

Johnson Controls Contractor Management Pack

Welcome to the Johnson Controls family!

We look forward to fostering a great working relationship with you. Before we get started however, we do require that you review and complete the associated forms in this pack and send back to us. Please ensure you keep a record for yourselves also.

If you need any assistance with completing this form, or have any questions, please don't hesitate to contact the below personnel. Once you have completed the pack, please send it back along with any associated documents to the below.

For New Zealand:

Darryl Leppan - darryl.leppan@jci.com

For Australia:

Rachel Sellers - rachel.sellers@jci.com

Johnson Controls EHS Approval: (Any issues identified need to be resolved prior to approval)

Name of Contractor:

Signed by (EHS Lead)

Signature

Name

Date

Part 1: Contractor EHS Agreement

Party A: Johnson Controls, Inc

Party B:

This agreement is made in order to ensure Environment, Health and Safety (EHS) Laws and Regulations are met by both parties, with the aim of achieving Zero Harm. Party A and Party B both agree to implement the practices and responsibilities included in this agreement whilst performing their duties.

1. Party B shall strictly observe and implement national and local laws, regulations and rules on Environment, Health and Safety (EHS) and fire protection, and accept supervisions and inspections from regulatory bodies at all level of local Authorities as well as supervisions and inspections from Party A, and shall accept all the consequences arising from violating any above laws and regulations.
2. Party B shall ensure it possesses the required capital, qualified staff, appropriate equipment and other conditions related to safe production required by national laws, and obtain relevant qualification certificates pursuant to the laws and undertake any project within the scope of its qualification; provide copies to Party A. Before implementing the job, authentic, lawful and valid proof materials such as worker name list, work-related injury insurance, qualification of safety management personnel and Certificates for Special Operations shall be provided if applicable.
3. Party B shall ensure a person is assigned to oversee safety management in accordance with laws and regulations,;
4. Party B shall establish a sound and safe accountability system, education and training system, procedures and operation instructions to address Environment, health, safety and fire protection issues. It shall also conduct regular and special safety inspection in the project (service site) it undertook and keep proper records;
5. Party B shall allocate a specific expense inventory for EHS and fire protection issues, and make sure the fund is used for its specific purpose only.
6. Party B shall observe national and local laws, regulations and rules on labour safety and employment, ensure legal employment and avoid using child labour ;
7. Before any work is allowed to commence, , Party B shall obtain relevant education and training on EHS and fire protection issues, to make sure on-site personnel are equipped with necessary safe production knowledge and familiar with relevant production regulations and procedures as well as possess safe work skills required by their jobs.
8. Party B shall develop a specific work safety plan according to the requirements of the project to be undertaken; it shall conduct an EHS induction to all personnel before work is started, and

- implement the safety practices properly and completely, and ensure no untrained worker is not allowed to work in the site.
9. Party B shall make sure to provide necessary safety tools and equipment for work of high risk or in dangerous locations. No work shall be allowed before protective measures were in place. A safe construction plan shall be provided to Party A for future reference. High risk job includes but not limited to working at heights or in confined spaces, dealing with inflammable and explosive articles or poisonous and harmful articles, operating pressurized vessel, hot work, lifting, and pipeline disconnection.
 10. Party B shall provide on-site personnel with personal protective equipment complying with national safety requirements and instruct them how to wear and use these items. On-site personnel must use personal protective equipment correctly. Person in charge shall inspect the usage of personal protective equipment to prevent any nonconformity.
 11. When conducting hot work, Party B must observe the management requirement as provided in national laws and regulations or by the premise owner, including ensuring a permit to work and appropriate firefighting equipment.
 12. Party B shall not use any on-site equipment, facility and instrument of Party A and premise owner without authorization of Party A. Upon the consent of Party A or premise owner in writing, Party B shall be responsible for the safe use and protective measures of such equipment, facility and instrument. Without authorization of Party A or premise owner, Party B shall not use on-site energy resources like water, electricity and gas nor run or connect any cable or wire. Party B shall immediately disconnect corresponding switches in case of interruption or failure. Party B shall not dismantle or modify any protective facilities and signs set up by Party A or premise owner, otherwise it shall be responsible for any accident arising therefrom.
 13. Party B shall dispose of any wastes in accordance with national and local environmental laws and regulations. Hazardous substances, oils, chemicals, waste water and other pollutants shall be stored in a designated area instead of any area near sewer, pit or collecting basin to prevent them from dumping or discharging into ground water or environment accidentally causing pollution. It is prohibited to dump solid or liquid wastes such as chemicals, waste oil and waste paintings into soil or sewer.
 14. Party B shall not subcontract the project to other companies without approval from Party A's project manager. Party B shall manage subcontractors with the same standard. Any third-party personnel entrusted by Party B shall be deemed as personnel of Party B, and Party B shall be accountable for their safety and responsible their safety management.
 15. Party B shall report any personal injury or death, chemical leakage, fire and equipment accident or any other situation threatening personal safety to Party A immediately and coordinate with corresponding investigations. Party B shall first guarantee the safety of the staff before taking active emergency measures, and notify Party A's project manager and safety management staff of the situation as soon as possible. In the case of a major incident, both parties shall notify local

