

	<b>EHS requirements Annexure to Purchase Orders issued to Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

<b>I.</b>	<b>Legally binding clauses in the contract</b>	<b>2</b>
<b>II.</b>	<b>Escalation in case of non compliance</b>	<b>2</b>
<b>III.</b>	<b>General Safety Rules</b>	<b>2</b>
<b>IV.</b>	<b>Statutory Requirements</b>	<b>4</b>
<b>V.</b>	<b>Work Permit System</b>	<b>4</b>
<b>VI.</b>	<b>Personal Protective Equipments (PPEs)</b>	<b>5</b>
<b>VII.</b>	<b>Inspection Of Tools And Tackles</b>	<b>5</b>
<b>VIII.</b>	<b>Safety Training to Contractors' Employees</b>	<b>5</b>
<b>IX.</b>	<b>Safety in Work Area &amp; House Keeping</b>	<b>5</b>
<b>X.</b>	<b>Safety in the use of Equipment &amp; Machinery</b>	<b>6</b>
<b>XI.</b>	<b>Electrical Safety</b>	<b>7</b>
<b>XII.</b>	<b>Machine Guarding</b>	<b>8</b>
<b>XIII.</b>	<b>Floor Openings</b>	<b>8</b>
<b>XIV.</b>	<b>Gas Cylinders</b>	<b>8</b>
<b>XV.</b>	<b>Movement of Equipment and Machinery</b>	<b>8</b>
<b>XVI.</b>	<b>Accidents / incident / Near Miss and First Aid</b>	<b>9</b>
<b>XVII</b>	<b>Environmental instructions</b>	<b>9</b>

 <b>BOSCH</b> EHSR8.1(c)	<b>EHS requirements</b> <b>Annexure to Purchase Orders issued to</b> <b>Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

**I. Legally binding clauses in the contract are:**

1. Accountability for contractor companies and their employees in case of non usage of Personal Protective Equipments (PPE's), not following Safety instructions, improper disposal of wastes and any such violations,
2. Contractor employees shall possess applicable certificates and licenses,
3. Equipments like ladder, welding machine, scaffolding, gas cylinders, centring and other tools must comply to the safety standards,
4. The vehicles plying inside Bosch premises shall comply by the requirements of “Central Motor vehicles Rules” &
5. In case of accidents inside the Bosch premises, the accountability lies with the contractor.

**II. Escalation in case of noncompliance:**

Escalation in case of noncompliance/violations of EHS requirements by the Contract Companies, contractor employees and subcontractors:

1. In case of first instance of noncompliance during the activities, warning is given to both the contractor employee and his company.
2. In case of second instance, penalty is imposed on the contractor employee and his company.
  - a. Safety notice along with the details of noncompliance and penalty is issued to the contractors after the second instance.
  - b. Fine is decided based upon the degree of noncompliance and damage done (It can be 1% of total invoice value for minor accidents, 5% for serious accidents and 10% for fatal accidents)
3. In case of repetition of non compliance for the third time the contract company can be blacklisted and contract can be terminated

**III. General Safety Rules**

1. Smoking within the Bosch premises is strictly prohibited. Nobody shall bring matchbox or lighter inside the Bosch premises.
2. Cell phones usage and listening to music while working within Bosch premises is strictly prohibited.
3. Ignition key should be carried along with the driver when vehicle is parked.
4. Side walls should be secured against collapse during excavation.
5. Antifall guard / safety net/fall protection should be used as a protection measure when person is working at height.
6. Roof openings to be guarded.
7. F13 Cranes should not be used for shifting of MAE. F15 and others having stability and approved by plant HSE should be used.

 <b>BOSCH</b> EHSR8.1(c)	<b>EHS requirements</b> <b>Annexure to Purchase Orders issued to</b> <b>Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

