

**CONTRACTOR EHS REQUIREMENT, SELECTION & PERFORMANCE MANAGEMENT**

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Revision No	Changes
01	New release
02	Guidelines related to LOTO incorporated.
03	Change in the organization name (Tyco to JCI).
04	Change in the document name, selection questionnaire & PPE specifications included and complete review, realignment of whole document.

<b>CONTRACTOR EHS REQUIREMENT, SELECTION &amp; PERFORMANCE MANAGEMENT</b>
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## **1. PURPOSE**

The purpose of this document is to advance safety & security by finding smarter ways to save lives, improve business and protect what matters the most. This document outlines the minimum requirements and responsibilities of the contractor/ sub-contractor while on work for Johnson Controls. The contractor/ sub-contractor may use their own in-house program to meet the minimum Environmental, Health & Safety requirements set out in this document.

## **2. SCOPE**

The scope of this procedure is to cover all subcontractors and those who working on behalf of JCI for all installation and service business of Johnson Controls BT&S India. Environmental, Health & Safety requirements shall apply to all personnel on the project/ worksite including at client premises unless otherwise guidelines provided by the customer/ client.

## **3. ROLES & RESPONSIBILITIES**

Safety is an integral part of normal activities performed by subcontractor personnel. Members of contractor personnel are responsible for complete fulfillment of responsibilities in his area of work.

### **3.1 Sub-contractors**

- All Sub-contractor supervision and personnel are responsible for adhering to all elements of JCI sub-contractor environment, health and safety program as outlined herein.
- Sub-contractor supervision is expected to conduct incident investigation along with JCI team of any incident in which contractor employees are involved and apply remedy for prevention of recurrence.
- Sub-contractor supervision is expected to get their employees to report injuries and seek medical attention.
- Sub-contractor is ultimately responsible for their own personal safety, health and compliance with all JCI, local, state regulations.
- Ensure that all workers must follow JCI standards.
- All legal documents should be submitted.
- Ensure that all your workmen are above 18 year.

### **3.2 Contractor safety engineer/officer**

- He shall assist the JCI's EHS representative on the implementation of EHS program within corresponding work groups.
- Inspect the construction area on regular basis in order to verify appropriate corrective actions.
- Assist in incident investigation & reports.

### 3.3 Contractor's supervisors

- Ensure that they have a capability to complete the work within specific period.
- Ensure that they are technically strong for the specific task.

## 4. LEGAL REQUIREMENTS

The sub-contractor shall comply with all applicable environmental, health and safety requirements of the local act and any amendments or re-enactments thereto and other new acts and regulations of India which may be gazetted during the contract period including any amendments or re-enactments thereto, including but not limited to:

- The Contractor Labor (Regulation & abolition) Act 1970.
- The Contractor Labor (Regulation & Abolition) central rules 1971 and state rules.

Other Laws applicable to contract labors.

- The Factories Act 1948 and state rules.
- The building & other construction act 1996.
- The employee's state insurance act 1946.
- The employer's provident fund & Insurance Act 1952.
- The employee compensation act, 2010.
- The minimum wages act 1948.
- The payment of gratuity act 1962.
- The Indian electricity rules 1956.
- Environmental protection act 1986.
- Adhere certain provisions in the other acts & rules.
- Hazardous waste management and Handling Act (2008).
- Motor vehicles Acts & Rules (1989).
- Gas cylinder rule 2003.
- Indian explosive act 1884.
- Child labor (prohibition & regulation) Act 1986 & rules 1950.
- The noise pollution (Regulation & control) rules 2000.

In the event of any citation received from a governmental authority or the principal contractor that resulted in a fine to be made by the contractor, the subcontractor responsible for committing the offence(s) shall reimburse the contractor the same amounts that have been paid.

The contractor shall ensure that all his employees/ workmen are covered under workmen compensation act and shall pay compensation to his workmen as and when the eventually same arises.

## 5. JCI EHS REQUIREMENTS

### 5.1 Motor vehicle safety

This requirement is for the safe operation of motor vehicles by personnel working on behalf of JCI.

- Personnel must be at least 18 years of age & possess a valid driving license (As per Indian legislation).

- Driver should understand all the road rules & sign boards (As per Indian legislation).
- Driving on company business under the influence of drug or alcohol is strictly prohibited.
- All vehicle used for contractor business must be equipped with seat belts.
- Seat belt must be worn by all occupants.
- Regular vehicle check should be done to avoid any events & to control the pollution as per local regulations.

### **5.2 LOTO (Lockout & Tag out) – Control of hazardous energy**

LOTO is a technique used to prevent energy from being released during the servicing of equipment. This is accomplished by placing lock on energy isolation device prior to starting work and applying the tag.

- Notify all affected employees that the machine is being shut down and locked out.
- Shut down machine by normal procedures. Source. (Turn off, disconnect, shut off valves etc.).
- Activate energy isolating devices, so machine is isolated from energy.
- Lock out energy isolating device using assigned locks.
- Lock should have only one key.
- Dissipate or restrain stored or residual energy.
- Check that no personnel are exposed then verify the isolation by operating the normal operating control or by testing to make certain the equipment won't operate.
- Valid work permit required.

### **5.3 Working at heights**

Fall protection required working at heights over 4 feet (1.2 meters), and whenever using a mobile elevated platform, scaffolds, ladders / of any sort, need to conduct prior risk assessment and valid working at height permit required to work.

