

Project Requirements

1

General

This document and corresponding documents such as EHS Plan, SOP, Check lists, Work permits, and Safe Work instructions are applicable to PMC, Contractors and their subcontractors including vendors down the line at all levels below while they are engaged for any task related to MLDL Projects.

Follow latest EHS Plan (Revised and updated by MLDL), Ensure that EHS Requirements and other EHS documents are shared with subcontractors and vendors down the line who are directly or indirectly related to MLDL Projects for strict compliance of MLDL EHS standards while they are engaged for any task related to MLDL Projects.

EHS Induction for all involved in Project, Raise query on EHS matter if any.

Prepare and submit EHS Plan in line with MLDL EHS Plan to EHS Department in HO. To be revised on as and when the MLDL Plan is revised.

Child workers (below 18 years of age) shall be not be deployed directly/indirectly. Contractor shall take steps to ascertain age of workers in case of doubts. Pre-Medical exam prior entering the site is mandatory for all workmen (Refer total fall protection plan)

Women workers shall be discouraged considering the risk involved in construction. In case it is not avoidable, Contractor shall ensure separate accommodation, lavatory and crèche (for kids).

All individuals engaged in the project should have authorised Identification document issued by Government authorities.

All workers shall be issued Identity Card by the Contractor. In addition to basic information about worker, ID shall indicate the blood group, date of birth, father/husband name and complete address. Workers will not be permitted entry in the work area without ID Card. Refer MLDL EHS Plan for Standard ID Card Template.

Applicable check list shall be used as per the monthly programme and shall be submitted to MLDL EHS Department.

Before commencing the work, contractor has to obtain the permit to Work at least one day before.

Safety committee shall be formed and conducted as Refer SOP for participation and consultation. Its mandatory for all the committee member to attend meeting and safety committee shall be reconstituted every after two years

Work wise Method Statement & Risk Assessment shall be prepared by the Contractor for review and approval by MLDL. Work shall not commence without Method Statement & Risk Assessment

Appropriate Environmental, Health and Safety Signage in Hindi & in the language understood by the majority of workers shall be displayed conspicuously in orderly manner.

Engage workers through mass awareness programmes – celebration of Safety Day/Week, Environment Day, World AIDS Day and organizing skit, health camp etc. Refer Project EHS Plan for details

Safety Engineering adopted/adapted by Contractor shall conform to applicable IS Codes and/or accepted best practices.

Accident victims shall be duly compensated by Contractor as per law of land and evidence shall be submitted to MLDL.

Mobile Phone in all form shall be prohibited while on work. However, mobile phone can be used in common areas designated for the purpose.

All statute requirement identified in Project EHS plan of MLDL shall be adhered.

All practicable measures shall be taken to avoid Spillage, High Noise & high dust in work area, also other parameters of Environment regulation shall be followed (Refer Project EHS plan & Legal register)

