

EHS MANUAL

INNOVATION INDIA PROJECTS LLP

EHS MANUAL FOLLOWED AT EACH SITE Table of Contents

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INTRODUCTION

Innovation India Projects LLP is known to provide services in a way that the workers working on the sites apply the highest norms of safety and environmental care.

We operate in such a way that health & safety of our workers are not exposed to unacceptable risks, as fixed in our permits and based on the state of the art knowledge.

Safety & environment care are at first priority but at the same time co-workers responsibility. Our strategy is aimed at preventing injuries, fire, damages, exposure to dangerous substance, providing adequate protection to employees against hazard exposure and the prevention of noise and odor nuisance as also the prevention of negative environmental effects.

RESPONSIBILITIES

Mentioned below are the general responsibilities at any site:

- To carry out the work ensuring safety and health of personnel & properties .To notify conditions that constitute hazard to those potentially affected.
- To control the manner and methods of operations.
- To comply with applicable national,local EHS legislation & regulations and ensure that employees receive proper training on the work to be executed.
- To demonstrate good work ethics without circumventing engineered safety devices ad control.
- To immediately inform project manager when accident occurs .A brief accident report within 24 hours and a detailed report within 72 hours to be submitted.
- No minors(below the age of 18 years) to be permitted to work on project sites.
- No kids/children to be permitted within the project site.
- To develop an emergency treatment and medical evaluation procedure. To set up a working arrangement with localmedical doctor to handle injury cases and provide other treatment by specialist or local hospital.
- All persons must have basic entry awareness of EHS induction.

ENVIRONMENT

WASTE

- All wastes generated at site must be removed on daily/weekly basis.
- Waste to be segregated into metallic & disposed off accordingly.

HAZARDOUS WASTE

Disposal of Hazardous material to be done & Project Manager at site to be informed and accordingly actions to be taken.

RESTRICTION

Smoking/Chewing of Tobacco/Consumption of Alcohol is not permitted at site.

SAFETY

- To provide suitable personal protective equipment when the job requires.
- As per Risk Analysis, type and quality of PPE will be recommended for use.

This includes:

- a. Hardhat with Chinstrap
- b. Leather safety shoe with steel toe
- c. Face Shield to be used during welding
- d. Goggles during gas cutting, drilling, grinding, overhead works
- e. Hand Gloves as per risk analysis.
- f. Earplugs for works at more than 85 db noise level.
- g. Nose mask in dust, fumes, smoke and gas.
- h. Full body harness with double lanyard of 1.5m length and snap hook of 50 mm diameter for all works at height.

PASSAGEWAY-

- Do not enter other work areas without proper authorization.
- Use established aisles and walkways, do not take short cuts between desks & equipments.
- Passageway & emergency exit doors must be kept clear all the time.
- Passageway & emergency exit doors must have proper signages making it prominently visible

FLOOR OPENING

- All floor opening must be protected by one of the following:
- Rigid Guardrail & mid rail.

Hole cover must be:

- a) Of minimum 2cm plywood if one dimension is 35 cm or less.
- b) Of 5cm if both dimension exceed 35 cm.
- c) Clearly marked with “hole Cover” sign.

ROOF & ELEVATED FLOOR EDGES

- Roof & elevated floor edges must be protected by one of the followings:
- Perimeter guardrail.
- Temporary rigid barricades.

HAND TOOLS & MACHINE TOOLS

- The right size spanner to fit the nut shall be used.
- All the files shall have a handle.
- Chisels & punches with mushroom heads should be on ground.
- Hammer heads shall be tightly wedged on their shafts.
- Split wooden handles shall be renewed.
- Edge of cutting tools shall be kept sharp.
- Hands shall be kept behind the cutting edges when working.
- Tools shall kept in boxes or racks when not in use.
- Sharp edges of tools that are to be stored or carried shall be protected.
- Tools that are worn or damaged beyond repair shall be scrapped.
- The correct tool for the job shall be always used.
- Loaning of tools or equipment from other trades is not allowed.
- When working on machines that are provided with safety covers or safety guards, must be used only when the guards are in place.