- Standard guard rails 42 inches (1m) high and capable of withstanding a 200 pound (90 kg).
- Toe boards needed for scaffolds, elevated platforms, mezzanines, where others may walk/work below.
- Cannot work within 1.8 meters of roof edge without some form of fall restraint system.
- Full body harness with double lanyard, provided with shock absorber is allowed.
- Ladder is only used if Job is of short duration & activity is of light nature.
- Only 'A' type ladder with rubber or non-conductive material shoes should be used.
- Every equipment used for reaching height should be tagged with information such as, capacity, type, etc.
- Capacity of a ladder should be at least /more than 113kg's.
- While working on a Ladder 3 point of contact is mandatory.

- Do not use metal ladders when working near electrical power lines instead use fiber ladder.
- Prepare risk assessment & make a communication plan through toolbox talk aligning with JCI.
- Valid height work permit required.
- The design of ladder shall conform to IS 3996(Part2):1991. Metal ladder shall be either of steel complying with IS-1977:1975 or of aluminum alloy complying suitable grade of IS617:1975.
- Ladders / scaffolds made of bamboo/wooden are strictly prohibited for the project.
- Scaffold towers height shall not exceed four times the minimum base dimension when it is free standing. Scaffold shall be erected with skilled personnel only. Scaffolding, including accessories shall be constructed and erected to support 4 times the maximum rated load. The entire scaffold shall be tied to and securely anchored against the rigid structure not to exceed 06 meter. Horizontally and 08 meter vertically. Mobile scaffold shall be provided with mechanical stoppers to avoid rolling and should, not exceed more than 9.5 meter and shall and it may be increased maximum 12 meter. Provided it is tied to a rigid structure when in use. Scaffold must be braced with cross bracing or diagonal bracing or both for securing vertical members together laterally. Ladder must be used while ascending or descending from scaffold. Hand railing shall be ensured on scaffold platform.
- Walkway planks shall be ensured in good construction and it shall be secured properly.

#### **5.4 Electrical safety**

Working on electrical circuits is allowed only those who trained, certified & authorized persons.

- All the portable electric connections must be tapped through 30mA ELCB/ RCCB.
- Valid work permit required for all electrical works.
- All the distribution boards & respective equipment should have earthing to it.
- All the portable tools & equipment must be in sound condition.
- Use proper industrial plug top for electrical tapings.
- Any worker working on electrical circuits and/or energized equipment above 50 volts (V) must be trained.
- Use appropriate rated electrical resistant tools & PPE's while working on live circuit and follow safe work procedure.

#### **5.5 Working in confined space**

- Confined space: - Has limited or restricted means of entry or exit and is not designed for continues occupancy & may include any of the following or a combination of the following hazards.

- Hazardous Atmospheres; including: Oxygen-deficient atmosphere, where the oxygen (O<sub>2</sub>) level is less than 19.5% of total air content & Oxygen-enriched atmosphere, where oxygen (O<sub>2</sub>) level is greater than 23.5% of total air content.
- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL) or lower explosive limit (LEL).
- Flammable liquid: Any liquid with a flash point below 37.8 degree Celsius.
- Atmospheric concentration of any substance in excess of its locally applicable permissible exposure limit.
- Class 1 Confined space: - "A space where atmospheric hazards are not present and/or highly unlikely. There are no engulfment/configuration hazards or any other recognized hazards that cannot be eliminated without entering the space.
- Class 1A: - A roof space where atmospheric hazards or physical hazards are not present or have been eliminated. 1A space may have working at heights hazards that require special control measures.
- Class 2 Confined space: - A space there is a possibility that atmospheric hazard can be expected but can be eliminated or maintained at a safe level using continues ventilation.
- Class 3 confined space: - A space where atmospheric hazards cannot be controlled through continuous ventilation and/or where there is engulfment/configuration hazards or other recognized hazards that cannot be eliminated. Entry into a class 3 confined space requires specialized entry, work, personal, and protection and rescue procedures.
- Risk Assessment: - written program must be developed and implemented which outlines how each Johnson controls sites will meet the requirement of this standard.
- Training: - Basic confined space training must be provided to any employee who may likely encounter a confined space as part of their Job duties.
- Entry Register: A written record containing those who are entering the confined space.

## 5.6 Compressed gas handling

- This requirement applies to all portable compressed gas cylinders stored, transported and/or used by all personal working on behalf of Johnson controls.
- The safety data sheet applicable to the compressed gas must always be reviewed and taken into consideration when developing safe work practices.
- Each Johnson controls site or client/customer premises, where employees use or handle any compressed gas cylinders must develop and implement a safe work method prior to work and after carrying out risk assessment document
- Everyone must ensure their responsibility as mentioned in the procedure prior to start the work.

- Employees and workers whoever involved in the working environment should be clear about the safe work procedure and must attend the respective training prior to start the work.
- Compressed gas cylinders must be secured to prevent movement by chains, cables, racks, cradles etc.
- Empty compressed gas cylinder's must be stored separately and marked as "Empty"
- Flammable compressed gas cylinder's must always be stored (and used) in an upright position and indicate "No Smoking" as appropriate.
- Compressed gas cylinders must be protected from weather related exposures: precipitation/moisture, extreme temperatures or direct sunlight.
- As a minimum, protective footwear (steel toe shoe/boot), hand Gloves, safety goggles, safety helmet must be worn when handling compressed gas cylinders.
- Employees should complete a visual inspection of any compressed gas cylinders prior to it being connected (placed in use) or transported. The inspection should include any valves/hoses that are being used in conjunction with the compressed gas cylinders.
- Compressed gas cylinders shall have a protective valve cover in place when being transported or in temporary or long-term storage.
- Employees who will be transporting, handling, charging, or changing out compressed gas cylinder's must be provided with training that should include -
  - Hazards associated with the compressed gases in use at their workplace.
  - Safe Work Procedures.
  - Ergonomic Training directed to cylinder handling.
  - How to inspect compressed gas cylinders.

