (heat)
☐ Burns (chemical)
☐ Bruises, crushing
☐ Concussions & other internal injuries
☐ Laceration, cuts
☐ Dislocations
☐ Effects of electricity
☐ Effects of radiation
☐ Fractures
☐ Freezing
☐ Multiple injuries
☐ Poisonings
☐ Puncture wounds
☐ Others
☐ Sprains & Strains
(Please specify_____)

Please describe the nature of injury in detail:

Parts of Body Injured (You may tick more than one)

Head	Neck & Trunk	Upper Limbs	Lower Limbs	Whole Body
☐ Scalp, skull	☐ Neck	☐ Fingers	☐ Hips/buttock	
☐ Eyes	☐ Back	☐ Hand, palm	☐ Thighs	☐ Multiple locations of body
☐ Ears	☐ Chest	☐ Wrist	☐ Knee	
☐ Mouth, teeth	☐ Abdomen	☐ Forearm	☐ Legs	
☐ Nose	☐ Pelvis, groin	☐ Elbow	☐ Ankle	☐ Circulatory system in general
☐ Face (other locations)	☐ Trunk, multiple locations	☐ Upper arms	☐ Feet (other than toes)	☐ Respiratory system in general
☐ Head, multiple locations		☐ Shoulder	☐ Toes	☐ Digestive system in general
		☐ Upper Limbs, multiple locations	☐ Lower Limbs, multiple locations	

☐ Others
(Please specify_____)

Name of Hospital/Clinic:

Address of Hospital/Clinic:

Blk/Hse No ☐☐☐☐ **Floor No.** ☐☐ **Unit No.** ☐☐☐☐ **Postal Code** ☐☐☐☐☐☐

Building Name : _____ **Street Name :** _____

SECTION H - DETAILS OF OCCUPATIONAL DISEASE

(Complete this section if you are reporting for occupational diseases)

Type of Occupational Disease (Please tick one)

☐ Anthrax
☐ Asbestosis
☐ Barotrauma
☐ Byssinosis
☐ Cataract
☐ Chrome Ulceration
☐ Compressed Air Illness
☐ Epitheliomatous ulceration
☐ Glanders
☐ Occupational Skin Diseases
☐ Repetitive Strain Disorder of Upper Limb
☐ Inflammation, ulceration or malignant dieases of the skin or subcutaneous tissues or of the bone, or leukemia or anaemia of the aplastic type
☐ Leptospirosis
☐ Liver Angiosarcoma
☐ Mesothelioma
☐ Noise-induced Deafness
☐ Occupational Asthma
☐ Silicosis
☐ Toxic anaemia
☐ Toxic hepatitis
☐ Tuberculosis
☐ Severe Acute Respiratory Syndrome (SARs)
☐ Avian Influenza
☐ Others, please specify
_____

Poisoning By:

☐ Aniline	☐ Arsenic	☐ Benzene/Homologue	☐ Beryllium
☐ Cadmium	☐ Carbamate	☐ Carbon disulphide	☐ Carbon dioxide gas
☐ Carbon monoxide gas	☐ Cyanide	☐ Halogen derivatives of hydrocarbon compounds	☐ Hydrogen sulphide
☐ Lead	☐ Manganese	☐ Mercury	☐ Nitrous fumes
☐ Organophosphates	☐ Phosphorus	☐ Others, please specify _____	

Date of detection/diagnosis

D	D	M	M	Y	Y	Y	Y

No of Days of Medical Leave

Name of Treating Doctor:

Name of Hospital/Clinic:

Address of Hospital/Clinic:

Blk/Hse No | | | | | **Floor No.** | | | **Unit No.** | | | | **Postal Code** | | | | | |

Building Name : _____ **Street Name :** _____

Contact No. of Treating Doctor:

SECTION I - DETAILS OF EMPLOYMENT AND INSURANCE COVERAGE

Complete this section if the injured employee is your employee

Average percentage of manual work performed daily (%) (Please tick one)

☐ Less than 50% ☐ Equal or Greater than 50%

Average Monthly Earnings (including value of free food, quarters, overtime payments, bonus and allowances excluding transport allowance and employer's share of CPF contribution):

Average Monthly Earnings =

Did the accident occur while the employee was on official duty? (Please tick one)

☐ Yes ☐ No

Name of insurance company:

Work Injury Compensation Insurance Policy No:

Declaration

I hereby certify that the information given in this notification is true and correct to the best of my knowledge and belief. I am aware that legal action may be taken against me if I have knowingly provided any false information