- government immediately and preserve the scene until clearance is provided.
16. Party B shall accept supervision and guidance from Party A's safety department and eliminate any safety risks identified by Party A in a timely manner. During cooperation, Party B shall not violate Party A's Environment, Health and Safety Requirements Specific to Johnson Controls Contractors, otherwise, Party A has the right to warn Party B or charge Party B a penalty (See Appendix I for Penalty Notification).
 17. Party B shall be responsible for the breach liability of any shutdown caused by following reasons, and Party A has the right to terminate the contract under such situation:
 - (1) Personal injury or death accident
 - (2) Serious damage of construction machinery or production equipment
 - (3) Fire accident
 - (4) Work against rules or work at risk despite warnings
 - (5) Poor on-site conditions which does not meet the requirement of safe and civilized work
 18. In case Party B fails to assign safety management personnel or fails to carry out technical safety measures and construction planning in a proper and comprehensive way; construction personnel fails to fully understand the features and construction safety measures of this project; or the construction machinery, tools and instrument and protective supplies do not meet the requirement of this project, Party A has the right to request Party B to shut down and make rectifications, and Party B shall be responsible for any consequences or losses arising therefrom. In case Party B fails to complete the rectifications within a time period specified by Party A, Party A has the right to terminate the contract, and Party B shall be responsible for all the losses suffered by Party A or third party arising therefrom.
 19. Party B shall be responsible for any equipment damage suffered by Party A or third party due to Party B's fault and negligence, and compensate the damaged party or third party for such losses. During the performance of the contract, Party A has the right to terminate the contract if the qualification materials provided by Party B are found to be invalid, and Party B shall be responsible for all the losses arising therefrom.

Name of Party A:

Name of Party B:

Title of representative:

Title of representative:

Signature of representative:

Signature of representative:

Date:

Date:

Part 2: Contractor EHS Pre-Qualification Questionnaire

This questionnaire forms part of the Johnson Controls (the Company) subcontractor evaluation process and is to be completed by contractors and submitted with their application for registration as a preferred Company contractor.

The objective of the questionnaire is to provide an overview of the status of the subcontractors' Management System and to ensure all operatives are adequately insured and have acknowledged the Company Subcontract Terms and Conditions.

Successful preferred subcontractors may be required to verify their responses noted in their questionnaire by providing evidence of their ability and capacity in relevant matters.

Certification:

The information provided in this questionnaire is an accurate summary of the Contractor's Environmental Health and Safety Management System, all insurances are current and the Standard Terms and Conditions apply.

