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SECTION 1: GENERAL

This safety manual generally sets out organization's expectations from every employee on Environment, Health and Safety aspect of the construction workers deployed at the project site. It provides general EHS procedures for most, but not all, construction activities to prevent accidents and to monitor/correct violations of procedures through regular Safety meetings. However, a key requirement for EHS success is serious commitment from senior staff and strong safety leadership at the project site with well defined roles and responsibilities of the assigned individuals. Safety Officer will be responsible for implementing and continuously communicating and driving the procedures throughout the labour force. .

Scope of procedures and relationship:

The safety & Health Procedures applies to all our sub contractor, employees and to all construction and maintenance activities on the job site. A close relationship and continuous interaction must be maintained with the client by the construction manager of the site. The organisation does have specific safety and health requirements to be observed and co-operation with its Safety Manager, site-in-charge and other staff at site, throughout the contract is essential.

Selection of sub contractor:

The Project Manager shall select sub or works contractors, using the same criteria of practical safety policy. Again, it must be ensured that the terms of contract include adequate provision for safe working practices & for specified safety and health items.

Standards

The prime contractor and all subcontractors are to comply with the Client specific rules and procedures, the national legislation and codes and in particular the following standards;

IS: 3696 (Part I) -1966 Safety code for scaffolds and ladders: Part I Scaffolds

IS: 3696 (Part II)-1966 Safety code for scaffolds and ladders: Part II Ladders

IS: 3764-1966 Safety code for excavation work

IS: 4082-1977 Recommendations on stacking and storage of construction materials at site (first revision)

IS: 4130-1976 Safety code for demolition of building (first revision)

IS: 4912-1978 Safety requirements for floor and wall openings, railings and toe boards (first revision)

IS: 5121-1969 Safety code for piling and other deep foundations

IS: 5916-1970 Safety code constructions involving use of hot bituminous materials

IS: 7205-1974 Safety code for erection of structural steel work

IS: 7969-1975 Safety code for handling and storage of building materials

IS: 8989-1978 Safety code for erection of concrete framed structures

IS: 7293-1974 Safety code for working with construction machinery

IS: 10291-1982 Code of dress in Civil Engineering works, safety

IS: 875-1964 Code of practice for structural safety of buildings and loading standards

IS: 1905-1980 Code of practice for structural safety of buildings, masonry walls

IS: 10386-1983 General aspects Part 1 – 1983, Part 2 – 1982, Part 6 – 1983, Part 10 – 1983
Amenities, protective clothing and equipment, construction, storage, handling, detection and
safety measures for gases, chemicals and flammable liquids

IS: 2925-1984 Safety helmet tests

IS: 5983-1980 Testing for Eye protectors

IS: 7524 (Part I)-1979 Safety goggles

IS: 1179-1967 Welding helmets

IS: 5914-1970 Safety shoes

IS: 4770-1991 Safety gloves

IS: 12254-1993 Rubber/ PVC knee boots/ gum boots

Client specific requirements for compliance with OSHA standards

SECTION 2: ELEMENTS OF CONSTRUCTION SAFETY

Planning:

Detailed planning should take the following matters in to account;

- Obtaining work specific permits like;
 - Permit for work at Height
 - Hot work permit
 - Disposal permit
 - Excavation permit
 - Night work permit
- Know hazardous operations eg. Use of cranes and site transport, structural erection, excavation and false work, scaffolding, roof work, demolition etc.
- Requirement for plant and equipment to ensure safe working or ease of handling
- Sequence of work and its phasing between contractors to minimize the possibility of one contractor placing another contractor's men at risk, where appropriate the segregation of contractors should be considered
- Need to provide information, instruction and appropriate training, both on general site safety and hazardous specific in the site. The latter could range from restricted zones, Permit-to-work systems, lifting operation to the wearing of Personal protective equipment
- Need for fire precautions and emergency procedures

- Need for environmental monitoring and health surveillance
- Site security and foreseeable risks to the public, including the need for directional and warning signs
- Safe access across the site for persons, vehicles and equipment. Thought should be given to arrangements for keeping the site tidy, accommodation for site staff, safety welfare, first aid and other facilities
- Provision of safe places of work at different stages of the job including the provision of scaffolding, ladders for a number of sub-contractors

Control:

Sub and works contractors shall be briefed about the safety policy and site including site specific safety procedures of the prime contractor at the pre-bid meeting itself and further reiterated during the kick-off meeting. Responsibilities of all parties shall be clearly defined before contractors start work at site. Such matters should include:

- Appropriate precautions and methods for identified hazards or hazardous work
- Necessary plant, equipment and arrangements for its provision, maintenance use and inspection
- A formal joint safety committee must be appointed to review results and to initiate further actions (should be done either during kick-off meeting or subsequently)
- Arrangement for initiation of introduction training for new states on site
- Arrangements for any specialized training
- Arrangements for promulgating safety and health information e.g. On-site notice boards

It is important that such safety and health arrangements are reviewed at the Kick-off meeting as well as first project and first Safety meeting, where the site management can set the tone for the conduct of work by resolving at an early stage the difficulties which may arise at a later date. It is expected that each subcontractor will provide employees adequately licensed (if required for specific works), trained and capable of doing the specialty work.

Coordination:

The Site In-charge shall be totally responsible for compliance with this health and safety code. The Site In-charge meet at least once a week to review status on EHS issues. It is expected that each staff, worker and sub-contractor will participate in Daily "Tool Box Talks" and other safety meeting to co-ordinate project work for the day across trades. Project Manager's Safety officer shall convene this meeting and participants from all will be mandatory. Minutes of this meeting shall be circulated to all concerned.

Monitoring:

Arrangements must be made for safety and health monitoring of the site on a regular basis. This will include, not only ensuring the safety issues associated with working at heights, excavations, working with energy sources, etc. but also environmental matters such as hazardous dust, fumes, noise etc. In all cases, the Site-In-charge shall ensure that daily site inspections are carried out by the Safety Officer.

Records:

The site- in -charge should ensure that all statutory notification, examinations and inspections are carried out. Except for equipment used exclusively by individual contractors, all records should be kept & updated by the Site In-charge. This individual shall also keep track of all Safety statistics and send report to head office periodic basis.

Non Compliance with Safety and Health Provisions:

The compliance with Environmental Health and Safety provisions is of utmost importance to the organisation. The employee must note that the organisation will take a serious view of any Safety non-compliance notices.

Disciplinary action:

Noncompliance of the Safety and Health Provisions will result in disciplinary action as per the procedure below:

1st time violation: Written warning

2nd time violation: Imposition of penalty as deemed fit by site-in-charge.

3rd time violation: Removal from site

SECTION 3: SAFETY AUDITS

1) It is essential to conduct formal periodic safety audits to prevent deviations from safety standards.

2) The audit should take the form of a full survey covering all aspects of safety throughout the project site. Reports should be submitted to the head office. Copies of the results of a survey should be sent to the persons in charge of the respective areas so that corrective measures can be taken.

3) Audit team should cover the following aspects:

- Organization
- Accident control
- Hygiene facilities
- Electrical systems
- Fire prevention
- Mechanical equipment
- Safe work practices
- Storage areas
- Material stacking
- Housekeeping
- Safety statistics
- Display of emergency numbers
- Personal Protective Equipment
- Safety training
- Safety meetings
- First aid facilities
- Traffic control, Signage, etc.

4) Findings of the safety audits shall be sent to head office and also be discussed in the weekly Safety meetings.

5) Work place audits should also be carried out at job site frequently (at least every week) conducted by site-in-charge to make sure that all Safety provisions are getting complied with. These should primarily focus on Safe working systems, Housekeeping, Machine guarding and use of PPE. Results of these audits shall be reported to the head office.