	<p>Debris chute shall be provided in every tower of HDPE material & throwing of materials /debris from tower is strictly prohibited.</p>
2	<p>Training and Awareness Induction Room to accommodate 50 workers at a time. MUST be fitted with fans, tube lights, safety posters, dummy (Mannequin) and audio-visual aids. USE of INDUCTION FILM of MLDL is a MUST.</p>
	<p>Safety Parks – may also be part of Induction room All workers must be inducted before commencement of work. Induction Sticker shall be placed on helmet and shall be indicated in the ID Card. (Refer total fall protection plan) Contractor shall submit Training Calendar for specialized training of workers (of different trade), supervisors, staffs and line managers. Workers Should be trained on usage of safety Harness and risk involved while working at height. Refer SOP & Total Fall Protection Plan. SMARRT card shall be used for conducting the daily training for all work fronts by work supervisors before start of the work. The Group not to exceed more than 20 numbers.</p>
3	<p>Personal Protective Equipment Basic Personal Protective Equipment (helmet, shoes/wellington boots) is compulsory for all in the construction zone. Special PPE (Safety Goggle, Nose Mask, Ear Plug, Hand Gloves & Shoulder Pad etc.) shall be used by workers as per the hazard/risk associated with their work. Standard PPE qualifying the defined test shall only be used. The same shall be sourced from approved vendors only. Refer EHS Plan and PPE Matrix for PPE. No Single Lanyard Harness permitted, double lanyard safety harness with scaffold grade double action snap hooks and energy absorber to be used. The lanyard length shall not exceed more than 1.8 meter and lower height Self Retractable Lanyard Can be used. (Refer SOP for personal protective equipment).</p>
4	<p>Staffing Deploy adequate number of competent EHS Personnel. Number of EHS Personnel shall depend upon number of workers deployed at any point of time. Up to 50 workers- 1 Safety Officer and one Safety Steward for every additional 50 workers. NB- in the night shift appropriate no. of safety steward/supervisor/officer shall be deployed by the Contractor considering the no. of workers engaged in the night. Competency of EHS Personnel shall conform to the following (as a minimum): Safety Steward/Safety Supervisor – 10th pass with 3 years of experience as safety steward/safety supervisor in construction Safety Officer – Graduate (Science/Engineering) + Diploma (ADIS) in EHS with 5 years of experience as safety officer in construction, good communication skill (Hindi & English) Appointment of EHS In-charge of Contractor shall be approved by EHS Department of MLDL by reviewing the credentials. A supervisor/ Charge hand who has minimum five years and good knowledge of the work shall be provided for every 20 workers. Contractor EHS Team shall work in close coordination with MLDL EHS In-charge, who shall provide direction and lead from the front. In conflicting situations views of MLDL In-charge shall prevail. All appointments shall be made with the approval of Site Project head and Site EHS Manager.</p>
5	<p>Documents and reporting Contractor shall manage EHS in conformance with MLDL processes detailed in EHSMS Manual, SOP, Process Manual & Technical Manual. Contractor shall execute work with due respect and recognition of MLDL EHS Policy and Mahindra Code of Conduct.</p>

	All EHS reporting formats by Contractor shall be in accordance with MLDL process and formats. Comply with all applicable Legal/ statutory Requirements and submit compliance status before 7 th of every month.
6	Labour Camps (Not applicable if labours are Local and Coming from their own/ rented homes on daily basis,) Refer SOP for Labour Camp. SOP 32 Standard for onsite workers housing quarters Labour camp shall be erected on a non-water logging land. There MUST be sufficient gap (8-10 feet) between the rows of rooms. Rooms shall be ventilated and well-lit in the night. Asbestos sheet shall not be used in any form. Camp amenities (toilet, urinal, wash room, bath room, canteen & drinking water) shall conform to requirements stipulated under BOCW Act/Rule. The amenities shall be maintained in hygienic condition.
7	Waste water generated from labour camp shall be collected and treated before discharging. Maintain area lighting and sanitation in camp area. Appoint a Camp Boss as caretaker. Install adequate type and quantity of Fire Extinguisher. Resort to regular pest control including snake repellent & fogging Provide and manage Crèche for kids. Provide common cooking area. Cooking inside the room is prohibited. SOP no 32 supersedes all relevant applicable norms. Proper arrangement shall be made for regular disposal of waste generated inside camp & dedicated housekeeping team shall be kept for maintaining health & hygiene in labour camp.
7	Welfare The extracts of the statute regulations shall be displayed prominently at a conspicuous location for the benefit of operatives. No workmen shall be allowed to work more than 9 hours in a day an 48 hours in a week. Sanitation facilities shall be provided to workmen i.e. 1 for 20 till 100 and afterward 1 for every 50 workers. The same shall be provided at site (i.e. 1 toilet minimum on every 4floors) Washing facility shall be provided in hutment Canteen facility shall be provided inside site if the workmen number exceed 100 no. Rest room shall be provided for workmen if the number exceeds 100. Separate sanitation and bathing facility shall be provided for women worker at site with sign board mentioning the same in local language (or in the language easily understood by the labours).(Refer procedure for occupational health & Hygiene) Drinking water facility shall be provided at least 5 litre /workmen and the drinking water tank shall be kept away minimum 6m from toilets and washing facilities Drinking water test shall be done every after 3 months in accordance to IS 10500 :2012. The welfare facilities such as toilets, rest rooms and wash rooms shall be continued till completion of project or till any alternate arrangements are made by the developer.
8	Emergency Plan Develop and deploy “Emergency Preparedness & Response Plan – EPRP”. Constitute a Joint Emergency Response Team with Project Head (MLDL) as the Leader. (Refer procedure for Emergency response plan) Necessary resources towards prevention, response and mitigation of emergency shall be deployed by the Contractor. Example – Public Address System, Emergency Siren, Assembly Points, Stretchers, Ambulances etc. EPRP shall be tested regularly through Mock Drill and/or Table top Test. Tie up with government & non-government organization for assistance during emergency. Regular briefing to all on emergency process and display of contact numbers in prominent location.
9	Assurance Plan