CHEMICALS

Chemicals brought to the site must be labelled for its contents & its hazards with protective measures and the Material Safety Data sheet to be provided to the project manager. Common household chemicals are exempted from this requirement.

- Large container of chemicals are not allowed to be bought on the site.
- Small containers holding only enough quantity for the days work is to be used.
- Store flammable chemicals properly and ensure it is capped when not in use.

ELECTRICAL SAFETY

- Do not tap electricity directly from the distribution boxes without informing the Project Manager & landlord management representative.
- A check for defective cables, plugs & sockets shall be carried out.
- Electrical equipment shall not be overloaded.
- Any equipment that sparks or stalls shall be switched off & disconnected.
- Cables should not trail across the floor.
- The equipment should be disconnected when not in use, cable shall not be pulled to disconnect, and the plug has to be pulled away.
- Kinking, twisting, binding or crushing of cable should be avoided.
- The operator shall not stand on the wet area while using electrical equipment.
- No bare wires to be installed in plug sockets. Only industrial plugs to be used to install any wires to the sockets.
- Jointing of cables/wires shall not be done with plastic insulation tapes.
- Circuit breakers like MCB, ELCB shall be provided in all the local extensions DB & panels.
- Multiple connections of cables from one switch is prohibited.
- All connections shall be done by cable glands & lugs.
- Cable Having ample capacity to take the load should be used.
- Cable with external damage will not be used.
- Cable of only three or four core cables shall be used.
- Hand held tools shall be equipped with an operating switch or lever requiring constant hand or finger pressure to operate (Dead-man Switch)
- Do not place liquid chemicals near electrical equipment. Liquid spillage on to electrical equipment could create a fire or electrical hazard.

TAGGING

- Safety testing & inspection must be done of all low voltage electrical equipment before being placed into service.
- After inspection and testing, it shall be tagged.
- All equipments/machines, scaffoldings etc must be tagged as “safe for use” after visual inspection before being placed into use.
- A record must be maintained.

FIRE SAFETY

- To study the emergency exit floor plan located at the office or work site.
- Do not shut down essential fire fighting systems, eg-sprinkler systems & fire alarms at any time. If need arises, coordinate with the project manager.
- When detecting a fire, immediately activate the nearest fire alarm by pulling the lever or breaking the glass. Only when it is safe to do so, use fire extinguishers to fight the fire.
- When fire alarm is activated, leave your work area immediately and walk to the nearest emergency exit and report to the designated assembly area.
- All alarms must be regarded as true alarms
- Only when the “all clear” signal is given by the concerned authority, one can re- enter the building.

HOT WORK

- Hot work where sparks or heat is produced(eg using welding equipment, open flame cutting & incendiary devices) implement safety measures to prevent accident.
- Project manager shall be informed of the location & duration via a written request atleast one day before the Hot work is carried out.
- One fire extinguisher must be kept at the place of hot work.
- Gas cutting set must have pressure gauge attached with regulator, one for inside pressure and second one for pressure in hosepipe.
- Hose pipe must be clamped properly.
- Flash back arrester must be provided at both cylinder end & torch end.
- Welding set must have a local isolator.
- Welding set must be enclosed in a case.

LADDERS

- Ladders used on site shall be aluminium ladders and should have slip resistant bases and defect free.
- Inspection of all ladders must be carried out.
- A ladder is considered damaged if it has broken rungs, missing steps or any construction defects
- Ladder of correct height to be used. Ask for help when in doubt.
- Proper inclination of ladder in ratio of “4:1=vertical height:horizontal base” is to be maintained.

- Ladders are placed with a secure footing or they are locked or held in position.