SECTION 4: ACCIDENT PREVENTION, REPORTING AND INVESTIGATION

Definition:

An accident is commonly defined as: “An unplanned event which may or may not result in injury or damage”.

As is clear from the definition, an accident need not necessarily involve either injury or damage to person or property. A “near miss” is by definition an accident and should be regarded as a warning that a problem exists and that some action is required to avoid a possible accident/incident in future.

Causes of Accidents:

88% of all accidents are caused by human error, 10% are caused by mechanical failures and the other 2% are considered outside human control eg. Earthquakes. The likely causes of accidents should be identified in advance and the appropriate action taken to ensure that the accident never actually takes place. The most important and effective accident prevention technique is training the actions and attitudes of all personnel.

Accident Recording and Investigation

It is essential to have an effective management system for recording accidents. All accidents should be thoroughly investigated. A near miss or incident should be investigated as though an accident had occurred. The prime objective of all investigations of this type is to identify the causes in order to eliminate the risk. Such aspects as systems training and guarding should all be considered in addition to what actually happened and why.

The accidents record should include accidents to employees and non employees on company premises i.e. Sub Contractors, construction workers, maintenance workers, visitors etc. and to those using company vehicles.

Supervisory staff and, when possible, department personnel should be involved in any investigation relating to their area of control and should be delegated in writing to conduct a detailed analysis of the causes. They should determine how best to prevent a recurrence and this should be taken into account in the report. The depth of the investigation and the effectiveness of the follow up action should be monitored.

Records of all accidents must be kept to enable statistics to be analyzed and root causes determined.

Incident Control System

Unsafe acts & conditions and “near misses”, if they are not dealt with appropriately, can turn into accidents. It is essential that companies operate an incident control system to ensure that these potential hazards are reported and eliminated. The system should;

- Ensure that whenever possible safety representatives and other employees are involved
- Encourage any person to register an unsafe action or conditions
- Ensure that reports are recorded and acted upon
- Identify the responsibility for investigation and for carrying out corrective action
- Specify the time within which the corrective action should be completed or progress reported
- Ensure that a report is made to management and to the originator when corrective action has been completed

Lost Time Accidents (LTA):

This refers to the total number of accidents of all types which result in lost man hours. Lost man hours occur if the person involved is unable to return to normal duties immediately after any treatment.

Reportable Accidents:

When an employee, as a result of a lost time accident, is absent from work for more than one day (24 hour), then this will be recorded not only as a lost time accident but also a reportable accident. Brief details of each reportable accident and the steps taken to avoid repetition should be given in the monthly Report.

Serious Accident:

This is an accident which causes death or serious injury e.g. a broken limb, amputation serious burns etc., or hospitalization for one or more nights.

Incident / Near Miss:

This can be described as an undesired event which, under slightly different circumstances, could have resulted in an accident.

Reporting Accidents/ Incidents/ Near Misses:

All Accidents/ Near misses must be reported to site-in-charge of the company immediately, with brief details. A preliminary report will then be submitted by the site-in-charge to the Managing Director, A full and final report will subsequently need to be prepared and submitted.

Reporting Accident Statistics:

Accident statistics reported to company should be based on employees at job site. Accidents to non-employees (vendors or sub-vendors) should be reported as separate statistics.

Statistical formulae:

Lost time Accidents: This is the total number of accidents including all reportable and serious accidents

Reportable Accident: This is the number of accidents where an employee is absent from work for more than 48 hours consecutively (excluding the day of accident).

Percentage man hours lost: This is the total number of hours lost expressed as a percentage of total man hours worked.

$$\frac{\text{Total Man hour's lost}}{\text{Total man hours worked}} \times 100\%$$

The lost time accidents, reportable accidents and percentage man hours lost should be adjusted monthly as part of the site-in-charge review. The figures given in each category should be for the month under review, the year to date and the previous year to date.

Accident Frequency rate:

This is the total number of lost time accidents per 1 million man hours worked by permanent and temporary employees

$$\frac{\text{Total number of lost time accidents}}{\text{Total number of man hours worked}} \times 1,000,000$$

Accident incident rate:

This is the total number of any accidents per 1000 employees.

Total number of lost time accident X 1000
Average number of persons employed

For this calculation the total number of employees should be averaged out over the year. Part time employees should be included in proportion to the time worked.

The accident frequency rate and accident incidence rate should be calculated annually and reported at the year end .

In addition to the statistics referred to above, all data pertaining to incidents must also be kept at site.

SECTION 5: MANAGEMENT RESPONSIBILITY FOR SAFETY

Organisation has both moral and legal responsibility to ensure that a well developed Safety program is in place. The contractors are obligated to provide;

- Safe place of work, which includes safe means of access and exit during normal daily work routine as well as in emergencies
- Safe plant and equipment including the maintenance of it
- Safe systems of work. This includes safe working practices and work instructions for all jobs taking particular account of hazardous situations
- Safe working environment and proper arrangements for employee welfare. This responsibility includes proper lighting, ventilation, fume and dust extraction, noise control, housekeeping, seating, drinking water, sanitary facilities and a wide range of other factors
- Safe methods for storing, handling and transporting goods and substances
- Such information instruction, training and supervision as is necessary to ensure efficient and safe working practices, which comply with national legislation and company rules
- Basic and job related safety training for all its and as well its Sub contractor's temporary and permanent employees
- Consultation with employee with a view to making and maintaining adequate and effective arrangements for health safety and welfare
- A written statement with respect to the health, safety and welfare of the employees containing details of procedures which will put the policy into effect and define individual responsibilities for safety

SECTION 6: SAFETY ORGANISATION**Safety manager**

The project site will have qualified Safety Manager with required number of safety observer, but in any event, a Safety observer shall be on the job site at all times when work is ongoing.

Duties of Safety Manager

The precise duties of the manager responsible for health and safety of the supervisory staff, workmen and sub contractor. The following should only be taken as a minimum guideline. In general the duties shall include:

- To manage the company Health and Safety program
- To make recommendations on matters concerning health and safety to the Director responsible for the company health and safety program in order to achieve the company's health and safety objectives
- To inspect all or part of the premises daily to ensure the program is being complied with
- To carry out full inspection at least once every week for potential hazards
- To prepare Pre task plans and make necessary modifications till they are accepted by Project Manager's Safety representative
- To recommend any necessary health and safety rules including changes where appropriate
- To arrange adequate materials and publicity for the Health and Safety Program
- To arrange, attend and supply relevant material for Safety Committee Meetings and weekly safety meetings
- To conduct appropriate job related health and safety training for all new and existing staff whether temporary or permanent. Any job change should be accompanied by relevant retraining.
- To carry out specific health and safety training for managers, supervisors and safety representatives.
- To properly investigate all accidents, damage to property and near miss incidents and make sure that any corrective action is implemented
- To maintain accident records and make a weekly inspection of first aid records and implement any necessary subsequent action
- To prepare weekly summaries of injury/damage and inspection reports for senior management
- To ensure that all fire equipment is regularly inspected and serviced.
- To ensure the provision of safe tools, equipments and protective clothing where appropriate, and their safe use.

SECTION 7 : FIRST AID AND EMERGENCIES

Trained First Aid Person

The site-in-charge shall appoint suitable trained first aid person for rendering first aid to people deployed at site if they are injured or become ill at work.

