

Table of Contents

1	PREFACE.....	1
2	SAFETY POLICY.....	1
3	OBJECTIVES.....	1
4	SAFETY PROCEDURES.....	1
4.1	Health & Safety Organization / Responsibilities	2
4.2	Orientation And Training	3
4.3	Health & Sanitation	3
4.4	First Aid	3
4.5	Fire Prevention & Fire Protection	4
4.6	Safety Measures of the Construction Activities	5
4.6.1	Material Handling & Storage	5
4.6.2	Personal Protective Apparel and Safety Equipment	5
4.6.3	Signals,Warning Signs and Signaling	6
4.6.4	Excavation, Bedding and Back filling	6
4.6.5	Electrical Wiring And Apparatus	7
4.6.6	PipeTransportation	8
4.6.7	Pipe Installation	8
4.6.8	Ramps, Runways, Platforms And Scaffolds	9
4.6.9	Rigging and Lifting Operations	9
4.6.10	Welding & Cutting	9
4.7	Safety Audits	10

1 PREFACE

Health & Safety Management Plan shall comply in accordance with the contract objectives and related local decrees & laws, in combination of actual health and safety management system of MEKTES.

The Plan will be applicable to the safety management of **The PROJECT** and will be developed in accordance with the Employer's requirements.

2 SAFETY POLICY

MEKTES's safety policy is designed in overall to establish and maintain safety conforming to the Contract requirements for protection of employee life and health, and property from unexpected accident.

Safety and Occupational Health is on top of priorities for MEKTES. This policy is devised to provide full-scale protection to employees ensures prevention of accidents and leads to work performance of high standards.

It is also part of the policy to uphold contractual obligations and moral standards. In addition to this, the safety policy guarantees healthy environment. As a result of this policy of safety, not only the personal security is assured on site, but it also guarantees protection of machinery, which leads to uninterrupted work.

3 OBJECTIVES

In accordance with its stated policy on health and safety, MEKTES has set the following objectives:

- > The prevention of any possible accident at work.
- > At minimizing occurrence of the accidents through effective safety training/observation and at maximizing loss prevention through exercising loss prevention measures over work site.
- > The setting of safety targets to reduce the number of lost time incidents ensuring that these targets are realized.
- > Active management of safety to foster constant awareness among all staff of the health and safety aspects of their work, and of the environment they work in.
- > A promotion campaign to develop a high degree of safety and environmental awareness throughout the project at all times.
- > Encouragement of all personnel to participate in improving the health and safety standards.
- > Collection, discussion and dissemination of up-to-date authoritative information on health and safety issues.
- > Developing and maintaining standard administrative and operating procedures regarding safety/health and environment to ensure unity of effort and compliance with the legislation of

local country or province.

4 SAFETY PROCEDURES

The Safety Procedures shall describe the following;

- The Health & Safety Organization / Responsibilities
- The Safety Training
- The Housekeeping and Sanitation
- Fire Prevention & Fire Protection
- Safety Measures for Construction Activities

This Safety Procedures shall describe detailed Health and Safety matters for specific construction activities. It shall be used as a guide and shall be revised, where necessary during the contract period.

4.1 Health & Safety Organization / Responsibilities

Organization Chart of the H&S management of the project is given as below:

The Project Manager is ultimately responsible for the implementation of the MEKTES's Health and Safety Management Plan of the Project; it is his duty to:

- Ensure and effective health and safety policy is in force across all the MEKTES's operations.
- Review all significant company reports on health, safety and environment including those concerning accidents and reportable accidents.
- Monitor the management of the company's health and safety policy and ensure that all recommended corrective action be implemented.

Health & Safety Engineer is the MEKTES's key safety personnel reporting directly to the Project Manager.

It is the Health & Safety Engineer's responsibility to:

- Administer the MEKTES safety policy and associated plans on behalf of Project Manager.
- Review on a continuous basis each safety planning and operational procedures.
- Organize and participate in regular safety inspection and audit at all project site.
- Arrange for safety meetings to be held on a regular basis throughout the project and at their assigned site.
- Monitor arrangements for safety introduction and training.