Name: _____

Signature: _____

Date: _____ Company's stamp: _____

SUPERVISOR'S ACCIDENT REPORT

Division: _____ Section: _____

Send one copy within 24 hours to Safety & Fire Section

I PARTICULARS OF INJURED

1. Name :	2. NRIC No. :	3. Educational Qualifications :
4. Designation :	5. Employee No. :	
7. Period employed by present employer prior to accident :		6. Description of Duties :
8. Period employed in present Post :		

II PARTICULARS OF ACCIDENT

9. Date & Time of Accident :	10. Working hours of injured on the day of accident :	11. Place of Accident :	12. Accident reported to Supervisor on :

13. Detailed description of accident (if machinery is involved, state type of machinery)

III DETAILS OF INJURY

14. Parts of the Body Injured

Injury was on right / left / front / back *

Head	Neck & Trunk	Upper Limbs	Lower Limbs	
☐ HD00 Scalp	☐ NT00 Neck	☐ UL00 Fingers	☐ LL00 Hips	☐ XX99 Multiple locations of body
☐ HD01 Eyes	☐ NT01 Back	☐ UL01 Hand palm	☐ LL01 Thighs	
☐ HD02 Ears	☐ NT02 Chest	☐ UL02 Waist	☐ LL02 Knee	☐ ZZ00 Unknown
☐ HD03 Mouth, teeth	☐ NT03 Abdomen	☐ UL03 Forearm	☐ LL03 Legs	☐ ZZ99 Not Applicable
		☐ UL04 Elbow	☐ LL04 Ankle	
☐ HD04 Nose	☐ NT04 Pelvis, groin	☐ UL05 Upper arms	☐ LL05 Feet (Other than toes)	
☐ HD05 Face (Other locations)	☐ NT99 Trunk, multiple locations	☐ UL06 Shoulder	☐ LL06 Toes	
☐ HD99 Multiple locations		☐ UL99 Multiple locations	☐ LL99 Multiple locations	

Remarks :

15. Nature of Injury

☐ 01 Abrasions Bruises/ Contusions	☐ 07 Concussion & internal injuries	☐ 12 Bites/stings
☐ 02 Cuts/open wounds		☐ 13 Asphyxia
☐ 03 Bleeding	☐ 08 Burns	☐ 33 Multiple injuries
☐ 04 Amputation	☐ 09 Electric shock	
☐ 05 Fracture/ Dislocation	☐ 10 Radiation	☐ 44 Death
☐ 06 Sprains & strains	☐ 11 Poisoning	☐ 88 No injury
		☐ 99 Others

Remarks :

* Delete whichever is not applicable

☐ tick whichever is applicable.

V OTHER INFORMATION

16. Injured received Treatment at (a) Government/Private/ Designated Clinic : _____ on _____

(b) Hospital : _____ on _____

17. Period injured expected to be absent from work

18. Date injured returned to work (if known)

19. This portion is to be completed by the injured if he declines medical treatment :

I decline medical treatment for the following reasons :

_____

_____

_____
Signature of Injured

20. What was the employee doing at the time of the accident?

_____

_____

21. Causative agent most directly related to accident?
(Object, substance, material, machinery, equipment, tools)

_____

_____

22. Unsafe mechanical/physical/environmental condition at time of accident? (Be specific)

_____

_____

23. Unsafe act by injured and/or other contributing factors to the accident? (Be specific, must be answered)

_____

_____

24. Personal protective equipment required?
(Protective glasses, safety shoes, hand gloves, safety hat, safety belt, safety vest, etc)

_____

Was required equipment provided? *YES/NO

Was the injured using required equipment? *YES/NO

25. What can be done to prevent recurrence of this type of accident?

_____

_____

26. Acknowledgement by the injured

I have read and agreed on the details that were being stated in this Supervisor's Accident Report.

_____ _____ _____
Signature of Injured / Date | Name of Injured | Designation

27. Particulars of Witnesses, if any (Statements are to be attached)

a) Name : _____
Employee No. : _____
Designation : _____
Division/Section : _____

b) Name : _____
Employee No. : _____
Designation : _____
Division/Section : _____

_____ _____
Signature of Supervisor / Date | Signature of Head of Section / Date

_____ _____
Name of Supervisor | Name of Head of Section

* Delete whichever is not applicable

STATEMENT

This statement is given by *Witness / Injured

Name of Person Giving Statement : _____ Employee No. : _____

Designation : _____ Division / Section : _____

Date of Recording : _____ Time of Recording : _____

---

*This Statement has been read to me in _____ by

(_____) and I agree that it is correctly records
Name of Interpreter (if any)

what I have said.