First Aid Kit:

Regardless of the number of people there must be at least one first-aid box on site. Every first aid and occupational first aider should have easy access to first-aid equipment, and provision should be made for every person to have reasonably rapid access to first aid. Each box should be placed in a clearly identified and readily accessible location, and contain a sufficient quantity of suitable first-aid materials and nothing else. Boxes and kits should be checked frequently to ensure they are fully stocked and all items are in a usable condition. Sufficient quantities of each item should always be available in every first aid box or cabinet marked with a white cross on green background. The first-aid box or cupboard should protect the content from dampness and dust and be clearly

Phone # Posted

Project name_____Project No._____

The following are the business telephone numbers where project key personnel can be reached at all times. In addition, the emergency telephone numbers of other vital agencies are listed:

BUSINESS	RESIDENCE
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Site-in-charge
Owner Project Manager
Safety Officer
Owner Safety Officer
OTHER EMERGENCY TELEPHONE NUMBERS

Fire :
Ambulance :
Doctor :
Hospital :
Police :
Electric Company :
Water Company :
Telephone Company :

SECTION 8 : HOUSEKEEPING AND SANITATION

At the work site, an adequate supply of potable water must be provided, as well as clean drinking water dispensers. Potable water for clean up must be provided. Where non potable water is used for industrial or fire fighting purpose it must be identified by appropriate signs.

Apart from the above, the safety observer has to adhere to general neatness of working areas, daily disposal of waste and trash, maintenance of clear passageways and walkways, providing adequate temporary lighting and ventilation (both natural as well as artificial) to perform the project related works, removal of projecting nails, removal of oil and grease, removal of loose unused construction material, provision for waste containers, and maintaining adequate sanitary facilities for the work force. The contractor and in turn its sub-contractors shall be responsible for cleaning behind them on daily basis. The accumulation of construction materials/ debris shall not be permitted at any location.

SECTION 9 : FIRE PREVENTION

An emerging plan for firefighting and evacuation must be made. A training plan must be developed.

Electrical wiring equipment for heating, light or power purposes must be installed in compliance with the statutory requirements. The Safety officer must identify and maintain proper escape routes at the project site in the event of a fire emergency. The escape routes should be sufficient in number and free from any encumbrances. All the workers as well as others working at job site should be made aware of them through training, mock drills and posting of exit signs. The safety observer, consultation with the safety officer must identify a "Mustering point" where all the workers would be required to gather in the event of fire. The safety officer must generate an "Evacuation Procedure" in the event of fire and post it at multiple locations on the project site. The procedure should include what should be done to the ongoing activity when such a situation

arises, which escape routes to follow, safe location to gather, who to call (with telephone numbers), how to inform the site security, etc.

Site Fire Check List

- Are safe ashtrays provided where smoking is permitted? And are fire extinguishers installed?
- Is all temporary wiring well supported and protected?
- Are any circuits overloaded?
- Are all flammable liquids, gas cylinders and flammable materials separately and properly stored?
- Are all gas appliances fitted with control taps?
- No burning of rubbish is permitted outside
- Is all flame cutting and welding taking place with proper precautions?
- Are all blow lamps and blow torches being used correctly and all the hoses protected?
- Do all night watchmen and security patrols know the fire routines?

Preventing the spread of fire:

- Is waste accumulating in hoist shafts, under butts, in odd corners?
- Are separate metal waste containers supplied for each of the following : oily rags, paint rags, paint scrapings, waste flammable liquids, wood shavings and offcuts?
- Is all waste regularly cleared?
- Are all huts safely located?

Means of escape:

- Are all gangways, stair and platforms free from obstruction?
- Does everyone know what to do in an emergency?
- Is fire drill practiced, and is there a system to ensure that all persons have evacuated the area?

Fire Fighting:

- Have all extinguishers been checked and / or recharged?
- Are they clearly identified and easily accessible?
- Are operatives trained in their use?

SECTION 10: PERSONNEL PROTECTION

The required personnel protective equipment (PPE) should be worn at all times. The site-in-charge is encouraged to supply comfortable personnel protective equipment to the site workers. All necessary personnel safety equipment as considered adequate by the Engineer-in-charge shall be available for use of persons employed on the site and maintained in a condition suitable for immediate use, and the site-in-charge shall take adequate steps to ensure proper use of equipment by those concerned.

Irrespective of the type of work being performed, safety officer will have 100% compliance with Safety hard hats, safety glasses and safety shoes. In addition for specific works described below though not limited to these only, additional safety precautions as stated will be taken by the safety officer.

Workers employed on mixing asphalt materials, cement and lime mortars/ concrete shall be provided with protective footwear and protective gloves.

Those engaged in handling any material which is injurious to eyes shall be provided with protective goggles. Special protective goggles must be used by graining, sawing and drilling. Those engaged in welding works shall be provided with welder's protective eye-shields.

Suitable face masks shall be supplied for use by workers during painting work.

Overalls shall be supplied by the contractor to workmen and adequate facilities shall be provided to enable working painters to wash during and on cessation of work. Special care should be taken with regards to the hygiene of the temporary facilities.

SECTION 11 : ELECTRICAL INSTALLATION

The National Indian electric codes and regulations shall apply to all permanent and temporary electrical installations.

A temporary power distribution system shall be installed in accordance with the national codes

All other temporary connections and sub distribution systems shall be connected to this main system.

All temporary power systems shall be properly grounded.

Circuit breakers (incl. fuses) shall be used in all temporary power connections for system and cable protection.

All wires shall be colour coded in accordance with the national codes.

Only certified electricians will be allowed to enter high tension station, transformer and low voltage areas.

All electrical installation work and all connections to the main power distribution system shall be done by qualified electricians from certified contractors.

SECTION 12 : LADDERS

Work activities situated above 2.5m from ground floor level

Precautions shall be made to avoid workers from falling down. For work above 2.5m from ground level, proper scaffolds need to be erected.

No metal ladders to be used around electrical hazards. Special attention shall be paid to the material of the ladder for the type of work to be performed i.e. whether the ladder shall be metal or wooden.

Use of ladders and folding step ladders

This regulation applies to all ladders and pairs of steps but not roof ladders and crawling boards.

Ladders must:

- Be fixed near the top if practicable, or near the bottom if not: if suspended they must be secure.
- Be placed (except when suspended) on a firm level base; they must not stand on loose packing (eg. Bricks)
- Be intermediately secured, where necessary, to prevent swaying and sagging
- Be supported, or suspended, equally on each stile.
- When working on a ladder above 2.5m, fall protection must be used.
- Extend at least 1.05m above any landing place beyond the highest rung from which a person may be working or have a nearby handhold of equivalent height.
- Be placed so that there is space behind each rung for proper foothold (eg. no rung should coincide with a scaffold tube)

SECTION 13 : SCAFFOLDING

Work activities above 2.5m from the ground level:

Precautions shall be made to avoid workers from falling down. For work above 2.5m above a floor level proper scaffolds need to be erected. Ladders properly secured can be used, but only for light work which can be done with one hand.

Supervision of work and inspection of material:

Scaffolds must be erected, altered or dismantled only under competent supervision and as far as possible, by experienced persons. All scaffolding materials must be inspected before use to check that they are up to standard. All inspected scaffolds must bear a sign "ready for use".

Construction and material:

Sufficient sound material must be provided for a scaffold to be strong and stable enough for the job. Wherever timber is used for any kind of scaffolding purpose, it must be of the right type for the job and must not be painted so that any defects are hidden. Scaffold tubes and fittings must not be bent, distorted or unduly rusty.

Defective material:

Scaffold tubes, couples or fittings that are bent unduly rusty or distorted should be rejected. Timber with dangerous splits and knots should always be rejected. Ropes and lashings showing signs of chafing through wear, or of being corroded, should be rejected. All scaffold components must be properly stored when not in use and kept separately from all other building materials

Maintenance of scaffolds:

Scaffolding must be kept in good order and every effort made to prevent the accidental displacement of any part.

Partly erected or dismantled scaffolds:

If any scaffold is either partly erected (or partly dismantled), but nevertheless is still capable of being used to some extent, it must have a bold warning notice fixed, or all access blocked off or barred, at the point beyond which it cannot be safely used.