- Coordinate all accident and incident reports and safety statistics providing a central register for safety information and policy point of reference.
- Ensure personnel at all work sites are fully aware of potential safety hazards identified by staff reports, inspections, safety audits accident/incident reports and near misses.
- The Health and Safety engineer has the authority to stop works or any part thereof in case of observing imminent danger situation. This "Stop Work Order" will remain in effect until the situation is corrected and the order cancelled by the originator.
- Arrange for the scheduled training of staffs in aspects of health, safety and environmental care relevant to their work.
- Report immediately any unsafe or unsatisfactory, equipment systems or procedures and appropriate action are taken.

The Health & Safety Officers are responsible for monitoring and assessing hazardous and unsafe situations and developing measures to assure personnel safety. The Safety Officers will correct unsafe acts or conditions through the regular line of authority, although the Safety Officer may exercise emergency authority to prevent or stop unsafe acts when immediate action is required.

Individual Employees have a duty to themselves to all their co-workers and to any others that may be affected by their actions to work in the safest manner possible and with a due regard to the environment. In particular, managers, supervisors and employees at all level must:

- work obligations.
- Avoid any action that might constitute a danger to themselves or others.
- Bring to the notice of managers, supervisor or relevant officer any potential health or safety hazard and any practices likely to cause an accident.

4.2 Orientation And Training

Prior to assignment of any new or reassigned employees, the Safety Personnel shall orient the employees to the general requirements of the job site.

Listed below are the minimum requirements:

- Job site's Basic Safety Rules.
- Safety rules that are unique to his job and work area.
- The importance of wearing personal protective clothing and safety equipment.
- Disciplinary action against the disregard of safety instructions or Safety practices.

Training shall be based on the Safety program of the client and shall include:

- To be familiarized with tools and equipment while performing the work based on correct and operating procedure.
- To make all employees aware of the applicable safety regulations and rules concerned.
- Encourage him to ask question if he has the slightest doubt about any phase of his work.
- Keep his part of the job clean.
- Return equipment to its proper place.
- To promote and encourage individual safety awareness to recognize and eliminate unsafe working practices and conditions.
- Wear appropriate protective equipment.

4.3 Health & Sanitation

This program will be established to have proper care, protection maintenance, housekeeping and proper sanitation to prevent the possible spread communicable diseases and epidemic.

This program is also to be established to secure and safe welfare of every employee working in the site, and to avoid interruption from unexpected accident and /or health hazard on all activities for the Project. Annual medical examination for all employees will be carried out

4.4 First Aid

First Aid is the immediate and temporary care given to a victim of an accident of sudden illness until the service of a doctor can be obtained.

Prior to start to work, arrangement should be made for medical facilities ambulance service and medical personnel to be available for prompt attention to the injured and consultation on occupational health.

A property equipped emergency vehicle, or mobile first-aid unit to effectively care for the injured workers shall be provided.

Adequate first aid supplies should be provided and kept stocked on location at all site. The contents of the kits shall be checked weekly, if needed the supplies shall be replaced at once.

First Aid Kits at the sites where snakes, reptiles and scorpions exist should include anti-venom and sting kits for the various potential bites and stings.

First Aid Kits containers shall be water proof and each type of items herein shall be maintained sterile, and shall be easily accessible to all workers.

Immediate transportation shall be provided to the nearest infirmary and hospital for victims of snakes, scorpion and vermin bites.

Unconscious victim shall be placed in a prone and semi prone position, with the head turned to one side to prevent aspiration and to allow secretions to drain away.

Emergency reporting instruction for ambulance, first aid attendant or doctor, first aid station or infirmary shall be conspicuously posted.

4.5 Fire Prevention & Fire Protection

MEKTES will perform its work in a proper manner to protect owner property from fire. Firefighting equipment, as designated, will be kept available by the MEKTES and will supply approved fire extinguishers for protection of temporary structures erected by the MEKTES who will instruct and drill its personnel in effective use of such applicable firefighting equipment.

Smoking shall be prohibited in all areas where flammable, combustible, or similar hazardous materials stored. Pictorial signs such as "NO SMOKING" or "NO OPEN FLAME" signs shall be posted in all prohibited areas.

All sources of ignition shall be prohibited within 15 meters of operations, which constitute a fire hazard. The area shall be conspicuously posted "NO SMOKING" or "NO OPEN FLAME" on two languages (Local and English) or pictorial signs.

Fire equipment including Fire Sand and firewater shall be furnished at each place of accommodations

No obstacle around the fire extinguishers. All flammable liquids such as gasoline and chemical should be kept away from site of welding work. Fire lanes to provide access to all areas shall be established and maintained free of obstructions.

