

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Conditions of Contract for Safety, Health, and Environment

I. 1. Purpose

The purpose of this document is to define the Safety, Health, and Environment (SHE) requirements applicable to all contractors, vendors, and external agencies engaged in non-new construction activities at the Indian Institute of Technology Bombay (IITB). These requirements are intended to ensure that all such work is carried out in a manner that protects people, property, and the environment, and supports a culture of safety and compliance across the campus.

2. Scope

This document covers SHE compliance requirements for a wide range of activities, including but not limited to:

- Repairs and maintenance of buildings, infrastructure, and utilities
- Renovation and retrofitting of existing facilities
- Structural modifications, additions, and alterations
- Civil works (e.g., tiling, plastering, concreting, waterproofing)
- Painting and external finishing
- Mechanical, Electrical, and Plumbing (MEP) installations and maintenance
- Equipment installation and commissioning
- Façade cleaning and external maintenance using scaffolding or other means
- Temporary structures for events or academic/research purposes
- Critical activities include work at height (above 1.8 meters), electrical work, hot work (welding, cutting, grinding), confined space entry, lifting operations, excavation, demolition, chemical handling, live electrical maintenance, roof work, and activities near water bodies or in low visibility.

Note: This document explicitly excludes new construction projects executed by major contractors under the Office of the Dean (IPS).

3. Application

These Safety, Health, and Environment (SHE) requirements apply to

- all works carried out under the authority of the Estate Office, Design Cell, Electrical Maintenance Division (EMD), Public Health Office, Horticulture Section, Project Execution Group (if any),
- all departments, laboratories, workshops, and other campus units involved in managing or supervising such activities.
- All contractors, vendors, service providers, and associated personnel engaged in these works are required to fully comply with the SHE standards outlined in this document. They must also ensure that their subcontractors and workforce adhere to the same requirements. Additionally, they are expected to coordinate with the Fire and Safety Section or the designated safety authority, as applicable, to ensure that safety protocols are properly implemented and maintained throughout the duration of the work.

4. General obligations: The Contractor shall

- give the highest regard to SHE to avoid any personal injury and damage to any property.
- ensure that the SHE is an integral and visible part of its work planning and execution.

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- understand and comply with relevant SHE, legal, and other requirements.
- identify potential hazards and take actions to correct them as needed.
- be solely responsible for any liability arising from non-compliance, negligence, defects, or breaches.

5. Work Specific Requirements: The Contractors shall

- appoint competent persons to regularly supervise work and conduct regular safety checks.
- ensure workers are medically fit, safety inducted, and provided with ID cards before starting work.
- ensure that a system of work permits is followed.
- prepare Job Safety Analysis (JSA) before starting any work at the site, brief and work accordingly.

Basic Job Safety Analysis (JSA) Template				
Sr. No.	Activity	Steps Involved	Potential Hazards & associated risks	Control Measures
1				
2				
Instructions for Use: <ul style="list-style-type: none">• Sr. No.: Serial number for each entry.• Activity: The specific task or job to be performed.• Steps involved: Detailed breakdown of each step in the activity.• Potential Hazards: write potential hazards and risks associated with each step. Control Measures: Safety precautions or actions to address the identified hazards				

- ensure that safety shoes, helmets, reflective jackets, full body harness while working at height, and other work-specific **Personal Protective Equipment (PPE)** are provided and ensure proper use of PPE. The colour code for helmet and reflective jacket shall be followed as mentioned below:

Personal Protective Equipment (PPE) Colour Code Chart	
Helmet (conforming to IS 2925)	Designation or Person to use
Violet with their company logo	Engineers
Blue with their company logo	Supervisors
Red with their company logo	Electricians
Green with their company logo	SHE steward/ Safety Officer
Orange with their company logo	Security guards and Traffic marshals
Yellow with their company logo	All Workmen
White with "Visitor" logo	Visitors
White	IITB Employee
Grey with company logo	PMC

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Reflective Jackets (conforming to BS EN 471: 1994)	Person to use
Orange / Red	workmen, Security Guards & Traffic marshals
Blue	Supervisors
Fluorescent Green	Engineers