Standards or Uprights, Ledgers and Putlogs:

Scaffold standards should be vertical and spaced closely enough for the intended use of the scaffold.

Base plates must be used. Timber sole plates should also be used to distribute the load from the standard over a wide area, as well as to offset possible local subsidence.

Ledgers must be level and fixed to standards with right-angle couplers.

Putlogs and transoms must be firmly fixed to ledgers or standards.

The flattened end of the putlog must be pushed right into the wall to provide maximum support.

Putlogs and transoms should be spaced according to the expected load and the thickness of the boards to be used in the platform.

In normal use, putlogs and transoms should be spaced so that the spans of scaffold boards should not be greater than :

32mm boards: 1m
38mm boards: 1.50 m
50mm boards: 4.60 m

Ladders used in Scaffolds:

Ladders used as uprights must be:

- Strong enough to carry the load of both the work and the workers.
- Equally supported on each side.
- Secured to prevent slipping.

Ladders to be placed under an angle of 70 ° with the vertical and shall extend 1m above the railing. Ladders are only to be used to support a scaffold platform when the work is light, e.g., painting.

Stability of Scaffolds:

All scaffolds must be:

- On a solid, even base ; or suspended from a sound structure
- Braced to prevent failure, and
- Tied to the building or structure unless specially designed to be completely independent.

Any building or structure which supports a scaffold must be strong enough to carry the scaffold and its load

A scaffold only used as a working platform for workers when a scaffold also used to store material etc, a calculation is needed to check if that scaffold is safe to carry the total load.

Mobile scaffolds must:

- Be stable, weighted at the base if necessary
- Be used only on a flat, level surface.
- Have the wheels locked to prevent movement whilst being used for work,
- Be pushed, or pulled only at the base when being moved.

Scaffolds must not be built on loose bricks, drain pipes, chimney pots, etc. Bricks or blocks can be used to support a platform no higher than 600mm from the ground or floor.

Support for Scaffolds:

No part of the building may be used to support scaffolding unless it is strong enough to do so. Unless gutters have been designed as walkways and are strong enough to bear the weight, they must not be used to support scaffolding or ladders.

SECTION 14: MOTOR VEHICLES

A site traffic plan must be developed at the beginning of the project to control all traffic on site and movement of materials, parking etc.

Motor equipment left unattended at night near areas where work is in progress must have appropriate lights, reflectors or barricades to identify the locations of the equipment. A safety tie rack, cage, or equivalent protection must be used when a worker is inflating, mounting, tires installed on split rims or rims equipped with locking rings. Heavy machinery that is suspended or held aloft by the use of slings, hoists, or jacks must be blocked or cribbed to prevent falling or shifting before employees are permitted to work under them. Bulldozer and scraper blades and similar equipment shall be either fully lowered or blocked when being repaired or when not in use. All controls must be in the neutral position and the motor stopped and brakes set, unless work being performed requires otherwise. Parked equipment must be checked and parking brakes set. All cab glass shall be safety glass. All vehicles must have a service brake system, an emergency brake system, and a parking brake system. Vehicles that require additional light shall have at least two headlights, as well as brake lights. The vehicles must also be equipped with back horn which automatically sets off as and when the vehicle is in reverse gear.

Other standard vehicles equipment such as seat belts, rear-view mirrors and safety latches on operating levers shall be in accordance with standard vehicle codes, and state-inspected where appropriate.

The authorized individuals with valid driving license only shall be allowed to drive.

SECTION 15 : BARRICADES

- (i) Safety observer shall erect and maintain barricades required in connection with its operation to guard or protect,
 - a) Hoisting areas.
 - b) Areas adjudged hazardous by contractor's safety management and/ or Project Manager's Inspectors
 - c) Owner's existing property subject to damage by the contractor's operations
- (ii) Company employees and those of his subcontractors shall become acquainted with barricading practice and shall respect the provisions thereof.

Guarding of floor opening and floor holes:

Every temporary floor opening shall have railings, or shall be constantly attended by Supervisors appointed by safety officer / site-in-charge.

Every floor hole into which persons can accidentally fall shall be guarded by either:

- a) A railing with toe board on all exposed sides, or

- b) A floor hole cover of adequate strength and it should be hinged in place. When the cover is not in place, the place the floor hole shall be constantly attended by some one or shall be protected by a removable railing.

Barricades must be strong enough to carry the weight of people.

Every stairway floor opening shall be guarded by a railing on all exposed sides, except at entrance to stairway. Every ladder way floor opening or platform shall be guarded by a guard railing with toe board on all exposed sides (except at entrance to opening) with the passage through the railing either provided with a swinging gate or so offset that a person can not directly into the opening.

Guarding if open-side floors and platform

Every open-sided floor or platform 120cm or more above adjacent floor or ground level shall be guarded by a railing (or the equivalent) on all open sides except where there is entrance to ramp, stairway or fixed ladder. The railing shall be provided with a toe board beneath the open sides wherever,

- (a) Persons may pass,
- (b) there is moving machinery and
- (c) there is equipment with which falling materials could create a hazard

SECTION 16 : HANDLING AND STORAGE OF MATERIALS

Cement:

Storage and stacking: Cement shall be stored at the work site in a building or a shed which is dry, leak proof and moisture proof. The building or shed for storage should have minimum number of windows and close fitting doors and these should be kept closed.

Cement received in bags shall be kept in such a way that the bags are kept free from the possibility of any dampness or moisture coming in contact with them. Cement bags shall be stacked off the floor on wooden planks in such a way as to keep them 150 to 200mm clear from the floor and space of 450mm minimum shall be left all round between the exterior walls and in the stacks. In the stacks the cement shall be kept close together to reduce circulation of air as much as possible. Owing to pressure on bottom layer of bags sometimes 'warehouse pack' is developed in these bags. This can be removed easily by rolling the bags when cement is taken out for use.

The height of stack shall not be more than 15 bags to prevent the possibility of lumping up under pressure. The width of the stack shall be not more than four bags length or 3m. In stacks more than eight bags high, the cement bags shall be arranged alternately lengthwise and crosswise so as to tie the stacks together and minimize the danger of toppling over.

For extra safety during monsoon or when it is expected to store for an unusually long period, the stack shall be completely enclosed by a water proofing membrane such as polyethylene, which shall close on the top of the stack. Care shall be taken to see that the waterproofing membrane is not damaged any time during the use.

Drums or other heavy containers of cement shall not be stacked more than two layers high.

The manner of storage shall facilitate the requirement that lots of cement received are removed and used more or less in the order in which they are received.

Handling – Hooks shall not be used for handling cement bags unless specifically permitted by the engineer-in-charge.

Paints, Varnishes and Thinners:

- (a) Storage and stacking: Paints, varnishes lacquers, thinners and other flammable materials shall be kept in properly sealed or closed containers. The containers shall be kept in a well ventilated location, free from excessive heat, smoke, sparks or flame. The floor of the paint stores shall be made up of 10cm thick loose sand and stored in a collection drip pan to prevent leakage's to the ground and/or the soil.

Paint materials in quantities other than required for daily use shall be kept stocked under regular storage place.

Where the paint is likely to deteriorate with age the manner of storage shall facilitate removal and use if lots in the same order in which they are received.

Temporary electrical wiring / fittings shall not be installed in the paint store. When electric lights, switches or electrical equipment are necessary, they shall be of explosion proof design.

- (b) Handling: Ventilation shall be adequate to prevent the accumulation of flammable vapors to hazardous levels of concentration shall be provided in all areas where painting is done.

When painting is done in confined spaces where flammable or explosive vapors may develop any necessary heat shall be provided through duct work remote from the source of flame.