Steel scaffold and work platform with approach, toe board and protecting rails as stipulated under applicable IS Codes. Refer MLDL EHS Plan and SOP for scaffolds.

100% planking shall be done for external scaffold with proper arrangement of access ladder. Scaffold shall be well supported in a ratio of 3:1 (Refer Project EHS plan & SOP for scaffolding and working platform).

Underneath the shuttering level Horizontal safety net shall be installed to arrest any falling object and on the ground floor meter. Scaffold erected outside the building shall be covered with Vertical safety net (i.e. Green net /Argo net) .

Steel/Aluminum Ladder as per specification of relevant IS Codes. In special cases, safe wooden ladder is permitted only with approval of EHS In-charge of MLDL.

Construction equipment & vehicle shall be fitted with safety devices designed and approved by the manufacturer and maintained in sound working condition as per the provision of BOCW Act/Rules. Signal man shall be deployed to help operator.

Pre-employment medical fitness test and competency certification of all operators shall be done as per the provision of BOCW Act/Rules.

Pre-employment medical fitness test of all workers engaged in hazardous operations such as height work, work in confined spaces, work over/under water etc. shall be done.

Vertigo Test is Mandatory for the work at height above 1.8 meter.

Height Pass shall be issued for working at height after due fitness certification by the competent doctor as per the relevant process.

Temporary connection/Captive generation, distribution and use of electricity shall conform to the requirements of Indian Electricity Act & Rule. Only standard equipment, accessories and tools shall be used. Certified electrician shall be deployed.

Edge protection of excavation and provision of safe access and egress as per provision of IS Codes.

Excavated earth shall be kept minimum 2 meters away from edge and vehicle movement around excavation is strictly prohibited.

Sloping of 45 degree or benching shall be done to prevent collapse of excavation.

Hard Barricading of excavation, dangerous work/equipment, opening on ground or floor, edges of stairs/floor and others as advised by the EHS In-charge

Soft Barricading using cautioning tape etc. allowed only for temporary and in non-hazardous situation.

Vertical & Horizontal Safety Net for area protection as per applicable IS Codes and/or accepted best practices.

Maintain Housekeeping to avoid slip, trip & fall hazards in all areas occupied by the Contractor.

Material Handling and storage as per code recommendation and/or accepted best practices.

Scrap segregation and storage in exclusively marked area.

Area lighting as per the need to facilitate movement of man and materials. Refer EHS Plan for details.

Collect and treat Waste water generated in the Batching Plant (washing of drum mixture and transit mixer).

Use the treated water for dust suppression and/or curing.

Provide and enforce use of Full Body Harness for height work (>1.8 m). Make provision for anchoring lifeline. Individual Rope grabber vertical life line required for any work on RSP with suitable anchorage. Bosun's chair/ Spiderman kit or any rope suspended working not allowed.

For height work beyond G+4, install Emergency Rescue System. Train workers & supervisor in rescue operation. Refer SOP for Total Fall Protection.

Fuel (petrol, diesel) store shall be protected against unauthorized entry and fire. Catch Bins shall be used to trap accidental spills.