8. The contractor's employees must not report to work in intoxicated condition. Drinking of alcohol within Bosch premises is strictly prohibited.
9. Contractors' employees should take the food only at designated places.
10. Contractor shall engage competent supervisor/s to oversee the safety of the job and workers. The supervisor is to be trained/ informed about the dangerous situation which may arise in the work to be carried out; supervisor shall be present at the work site. In his absence, alternate person shall be nominated who is also trained in safety related to the job. (It is recommended to have safety professionals in the ratio of 1:50)
11. The contractor shall employ competent persons to carry out the work assigned. Contractor shall be aware of the hazards associated with the job.
12. The contractor/contractor supervisor must report to project in charge/concerned head of department (HOD) daily before starting work, in order to (a) Establish the scope of the day's work (b) To obtain the necessary work permits.
13. Any work beyond normal working hours (6:00PM onwards) needs the permission from the HOD concerned. Extension for working hours shall be planned well in advance. Concerned department will not grant this extension, if it is not safe to work beyond the normal working hours.
14. Always walk; never run at work site unless specifically instructed during emergency. Contractor/contractor employees shall use regular aisles & gangways without making any shortcuts. They should confine themselves to the designated workplace.
15. In case of emergency, contractor/contractor employees should assemble at the nearest safe assembly point and await for the instructions.
16. Contractor/contractor employee shall not indulge in horseplay or make any loud and unusual noises as it may distract the attention of others.
17. Contractor/contractor employee shall not use compressed air for cleaning their clothes or body.
18. Contractor/contractor employee shall not tamper with machinery, guards, safety devices or interlocks.
19. All tools and tackles shall be in safe working condition and the tampered instruments/equipments shall NOT be used.
20. Contractor shall ensure required calibration/test certificates of the instruments/ equipments/ lifting tackle and tools used.
21. Automobiles used for transportation of employees/materials/equipment's/wastewater /fresh water etc., shall have all the statutory permissions and shall be in safe working condition.
22. Good house keeping shall be maintained at the site.
23. In case of any unsafe conditions prevailing at the site or unsafe acts by certain individuals, the same has to be brought to the notice of site in charge.
24. It is the responsibility of the contractor/ contractor supervisor to conduct the daily toolbox talk for their employees highlighting safety requirements for that day's job. Also, during toolbox talks the lessons learnt from near misses, incidents and accidents are to be shared with the employees.
25. As a means of creating awareness, posters on good and bad practices for different high-risk activities have to be displayed at prominent locations in the site.

 <b>BOSCH</b> EHSR8.1(c)	<b>EHS requirements</b> <b>Annexure to Purchase Orders issued to</b> <b>Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

26. It is a must to conduct safety orientation training for all the employees before taking up any job in Bosch premises. The participation has to be evidenced in an attendance register. Any new entrant in the middle of the project has to undergo similar orientation training.
27. The badges issued to the contractor employee should have a provision to highlight the evidence of training and also to mark safety violations.
28. In case of high-risk work, method statement needs to be prepared detailing the steps that will be adopted for performing the activity by the contractor supervisor and the same to be approved by plant HSE.
29. Chemicals required to perform the job should have material safety data sheet. This should be supplied to the Bosch contractor coordinator in advance to perform the job. The safety risk related to the said chemicals should be assessed and controls should be established before start of the work. Banned chemicals as per the list in Factory rules/act should not be used/brought to the plant. Refer N2580 for any avoidance of chemicals under Bosch norm.

#### **IV. Statutory Requirements**

1. Without prejudice to the generality of what has been stated above, the contractor shall comply with the statutory requirement of various acts such as
  - Factories Act and Rules
  - The Environment Protection Act and Rules
  - Building and other construction workers act and rules
  - Gas cylinder Rules
  - Petroleum Act and Rules
  - Indian Electricity Act
  - Indian Boilers Act
  - Static Mobile and Pressure Vessel Rules
  - Central Electricity Authority (CEA) regulation 2011
  - State rules for lifts, escalators and passenger conveyors(eg: The Karnataka Lifts, Escalators and Passenger Conveyors Rules, 2015)
2. The contractor shall comply with statutory requirements like labor license, ESI & PF Acts. Contractor shall handover the copies of the licenses / documents to the HRL / concerned site in charge before starting the job.

#### **V. Work Permit System**

1. Contractor must follow and adhere to the work permit system of Bosch Limited.
2. Work permit must be obtained from concerned authority for the following works:
  - Hot work (welding, open burning of bitumen, grinding)
  - Confined space entry
  - Working at heights/ Fragile roofs
  - Earth excavation
  - Machine Shifting
  - Temporary Electrical connection/Electrical jobs.

 <b>BOSCH</b> EHSR8.1(c)	<b>EHS requirements</b> <b>Annexure to Purchase Orders issued to</b> <b>Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

- Work at high-risk areas (high risk areas include fuel yards, licensed premises, chemical stores, process like heat treatment and surface treatment operations)
  - Any other work as may be required within Bosch premises.
3. Safety clearance must be obtained for work related to
    - Opening of pipeline joints
    - Erection, dismantling and movement of heavy equipment.
  4. Display of work permit at the place of work is mandatory.

#### **VI. Personal Protective Equipments (PPEs)**

1. Contractor shall provide the necessary Personal Protective Equipments (confirming to IS standards) to his work force. Use of following PPEs is considered as an essential and mandatory requirement:
  - Helmets with chin strap for all workforce.
  - Safety shoes or half gumboot with steel toe
  - Safety belts for working at height equal or more than 2m.
  - Safety goggles, ear plugs & gloves for gas cutting/grinding activities.
  - Safety goggles and ear plugs for chipping activity.
  - Face shield, nose mask, apron & leather gloves for welding activity.
2. Contractor shall stock adequate number of these PPE at site and provide to his work force.
3. Other job specific PPEs including respirators shall be provided by contractor wherever required. However, advice can be obtained from concerned/HSE department for choosing the correct PPEs.