Sources of ignition such as open flame and exposed heating elements shall not be permitted in area or rooms where spray painting is done nor shall smoking be allowed there.

Care should be taken not to use any naked flame inside the paint store. Buckets containing sand shall be kept ready for use in case of fire. Fire extinguisher when required shall be of foam type confirming to accepted standards.

Flammable materials:

- (a) Storage and stacking: In addition the following provisions shall also apply:
Outdoor storage of drums required some care to avoid contamination because moisture and dirt in hydraulic brake and transmission fluid, gasoline or lubricants may cause malfunction of failure or equipment with possible danger to personnel. The storage area should be free of accumulations of spilled products, debris and other hazards and Compressed gases and petroleum products shall not be stored in the same building or close to each other.
- (b) Handling: Petroleum products delivered to the job site and stored there in drums shall be protected during handling to prevent loss of identification through damage to drum markings, tag, etc. Unidentifiable petroleum products may result in improper use with possible fire hazard damage to equipment or operating failure.

Workmen shall be required to guard carefully against any part their clothing becoming contaminated with flammable fluids. They shall not be allowed to continue work when their clothing becomes so contaminated. All flammable and toxic liquids shall be stored in suitable collecting drip pans to avoid spill contamination into the ground/soil.

All workers shall be provided training as part of the induction as to how to correctly handle and lift materials and the maximum load they can lift or handle at any point.

SECTION 17 : EXCAVATION AND SHORING

Excavation and Trenching: All trenches, 1.5m or more in depth, shall at all times be supplied with at least one ladder for each 30m in length or fraction thereof. Ladder shall be extended from bottom of trench to at least 1meter above surface of the ground. Sides of a trench which is 1.5m or more in depth shall be stepped back to give suitable slope or securely held by timber bracing so as to avoid the danger of sides collapsing. Excavated material shall not be placed within 1.5m of edge of trench of half of depth of trench, whichever is more cutting undermining or undercutting be done.

Safety procedures for the operation of the excavation and grading equipment (such as the safe distance from excavations) should be developed.

SECTION 18 : CONCRETE CONSTRUCTION

Handling of plant

Mixers: All gears, chains and rollers of mixers shall be properly guarded. If the mixer has a charging skip the operator shall ensure that the workmen are out of danger before the skip is lowered. Railings shall be provided on the ground to prevent anyone walking under the skip while it is being lowered.

All cables, clamps, hooks, wire ropes, gears and clutches etc. of the mixer, shall be checked and cleaned, oiled and greased and service once a week. A trial run of the mixer shall be made and defects shall be removed before operating a mixer.

When workmen are cleaning the inside of the drums and operating power of the mixer shall be locked in the off position and all fuses shall be removed and a suitable notice hung at the place.

Trucks:

When trucks are being used on the site, traffic problems shall be taken care of. A reasonably smooth traffic surface shall be provided. If practicable, a loop road shall be provided to permit continuous operation of vehicles and to eliminate their backing. If a continuous loop is not possible a turnout shall be provided. Backing operations shall be controlled by a signalman positioned so as to have a clear view of the area behind the truck and to be clearly visible to the truck driver. Movement of workmen and plant shall be routed to avoid crossing as much as possible the truck lanes.

Formwork:

Formwork shall be designed after taking into considering spans, setting temperature of concrete, dead load and working load to be supported and safety factor for the material used for formwork.

All timber formwork shall be carefully inspected before use and members having cracks and excessive knots shall be discarded

The vertical supports shall be adequately braced or otherwise secured in position that these do not fall when the load gets released or the supports are accidentally hit.

Tubular steel centering shall be used in accordance with the manufacturer's instructions. When tubular steel and timber centering is to be used in combination necessary precautions shall be taken to avoid any unequal settlement under load.

All centering shall be finally inspected to ensure that:

- a) Footings or sills under every post of the centering are sound
- b) All tower adjustment screws or wedges are snug against the legs of the panels.
- c) All upper adjustment screws or heads of jacks are in full contact with the formwork.
- d) Panels are plumb in both directions.
- e) All cross braces are in place and locking devices are in closed and secure position.
- f) In case of chajjas and balconies the props shall be adequate to transfer the load to the supporting point.

Ramps and gangways:

Ramps and gangways shall be of adequate strength and evenly supported. They shall either have a sufficiently flat slope or shall have cleats fixed to the surface to prevent slipping of workmen. Ramps and gangways shall be kept free from grease, mud, snow or other slipping hazards or other obstructions leading to tripping and accidental fall of workman.

Ramps and gangways meant for transporting materials shall have even surface and be of sufficient width and provided with skirt boards on open sides.

SECTION 19 : MASONRY WORK

Walls

General: Depending on the type of wall to be constructed the height of construction per day shall be restricted to ensure that the newly constructed wall does not come down due to lack of strength in the lower layers. Similarly, in long walls adequate expansion / crumple joints shall be provided to ensure safety.

Opening in walls: Whenever making of an opening in the existing walls is contemplated, adequate supports against the collapse or cracking of the wall portion above or roof or adjoining walls shall be provided.

Guarding of wall openings and Holes: Wall opening barriers and screens shall be of such construction and mounting that they are capable of withstanding the intended loads safely. For detailed information reference may be made to good practice. Every wall opening from which there is a drop of more than 120mm shall be one of the following:

Rail, roller, picket fence, half door or equivalent barrier: The guard may be removable but should be preferable be hinged or otherwise mounted so as to be conveniently replaceable. Where there is danger to persons working or passing below on account of the falling materials, a removable toe board or the equivalent shall also be provided. When the opening is not in use for handling materials the guards shall be kept in position regardless of a door in the opening. In

addition a grab handle shall be provided on each side of the opening. The opening should have a sill that projects above the floor level at least 2.5cm.

Extension platform into which materials may be hoisted for handling, shall be of full length of the opening shall be of full length of the opening and shall have side rails or equivalent guards.

Every chute wall opening from which there is a drop of more than 120mm shall be guarded by one or more of the barriers specified in 16.2.1 or as required by the conditions.

SECTION 20: HEALTH & HYGIENE STANDARDS

Drinking water:

- a) In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- b) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- c) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or any other source of pollution.

Washing facilities:

- a) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employee therein
- b) Separate and adequate cleaning facilities shall be provided for the use of male and female workers
- c) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

Latrines and Urinals

- (a). Latrines shall be provided in every work place on the following scale namely:
 - (i) Where females are employed there shall be at least one latrine for every 25 females.
 - (ii) Where males are employed there shall be at least one latrine for every 25 males.
- (f)
 - (i) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times
 - (ii) Latrines and urinals other than those connected with flush sewage system shall comply with the requirements of Public Health Authorities.
- (g) Water shall be provided by means of tap or otherwise so as to conveniently accessible in or near the latrines and urinals.
- (h) Disposal of excreta: Unless otherwise arranged by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of pucca tank prepared for the purpose and covering it with 15cm layer of waste or refuse and then covering it with a layer of earth for a fortnight (then it will turn to manure)

Anti-malarial precautions:

The Safety officer conform to all anti-malarial instructions given to him by site-in-charge including the filing up of any borrow pits which may have been dug .

SECTION 21 : COMMUNICATION

Kick-off meeting

The kick-off meeting should be seen as a start up meeting, preliminary to the general or project oriented activities. In the kick-off meeting, besides technical relevant information, pay attention to the aspects of safety and health in general sense.

The site-in-charge will be required to provide the job site safety program either at kick-off meeting or within a time period as determined by management the kick-off meeting along with other pre-start documentation.