Contractor's Name		
Registered Business Address		
	Street No. & Name	
	Town/City	Postcode
	Telephone No.	Email Address
Signed by		
	Signature	Print Name
	Position Title	Date

1. Contractor Information

1.1 Does the Contractor have Principals / Directors Yes No

If YES please provide names and titles

Name Title

Name Title

Comments _____

1.2 Has the Contractor operated under other names Yes No

If YES please provide details

Comments _____

1.3 How many employees? _____

1.4 How many years in Business? _____

1.5 List licenses currently held.

Comments _____

2. Type of work

2.1 Nominate the type of work the Contractor has experience in.

2.2 List of Projects with general scope and contract amount recently completed

Comments _____

3. EH&S Policy and Management

3.1 Is there a written Environmental, Health and Safety Policy? Yes No

If YES please provide a copy of the Policy

Comments _____

3.2 Does the business have a documented EH&S Management System? Yes No

If YES please provide details

Comments _____

3.3 Are environmental health and safety responsibilities clearly identified for all levels of staff? Yes No

If YES please provide a copy of a position description or training record

Comments _____

4. Managing Safety and Environmental Risks

4.1 Does the Contractor have procedures in place for identifying and reporting safety hazards and environmental aspects and impacts? Yes No

If YES please provide examples of the documentation used etc.

4.2 Are there procedures for assessing and controlling the risks of the hazards and environmental impacts? Yes No

If YES please provide examples of the documentation used etc.

4.3 Has the Contractor prepared Safe Work operating procedures or specific safety instructions relevant to its operations? Yes No

If YES please provide a summary listing of procedures or instructions.

Comments _____

4.4 Does the Contractor have any permit to work systems? Yes No

If YES please provide a copy of permits relevant to this project

Comments _____

4.5 Is there a documented accident/incident investigation procedure? Yes No

If YES please provide a copy of a standard incident report form

4. Managing Safety and Environmental Risks (cont.)

- 4.6 Are there procedures for maintaining, inspecting and assessing the hazards of plant operated/owned by the Contractor? Yes No

If YES please provide a plant register

Comments _____

- 4.7 Are there procedures for identifying, handling and storing hazardous substances? Yes No

If YES please provide a Hazardous Substances & Dangerous Goods register

Comments _____

- 4.8 Are there procedures for identifying, assessing and controlling risks associated with manual handling? Yes No

If YES please provide details

Comments _____

- 4.9 Are there procedures for identifying, assessing and controlling risks associated with working at heights? Yes No

If YES please provide a copy of licenses for those staff that hold working at heights tickets

Comments _____

5. Environmental Health and Safety Training

- 5.1 Describe how health and safety training is conducted in your business and provide evidence

- 5.2 Is a record maintained of all training and induction programs undertaken for employees in your business? Yes No

If YES please provide examples of safety training records

Comments _____

6. Environmental Health and Safety Workplace Inspections

- 6.1 Are regular environmental health and safety inspections at work sites undertaken? Yes No

If YES please provide an example of an inspection conducted within the past 6 months

Comments _____

- 6.2 Are standard environmental health and safety inspection checklists used to conduct health and safety inspections? Yes No

If YES please provide details

Comments _____

7. Environmental Health and Safety Consultation

- 7.1 Are employees involved in decision making over EH&S matters? Yes No

If YES please provide details

Comments _____

- 7.2 Is there a Workplace Environmental Health and Safety Committee? Yes No

8. Environmental Health and Safety Performance Monitoring

- 8.1 Is there a system for recording and analysing environmental health and safety performance statistics, such as Lost Time and Medical Treatment Injuries, Near Misses etc? Yes No

If YES please provide details

Comments _____

- 8.2 Are employees regularly provided with information on the Contractor's environmental health and safety performance? Yes No

If YES please provide details

Comments _____

9. Insurance Coverage

9.1 Do you have a Public Liability Policy Yes No

If YES please attach a copy of your Certificate of Insurance

9.2 Do you have a Professional Indemnity Policy? Yes No

If YES please attach a copy of your Certificate of Insurance

9.3 Do you have Workers Compensation Insurance (Australia only) Yes No

If YES please attach a copy of your Certificate of Insurance

10. Accident / Incident History

10.1 Do you have a Return to Work Policy and Program Yes No

If YES please attach a copy

Comments _____

10.2 Please give details of your safety record for the last three (3) years

	Year 1	Year 2	Year 3
Number of Workplace Injuries resulting in lost time			
Number of minor injuries with no lost time (medically treated injuries)			
Number of fatalities			
Total man hours worked			
Total days lost through injury			
Lost time injury frequency rate			

10.3 Have you received any improvement or prohibition notices, or any fines issued by a regulatory authority in relation to Environment, Health and Safety in the last three years? Yes No

If YES please provide details

Comments _____

Part 3: EHS Requirements specific to Johnson Controls

These EHS Requirements outline the requirements and responsibilities of the Contractor/Sub-contractor when performing equipment installation works, construction works or services 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.