Fire Fighting Team will be organized at each pipe production line, camp area and all areas of the site and the organization will be reviewed and updated frequently. Maintain the fire protection facilities within the area of his responsibility.

Portable fire extinguishers shall be provided where needed and inspected, and all is placed, distinctly marked, readily accessible, and maintained in a fully charged and operable condition.

Fire barrel and buckets shall be painted red, marked "For Fire Only" Barrels shall be kept filled at all times. Each barrel shall be provided at least two fire buckets. One or more fire extinguisher shall be provided on each floor. At least one portable fire extinguisher units shall be provided on all tank trucks or other vehicle used for transporting and/or combustible liquids.

No fire shall be fought where the fire is in imminent danger of contact with explosives. All persons shall be removed to a safe area and fire guarded against intruders.

Demonstrations and training in first aid firefighting shall be conducted at least three (3) months to ensure that project personnel are familiar with and are capable of operating first aid firefighting equipment.

4.6 Safety Measures of the Construction Activities

4.6.1 Material Handling & Storage

All materials in bags, containers, bundles or stored in tiers shall be stacked, blocked, interlocked, and limited in height so that it is stable and secured against sliding or collapse.

Flammable and combustible liquid in a storage building shall be a "NO SMOKING" area, dividing portion and separate from combustible construction and other stored materials.

Unauthorized persons shall be prohibited from entering storage area. All persons shall be in a safe position while materials are being loaded or unloaded from tractor-trailer or trucks and or by withdrawing of material.

Persons shall not work or pass under elevated work areas unless protected by overhead protection.

The hoist rope shall not be wrapped around the load. This requirement shall not apply to electric construction when setting or removing steel towers or poles.

4.6.2 Personal Protective Apparel and Safety Equipment

All persons who are engaged in work, which requires such protection, shall wear protective footwear such as rubber boots, protective covers, safety boots, etc.

Persons working on electrical distribution systems shall be provided with linemen's belts, insulating gloves, insulating hoods, insulating blankets, insulating line hose, and hot line tools as necessary, which shall be tested and maintained in safe condition, as stipulated by the Local Electrical Safety Code.

Electric welding gas welding and operations where protection from radiant energy with moderate reduction of visible light is necessary shall require goggles, face masks, shield, or helmets, suitable to the type work, providing protection from all angles of direct exposure, and lenses of appropriate shade.

Electric welding and cutting and similar operations where protection from injuries, radiant energy with a large reduction in visible radiant energy is necessary, shall require helmets or shields of insulating material not readily flammable, and designed to protect the head from direct rays and fitted with secure glasses of appropriate shade.

Persons exposed to vehicular traffic, such as signal persons, spotters, inspectors, and other shall wear belts or apparel marked with a reflective or high visibility material.

All persons exposed to operations, which subject the eyes or face to dust or flying particles, shall use the required eye and/or face protection.

Operations which require handling harmful materials such as acids, caustics, hot liquids, preservative coating materials, and operations where protection from gases, fumes, and liquids shall require to wear goggles with cups of soft pliable rubber or suitable face masks of hoods which cover the head and neck, and other protective clothing appropriate to the

hazards involved.

Lifelines, drop lines, safety belts, and lanyards shall be used only for employees safeguarding. Any lifeline, safety belt, or fiber lanyard actually subject to impact loading shall be immediately removed from service, and shall not be used again for employees safeguarding.

Safety belts, harnesses, lanyards, drop lines, and lifelines shall be inspected before use each day to determine that they are in safe working condition. Electrical worker's rubber insulating protective equipment shall be visually inspected prior to use.

Employees shall wear clothing suitable for the weather and work conditions. The minimum shall be short-sleeved shirt, long trousers, and leather or other protective work shoes or boots.

Respirators shall not be substituted for all employees subject to harmful concentration of dusts, gases, fumes, mist, toxic materials, or atmospheres deficient in oxygen.

All points of entry to a hard hat area shall have a hard hat caution sign posted. The warning signs shall be in two languages, local and English.

All persons working on or visiting non-administrative activities (i.e., construction, operations, and maintenance) shall be provided with and required to wear protective headgear. MEKTES will provide equipment such as safety hats, goggles, gloves or other safety equipment as specified to protect its personnel. It is understood that MEKTES is responsible for ensuring that its personnel use such equipment in areas and on jobs.