Pre-job meeting

The Pre-job meeting is meant for consultation before the activities may start. A part of this meeting is reserved to make detail appointments for specific Plant or Location directed safety- and health matters and 'actual' deviations of the normal situation. This meeting is meant as a supplement to the general information which already has been handed over during the kick-off meeting. At this meeting the **Pre-job Checklist** should be handled and worked out with all persons involved.

Progress Meeting:

The progress meeting is meant to get an update from site staff on project progress and resolve any construction/ coordination issues. It is normally held on weekly basis. This meeting will have EHS component and following items shall be discussed under this head.

Major safety issues at site

Actions being taken to resolve them

Toolbox meeting:

Toolbox meetings will be conducted by safety officer. With this kind of meeting, employees supposed to execute the job are informed about the most actual state of the activities. This information can be appointments, instructions which are the result of above mentioned meetings. A toolbox meeting is a medium to inform 'executing employees'. Copies of these toolbox meetings (incl. registration forms) should be attached to this chapter.

Safety Meeting:

Safety meetings shall be held on weekly basis to be attended by site-in-charge,site staff,and sub-contractors. The meeting shall be chaired by owner's safety representative and Project Manager may also like to attend the meetings randomly. The topics to be covered shall broadly include:

- a) Safety issues at job site
- b) Review pre task plans
- c) Discuss safety statistics
- d) Discuss safety training initiatives
- e) Review overall job site safety

SECTION 22 : ENVIRONMENT

Waste Disposal

Waste originated from activities at the project site should be dumped at the designated location in the designated manner as indicated by Owner/ PM.

Any regulated wastes generated on site (e.g. hazardous, residual or special waste, including regulated wastewaters, waste oil, waste paint), in must be disposed of by site-in-charge in strict accordance with municipal or and local standards. No wastes may be disposed of down the drain or in the Client installed dumpster without prior written consent.

SECTION 23 : REPORTING

The Safety officer will submit the Monthly man-hour & safety report on the format enclosed in Safety Manual guidelines. The report will be submitted .on first day of every month. In addition, should the Project Manager require any interim man-hour reports on weekly basis or any other frequency determined by Project Manager, those will also be submitted by the contractor. Safety reports submitted are in no way linked with the requirement for submission of Daily report on the part of contractor.

INFRACTION FORM

PIIPL		HEALTH AND SAFETY	
		Sl. No..... Date.....	
General information (To be Completed by Safety officer)			
Contractor Name :			
Project Name :			
On site contractor Representative / Supervisor / Safety			
Location of Infraction :			
Description of Infraction:			
Observed By :		Date :	
		Time :	
Status of Project :		I correction	
		W/infraction	
		Corrective Actions Required by (Date/time)	
CORRECTIVE ACTION			
Corrective Action :			
Corrective Action Performed by :			
Date / time :			
		Name :	
		Signature :	
Return to site-in-charge			
CORRECTIVE ACTION FOLLOW UP (To be completed by safety officer)			
Received / Certified By : Site-in-charge			
Date :			
Remarks :			

From:

Name of the Sub Contractor

Name of the organization

To:

Project Manager

Prakash Industrial Infrastructure Pvt Ltd.

Location – Pin code

Subject: EHS Declaration

I/ we hereby declare to accept the responsibility to carry out the work safely.

I/ we have understood the hazards associated with site activity and developed the relevant safety procedures, trained the man power and provided required PPE and equipment.

I/ we or the workers working under my/our control will adhere to the site safety rules and EHS guidelines as stated in this document.

The following are the safety practices that will be followed in addition to any other requirements as recommended by Project Manager's EHS Manager/ Site safety officer to work safely at site.

1. Wear safety helmet, safety shoes, eye protection with side shields.
2. Wear safety harness and hooking to the life line rope.
3. Wear appropriate hand gloves like cotton, leather, PVC, rubber or surgical hand gloves.
4. Proper tools will be used and checked for defects and replaced whenever required.
5. Welding torch with ring guard, welding shield, leather hand gloves required.
6. No steel rod will be used as ear thing on to the welding machine.
7. Proper working platform with hand rail will be used while working at heights.
8. a) House keeping will be done on daily basis and the debris, sand, concrete materials and mortar will be removed and stored at identified place.
b) Papers, plastic sheets, rubber materials and wooden pieces have to be put in recycle bin from the work place and this will be sent outside the site.
9. My/ our workmen and I/ we will not create any problem, quarreling with other agents.
10. I/ we will be providing fire extinguishers, fire buckets with water and sand in work place.
11. First aid facility and hospital facility will be provided to my/ our workman.
12. I/ we will be conducting the safety training programs for my/ our workmen, like first aid, fire fighting and safety.
13. I/ we will obtain work permits to work for hazardous area.
14. As per the contract document, we agree with imposition of penalty on us should we violate any safety norms/ practices at the project site, which can be deducted from our invoices.

Signature of the Sub contractor

PERSONAL PROTECTIVE EQUIPMENTS CHECKLIST

SL.NO	PARTICULARS	YES / NO
1	Do the Workers Wear Helmet in such a way to protect their head?	
2	Are they wearing hand gloves, Rubber gloves (IS 4770 for electrical purpose),Leather hand gloves of required quality for the job	
3	Do the workers using appropriate Footwear?	
4	Is there any need for Safety harness (IS 3521-1965) use ? If so, are they hooked properly?	
5	Is there any need for Ear protection? If so, are they using the device external or internal type?	
6	Are the workers wearing Safety glasses / Safety screens /Safety goggles for the work being done? If so, are they using appropriate equipment?	
7	Do the Workers have respirator/ protection from inhalation hazards?	
8	Are the helpers also using proper PPE or not?	
9	Have the Workers been briefed about the Hazards associated with the job and the emergency action to be followed whenever there is requirement ?	

Site Safety Officer

Safety In-charge

PERMIT FOR WORKING AT HEIGHTS

Permit No.:
Project Name:
Contractor:
Job description:

Date:
Location:
Sub-contractor:
Area/ location:

SCAFFOLDING & RELATED PROTECTION		YES	NO	N/A
1	Scaffolding good construction, adequate strength with 50 cm clear walk ways toe boards with wide screens.			
2	Scaffold well secured with stair ways, hand rails. Should be wide enough to pass two persons at a time.			
3	Maintained good House keeping at work location / site			
OVERHEAD CLEARANCE				
1	Required clearance available from all overhead electrical cables			
LADDERS				
1	Strong material, well maintained ladders			
2	Ladder not placed against loose boxes materials, sound objects, near electrical installation.			
3	Ladder of sufficient height used, on top tied down and man positioned at the foot at ladder.			
4	Safety Footwear provided			
5	Ladder placed at an angle of 70 to 75 degrees			
6	Area of work barricaded so no person can walk under the ladder.			
PERSONAL PROTECTION EQUIPMENT				
1	Safety harness provided and worn			
2	Safety helmet, safety shoes and any other PPE required to perform the job at hand is provided and worn properly			

A. Permission:

Permission granted from _____ to _____ hrs. on _____

Time _____

Date _____

Signature of permit issuing authority

B. Receipt:

I hereby declare that I accept the responsibility for carrying out the work as detailed on this permit and no attempt will be made by me or men under my control to carryout any other work.



Time _____ Date _____

Signature of Person Receiving Permit

C. Clearance certificate:

Work completed by taking all precautionary steps as approved by permit issuing authority.

Time _____ Date _____

Signature of Person completing jobs

D. Cancellation:

This permit to work is hereby cancelled.