_____
Signature of Employee
Giving the Statement

_____
Signature of Recording Officer

Name : _____

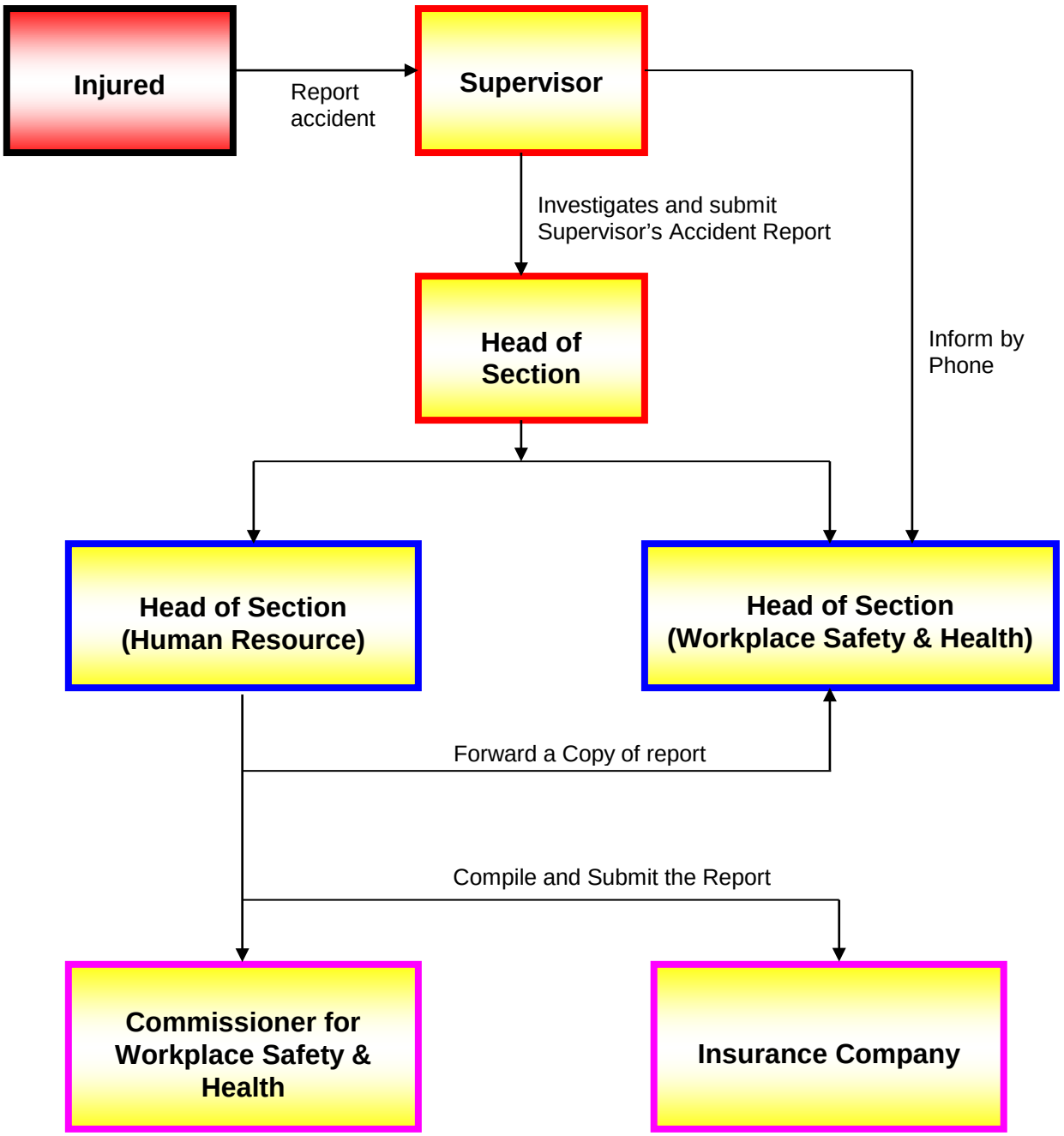
Designation: _____

_____
Signature of Interpreter (if any)

NRIC No.: _____

*Delete if not applicable

FLOW CHART FOR ACCIDENT REPORTING



FIRST SCHEDULE
DANGEROUS OCCURRENCES

(1) Bursting of a revolving vessel, wheel, grindstone or grinding wheel moved by mechanical power.

(2) Collapse or failure of a crane, derrick, winch, hoist, piling frame, or other appliance used in raising or lowering persons or goods, or any load bearing part thereof (except breakage of chain or rope slings), or the overturning of a crane.