Use of alcohol & smoking shall be prohibited in construction zone.

Apply speed restriction to all types of vehicle/equipment in the construction zone.

All Safety precautionary arrangements / welfare measures/ urinals installed as per MLDL EHS Plan during the structural construction shall continue up until the completion of project or permanent control measures are in place or no more requirement of same is identified by MLDL Project management team.

- 10 Medical Care Centre
 Provide and maintain Medical Care Centre (OHC) as per requirements of BOCW Act/Rule. Maintain record of treatment.
 MCC shall be manned by the competent Male Nurse during the work hours. First Aid Boxes shall be provided and maintained.
 Qualified Medical Officer shall be made available free of cost to workers for health check-up and consultation. Doctor shall be available minimum twice a week at least.
 Tie up with Hospital for medical aid in the emergency.
 Regular training on health, hygiene, first aid and CPR to all.
 Resort to regular pest control including snake repellent & fogging in work areas.
 Adequate provision for potable water. Regular testing of water quality. At least once in every quarter.
 AIDS awareness – HIV testing & counselling.
 Preventive Health Screening of operators and height workers.
- 11 Mechanical & Electrical equipment
 ELCB/RCCB of 63A & 30Ma & enclosure /shed shall be provided to every distribution board. IP65 Distribution board shall be provided.
 Rubber mat and earthing for every distribution board & firefighting equipment shall be deployed near DB
 Access for firefighting equipment & Electrical distribution board shall be kept free from any obstruction
 Contractor to submit SLD (Single Line Diagram for Electrical distribution of site).
 Earthing pit shall be marked properly and testing of same shall be done every quarterly to check its resistance. (shall be between 0 to 8 ohm).
 All electrical portable tools shall be tested weekly subsequently inspection tagging shall be done & record of same shall be maintained. Winch driven hoist not allowed
 Electricians deployed at site shall have valid license.
- All the lifting tools & tackles shall be inspected by third party (Refer project EHS plan).
 Passenger hoist, suspended scaffold shall be inspected half yearly and builder hoist & tower crane shall be inspected yearly or after every alteration or modification
 Colour coding shall be followed
- Operator provided for Mechanical equipment shall be competent enough and competency document shall be submitted to MLDL EHS department.
 Rigger shall be provided for tower crane, operation will not be allowed without rigger
- Damage tools & tackles shall not be allowed.
- Accident Investigation
- 12 Preliminary report shall be shared with Corporate EHS team within 4 hours of incidence occurrence and detailed accident investigation report shall be shared within 24 hours
 All the functional head and MLDL project manager shall be part of Accident investigation team .
- Corrective action & preventive action implementation shall be the responsibility of Project Head & Safety manager of respective site.
 Risk Matrix for activity hold.
- 13
 Risk Matrix



14. EHS PENALTY MATRIX

SN.	Definitions	Amount of Penalty
1	Failure to provide ID Card to workers	Rs. 200/- per person
2	Failure to provide requisite amenities in the Labour Camp including crèche	Rs. 50,000/- per amenity
3	Failure to provide well equipped Induction Room	Rs. 50,000/- on first instance and multiplies by two for non-rectification within stipulated time.
4	Smoking in the construction zone and/or working under influence of alcohol/prohibited drugs.	Rs. 2000/- per violation
5	Burning of waste or smoldering of combustible materials on site without written permission.	Rs. 5000/-