Time _____ Date _____

Signature of permit issuing authority/
Shift in-charge

HOT WORK PERMIT

Permit No.:
Name of the Project:
Name of the Sub Contractor:

Date:
Location:
Sub-Contractor:

A) Person taking permit /permittee to fill up:

- 1) Exact location where hot work is being planned _____
- 2) Approximate duration of work From: Date: _____ Start Time _____ Finish Time _____
Revalidated To: Date: _____ Start Time _____ Finish Time _____
- 3) Description of work:
- 4) Tools & Tackles used:

Points to be checked

SL No	Details	Remarks		
		Yes	No	Not Required
1	Has the area immediately below and adjacent to the work spot been cleared/ removed of oil, grease and waste cotton etc?			
2	In case of Gas welding, proper hose pipes and pressure gauges are used?			
3	Have fire extinguishers been kept handy at site?			
4	Has tin sheet / wet gunny bag / fire retardant cloth/ sheet been placed to prevent sparks from causing fire?			
5	Have fire sand buckets been kept handy at site?			
6	Whether cylinders are kept in upright positions?			
7	Whether Proper PPE's are available?			
8	In Electrical Welding whether proper Earthing is provided.			

The above points have been complied with and conditions rendered safe / hazards innocuous to undertake the hot work.

Name of _____ Signature _____ Designation _____

Permittee (Site engineer)

Name & Signature of Safety Officer _____

B) The person giving permit (Issuing Authority) to fill up:

After checking all the above precautions the hot work can be carried out in the above area.

1. Date : _____ Time: _____ Signature of Safety Officer _____

Permit is revalidated for the Period

2. Date : _____ Time: _____ Signature of Safety Officer _____

C) Time _____ Date: _____ at which the permit closed & filed

DISPOSAL PERMIT FORM

PERMIT NO.: _____

DATE: _____

Mr. _____ Foreman, is authorized to dispose of the following materials in the manner indicated:

MATERIAL	METHOD	LOCATION

The procedures posted at the burning ground and disposal area must be followed in detail during these operations.

Personnel Authorised _____

Time : _____

Date : _____

(Supervisor)

EXCAVATION PERMIT

Permit No: _____
 Project Name: _____
 Contractor: _____

Date: _____
 Location: _____
 Sub-contractor: _____

Excavation details:

Purpose: _____
 Area/ Location: _____
 Proposed date and time for start of work: _____
 Proposed date and time for completion of work: _____
 Tools and equipment involved: _____

Length _____ m Width _____ m Depth _____ m

Preparation

- | | |
|--|--------|
| 1. Underground cables, pipelines, electrical lines etc checked | Yes/No |
| 2. Personnel protective equipments to be used to include; | |
| A. Safety Shoe | Yes/No |
| B. Safety Helmet | Yes/No |
| C. Gloves | Yes/No |
| D. Eye Protection | Yes/No |
| E. Ear Protection | Yes/No |
| F. Nose Mask | Yes/No |

Safety Precautions

1. The proper approach arrangement to be made with required no. of exit points
2. Wear proper PPEs
3. Barricade area and Display Warning boards
4. Ensure good housekeeping before and after the work
5. Ensure the presence of supervisor during the execution of work
6. Use certified machinery
7. Check for possible interference with any underground utilities
8. Check reverse horn for vehicles and driver license
9. Any special safety precautions (specify) _____

Checked By:

Contractor's Safety Officer	Signature	Date

PERMIT ISSUING AUTHORITY (Permit is granted & valid up to)

1. Date: _____ Time: _____ Signature of Safety Officer _____

Permit is revalidated for the Period

2. Date: _____ Time: _____ Signature of Safety Officer _____



NIGHT WORK PERMIT FORM

PERMIT NO.: _____ DATE: _____
Project name: _____ Location: _____
Contractor name: _____ Trade Package: _____

Activities scheduled for night work with location: _____

Reason for conducting these activities at night: _____

Name of the Supervisor: _____

Name of workers and designation:

S.No	NAME	DESIGNATION

Sufficient lighting provided: YES/NO

Area to be cleaned after work: YES/NO

Emergency vehicle available: YES/NO Vehicle No.: _____

Any other special precautions: _____

Signature: _____ Signature: _____ Signature: _____

Supervisor

Site In charge

Safety officer



Note: CONCERNED AGENCIES ARE RESPONSIBLE FOR ANY UNSAFE ACT/ CONDITIONS

INCIDENT/ NEAR MISS REPORTING FORMAT

Project: _____ Location: _____
Name of Contractor: _____
Name of Contractor Employee: _____ Age: _____ Sex: _____
Incident Date: _____ Incident Time: _____ Incident Location: _____
Injuries: _____
Treated by: _____ Treated at: _____
Type of Incident (First aid/ Recordable/ Lost Work day/ Fatal/ Near Miss): _____
Task assigned to person at the time of incident: _____

Description of the Incident: _____

Primary Root cause for the Incident: _____

Contributory factors: _____

Date when latest safety training was given to employee: _____
Subject of training: _____ Given by: _____
Was a Pre task plan required/ submitted for this task: _____
Is there a standard procedure developed to perform this task? _____
If yes, was it reviewed with the worker and when? _____

Preventive measures proposed to avoid recurrence in future: _____

Site In-Charge

Safety In-Charge



PEP TALK REPORT FORM
(To be filled by the person conducting pep talk)

Project: _____ Location: _____

Name of Contractor: _____ Trade: _____

Name of Site In-Charge: _____

Name of Contractor Safety coordinator: _____

Number of Workmen present in Pep talk: _____

Date and Time of Pep talk: _____

Topics discussed: _____

Any significant problems/ issues identified: _____

Remarks (if any): _____

Safety Representative

Client Safety Representative

MONTHLY EHS STATISTICS REPORT – Month, Year
(To be filled and submitted by Safety officer)

Project: _____ Report No: _____ Date: _____

Name of Contractor: _____ Trade: _____

SI#	Description	Status
1	No. of Man-hours worked over last month	
2	Cumulative Man-hours worked till date	
3	No. of Reportable Accidents on project	
4	No. of Near Misses	
5	No. of Lost Work Day (LWD) cases	
6	No. of Safety Pep talks conducted	
7	Infraction Notices/ Safety Inspection Reports received	
8	Infraction Notices/ Safety Inspection Reports closed	
9	No. of Fire extinguishers available at site (all types)	
	a Foam Type (Last serviced on _____)	
	b CO2 Type (Last refilled on _____)	
	c Others	
10	No. of Training sessions conducted	
	a Fire fighting training	
	b First Aid training	
	c PPE Usage training	
	d Others	
11	Safety Permits Issued	
12	No. of Safety sign boards displayed at site	
13	Housekeeping practices (Excellent/ V Good/ Good/ Average/ Poor)	
14	No. of times Equipment, Machinery and Tools inspected	
15	Physical condition of the PPE in usage (Good/ Average/ Poor)	
16	License and vehicle documents available (if applicable)	
17	Percentage compliance on the usage of PPE by workers	

Submitted by:

Safety Representative/ Site In-Charge

Client Safety Representative Comments (if any):

Reviewed by:

Client Safety Representative

Copy to: Client Project Manager

MONTHLY EHS STATISTICS REPORT – Month, Year
(To be prepared by site-in-charge for submission to Client)

Project: _____ Report No: _____ Date: _____

SI#	Description	Status
1	No. of Man-hours worked over last month	
2	Cumulative Man-hours worked till date	
3	No. of Reportable Accidents on project	
4	No. of Near Misses	
5	No. of Lost Work Day (LWD) cases	
6	No. of Safety Inspections conducted	
7	No. of Safety Audits conducted	
8	No. of Safety Infraction Notices/ Inspection Reports issued	
9	No. of Fire extinguishers available at site (all types)	
	a Foam Type (Last serviced on _____)	
	b CO2 Type (Last refilled on _____)	
	c Others	
10	No. of Training sessions conducted	
	a Fire fighting training	
	b First Aid training	
	c PPE Usage training	
	d Others	
11	No. of Safety pep talks conducted	
12	Total number of Safety Permits Issued	
13	No. of Safety sign boards displayed at site	
14	Housekeeping practices (Excellent/ V Good/ Good/ Average/ Poor)	
15	Equipment, Machinery & Tools inspection (Satisfactory/ Not)	
16	Physical condition of the PPE in usage (Good/ Average/ Poor)	
17	License and vehicle documents available (if applicable)	
18	Percentage compliance on the usage of PPE by workers	
19	Overall EHS implementation ((Excellent/ V Good/ Good/ Average/ Poor)	