- make sure that safe electrical distribution board of suitable rating, plug-top and cables including all electrical equipment inspected and safe to use.
- Ensure safety while working at height. The provisions of lifelines, fall arrestors, full body harnesses as required shall be made. Ensure the use of safe and standard scaffolding. use ladders that are of right size and suitable for the job.
- ensure safe access and egress to the worksite.
- check for hazards before entering small or enclosed areas. ensure proper ventilation and a rescue plan ready.
- protect areas from sparks and heat during hot work like welding or cutting. Keep a fire extinguisher nearby.
- arrange regular safety training to make worker competent and safety conscious.
- ensure that Safe waste management, i.e. collected, stored, disposed of in a suitable manner.
- ensure that all vehicles used for transportation and material handling equipment are fit for use and have valid documentation. All operators of vehicles shall have valid licenses, training, and experience.
- ensure that traffic rules are followed at all times on IITB's premises.
- use barriers and signs to keep people safe from potential hazards.
- Ensure to take measure for safe lifting, ensure lift study/ plan is mandatorily prepared for lifting of 1 ton or more load.
- develop emergency response plan and make sure everyone knows what to do in case of an emergency.
- promptly report any incidents to IITB officials and perform the follow-ups.
- document all safety inspections, observations and incidents, and submit monthly SHE report with SHE statistics and summary of these records.

Notwithstanding the above, IITB may communicate certain additional or amended requirements regarding SHE, which must be met and adhered to without fail.

6. Details penalties for SHE violations

Sr. No.	Type of Violation	Penalty Amt. (INR)
1	General: SHE Management	
1a	Absence of contractor's execution supervisor at site during work.	3000/Instance
1b	Absence of contractor's safety steward/ officer at site during work.	3000/Instance
1c	Failure to submit SHE report	5000/Instance
1d	Workers without safety induction, and/ or not provided with ID cards before starting work.	500/worker/ instance
1e	Working without work permit / clearance	3000/violation
1f	For not using maintained PPE at Site	150/person/ day
1g	For not following safety instructions	150/person/ day

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1h	Non-display of caution boards, emergency telephone number at work locations	200/day
1i	Working without Job Safety Analysis	500/day
1j	Failure to report the accident	
2	Site Electricity	
2a	RCCB not installed	1000/day
2b	Inserting of bare wires into the socket	1000/Violation
2c	Temporary cable connections with poor joints	1000/day
2d	Improper earthing of electrical appliances	1000/day
2e	Unauthorized and direct tapping of electricity	1000/day
2f	Positive isolation not ensured when repairing electrical equipment	1000/day
2g	Laying wire/cables on roads	1000/day
2h	Electrical work without licensed/competent electrician	1000/day
2i	Use of improper tools	1000/day
2j	Non-use of 24V appliances in confined space	1000/day
2k	DBs, panels etc are not iron clad of suitable rating minim IP55 and not closed tightly.	1000/day
3	Working at Height	
3a	Not using or anchoring Full Body Harness	1000/violation
3b	Absence of fall arrestor (rope grab), life line or anchorage point to anchor Full Body harness	1000/violation
3c	Improper guardrail, toe board, barriers, access ladders, works platforms, safety nets etc.	1000/day
3d	Poor scaffolding (no base plate / no bracing / improper fixing of platforms, damaged components / unstable scaffolding, etc)	1000/day
3e	Working at unprotected edges (staircases, etc)	1000/day
3f	Barricades / covers not provided on open holes/pits	1000/day
3g	Using unsafe scaffold/ Ladder	1000/day
3h	Improper usage of ladder (less than 1m extension above landing point, not maintaining 1:4 ratio)	500/day
3i	Aluminium ladder without base rubber bush	500/day
3j	Usage of broken / weak ladders	500/day
3k	Usage of re-bar welded unsafe ladders	500/day
3l	Scaffold not built by experienced person / no tag system	1000/day
3m	No inspection of full body harness	500/day
4	Gas Cutting	
4a	Gas Cylinders not stored in upright position.	500/violation
4b	Flash back arrestor, non-return valve and regulator either not present or not in working condition.	1000/day
4c	Fail to store cylinder 6m away from fire prone materials	500/day
4d	Failure to put cylinders in a cylinder trolley.	500/day