#### **VII. Inspection Of Tools and Tackles**

1. All the tools and tackles should be of approved type. The test certificates from competent authorities for tools like chain pulley block, cranes, etc. to be produced. Entry of tools and tackles will be allowed only after inspection of the same by the plant engineering / Projects / Other Departments concerned. No defective tool / tackle is allowed inside.

#### **VIII. Safety Training to Contractors' Employees**

The contractor shall ensure his entire work force engaged had undergone safety as well as job specific training before deploying them. If any specific training is required for carrying out the assigned job safely, he shall inform in writing to the HOD concerned

#### **IX. Safety in Work Area & House Keeping**

The contractor shall keep the work area clean and remove all scraps and surplus material that generated during the work.

 <b>BOSCH</b> EHSR8.1(c)	<b>EHS requirements</b> <b>Annexure to Purchase Orders issued to</b> <b>Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

## **X. Safety in the use of Equipment & Machinery**

### **1. Scaffolds:**

- A scaffold should be firm and strong enough to bear the load of workers and materials. Normally scaffolds are erected in such a way that they can withstand at least four times the anticipated working load.
- Inspect the scaffolding thoroughly before allowing the workers on it.
- Provide a safe and convenient means to gain access to the working platform.
- Keep the platform free from any unnecessary obstruction, rubbish and projected nails.
- Provide toe boards of at least 150 mm and guardrails at 450 mm & 900 mm on all working platforms.
- Never use platforms less than 30 mm thick.
- Before use, the scaffolds have to be inspected by the concerned safety supervisor. Those which are safe to use should have green tags and those under erection or unsafe for use should have red tags.

### **2. Lifting tackles:**

- The lifting machines, chain pulley blocks etc. must be tested by competent authority and valid test certificates should be submitted to the project site in-charge.
- Ensure that chain pulley block with locking lever (catch lever) are used.
- The safe working load (SWL) should be clearly marked on each of the above items. In no case, this rated capacity should be exceeded.
- Do not use a chain pulley block for pulling objects horizontally.
- Barricade the area where lifting activity is taking place and provide a caution board. No person should stand within a barricaded area.
- Never work or move below the suspended loads.

### **3. Welding:**

- Use only welding equipment conforming to standards.
- Welding machines shall be in good condition and are provided with local isolation switch for emergency isolation.
- System should be such that electrical shock is prevented. Insulation of electrode holder and welding cables should be checked daily till the completion of work.
- Barricade the required area and provide a display board.
- Ensure that the area, in which welding sparks are likely to travel, is free from all possible flammable materials. Keep the cylinders away at safe place.
- Provide face shield, apron, nose mask and leather hand gloves to the welder.
- Grind all the burrs after the completion of welding / cutting jobs so as to make the corners round, smooth & safe. Ensure that no protruded pieces are left around the site.

 <b>BOSCH</b> EHSR8.1(c)	<b>EHS requirements</b> <b>Annexure to Purchase Orders issued to</b> <b>Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

#### 4. Gas cutting equipment:

- Use torches, rubber-tubing etc. confirming to standards.
- Use cylinders (Oxygen, acetylene) approved in writing by the Chief Controller. Submit copies of the test certificates/suppliers authorization to project in-charge/concerned HOD.
- Standard colour codes for the cylinders must be followed. (Oxygen: Black; Acetylene: Maroon)
- Cylinder in use to be mounted on trolley or tie the cylinder with chain to avoid toppling.
- Provide goggles & hand gloves to cutters and helpers.
- Make sure that the rubber tubing is so laid that sharp edges heavy objects and hot surfaces do not abuse it.
- Gas cutting rubber tube ends should be fixed with the clamps.
- Test the valves and joints in tube for leaks by using soap solution daily before the commencement of work. All leaks shall be rectified before lighting the torch.
- Use proper hose connectors while repairing leaks. Avoid binding with wire or tape.
- Keep nozzle of gas cutting torch clean and free from defects to avoid distortion of flame and backfiring. Provide flash back arrestor to avoid backfires.
- Unused and empty cylinders must be fitted with a neck cap.