Additional Comments (if any):

Safety In- charge

MONTHLY EHS REPORT – Month, Year

A. MAN-HOUR LOG

SI#	Contractor	Up to Last report	Man-hours this report	Cumulative Man-hours
1				
2				
3				
4				
5				
Grand Total:				

B. INCIDENT REPORT

SI#	Description	Up to Last report	This report	Cumulative	Remarks
1	Near Misses				
2	Recordable Incidents				
3	Lost Work Day cases				

C. SAFETY INSPECTION REPORTS STATUS

SI#	Safety inspection conducted on	No. of non-conformances	No. of Open non-conformances	Remarks
1				
2				
3				
4				

D. SAFETY AUDITS STATUS

SI#	Safety Audit Conducted on	Safety Rating/ Score
1		
2		
3		
Average Safety Score:		

E. OVERALL JOB SITE SAFETY AND COMPLIANCE WITH EHS STANDARDS

Attachments: Monthly EHS statistics report

PENALTY FOR NON COMPLIANCE WITH EHS GUIDELINES

A.

Project: _____ Location: _____ Date: _____

Penalty notice issued to: _____

Contractor Site In-charge: _____

Contractor Safety representative: _____

Description of Non-compliance: _____

Location of non-compliance: _____

Have there been similar non-compliances in the past? _____

Have any Safety Infraction Notices been issued in the past? If yes, provide details

S. No.	Degree of violation	Type of violation	Penalty for violation	No. of violations	Penalty Amount
Total Penalty Amount					

Signature of the Safety Officer/ representative generating this notice

B.

Billing department to proceed with deduction of Rs. _____ as penalty amount from contractor's next running bill, for non-compliance with EHS guidelines, duly accepted by contractor as part of tender document as well as through acceptance on EHS Declaration form.

Signatures of site-in-charge

CC to: Client Project Manager

CHECKLIST FOR BUILDING HOIST/ WINCH

Project: _____ Location: _____

Name of Contracting agency: _____

S. No	Description	OK/ Not OK	Remarks
	<u>A. SUPPORTING STRUCTURE:</u>		
1	Condition of steel tubes		
2	Condition of the Base		
3	Bracing (diagonal/horizontal)		
4	Anchorage with structure		
5	Any obstructions to the movement of rope?		
	<u>B. WINCH MACHINE:</u>		
1	Condition of brakes and accessories		
2	Functioning of brake with load		
3	Oil level and condition		
4	Gear box and motor		
5	Coupling bolts and nuts		
6	Condition of wire rope		
7	Anchorage of drum and wire rope		
8	Pawl arrangement for locking		
9	Condition of diversion pulleys, idlers pulleys and fleet angle		
10	Limit Switches		
11	Electrical connection, earthing and insulation		
	<u>C. UNLOADING PLATFORM:</u>		
1	Area Barricaded		
2	Stability		
3	Sagging		
4	Any Over loading		
5	Hand railing		
6	Staging		
	<u>D. OTHERS</u>		
1	Is the person authorized/experienced to Operate?		
2	Does the person at unloading point use Safety belt?		
3	Is the bucket overloaded?		
4	Is the Signaling Man present?		
5	Is the work permit Obtained?		

Signature of Site In-charge

Signatures of Safety Officer/ Rep.

CHECKLIST FOR SCAFFOLDING

Project: _____ Project number: _____

Name of Contractor: _____ Trade: _____

SI #	Description	Observation Yes/No/ NA	Remarks & Recommendations
1	Does the site has a practice of providing suitable and sufficient scaffolds so that the work could be safely done at a height?		
2	Is site engaging suitable/ properly trained/ experienced workmen for constructing / dismantling / shifting scaffolding works?		
3	Are scaffold platforms designed / constructed with a minimum safety factor of four?		
4	Is there a safe means of access to the working platform?		
5	Are scaffold structures on a solid base avoiding pavements& manhole covers?		
6	Is the scaffolding structure free from excavation pit / proper distance is maintained?		
7	Is verticality of the structure being properly maintained?		
8	Are ties for scaffold structure properly maintained (vertical as well as horizontal position)?		
9	Is there a provision of toe boards/guard rails and are they secured?		
10	Whether planks used for working platforms are wooden /metallic?		
11	If wooden plank, whether thickness is maintained as per standard or not, viz. a. For 1.5 M span -1.5" thick b. For 2.6 M span -2.0" thick		
12	Is there a system of inspecting scaffolds by a competent person at least once a week and also after every prolonged interruption in the work?		
13	Is there a system of inspecting materials of scaffolds on each occasion before erection?		
14	Is there a system of inspecting scaffolds at every spell of bad weather/ heavy wind condition?		
15	Is over hang of the working platform restricted to less than 50 mm/ four times the thickness of the board?		

16	Is their awareness among workmen on the importance of load distribution on a given working platform?		
17	Is there a check for the condition and correct usage of fittings for scaffolds?		
18	Is the width of a working platform properly maintained according to usage, viz. a) Minimum 600 mm for footing and not for deposit of materials. b) Minimum 800 mm for footing and deposit of materials. c) Minimum 1050 mm when used for heavier loads or to support higher platforms.		
19	Are all the materials stored on the platforms properly secured or not?		
20	Whether planks are tied using proper binding wires?		
21	Are openings in working platform kept safely covered / fenced?		
22	Are the scaffolds being erected on firm and level surface?		
23	Does the height of mobile scaffolds exceed four times the smaller base dimension?		
24	Are all materials stacked on platform properly secured while in motion?		
25	Is the safety rule: Not to ride on a scaffold while in motion, violated.		
26	Is there a system of checking for obstructions before the tower is moved?		
27	Are suitable / correct lifting tackles (wire rope/ chains/ shackles) selected for suspension & used?		
28	Are all the suspension gears correctly spaced and connected?		
29	Is there a system of using manila rope/coir rope for suspension at any place where such rope would be liable to damage by heat/flames/sharp edges etc.		
30	Are all precautionary measures taken to prevent contact between arc welding apparatus and suspension ropes?		
31	Is there a provision of guardrails and toe boards?		
32	Is hanging platform secured?		
33	Is there a provision of anchoring safety belts- lanyards to be tied to guy ropes?		

Site Safety Officer

Site safety observer

SAFETY INSPECTION REPORT

Project: _____ Report No.: _____ Date: _____

Name of staff/workmen/sub Contractor: _____

Number of non-conformities observed (as per details below): _____

Details of Non-Conformities observed:

The following non-conformances with reference to project EHS guidelines were observed during routine EHS round of the project site;

Sl. no	Description of non-conformity	Target date
1		
2		
3		
4		

Note:

Please take serious note of the above listed non-conformities and initiate corrective action immediately, so as to remove the non-conformity by the Target dates indicated above, failing which site –in charge shall proceed with imposition of penalty for the observed non-conformities.

Safety Representative

Contractor's Corrective Action Response (To be filled by contractor):

All the above listed non-conformities have been rectified. The work is now being executed in compliance with EHS guidelines and applicable Safety Standards. The disposition of the non-conformances is listed as under;

Sl no	Disposition Description	Status
1		
2		
3		
4		

Site In-Charge

Safety Representative

Dated: _____

[Redacted text]