### **5.7 Machine safeguarding**

- This procedure only focuses on protecting workmen from hazards associated with moving machine parts. There are a wide variety of other safety issues that also need to be addressed, such as ergonomics, electrical safety, lighting, noise levels, ventilation and co-worker safety.
- Employees and workers whoever involved in the working environment should be clear about the safe work procedure and must attend the respective training prior to start the work.
- All power transmission components and all machine hazards must be enclosed with fixed machine guards.
- The guard design and use must not pose an increased risk to the employee using the machine or equipment.
- A documented machine safeguarding risk assessment must be carried out by a qualified individual(s) to identify hazards and necessary safeguarding strategies at least once on every machine.
- In situations where guards alone do not provide adequate protection, safe work procedures must also be developed and communicated to employees.
- Inspection should be carried out with the guidelines of machine guarding.

- Prior to work on machine a visual inspection of all machine safeguarding elements prior to the start of work on each shift on which the machine is used. In cases where deficiencies are noted, the employee shall stop work and notify a supervisor immediately.
- Guards may only be removed by a competent person for maintenance purposes and provided with Johnson Controls lockout, control of hazardous energy is followed prior to and during the removal of the guard.
- Employees who will be operating machinery or exposed to machine related hazards must be provided with training that is specific to the machine(s) they operate.

### **5.8 Safe use of hand and power tools**

- Keep all tools in good condition with regular maintenance and use the right tool for the job.
- Examine each tool for damage before use and operate the equipment according to the manufacturer's instructions.
- Prior to starting the work, risk management program must be done based on the risk assessment.
- Employees and workers whoever involved in the working environment should be clear about the safe work procedure and must attend the respective training prior to start the work.
- Damaged tools must notify to the concern supervisor/ engineer, who should not issue permit for the use of unsafe hand / damaged power tools.
- Employers are responsible for the safe condition of tools and equipment used by employees, including tools and equipment which may be furnished by employees.
- If a wooden handle on a tool such as a hammer or an axe is loose, splintered, or cracked, the head of the tool may fly off and strike the user or another worker and make sure that pre inspection should be done at prior starting the work.
- Power grip provides maximum hand power for high force tasks. All the fingers should comfortably wrap around the tool handle
- Work with your supervisor and co-workers to ensure the safe condition of tools and equipment.
- Employers shall caution employees that saw blades, knives or other tools be directed away from aisle areas and other employees working in proximity. Knives and scissors shall be sharp. Dull tools can be more hazardous than sharp ones.
- Around flammable substances, sparks produced by iron and steel hand tools can be a dangerous ignition source. Where this hazard exists, spark-resistant tools made from brass, plastic, aluminum or wood shall be used.
- Eye protection is required, and face protection is recommended for employees working with pneumatic tools. Appropriate personal protective equipment should be used on handling the powered tools.
- Employees using the machine must perform a visual inspection of all machine safeguarding elements prior to the start of work on each shift on



which the machine is used. In cases where deficiencies are noted, the employee shall stop work and notify a supervisor immediately.

- Employees who will be operating machinery or exposed to machine related hazards must be provided with training that is specific to the machine(s) they operate.

### **5.9 EHS incident reporting**

- Contractor shall immediately notify the JCI of any environmental incident, injury, illness, near-miss, unsafe condition or action, and any loss or damage to the property.
- Accident - An unwanted, unforeseen, unplanned, event which results in an injury or loss of some kind.
- Incident/near miss – An unwanted, unforeseen, unplanned event that has the potential to result in personal injury or property damage.
- Occupational ill health – An acute or chronic ill health (disease) caused by physical, chemical, biological, ergonomic or psychological hazards.
- To investigate the accidents - Not only the severity of loss but also the potential consequence & likelihood of recurrence.

### **5.10 Workplace ergonomics**

- The purpose was to identify and prioritize jobs with excessive ergonomics risk.
- The analysis tool/methodology used to prioritize the risk.
- Base line risk assessment is performed initially for the work-related MSD's (Musculoskeletal disorders) and employee complaints of fatigue, discomfort, job difficulty etc.
- Prior to starting the work, Risk management program must be done based on the risk assessment document.
- Everyone must ensure their responsibility as mentioned in the procedure prior to start the work.
- Employees and workers whoever involved in the working environment should be clear about the safe work procedure and must attend the respective training prior to start the work.
- Site should be assessed with site ergonomic workstation checklist.
- A more comprehensive evaluation needs to be conducted for the jobs identified in the baseline ergonomics risk assessment, by the operation head with the help of local EHS to identify the specific ergonomic risk factors present and to identify the root cause of these risk factors.
- By this ergonomics evaluation targeted, corrective actions are developed and implemented to either eliminate or to minimize the risk.
- Any new equipment, process or any major rebuild of existing equipment is reviewed for ergonomic related risk prior to start up using the ergonomic design specification for new equipment.
- All ergonomic hazards should be reported as per reporting matrix and it should be documented as reporting form.

- In cases where employees are working primarily on customer sites, they must be provided with Ergonomic best practices for medium and high-risk tasks performed on a routine basis.