The Objective of the Environmental, Health & Safety Requirements is to create a standard EHS approach that enables all equipment installation works, all construction works and projects to be executed in the same manner in Johnson Controls, with diligence, minimal impact on the environment and without any accidents and incidents.

The Environmental, Health & Safety Requirements shall apply to all personnel on the project/worksite including the Client (if there are no specifications), Contractor/Sub-contractors and persons under the direct or indirect control of the aforementioned.

Definitions

EHS	Environment, Health and Safety.
Health and Safety	Occupational conditions and factors that affect the health of employees, temporary workers, agency workers , contractor's staff, visitors and any other people in the workplace.
Environment	Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, human and their interrelation.
Hazard	Sources or situations with a potential harm in terms of human injury or illness, damage to property, damage to workplace environment or a combination of these.
Risk	Combination of the likelihood and consequence(s) of a specified hazardous event occurring.
Risk assessment	Overall process of estimating the magnitude of risk and deciding whether or not the risk is tolerable; this process should consider normal and abnormal operating conditions, shut-down and start-up conditions, as well as reasonably foreseeable emergency situations.
Work safety analysis/safe method introduction/safe working practices	Method of control that is used after a risk assessment of an operation has been carried out. It is used to control the operation and to ensure that all concerned are aware of the hazards associated with the work and the safety precautions to be taken. It should contain the boundaries, materials and plant requirements and temporary works designs. This is normally written in a step wise manner.
Environment impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization’s activities, products or services;
Contract	The agreement between the client or Johnson Controls and the Contractor/Sub-contractor.◦
Subcontract	Any agreement relating to any subsequent or lower tier within the contract hierarchy.
Contractor/subcontractor	Any person, firm, company, contractor, vendor, supplier or combination thereof (including any employee, servant or agent thereof), that enters into a contract with the client or Johnson Controls.
Subcontractor	Any person, firm, company, or combination thereof (including any employee, servant or agent thereof), that enters into a sub-contract with the Contractor or Johnson Controls.
Construction site/site	Any site or premises owned, occupied or controlled by the client as referred to or defined within the contract.

<p>1. General rules</p>
<ul style="list-style-type: none"> ○ Comply with applicable legislation, standards, codes of practice, etc. ○ Comply with specific Client and Johnson Controls site procedures or rules. If differences exist between local, client and Johnson Controls EHS standards, the higher or more stringent requirement should apply. ○ Johnson Controls reserves the right to stop any work creating a potential risk to the health and safety of people, to the environment or that could cause damages to materials, services, equipment or impact production. The Contractor/Sub-contractor is responsible for remedial measures and associated costs. ○ Co-operate with Johnson Controls and other contractors on co-ordination and communication issues.
<p>2. Security</p>
<ul style="list-style-type: none"> ○ Comply with the Johnson Controls security rules and procedures. ○ Be responsible for the Security of its equipment, tools and any other items owned or hired. ➤ Not take photographs without written approval of Johnson Controls and/or the client (equipment, process, buildings, etc.)
<p>3. EHS Introduction</p>
<ul style="list-style-type: none"> ○ All personnel shall attend an EHS Induction / Orientation before starting work on site. The training should be recorded as per the Environmental, Health & Safety Requirements. ○ The contents of the EHS Induction / Orientation shall be specific to the type and area of work. It should provide information about the main risks associated with the work, the site rules, the emergency and working procedures and any other relevant local requirements.
<p>4. EHS training and instruction</p>
<ul style="list-style-type: none"> ○ People operating tools and equipment shall be trained and certified as required by local legislation and the Client and/or Johnson Controls. Evidence of training shall be provided to Johnson Controls. ○ As the need arises, special training / instruction sessions may be delivered to workers when particularly severe or unusual hazards arise during the project. ○ Personnel shall be trained/instructed in the use of emergency equipment and procedures.
<p>5. Enter to site</p>
<ul style="list-style-type: none"> ○ Comply with site access badge requirements. ○ Written approval / authorization is required to park vehicles inside Johnson Controls premises. ○ Johnson Controls reserve the right to check the hazardous contents of vehicles both on entry to and exit from Johnson Controls project premises and if necessary to search vehicles and occupants.
<p>6. Authorization for site access</p>
<ul style="list-style-type: none"> ○ The Contractor/Sub-contractor can only enter site areas in connection with the execution of the Work or Services but not to other parts of the premises without prior authorization from the Client and/or Johnson Controls. ○ The Contractor/Sub-contractor shall obtain the necessary approval from the Client and/or Johnson Controls for all contractor/sub-contractor coming to the worksite. Visitors should always be accompanied by a person familiar with the site EHS rules.
<p>7. Control of subcontractors</p>
<ul style="list-style-type: none"> ○ The Contractor/Sub-contractor is responsible for its sub-contractors and all personnel working on its behalf.