(3) Explosion or fire damage to the structure of any room or place in which persons are at work, or to any machine or plant contained therein, and resulting in the complete suspension of ordinary work in the room or place or stoppage of machinery or plant for not less than 5 hours, where the explosion or fire is due to the ignition of dust, gas or vapour, or the ignition of celluloid or substance composed wholly or in part of celluloid.

(4) Electrical short circuit or failure of electrical machinery, plant or apparatus, attended by explosion or fire or causing structural damage thereto, and involving its stoppage or disuse for not less than 5 hours.

(5) Explosion or fire affecting any room in which persons are at work and causing complete suspension of ordinary work therein for not less than 24 hours.

(6) Explosion or failure of structure of a steam boiler or a receiver or container used for the storage at a pressure greater than atmospheric pressure of any gas or gases (including air) or any liquid or solid resulting from the compression of gas.

(7) Failure or collapse of formwork or its supports.

(8) Collapse, in part or in whole, of a scaffold exceeding 15 metres in height or of a suspended scaffold or a hanging scaffold from which any person may fall more than 2 metres.

(9) Accidental seepage or entry of seawater into a dry dock or floating dock causing flooding of the dry dock or floating dock.

FIRE REPORT

Date/Time of Fire _____

Location of Incident _____

Description of premises/equipment/plant _____

_____

Suppose cause of fire _____

Method of extinction _____

Number/type of Fire Fighting equipment used _____

_____

Casualties _____ Fatality _____ Injured _____

Damage-building _____

Damage Contents _____

Risks to exposed property _____

General Particulars _____

_____

_____

_____

_____

_____

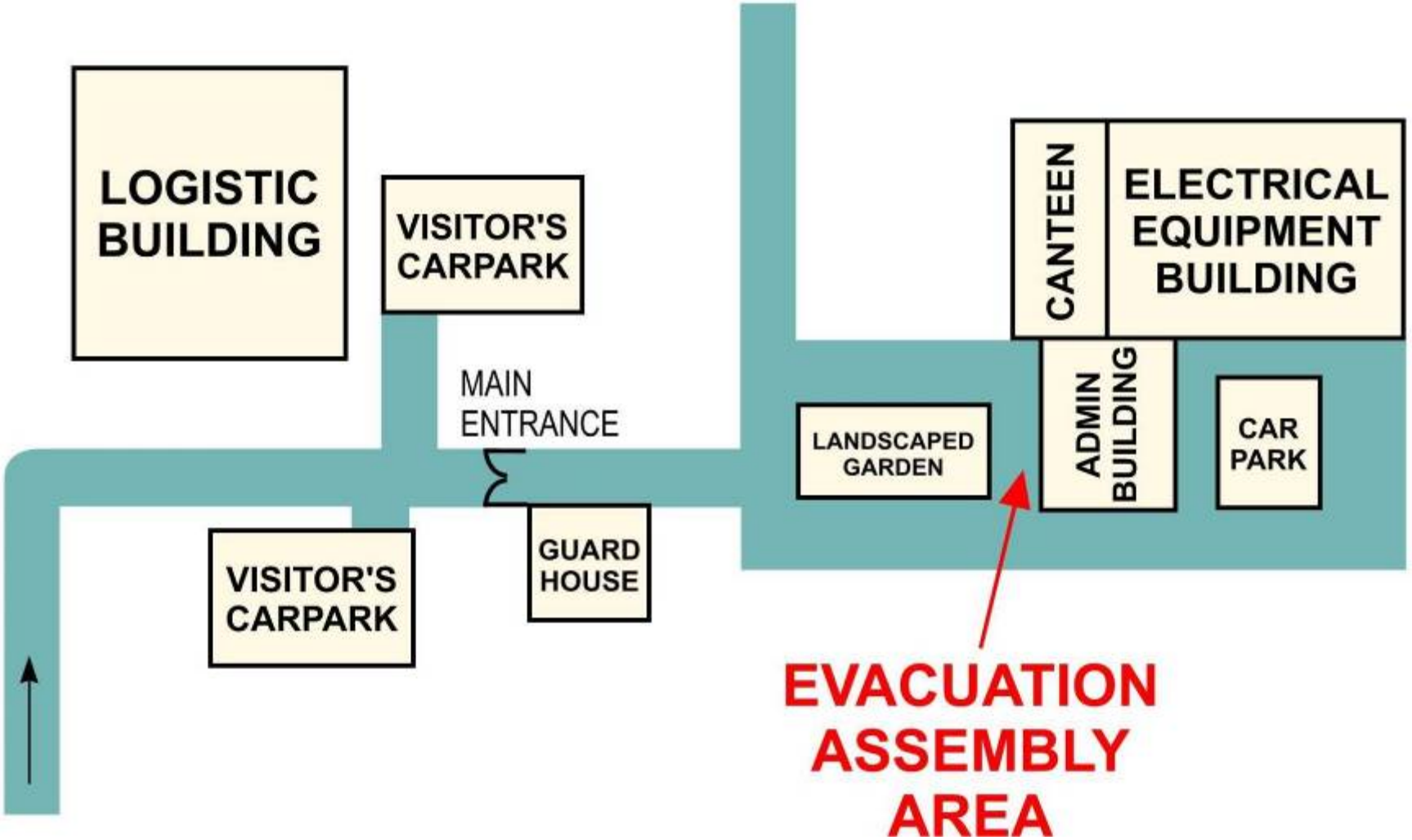
Report-compiled by Name : _____ Signature : _____