4.6.3 Signals, Warning Signs and Signaling

The following guideline shall be used for safety signs and signals:

- road traffic signs must be used where necessary, to regulate road traffic within the workplace
- specific types of signs should be used in dangerous locations e.g., where there is a risk of slipping, falling from height, or where there is low headroom
- ensure employees use the standard hand signals for directing vehicles and for dangerous maneuvers
- safety signs should be provided where necessary to warn of hazards, to prevent dangerous practices, and to indicate safe exit routes and safe practices
- ensure all fire safety signs and other safety signs comply with current regulations
- ensure all text or word signs are replaced with pictogram signs (with text where necessary)
- ensure all employees understand the meaning of the signs displayed and the actions to be taken.

4.6.4 Excavation, Bedding and Backfilling

All excavations and ditches made by MEKTES within the Project area shall be fenced-in or boarded over so as to prevent personnel from slipping or falling into them when moving about the areas. Before proceeding with excavations, necessary work permits must be obtained. Warning light will be installed if excavation is a traffic hazard.

The sides of all excavation in which employees exposed to danger from moving ground shall be guarded by a shoring system, sloping of the ground, or other equivalent means or excavation over 1,5m or more in depth.

Loose, unconsolidated materials shall be stripped for a safe distance at least 3.0 meters from the top of pit or quarry walls.

Where excavation is to be below adjacent foundation of structure, shoring, bracing or underpinning shall support such foundation. Deep excavations shall be inspected at least once every morning to ensure that no movement of failure has taken place. An inspection log must be completed and signed daily by the safety engineer. Side slopes and faces of all excavation shall be maintained in safe condition by scaling, barricading, rock bolting or other means.

Excavating or hoisting equipment shall not be allowed to raise lower or swing loads over personnel in the excavation who are without substantial overhead protection.

Walkway or bridge with guardrails shall be provided where people or equipment are required or permitted to cross over excavations.

Vehicles not directly involved in the work shall be kept away from the portals and separated from excavation, bedding and backfilling activities.

MEKTES shall construct or otherwise provided barricades and warning signs where work involves roads and public areas as necessary to protect the public from harm in the course of legal or accustomed use.

4.6.5 Electrical Wiring and Apparatus

Personnel familiar with code requirements and qualified for the class of work to be performed shall do all works. Live parts of wiring or equipment shall be guarded to protect all persons or objects from harm.

Before work is begun the person in charge shall ascertain by inquiry, direct observation, or instrument, whether any part of an electric power circuit exposed or concealed so that the performance of the work may bring any person, tool, or machine into physical or electrical contact therewith. Whenever possible, all equipment as well as circuits to be worked on shall be de-energized before work is started by clearance procedures and grounding.

Temporary power line, switch boxes receptacle boxes, metal cabinets, and enclosure around equipment shall be marked to indicate the maximum opening voltage. All circuit shall be protected against overload.

Equipment or circuit that is de-energized shall be rendered in operative and have tags attached at all points where such equipment or circuits can be energized.

Equipment approved for a specific hazardous location shall not be installed or intermixed with equipment approved for another specific hazardous location.

Electric equipment and lines shall be considered energized until determined to be de-energized by test or other means, and grounds applied.

All conductors, sub conductors and overhead ground conductors shall be used, and such tools and equipment shall be kept clean and dry.

4.6.6 Pipe Transportation

Every person regularly or occasionally operating a tractor-trailer vehicle for transporting pipes shall possess, at all times while operating such vehicle, a permit valid for the equipment being operated.

No tractor-trailer shall be placed in service for transporting pipes until a mechanic has inspected it and found.

All tractor-trailers operated between sunset and sunrise shall have the following lights:

- Two headlights, one on each side.
- At least red taillight and one red or amber stop light on each side.
- Directional signal lights both front and back.
- Three emergency flares, reflected markers or equivalent portable warning device.

Every tractor-trailer shall be equipped with a speedometer at fuel gauge and an audible warning device in operating condition. Every tractor-trailer, upon approaching a road crossing shall be driven at such a speed as to permit stopping before reaching the nearest track and shall proceed only if the course is clear.