## 5.11 Other requirements

### 1. Welding and gas cutting:

- Storage of oxygen and fuel gas cylinders should be in levelled area. It should be kept away from source of heat. It should be stored in well protected and well-ventilated area. Oxygen and fuel gas should not be stored in the same room. All cylinders shall always be kept upright position and chained to prevent from falling. Minimum 3-meter distance to be maintained between the storage of oxygen and fuel gasses.
- LPG is a mixture of butane and propane and is highly inflammable. It is heavier than air, it flows along floors and tends to settle in low spots, such as pits. LPG must be handled in utmost care and must be stored in a place where no electrical connections are provided to avoid fire/explosion. Use of LPG is prohibited for gas cutting.
- Cylinders must be kept on trolley and flash back arrestors must be ensured before taken into operation. Enough fire extinguishers must be ensured in cylinder storage area.
- All the moving parts of welding machine to be guarded adequately. No welding to be carried out in wet, damp or humid conditions. Welding machines shall be protected from rain. Welding machine shall be provided with double earthlings. Protective clothing to be ensured and eye protection is must. Enough fire extinguishers should made available at the welding area.

### 2. Lifting tools and tackles:

All lifting tools and tackles must be of good construction possess test certificates without wear and tear. All slings, D Shackles are free from bend, wear and tear, damages. All cranes, hoist, wire ropes, hooks, derricks, slings, winches lifting tools should possess certification from competent authority before taken into use. The document must be available as when asked. Skilled personnel to be engaged for lifting and dismantling of loads. There should be trained guide/signal man while moving lifting and shifting of material using lifting vehicles

### 3. Fall protection

#### 3.1 Safety harness

Fall Protection Devices shall be used by all personnel when working or travelling in elevated areas which are 1.2 meters above ground level or adjacent surface where a fall exposure exists. While working near edges or openings, to limit the worker's movement so that he is unable to reach a location where there is a risk of falling. Usage of double lanyard harness ensures that, any point of time one of the lanyards of the same is connected to the anchorage. Full body harness shall be certified to EN 361:2002 or IS 3521.

### 3.2 Lifeline

20mm diameter polypropylene rope or 8 mm diameter wire rope shall be used as a lifeline and properly anchorage to an anchoring point. The sag of lifeline shall not be more than 15 degrees.

### 3.3 Fall arrestor

- Rope grab type fall arrestor shall be used to protect fall of workers during vertical movement such as ascending or descending scaffold towers, vertical ladders etc.
- Retractable type fall arrestor shall be used in places where high risk of fall persists this will be used by directly anchored to the anchorage points or can be used in conjunction with the lifeline.

### 3.4 PPE Matrix and Specifications

Sr. No	Job Description	Required PPE's
1	Mandatory PPE for all People at site	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes.
2	Pipe/Material unloading	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Ear Plugs, Cotton Hand gloves, Dust Mask, Shoulder pad.
3	Material Shifting of Manually	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Ear Plugs, Cotton Hand gloves, Dust Mask, Shoulder pad.
4	Pipe cutting with (cut-off M/c)	Safety Helmets, Safety Goggles, Face shield, Reflective Jackets, Apron –Leather, safety shoes, Ear Plugs, Leather Hand gloves, Dust Mask, fire Extinguisher, Fire Blankets, ELCB.
5	Gas Cutting of Pipe	Safety Helmets, Safety Goggles, Face shield, Reflective Jackets, Apron –Leather, safety shoes, Leather Hand gloves, Dust Mask, fire Extinguisher, Fire Blankets, flash Back arrestor.
6	Pipe Grinding at ground Level.	Safety Helmets, Safety Goggles, Face shield, Reflective Jackets, Apron –Leather, safety shoes, Ear Plugs, Leather Hand gloves, Dust Mask, fire Extinguisher, Fire Blankets, ELCB.
7	Pipe Grinding at height with the help of scaffold	Safety Helmets, Safety Goggles, Face shield, Reflective Jackets, Apron –Leather, safety shoes, Ear Plugs, Leather Hand gloves, Dust Mask, fire Extinguisher, Fire Blankets, ELCB, FBSH with shock absorber, lifeline, Fall arrestor

8	Welding at Ground Level	Safety Helmets, Safety Goggles, welding shield with helmets, Reflective Jackets, Apron –Leather, safety shoes, Leather Hand gloves, Dust Mask, fire Extinguisher, Fire Blankets, flash Back arrestor, ELCB.
9	Welding at Height with help of Scaffolds.	Safety Helmets, Safety Goggles, welding shield with helmets, Reflective Jackets, Apron –Leather, safety shoes, Leather Hand gloves, Dust Mask, fire Extinguisher, Fire Blankets, flash Back arrestor, ELCB.
10	Pipe Erection at Ground Level	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Cotton Hand gloves, Dust Mask.
11	Pipe Clamp Fixing	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Cotton Hand gloves, Dust Mask.
12	Grooving clamp fixing at Ground Level	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Cotton Hand gloves, Dust Mask.
13	Drilling at height with the help of ladder	Safety Helmets, Safety Goggles, Face shields, Ear Plug Reflective Jackets, safety shoes, Cotton Hand gloves, Dust Mask, , ELCB, FBSH with shock absorber, life line, fall arrestor
14	Drilling at height with the help of scaffold.	Safety Helmets, Safety Goggles, Face shields, Ear Plug Reflective Jackets, Safety shoes, Cotton Hand gloves, Dust Mask, ELCB, FBSH with shock absorber, lifeline, fall arrestor
15	Pipe Erection at height with the help of scaffolds	Safety Helmets, Safety Goggles, Reflective Jackets, Safety shoes, Cotton Hand gloves, Dust Mask, ELCB, FBSH with shock absorber, lifeline, fall arrestor, Shoulder pad.
16	Groove clamp fixing at height with ladder.	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Cotton Hand gloves, Dust Mask, FBSH with shock absorber, lifeline, Fall arrestor.
17	Pipe erection at a height using Scaffold/Hydra	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Cotton Hand gloves, Dust Mask, FBSH with shock absorber, lifeline, Fall arrestor, polka dotted gloves.
18	Hydro test in ground level	Safety Helmets, Safety Goggles, Reflective Jackets, Safety shoes, Cotton Hand gloves, Dust Mask, Fire extinguisher, ELCB,