Designation : _____ Date : _____ Section : _____

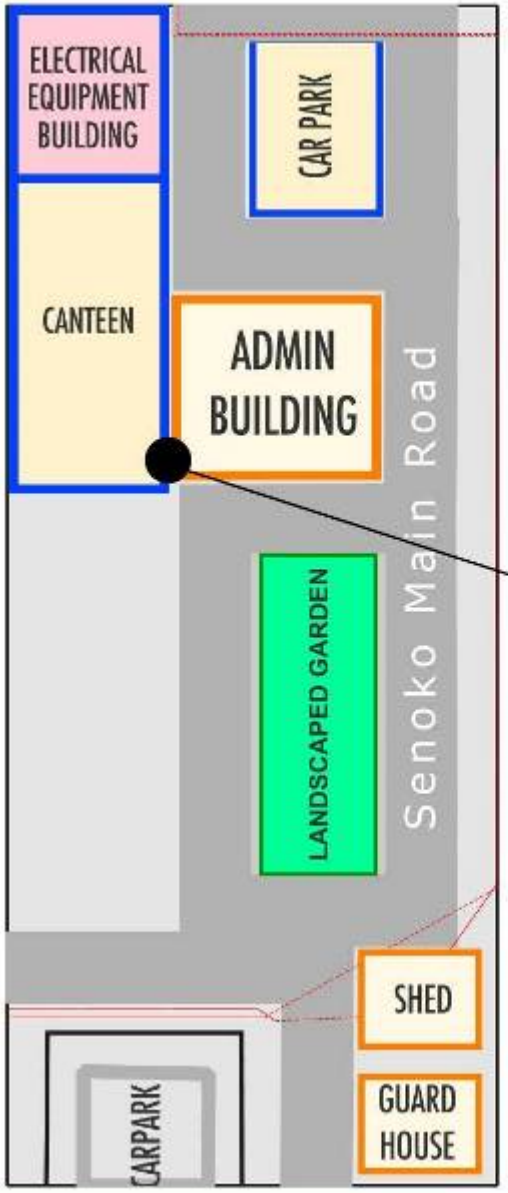
Distribution List

P&CEO/HODs (P, AM)
HOS ( )
HOS (WSH)
Admin File

SITE PLAN OF EVACUATION ASSEMBLY AREA



Appendix VII



The entire power station is a "NO SMOKING" area.

Smoking is only allowed at the designated smoking area outside canteen.

FOR OFFICE USE ONLY	
Log No :	
Log-in Date :	
Due Date : (1 month from log-in date)	
Actual Completion Date	

Senoko energy

WSH Improvement Suggestion (WIS)

SUGGESTION

For Originator Use

1) AREA OF MY CONCERN:

Describe the current situation, in particular the identified/potential safety hazard (s)/risk (s).
(if space is insufficient, please provide information in a separate sheet).

2) MY PROPOSAL:

Describe what or how your concern may be addressed and how your proposal may be implemented.

3) BENEFITS

Originator's Name/Signature :	Section:	Employee No:
	Shift: NA	Date:

Senoko energy

For Evaluator Use Only

4) ASSESSMENT BY WSH

☐ Urgent

☐ Safety Enhancement

RICHARD NG
Head of Section (WSH)

Date

Recommend to implement: ☐	Not recommended: ☐	Section responsible:

5) COMMENT BY SECTION

Implement on or before: ☐

Unable to implement: ☐
PI see reasons stated

Evaluator's signature & date

Evaluator's HOS signature & date

ACKNOWLEDGEMENT SLIP FOR WORKPLACE SAFETY & HEALTH HANDBOOK

Please complete this acknowledgement slip and return it to Admin Services for record and filing.

I acknowledge the receipt of a copy of the Workplace Safety & Health Handbook and will use it as a reference and guide for my personal and work safety.

Signature :_____

Name : _____

Designation : _____

Section : _____

Date : _____