4.6.7 Pipe Installation

Machinery and mechanized equipment for the installation of pipes shall be operated only by designated personnel. Equipment deficiencies observed at any time that affect their safe operation shall be corrected before continuing operation.

A warning device or signal person shall be provided where there is danger to persons from moving equipment and swinging loads.

Riding of pipes or other material hoist is prohibited.

While the crane is in operation, the operators shall not perform any other work and he shall not leave his position at the controls until the pipes has been safely landed or returned to ground level.

Crane booms shall be lowered to ground level or secured against displacement by wind loads or other outside forces when not in use.

Adequate clearance shall be maintained between moving and rotating structure of the crane and fixed objects to allow the passage of employees without harm.

Opening rules shall be posted at the operator's station of the hoist. Such rules shall include signal system and all allowable line speed for various loads. Rules and notices shall be posted on car frame or cross head in a conspicuous location, including the statement "NO RIDERS ALLOWED".

4.6.8 Ramps, Runways, Platforms and Scaffolds

All temporary trestles, ramps, scaffolds, and similar load-bearing structures shall be designed, constructed, and maintained unless an alternate requirement is specially approved by the designated authority.

Scaffolds, platforms or temporary floors shall be provided for all work except that which can be done safely from the ground or similar footing. Erection, moving, dismantling or altering shall be under supervision of a person responsible for job safety.

Ladders shall be used as work platforms only when use of small hand tools or handling of light materials is involved. No work requiring lifting of heavy materials or substantial exertion shall be done from ladders. Ladder must be secured.

An access ladders or equivalent safe means of access shall be provided to all work areas.

Scaffolds, platforms, runways, floors, etc., shall be kept free of grease, mud or any other material or equipment which will render them unsafe or hazardous to persons using them.

Where walkways and work surfaces are slippery, abrasive material shall be used to assure safe footing. The use of working platforms or scaffolds for the support of an outrigger boom, hoist, well pulley, or any other device or equipment used for hoisting materials will be permitted provided the platform or scaffold supports, and the individual member to which each device is attached, are reinforced and braced to withstand the additional loads imposed.

4.6.9 Rigging and Lifting Operations

All self-propelled construction equipment, except light service trucks, panels, pick-ups, station wagons, crawler cranes, power shovels, and draglines, whether moving alone or in combination, shall be equipped with a reverse signal alarm. Alarm shall be audible and sufficiently distinct to be heard under prevailing conditions. Alarms shall operate

automatically upon commencement of backward motion. Equipment designed and operated so that the operator is always facing the direction of motion does not require reverse signal alarms. The reverse signal alarms shall be in addition to requirements for signal persons.

Fuel tanks shall be located in a manner, which will not allow spills or overflows to run onto engine, exhaust, or electrical equipment.

Platforms, foot walks, steps, handholds, guardrails, and toe boards shall be provided on machinery and equipment to prevent safe footing and access ways. Equipment shall be provided with suitable working platforms, guardrails, and hand grabs when attendants or other employees are required to ride for opening purposes outside the operator's cabs or compartment. Platforms and steps shall be of nonskid material.

Substantial overhead protection shall be provided for the operators of forklifts and similar material handling equipment.

4.6.10 Welding & Cutting

Safety precautions listed below shall be strictly observed by workers who weld or cut materials:

- Unauthorized persons shall not be permitted to use welding or cutting equipment.
- Welding in a place with wooden floors shall not be allowed, unless the floors are protected from hot metal by means of fire-resistant fabric, sand, or other fireproof material.
- It shall be made sure that hot sparks or hot metal will not fall on the operator or on any welding equipment components.
- All flammable material shall be removed, such as cotton, oil, gasoline, etc., from the vicinity of welding.
- Before welding or cutting, those who are not protected to wear proper clothing or goggles in close proximity shall be warned.
- Any assembled parts from the component being welded that may become warped or otherwise damaged by the welding process shall be removed.
- Hot rejected electrode stubs, steel scrap, or tools shall not be left on the floor or around the welding equipment.
- Personnel exposed to the hazards created by welding, cutting, or brazing operations shall be protected by personal protective equipment. The appropriate protective clothing required for any welding operation will vary with the size, nature, and location of the work to be performed.

4.7 Safety Audits

Safety Audits shall be performed on monthly basis under the management of the Health and Safety Engineer. All out-comings of this Safety Audit shall be reported to the Project Manager together with the proposed solutions.