19	Hydro testing at height using ladder/scaffold	Safety Helmets, Safety Goggles, Reflective Jackets, Safety shoes, Cotton Hand gloves, Dust Mask, Fire extinguisher, ELCB, FBSH with shock absorber, life line & fall arrestor.
20	Excavation Work	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Cotton Hand gloves, Dust Mask.
21	Pipe Wrapping at Ground Level	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Leather Hand gloves, Dust Mask, Face shield, Fire Extinguisher/fire blanket, flash back arrestor.
22	Cement work (pedestal prepare)	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, gum boots with steel toe, Cotton Hand gloves, Dust Mask.
23	Hand painting in Ground Level	Safety Helmets, Safety Goggles, Reflective Jackets, Cotton Hand gloves, Dust Mask, fire Extinguisher, Polka dotted gloves.
24	Hand painting at height using scaffold/ladder	Safety Helmets, Safety Goggles, Reflective Jackets, Cotton Hand gloves, Dust Mask, fire Extinguisher, Polka dotted gloves, FBSH with shock absorber, Lifeline, and fall arrestor.
25	Working with Crane & JCB	Safety Helmets, Safety Goggles, Reflective Jackets, safety shoes, Cotton Hand gloves, Dust Mask.
26	Working in slush & water	Safety Helmets, Safety Goggles, Reflective Jackets, Gum boot with steel toe, Cotton Hand gloves, Dust Mask.
27	Lock out-Tag out.	Safety Signage's, Helmets, goggles, reflective jackets, safety shoes, cotton gloves, dust mask, ELCB.
28	Electrical installation inspection	Safety Signage's, Helmets, goggles, reflective jackets, safety shoes, cotton gloves, dust mask, ELCB.

**PPE**

**Specifications:**

SL NO	NAME OF THE PPE	PRODUCT DESCRIPTION
		<b>Head</b>
1	Safety helmet	Helmet - Compliance to ANS Z 87.1 & IS 2925 (Color White, Red, Blue, Yellow), Make: Karam/ Udyogi or approved make White Color- Engineers/ managers Red Color- Electrician Green- Safety Officer Yellow- Workmen
		<b>Feet</b>
2	Safety Shoe	Safety Shoe Compliance to EN:20345 & IS 15298-2 (Black), Make: Action, Single/ Double Density
		<b>Jacket</b>
3	Reflective Jacket	Safety reflective jacket compliance to EN 471 Net Type (Green & Orange) Green- Safety Orange- Workmen
		<b>Eye &amp; Face</b>
4	Safety Goggles	Safety spectacle Udyogi Make compliance ANSI EN -166,
5	Nose mask	3M Make 8210 N95 nose mask, Make: 3M
6	Ear Plugs	3M 1110 Ear plugs, Make: 3M
7	Welding Face Shield	Karam ES 71 along with Karam helmet & welding glass compliance to EN 166:2002, EN 175:1997 & ANSI 87.1 – 2010
		<b>Hands &amp; Shoulder</b>
8	Hand Gloves	Safety Cut resistant hand gloves Cut level-3 Compliance to EN-CE-4543 compliance, TECHTION <ul style="list-style-type: none"> <li>• Chemical handling Nitrile hand gloves ULTRA MAPA Green Full sleeve Compliance to EN 388, EN 374.3 &amp; ASTM F739</li> <li>• Full sleeve welding leather hand gloves</li> <li>• Leather Sleeves pairs</li> </ul>
		<b>Body</b>

9	Apron	Full body welding Leather Apron Make: Udyogi / ISI marked
10	Fire Blanket	Fire blanket Size 1.2X 1.8 Sq. Make: Udyogi / ISI marked
11	Full Body harness	Udyogi/ Karam Full body Harness PN 206 with double Lanyard KI02
		Fire Extinguisher
12	Fire Extinguisher	Fire Extinguisher (ABC type)- 6kg, Make: Safe / Excellent
13	BS-S-CO2	Fire Extinguisher (Co2 type) - 4.5kg, Make: Safe / Excellent
		<b>Lock Out Tag Out</b>
14	LOTO	<ul style="list-style-type: none"> <li>• Vinyl coated hasp premier</li> <li>• Pad Lock long shackle (5 Yellow+ 5 Red)</li> <li>• Universal breaker lockout</li> </ul>

## 6. VIOLATIONS & DISCIPLINARY ACTIONS OF ENVIRONMENTAL, HEALTH AND SAFETY RULES

- All JCI employees have the authority to stop sub-contractor work whenever they observe unsafe acts or unsafe conditions, or when they deem it necessary for the protection of persons or property.
- JCI may require the removal from the site of any person who, in the opinion of the contractor, fails to observe safety procedures and that person shall not be again employed on any of the sites without the written approval of the contractor.
- JCI reserved the right to terminate the contract of the sub-contractor in the event of gross breach of environmental, health and safety responsibilities by the sub- contractor.
- The JCI may impose safety disciplinary fines on the sub-contractor for violating of any environmental, health and safety rules.
- Disciplinary action system shall be used when a hazardous situation is observed, result of an employee’s unsafe act. It is intended to motivate employees to get into the habit of working safely & to comply with the policies and procedures.
- Failure to follow Safe work practices, JCI EHS policy, JCI international standards, golden rules, non–negotiable items and local statutory requirements.
- Safety violation will be treated as per the seriousness of the violation as table shown below

Safety Violation	Verbal Warning	Training	Written warning – Memo	<b>Fine</b>	One day Susp. W/out pay	One week Susp. W/out Pay	Termination
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Golden Rules			*	*	*	*	*
Non-Negotiable items		*	*	*	*	*	*
Non usage of PPE	*	*	*	*	*	*	*
Safe operating procedure		*	*	*	*	*	*
Wrong Material Handling		*	*	*	*	*	*
Not reporting the incident				*	*	*	*

### 6.1 Penalty system for sub- contractor employees:

Penalty clause applicable to sub- contractor workers against noncompliance of HSE norms, JCI rules & regulation, requirements, terms, clauses & instruction given by employer, consultant & applicable statutory laws.