#### XI. Electrical Safety

1. Use portable grinders, drilling machines, etc. confirming to BIS standards.
2. Never overload cables beyond the rated capacity. This is one of the common causes of fire.
3. Provide the rubber gloves to electricians, Rubber gloves shall be tested & approved by competent agency.
4. Before commencing repair or maintenance work on any machine, switch off the main supply/ remove fuse, display caution tags on machines and switchboards. Follow the standard lock out, tag out procedure.
5. All equipment should have earthing arrangements.
6. Do not insert bare wires in socket for energizing any equipment. Use only plug tops for all the electrical equipment.
7. All electric bulbs to have a protective wire mesh guard.
8. While laying cables, ensure that cables are so laid that they do not obstruct the smooth movement of men and machinery.
9. Make sure that all cables are protected against abuses and possible damage.
10. Use junction / extension boxes for long distances. Open connections are not permitted.
11. Approved flameproof fittings shall be used in flameproof areas.
12. Arrange for sufficient lighting, incase work extension is required beyond normal working hours. Obtain necessary approvals for the same.
13. Provide Rubber mats near / below the Panels.
14. Check for any underground cables before starting excavation jobs.

 <b>BOSCH</b> EHSR8.1(c)	<b>EHS requirements</b> <b>Annexure to Purchase Orders issued to</b> <b>Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

## **XII. Machine Guarding**

1. All the rotating machinery / parts should be protected with proper guards.
2. Necessary safety interlocks should be in place wherever required.
3. Hand grinding machines shall possess proper guard on grinding wheel.

## **XIII. Floor Openings**

1. Ensure that the floor, slab, duct and equipment openings are properly covered with MS plates or gratings. Barricade the area suitably.
2. As far as possible avoid the use of wooden planks for covering the openings. MS plates are preferred.
3. Take special precautions for openings provided for AC ducts which are of smaller sizes and many a times adjacent to walls where the movement of people is more likely.

## **XIV. Gas Cylinders**

1. All gas cylinders must have test certificates. Copy should be given to site in charge. Standard colour code must be followed.
2. Use proper trolleys to transfer compressed gas cylinders. Do not roll the cylinders.
3. Cylinders shall be properly supported by chains / clamps.
4. All cylinders shall have valve caps.
5. Keep all gas cylinders away from the job in an upright position at a designated place.
6. Do not throw the cylinders from truck on tyres while unloading. Use cradles or unload cylinders on raised platforms.
7. Do not expose cylinders to heat or direct sunlight.
8. Proper labeling should be done to identify empty cylinders.
9. Cylinder valve wrench to be kept at a proper place.
10. Do not apply oil or grease on cylinder valves and fittings.

## **XV. Movement of Equipment and Machinery**

1. Before starting the activity, plan properly by examining the route, taking measurements, if needed, to ensure that sufficient clearances are available.
2. While planning the route, look for overhead cables, pipelines, guide ropes and other protruding objects.
3. Use properly rated trolley to move the equipment / machinery.
4. Ensure no damage to the walls, or other surrounding machinery during movement. Make clear communication system to follow all the fellow contract men, to avoid misunderstanding.
5. If you are moving smaller items like pipelines etc. ensure that these items are properly secured and tied.
6. Cranes should not be used for shifting of machines and equipments.

 <b>BOSCH</b> EHSR8.1(c)	<b>EHS requirements</b> <b>Annexure to Purchase Orders issued to</b> <b>Contractors</b>	Ed:05, Date:29.02.2024
		C/SEE-IN

#### **XVI. Accidents / incident / Near Miss and First Aid**

1. Report all near misses, accidents or dangerous occurrences immediately to concerned HOD's/ site in charge.
2. Know the location of First Aid Center before starting the work. This will reduce the time delays, incase of any emergencies.
3. For all accidents, incidents and near misses, root cause analysis has to be carried out within 24 hours of occurrence of an incident. The lesson learnt to be shared with HOD's / site in charge and the employees. The required corrective and preventive actions should be implemented immediately.

#### **XVII. Environmental Instructions**

1. The waste management practices have to be adhered w.r.t segregation at source, collection, storage and disposal in line with central and state statutory requirements e.g., Hazardous and Other Waste (management & transboundary movement) Rules and or Construction and Demolition Waste Management Rules and also the system established at the plant level w.r.t various types waste management to be adhered.
2. Dust control methods to be adopted at construction/project sites/area.
3. Storage of paints and chemicals has to be in a designated place with compatibility chart and the requirements of attachment 5, section 4 (Hazardous substance/Chemical management system) to Bosch CD 3800 to be ensured w.r.t compliance.
4. Vehicles which are used for various activities during contract period shall meet/ensure the compliance to all the requirements of Motor Vehicle Act/Rules (e.g., Valid driving license, fitness certificate, pollution/emission under control certificates
5. Spillage/leakage control measures to be ensured while carrying out MAE maintenance /annual test activities.
6. The calibration certificates shall be submitted for all the equipment which are used for monitoring EHS parameters.