- All sub-contractors and personnel working for the Contractor/Sub-contractor shall comply with the Environmental, Health & Safety Requirements and all other project requirements.
- The Contractor/Sub-contractor shall provide sufficient competent personnel to supervise the work safely.

8. Implementation of the Environment, Health and Safety Requirements

- Comply with and implement Environment, Health and Safety Requirements.
- Provide Risk Assessments and Safe Method Statements associated with the works/services before commencement on site.
- Request associated Permit to Work before starting works on site.
- The Safe Method Statements approval does not relieve the Contractor/Sub-contractor from his duties to comply with the local statutory legislation, regarding the health and safety of his employees and all other persons who may be affected by his acts or omissions while undertaking the works.

9. First aid and welfare facilities

- Provide appropriate first aid facility, equipment, materials and medicines. The provision of personnel trained in first aid treatment should be as per local legislation.
- Provide appropriate welfare facilities (canteen, toilets, locker room, etc...) as per local legislation and the Environmental, Health & Safety Requirements.
- In certain cases, some or all of these facilities may be provided by the Client and/or Johnson Controls.

10. EHS representative/meeting

- Formally appoint an EHS Coordinator, as per the Environmental, Health & Safety Requirements to monitor and coordinate safety on site and to perform safety inspections (The level of training / competence of this person should be agreed with the Johnson Controls and is dependent on the size / complexity of the project and associated hazards).
- The EHS Coordinator shall send copies of site inspection reports to Johnson Controls and participate in EHS Meeting with Johnson Controls.
- The EHS coordinator of contractor shall provide monthly EHS report to corresponding project manager according to the requirement of site EHS.

11. Personal protective equipment (PPE)

- Provide appropriate PPE to their personnel and visitors. (e.g. Safety Helmets / Safety Footwear / High Visibility clothing/ Eye Protection, etc).
- Johnson Controls reserves the right to remove employees/visitors from the site if PPE are not being used.
- The PPE used at construction site must comply with national standard and within the period of validity, special protective equipment must be labelled with safety certificate such as LA, CE; any damaged or defective PPE must be replaced immediately.
- Operation personnel shall choose appropriate PPE based on operation risk and use them correctly in accordance with national regulations.

12. Temporary works

- All Temporary Works should be covered by a Safe Method Statement indicating how calculations, designs, pre and post loading checks, etc. have been established / verified.
- Temporary Works shall be under the direct supervision of a competent person as defined by the regulations.

- Temporary works supporting systems or equipment should be in good condition and fit for purpose.

13. Environmental protection plan

- Prepare an applicable Environmental Impact Protection Plan to address potential risks/hazards (noise, air emissions, fuel / oil / chemical storage, waste skips, traffic) to the surrounding environment.