Sr. No	Clause	Penalty
1	Violation of any golden rules.	Rs.1000/Violation after the issue of nonconformance report.
2	Violation of any non – negotiable items	Rs.1000/violation after the issue of nonconformance report.
3	PPE non -compliance	Rs.500 Per violation.
4	Violation of any standard operating procedures	Rs.1000/violation after the issue of nonconformance report.
5	Wrong material handling	Rs.500/ violation.
6	Non – reporting any workplace incidents.	Rs.1000/violation & termination if repeated.

### 6.2 Site discipline:

- What to wear: Trousers / full pants, full/half sleeve shirts/T-shirts, safety shoe.
  - What not to wear: Half pant/shorts, dhoti, sleeveless shirt/T-shirt, slippers
- Quality of life: Fresh drinking water to all the personnel working at project.



- The sub-contractors should ensure that none of his employees/workers are under the influence of drug or alcohol, anyone deemed to be under the influence of alcohol or prohibited drug will be required to leave the site, appropriate action may be taken against him.
- The sub-contractors will maintain the site/ work area clean, neat and tidy, ensure the tools tackles and spares are well segregated and stored.
- The subcontractor will ensure that the waste generated during the work activity is collected, stored, transported and disposed in a scientific manner as per the process mentioned in.
- The sub-contractor will ensure enough first aid facility is made available at site as per the norms.
- The sub-contractor will ensure supply of necessary, enough and relevant job specific PPE's are available at site
- The sub-contractor will deputy a technically qualified safety officer at site to monitor day to day operations.
- The sub-contractor will submit medical certificate for workers working at height being fit for acrophobia.
- Where the contractor and sub-contractor's work present potential hazard, appropriate notices must be supplied and displayed, and the area made secure as par as reasonably possible.
- Smoking is not allowed in work area only in the smoke zone areas.
- No food is to be consumed or left in work areas but consumed only in the dining areas allotted by the contractor.
- Warning signs and speed restrictions must be observed.
- Place of work to be left in a tidy and safe condition at the end of each work period.

## **7. SAFETY TRAINING**

- The sub-contractor shall ensure that all personnel attend the contractor's site safety induction training before commencing work.
- The sub-contractor shall ensure that all supervisory personnel are trained in safety management.
- The sub-contractor shall be responsible for identifying any trade and skill training which may be required for the performance of the work and ensure that such training is provided for the personnel who is concerned. Examples of trade and skill training include, but are not limited to: lifting supervisor, mobile crane operator, slinging and rigging operator, forklift operator, scaffold supervisor, scaffold erector, explosive powered tools operator, and safety induction course for supervisor. All training information, records and certificates shall be properly documented, kept and made available for verification.
- The sub-contractor's management representative shall attend all co-ordination
- Meeting and safety committee meeting organized by the contractor.
- The sub-contractor shall ensure all personnel attend all toolbox meeting organized by the contractor.

## 8. SAFETY INSPECTIONS

- The sub-contractor shall carry out internal safety inspections at least once in a day. In addition, informal spot checks must be carried out more frequently on critical site activities.
- Personnel carrying out inspections should be competent to do so and should be fully conversant with relevant procedures for safe work practices, site rules and regulations and statutory requirements.
- All records of safety inspection shall be kept on file by the sub-contractor for inspection by the contractor.
- The sub-contractor's representative shall accompany the contractor staff on their planned site inspections program.

### 8.1 Inspection and maintenance regimes for all construction plant, equipment and tools

The sub-contractor shall implement a preventive maintenance program to ensure that all plant, equipment and tools used on Site, including hand held electrical tools and temporary wiring, is properly maintained and where appropriate, all safeguards and devices to protect workers should be fitted and maintained in an efficient working order.

- The sub-contractor shall identify the statutory maintenance and testing requirements for all plant on site and integrate this requirement in the preventive maintenance program.
- To fulfil the requirement of the foregoing, the sub-contractor shall ensure that:
  - a) Inspections of all plant, equipment and tools are held at predetermined and regular intervals;
  - b) Defects and material deficiencies identified are reported to the contractor; and
  - c) Corrective action is taken in an effective and timely manner.
  - d) Job-made or modified tools of any kind shall not be used on site.

If outside agents are engaged to carry out maintenance and repair, it is necessary to control and supervise their activity to ensure that they conform to the agreed specifications and maintenance contract. All plant and equipment so maintained should be inspected and checked before being returned to service.

**UNDERTAKING**

I, \_\_\_\_\_ (Designation) \_\_\_\_\_,  
Company/Contractor \_\_\_\_\_, read and understood  
the contractor EHS requirements content briefed and explained/demonstrated by Johnson  
Controls India private limited employee (Name) \_\_\_\_\_ on ID no..... On  
Date \_\_\_\_\_

The EHS requirements communicated to me is clear and well within my knowledge and I have complete awareness of the future consequences for breach of EHS requirements, and I agree to follow and adhere the above EHS requirements without fail till the completion of the project/work assigned. I hereby accept to indemnify Johnson Controls from any accidents or any events resulting in breach of the above EHS requirements. A copy of the EHS requirements is provided by the Johnson Controls for me/our better understanding to follow EHS requirements during the operations of project/work assigned within the company and is acceptable to me. The sub-contractor hereby agrees that he will provide and submit all the receipts of provident fund & employees state insurance for the perusal of the contractor as a compliance of this EHS undertaking without any failure as a token of proof as to remission of salaries to his employees/workmen. I further warrant and adhere that any modifications / amendments to these EHS requirements in future will also be followed appropriately, as and when communicated. In token whereof I put my signature on behalf of the company/contractor.