SCAFFOLDINGS

- Scaffolding erection should be in accordance with the manufacturers or suppliers recommendations.
- Experienced, competent persons should only carry out scaffolding erection.
- The ratio of the minimum base dimension to the height of the working platform should not exceed 1:3 in external use and 1:3.5 in internal use, unless the scaffold is secured to another permanent structure at all times.
- Freestanding scaffolds should not be used above 9.15m unless tied. The maximum height when tied should not exceed 12m.
- A safe means of access should be provided at the end of the scaffold. This can be a vertical ladder attached internally, by internal stairways, or by ladder sections designed to form part of the frame members. It is not acceptable to climb frae members not designed for the purpose.
- Guardrails, toe boards or other appropriate means should be provided to prevent the falls of workers and/or materials.
- Trapdoors should be provided in working platforms where internal access is provided.
- Mobile scaffold towers should never be moved while people are still on the platform. This is a significant cause of accidents.
- Ladders or step ladders should not be placed on the top of the platform to gain extra working height.

MANUAL HANDLING

- Action to be avoided that may cause manual handling injuries like:
- Work involving sudden jerky or hard to control movements or which causes discomfort and pain.
- Work involving too much bending , reaching or twisting.
- Work where along time is spent holding in the same posture or position.
- Work that is fast or repetitive.
- Heavy weights which have to be lifted and carried manually.
- Work where force is needed to carry out a task.

WHEN ACCIDENT HAPPENS

- When accident, incident or injury happens, all work should be stopped immediately.
- Attend to the injured first and seek help immediately.
- First aid treatment should be provided even for the slightest injury.
- Work related accidents and injury shall be reported immediately to the project manager at site.

- All incidents, accidents, dangerous occurrence and near misses must be investigated and reported. A brief initial accident report shall be submitted within 24 hours and a detailed report within 72 hours.
- Investigation shall be carried out for injury that resulted in lost working days.
- Investigation must be forwarded to the project Manager.

ASBESTOS

- Use of asbestos is strictly prohibited.
- If suspect of doing work that involves the removal, encapsulation, maintenance, clean up, transportation, disposal of structures that contain asbestos, work must stop immediately and the information is to be conveyed to the project manager (such work shall not be undertaken by the contractors but by the Landlord).

HOUSEKEEPING

General

- Clean up spills such as oil on floor immediately. Floor should be free of debris and accumulation of dust.
- Any equipment or tools not in use should be removed from the work area.
- All tripping hazards on the floor should be identified and eliminated.
- All costly materials should be stored securely under lock & key.
- Material temporarily left on site must be stacked properly with a sign placed to warn others. The location shall be accepted by the project manager at site.
- Good housekeeping shall be maintained at all work areas.
- Clean up at the end of the day and completely before handing over of the site.
- Food & drinks are not allowed on the site.

STORAGE

- Stored materials should be allowed at least one meter or about 3 feet of clear space under the sprinkler heads.
- Stacking cartons and drums on a firm foundation and cross tying them where necessary reduces the chance of their movement.

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- Stored material should not obstruct aisles, stairs, exits, fire, equipment, emergency eyewash fountains, emergency showers, or first aid stations.
- All storage areas should be clearly marked.
- Ladders used to gain access to a roof or other area extend at least one meter above the top point of the support.
- For temporary work at height use A type aluminium ladder, held on both foot by a worker.

SURVILLANCE:

Installing CCTVs at appropriate positions to keep a check on all the ongoing movement at site.

SINGLE POINT OF ACCESS-

To ensure the exit and entry of each of the person coming onto the site.

SAFE WORKING ENVIRONMENT (WELFARE SERVICES)

PROPER VENTILATION:



WATER STATION:



SANITATION:



MEDICAL ROOM(FIRST AID FACILITY)



REGULAR TRAINING AND AWARDS

Trainings involving all safety aspect are regularly imparted and bimonthly awards are distributed to the deserving personnel.