14. Services and operating processes

- Work likely to affect operating process, machinery, or service shall not be starting without appropriate Permit to Work. This is also applicable for coupling in or connection to compressed air line, steam line, water line, oxygen line, vacuum, fuel line, electrical circuit or other similar service.
- Any operation requiring permit to work must be equipped with a dedicated supervisor to take charge of the report, protection, shutdown of preliminary work, the supervision, direction, and alerting during work process, and the recovery, cleaning and communication upon completion.

15. Equipment, facilities, tools and systems

- All the equipment, facilities, tools and systems provided by contractor/subcontractor shall be in good form, in working order and be fit for the purpose intended by design. Before carrying out any work, suitable tools or equipment must be chosen and grounded properly.
- All the equipment, facilities, tools and systems provided by contractor/subcontractor shall be inspected, tested and certified as per local legislation requirements. Certificates should be provided to Johnson Controls when requested.
- Johnson Controls reserves the right to refuse the use on site of any plant or equipment considered not good, not safe or not in an environmentally acceptable condition.
- Tools like grinders, cutters, wrenches, screwdrivers must comply with national standards and shall be used in accordance with corresponding requirements.

16. Noise at work

- The Contractor/Sub-contractor will provide appropriate PPE for all works generating excessive noise over 85 dB (A) or having a peak sound pressure of 200 pa (140 dB). Precautions should also be taken for others at work (*Note: the threshold levels for action may be lower in some countries*).

17. Housekeeping

- The Contractor/Sub-contractor shall always carry out works / services in a clean and orderly manner:
 - Materials and substances should be safely stored, not obstructing accesses;
 - Timbers (packing cases, shuttering etc.) should be systematically de-nailed or the nails bent-over;
 - Avoid accumulation of combustible materials / debris within or close to any building;
 - When practical, waste should be segregated for recycling;
 - Waste, rubbish and debris should not be stored on site without formal approval from Johnson Controls, who should then designate the area and stipulate the storage conditions;
 - Food waste should be placed in covered containers that are emptied daily (food may only be prepared / consumed in an agreed designated area); and
 - It is not permitted to burn waste on site.

- If the Contractor/Sub-contractor is not maintaining good housekeeping standards, Johnson Controls reserves the right to organize collection and disposal of the rubbish by a third party at the Contractor/Sub-contractor cost.

18. Safe means of access / working at heights

- Provide and maintain safe means of access to all work areas.
- Elevated work places (4 feet / 1.2m or more) shall be provided with adequate barriers to prevent the fall of people, tools or materials. If not possible, safety nets or other approved methods should be utilized.
- Working at heights must be carried out on a secured and solid platform without defects/bulges/debris; and provide worker safe means of access to different work levels.
- In the event of the aforementioned not being practical, workers should be wearing safety harness, which must be attached to a solid fixing point (i.e. steel member, anchor bolt or running line).
- Where the workers need to move from point to point during work, a two-lanyard system shall be used to ensure the workers are always latched on. At no point in time should the worker be disconnected from the lanyard system.
- Personnel working from Mobile Elevating Work Platforms or any similar equipment /devices, shall be attached with a safety harness. (for Static / Mobile Scaffold Towers organize an additional risk assessment).
- Openings through which people, tools or materials could fall shall be either securely barrier or provided with securely fixed and marked covers that are fit for purpose and clearly identifiable.
- Provide specified tool bags for working at heights. Throwing objects from height is prohibited.

19. Scaffold

- Pay particular attention to the strength and stability of all types of scaffolding, as well as the provision for safety guard rails, toe boards, timber scaffold boards etc.
- Only proprietary scaffold systems and ladders shall be used, unless agreed otherwise by the Johnson Controls.
- Any scaffolding that has been substantially adapted or altered, shall not be used until it has been inspected by a competent person as defined by the regulations.
- Provide a scaffold status identification system (e.g. Scaffolding Tag (SCAFFTAG) SYSTEM or similar) and ensure that it is correctly implemented.
- Scaffold systems must not be mixed and shall be fit for the intended purpose.
- Ladders/access ways shall be kept in good condition, placed at the correct angle and firmly secured when in use.
- Scaffolds must be inspected by a competent person after bad weather and at least once per week (or as defined by local regulations or Project specification) and results recorded.
- Scaffold must be built by competent unit/person, and meet the following requirements:
 The ratio between the vertical height and horizontal width of scaffold should be 3.5:1 for indoor operation and 3:1 for outdoor operation, otherwise bracing shall be adopted;