Contract Company:

Scope of work:

Contractor Safety Representative:

Site Safety Steward

Signed By:

Signature & Date

Contractor Company.

**APPENDIX A**

**CONTRACTOR MANAGEMENT PERFORMANCE QUESTIONNAIRE**

**ENVIRONMENTAL, HEALTH AND SAFETY (EHS)**

**CONTRACTOR MANAGEMENT**

**PERFORMANCE QUESTIONNAIRE**

**Name of Contractor:**

**Address of Contractor:**

**Contact Name:**

**Phone Number:**

**Date:**

**1. Do you have an Environmental, Health and Safety policy?  Yes  No**

*If YES, please supply a signed and dated copy of the EHS policy statement.*

Please provide the details of the person responsible for EHS within your organization (Director/Manager level).

Name

Position

Tel and Mobile No

Email

**2. Does your company have a documented Environmental, Health and Safety management system?  Yes  No**

*If YES, please attached Table of Content or provide manual.*

**3. Provide 3 years of injuries and illnesses records. Please note that JCI requires all Contractors to provide incident statistics.**

Year	Most Current Year 1:	Year 2:	Year 3:
a. Number of hours worked by employees and directly supervised contract employees			
b. Total number of employees on your payroll			
c. Total Recordable Incident Rate (number of workplace incidents. See NOTE).			
d. Lost Time Incident Rate (Number of workplace incidents that result in one day or more out of work. See NOTE)			
e. Motor Vehicle Accident Rate (See NOTE)			
f. Number of Fatalities			

**NOTE:**

The following formula is used for calculating the Total Recordable Incident Rate:

Number of Recordable Incidents x 200,000 /hours worked in the year you will have to define what a recordable and lost time case is for the Contractors. Add it here or in a definitions section, whatever makes the most sense.

The following formula is used for calculating the Lost Time Incident Rate:

Number of Lost Time Incidents x 200,000 /hours worked in the year

The following formula is used for calculating the Motor Vehicle Accident Rate:

Number of MV Accidents x 100 / average number of vehicles in the year

**4. Has your company implemented employee training for the topics below?**

*If YES, provide last date training was provided. (Use "NA" for a choice that is not applicable to your business.) Documented training records may be required prior to start of work or at the direction of JCI.*

Yes	No	Date	NA		Yes	No	Date	NA	
				Personal Protective Equipment					Hearing protection

				Precautions when working with body fluids (Blood borne Pathogens)					Heavy Equipment operation
				Employee Level Safety Training					Laboratory Safety
				Supervisor Level Safety Training					Ladder/Scaffolding
				Crane Operations					Fire prevention and emergency response
				Electrical Safety					Control of Hazardous energy
				Confined Space					Blasting/Explosives
				Working at heights					Portable power tools
				Use of portable Fire Extinguishers					High Risk Chemical Handling
				First Aid/Cardio-pulmonary resuscitation/ automated external defibrillator					Welding/Burning/ Brazing
				Forklift Operations					Respiratory Protection
				Chemical hazards					Traffic Control
				Risk Assessment					Radiation Protection
				Motor Vehicle Safety					Explosion hazards
				On road defensive driving					Specialized chemical safety (lead, asbestos)
				Waste Management					Management of fuel and petroleum (oil spill plan)
				Spill prevention and emergency response					Pollution prevention
				Storm water (rainwater run-off) management					Ozone depleting chemicals (Chlorofluorocarbons CFC)

				Pesticide management					
<p><b>List any other training not shown above:</b></p>    									
<p><b>Who conducts this training for your company?</b></p> <p><b>Name:</b> _____ <b>Title:</b> _____</p>									
<p><b>5. Does your company currently maintain an Accident Prevention Program? <input type="checkbox"/> Yes <input type="checkbox"/> No</b>  <i>If YES, please provide as attachment.</i></p>									
<p><b>6. Does your company currently maintain a Risk Assessment Program? <input type="checkbox"/> Yes <input type="checkbox"/> No</b>  <i>If YES, please provide as attachment.</i></p>									
<p><b>7. What Risk Assessments do you carry out in connection with your business activities in order to comply with your statutory duties? Please list below. Please provide an example of a recent Risk Assessment relating to a typical work activity.</b></p>									
<p><b>8. Please describe below briefly how you record and investigate accidents and</b></p>									

**incidents.** Important Note: Contractors are required to immediately notify JCI of all incidents including personal injuries, project property losses or damages and incidents involving the public or the property when occurring on JCI projects. Contractors are required to investigate all incidents incurred by their employees or incidents that are the result of their operations on JCI projects. Each Contractor shall provide to JCI an "Incident Investigation Report" within 24 hours of the occurrence. JCI may request that a meeting be held with the parties involved to discuss the incident in more detail. Requested Contractors shall attend and participate in the investigation / discussion and develop an action plan.