6	Failure to wear Personal Protective Equipment (PPE) or its improper use.	Rs. 1000/- per individual if PPE supplied but not worn by personal; Rs. 1,000/- per individual if PPE not provided by the contractor
7	Working without EHS Induction.	Rs. 5000/- per personal and working day to be dismissed
8	Not attending EHS Meetings or any other EHS Programme/Function	Rs. 1,000/- per individual
9	Failure to submit EHS Documents (EHS Plan, Work Method Statement, Emergency Plan) with in stipulated time	Rs. 10,000/- each instance
10	Failure to submit report on incident, accidents and near misses with in the stipulated time	Rs. 10,000/- each instance
11	Failure to comply with infringement notice	Rs. 10,000/- each instance
12	Misuse/damage to property/equipment/ infrastructure	Rs. 10,000/-; in addition, contractor to pay for the cost of items damaged
13	Unsafe work (act/condition) not covered otherwise	Rs. 5,000/-; & immediate rectification
14	Poor Housekeeping and stacking of materials	Rs. 10,000/- & cessation of work till satisfactory rectification.
15	Obstruction of passageways, entrances, doorways, stairs, access to Fire Fighting Equipment etc.	Rs. 2,000/- & immediate rectification
16	Use of equipment without Inspection tag or its unauthorized use and alterations	Rs. 2,000/-& immediate rectification
17	Use of damaged or uncertified lifting tackles	Rs. 10,000/- & confiscation of such items
18	Unsafe lifting method	Rs. 10,000/- & cessation of work till satisfactory rectification
19	Failure to provide for and use unsafe working platforms, means of access to the work place, where work is required to be carried out beyond a person's normal reach	Rs. 10,000/-& cessation of work till satisfactory rectification
20	Permitting/Forcing personal to work unsafe manner	Rs. 20,000/- each instance to supervisor/work in-charge
21	Failure to provide EHS signage	Rs. 5,000/-
22	Not providing collective fall protection	Rs. 10,000/- & cessation of work till satisfactory rectification

23	Allowing fall of materials from height or throwing materials from height or not barricading dangerous zone on ground and not providing flagman to warn the possibility of falling materials.	Rs. 20,000/-
24	Violation of Work Method Statement or Violation of Permit to Work or Violation of Work Instructions	Rs. 10,000/-
25	Absence of well-equipped Medical Care Centre or non-availability of First Aiders or no tie up with hospitals for emergency health care	Rs. 25,000/-
26	Lack of pre-& periodical post-employment health screening.	Rs. 10,000/-
27	Failure to implement Height Pass for height work (Refer SOP on Total fall protection.	Rs. 5,000/-
28	Non-compliance to Permit to work procedure. Refer SOP for permit to work.	Rs. 10,000/-
29	Unauthorized use of any safety appliances/equipment	Rs. 10,000/-
30	Adopting unsafe tapping/connections/termination of electrical lines or use of defective electrical fittings, cables and electrical tools or allowing cables / equipment to be submerged in water or not providing Earth Leakage Circuit Breaker/not maintaining Earthing	Rs. 10,000/- & cessation of work till satisfactory rectification
31	Failure to comply with an order (written or otherwise) issued by the MLDL Project Manager or representative, or EHS In-charge in regard to EHS matter	Rs. 20,000/-
32	Threatening EHS personnel, misbehaving, fighting or intentionally causing harm to any person	Rs. 50,000/- and Personal to be banned from the site and a report will be made to the police
33	Failure to deploy competent EHS Personnel in adequate number as per the EHS Plan	Rs. 20,000/- per incidence
34	Lost Time Injury as a result of negligence as established by Accident Investigation Report	Rs. 25,000/- per incidence
35	Fatality	Rs. 10,00,000/-
36	Environmental incidence (major spillage/persistent high noise/unabated dust in work environment)	Rs, 25,000/- per incidence
37	Failure to constitute and run Safety Committee or non- representation of workers in the committee	Rs. 25,000/-

38	Failure to constitute Emergency Response Team	Rs. 25,000/-
39	Use of Mobile Phone in any form while on work	Rs. 500/- per person per incidence
40	Noncompliance of statute/ legal requirements.	Rs 500,000/- + Fine imposed by authorities & Stoppage of work till rectification
41	Failure to provide supervisor on every 20 labours.	Rs. 10,000/-

**Note: -The penalty mentioned are for the first incident and the fine amount will be doubled for every repetition or non-rectification with in the time stipulated.
For eg. If the fine is yy for first time it will be 2 X yy for the repetition and further 2 X 2 X yy, keeps doubling for every repetition.**