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4e	Damaged hose.	500/day
4f	Using domestic LPG cylinders	1000/instance
4g	Failure to use hose clamps	500/day
4h	Fire extinguisher not kept near cutting operation	500/day
5	Welding	
5a	Improper grounding and return path.	1000/day
5b	Non-availability off switch to the welding unit.	500/day
5c	Damaged electrode holder	500/day
5d	Damaged welding cable	500/day
5e	Bare openings in the cable.	500/day
5f	Non-availability of separate switch in the transformer	500/day
5g	Usage of reinforcement rod as return conductor	500/day
5h	Fire extinguisher not kept during welding operation	500/day
6	Excavation	
6a	Excavated material not stored at least 650mm away from edge of an open excavation	1000/day
6b	metal ladders or ramps not provided for safe access to and egress from excavation exceeding 1.5 meter	1000/day
6c	Trench and excavation not protected against falling of person e.g. hard barricading	1000/day
6d	Not shoring the excavation	1000/day
7	Fire Protection	
7a	Smoking and open flames in fire prone area	1000/day
7b	Using more than 24V portable electrical appliances in fire (hazardous zones) prone area	500/day
7c	Absence of fire extinguishers / damaged / empty / extinguishers not maintained	500/day
7d	No proper ventilation in cylinder storage area.	500/day
7e	Fire extinguisher placed in a not easily accessible location	500/day
8	Vehicles: Traffic Rule Violations	
8a	Unfit / unlicensed drivers or operators	1000/day
8b	Power / hand brakes not in working condition.	1000/day
8c	Over speeding / Rash Driving	1000/day
8d	Use of mobile phone while driving / operation	1000/day
8e	Over loading of vehicles	200/day
8f	Unlicensed vehicles	200/day
8g	Absence of reversing alarm	500/day
8h	Absence of fog light (in winter)	200/day
8i	Not using seat belt	200/day
8j	heavy or construction vehicle without helper	200/day
8k	Carrying people in unauthorized vehicles like tractors	200/day
8l	Sleeping / resting below parked vehicles	200/day
9	Lifting Tools & Tackles and Machines	

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9a	Use of lifting tackles, machines without competent person certificate at site	1000/day
9b	Unsafe Rigging practices (e.g.; overloading of lifting tools and machines, standing below loads, etc)	1000/day
9c	Pulleys, etc not anchored securely	500/day
9d	Guards not provided on rotating / moving parts	1000/day
9e	Improper use of tool- e.g.; wheels without guards	1000/day
9f	Signalman without reflective jacket	200/day
10	Occupational Health	
10a	Non-availability of first-aid box	1000/day
10b	Alcohol and drug abuse in work site	1000/instance
10c	Non - availability of Doctor / arrangement with Hospital	1000/day
10d	Fail to conduct Medical examination of workers	1000/day
10e	Workers not having ID card	1000/day
10f	Smoking inside the construction site	200/instance
10g	Allowing worker to work in environment with excessive noise without PPE	500/day
11	Housekeeping	
11a	Stairways, gangways, passageways blocked	500/Instance
11b	Lumber with protruding nails left exposed	500/Instance
11c	Openings unprotected	500/Instance
11d	Work locations not properly cleaned post daily work.	500/Instance
11e	Dustbins at appropriate places not provided / not cleaned.	500/Instance
11f	Vehicles / equipment parked / placed on roads obstructing free flow of traffic	500/Instance
11g	Unused surplus cables / steel scraps lying scattered	500/Instance
11h	Wooden scrap, empty wooden cable drums lying scattered	500/Instance
11i	Water stagnation leading to mosquito breeding	500/Instance

Note: The Fire and Safety Section may conduct surprise checks and is authorized to record violations and recommend to impose penalties as specified in the document.