**9. Does your company have a formal Alcohol and Substance Abuse Program?**

- Yes**  **No** *If YES, please provide as attachment and answer the following if permissible by local laws?*
- a. Substance testing?  **Yes**  **No**
  - b. Pre-employment/pre-job assignment testing?  **Yes**  **No**
  - c. Post-accident drug and alcohol testing?  **Yes**  **No**
  - d. Random testing?  **Yes**  **No**

**10. Has your company reported any spills to a government agency in the last 3 years?**

- Yes**  **No**  
*If YES, please provide details.*


**11. Does your company use/handle hazardous materials/substances?  Yes  No**

*If YES, please describe below:*

--



<b>12. Does your company have an Emergency Preparedness and Response Plan?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If YES, please provide as attachment.</i>			
<b>13. Please outline any initiatives your company has undertaken to promote sustainability and encourage conservation of natural resources.</b>			
<b>14. Has your company received any of the following in the last 3 years for safety and/or environmental issues?</b>  <i>If YES, please provide details.</i>			
Fines or convictions:	Yes. How many?	No	
Prohibition notices:	Yes. How many?	No	
Improvement notices:	Yes. How many?	No	
<b>15. Does your company hold any third party certification (ISO 9001, ISO 14001, and OHSAS 18001) certification? If so, please specify. <input type="checkbox"/> Yes <input type="checkbox"/> No</b> <i>(Please provide copy of the registration).</i>			

<p><b>16. Has your organization ever been presented with an EHS performance award?</b>  <input type="checkbox"/> Yes <input type="checkbox"/> No  <i>If YES, please provide details.</i></p>

**Health and Safety General Requirements:**

- Contractors must report to JCI EHS Department any safety concerns, observed conditions or violations of job safety, regardless of whether they are within the observer’s responsibility to correct.
- Contractors shall ensure that employees have a good working knowledge of applicable safety requirements as they pertain to their areas, and encourage all employees to improve their accident prevention awareness.
- Contractors will ensure that when required or appropriate, trained first aid personnel are available, certified, and equipped for their responsibilities.

*Important Note: Failure to follow safe practices, regardless of whether such requirements or procedures are outlined in writing by JCI in this or any other document, may result in disciplinary action or termination of your contract to work for JCI.*

CERTIFICATION	
The undersigned warrants and represents the data provided in this document is accurate in all respects.	
<b>Contractor Name:</b>	
<b>Completed by:</b>	
<b>Title:</b>	
<b>Email address:</b>	
<b>Signature:</b>	
<b>Date:</b>	

## APPENDIX B

### DECLARATION OF CONFORMITY

Contractor's Name \_\_\_\_\_

Contractor's Address \_\_\_\_\_

\_\_\_\_\_

THIS DECLARATION is made as of this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between JCI International, and \_\_\_\_\_,

Herein after called "Contractor" for the work or services provided to or on behalf of JCI, and is subject to the following conditions:

1. The Contractor agrees to conduct the work or services in a workmanlike and professional manner and in conformity with all laws, rules, regulations and codes of ethics.
- 2.

2. The Contractor agrees to provide the updated version of the "Contractor Management Performance Questionnaire – Appendix A" on an annual basis or to sign the attached Declaration of Conformity, including the information requested on Tables 1 and 2, to certify compliance with the requirements of the Contractor Management Program defined by JCI International

<b>Table 1: Provide the injuries and illnesses records for the previous 12 months</b>	
<b>Description</b>	<b>Year</b> _____
Number of hours worked by employees and directly supervised contract employees	
Total number of employees on your payroll	
Total Recordable Incident Rate (number of workplace incidents. See NOTE).	
Lost Time Incident Rate (Number of workplace incidents that result in one day or more out of work. See NOTE)	
Motor Vehicle Accident Rate (See NOTE)	
Number of Fatalities	

**NOTE:**

- The following formula is used for calculating the **Total Recordable Incident Rate**:  
 $\text{Number of Recordable Incidents} \times 200,000 / \text{hours worked in the year}$  you will have to define what a recordable and lost time case is for the Contractors. Add it here or in a definitions section, whatever makes the most sense.
- The following formula is used for calculating the **Lost Time Incident Rate**:  
 $\text{Number of Lost Time Incidents} \times 200,000 / \text{hours worked in the year}$
- The following formula is used for calculating the **Motor Vehicle Accident Rate**:  
 $\text{Number of MV Accidents} \times 100 / \text{average number of vehicles in the year}$

**Table 2: Has your company received any of the following in the last 12 months for safety and/or environmental issues?**

*If YES, please provide details.*

	Yes. How many?	No	
Fines or convictions:			
Prohibition notices:			
Improvement notices:			

The undersigned confirm that the information provided in this declaration is accurate in all respects.

Name of authorized officer

Title of authorized officer

Date

Authorized Signature

Company Stamp

## Appendix C

### Acceptance Criteria

### For Contractor Management Performance Questionnaire

Question	Criteria	Pass	Fail	To be reviewed by EHS
1	Note 1			
2	Note 1			
3	TRIR < 3	✓		
	TRIR > 3		✓	✓
	LTIR < 3	✓		
	LTIR > 3		✓	✓
	MVAR < 20	✓		
	MVAR > 20		✓	✓
	Fat = 0	✓		
	Fat >= 1		✓	✓
4	Note 2			
5	Note 2			
6	Note 2			
7	Note 2			
8	Note 2			
9	Note 2			
10	Note 2			
11	Answer Yes		✓	✓
			✓	✓
	Answer No	✓		
12	Note 2			

13	Note 2			
14	Answer Yes		✓	✓
	Answer No	✓		
15	Note 2			
16	Note 2			

Note 1 – Pass / Fail criteria to be defined by EHS based on local requirements.

Note 2 – No Pass / Fail criteria established but an answer is required to regardless of the size or type of organization. Pass/Fail criteria is dependent on EHS review and approval.