 The work platform must be installed with guardrail system with height more than 1.06m;

 the height of mobile scaffold shall not exceed 5m;

 It is prohibited to move scaffold with people on working platform; when a scaffold is being moved, no irrelevant person shall be allowed to enter its range of collapse.
- Requirements on ladders:

- The maximum loading capacity must be bigger than 120KG;
- The use of self-made ladders is prohibited;
- Ladders shall be used in accordance with the requirements specified in Working at Heights in Safety Management System of Johnson Controls.

20. Lighting

- o Unless agreed otherwise, the Contractor/Sub-contractor shall provide sufficient safety lighting to and at the workplaces. In all cases, Contractor/Sub-contractors are responsible for task lights at the work place, the lights shall comply with national standards.
- o Lighting levels shall comply with local requirements for the type of work being undertaken.
- o The use of halogen lamps is prohibited due to high operating temperature and high potential risks of fire / injury associated with **halogen lights**.
- o Lighting elements shall be guarded against contact by persons or materials.

21. Lifting operations

- o Provide appropriate statutory inspection reports / certificates before carrying out any lifting operation with lifting equipment (e.g. a crane).
- o Provide evidence that the lifting equipment operator has the appropriate licenses (e.g. a valid crane license).
- o Provide a Safe Method Statement detailing the lifting operation process, the EHS measures, how the lifting equipment will be used and who will be the lifting equipment coordinator.
- o The Lifting Equipment Coordinator will check out all EHS measures before allowing work to start.
- o The ground or place where the lifting equipment is standing shall be suitable to withstand the loads imposed (spreader plates shall **always** be used to support outrigger legs).
- o No part of a lifting equipment / crane should encroach dangerously close to personnel, buildings or services. Where necessary, protective and warning barriers shall be erected and there should always be at least 1 meter clearance to avoid damage or trapping.

22. Confined spaces

- o A Permit to Work is required for confined space works (including duration and emergency procedures).
- o All personnel entering a confined space shall be trained for the type of work, be fully aware of the safe working procedures, the risks involved and the proper use of the equipment.
- o All personnel shall be certified to perform the work in accordance with local regulations.
- o Always check, maintain and monitor that the atmosphere is safe to work by an Authorized Gas Tester in accordance with local regulations.
- o Always provide adequate means of access and egress.
- o When there are people working in a confined space, always have a well-trained person to stand by and monitor the conditions.
- o A trained standby man shall always be in attendance while personnel are in the confined space. A rescue plan shall be developed and personnel trained in the use of safety equipment and rescue methods.
- o Safety equipment shall always be at the workplace or readily available as defined in Permit to Work

23. Hot work & fire precautions

- o A Permit to Work is required for Hot Work (any process that produces heat, sparks or flames).
- o Implement the necessary fire precautions as defined in the Permit to Work for welding, flame/arc cutting of metals, burning of paint, grinding or other processes involving heat or naked flames.

- Comply with the Johnson Controls requirements for Fire Prevention and all their personnel shall be trained/be aware of fire alarms, means of escape and emergency evacuation procedures.
- Before leaving the workplace, the Contractor/Sub-contractor will ensure that naked lights and other ignition sources have been extinguished, fuel supplies isolated and electrical apparatus switched off.
- Where Hot Work has taken place, arrangements shall be made to re-check the work place(s) at least one (1) hour after work completion or in accordance with Client requirements.
- Provider will provide suitable and sufficient firefighting equipment, signs, emergency lighting, etc. to deal with the perceived fire risk at each stage of the project and in compliance with the emergency plan.
- Management requirements on hot work:
 - People who conduct special work shall possess corresponding work license;
 - Prepare firefighting equipment at site of hot work
 - Acetylene cylinder and oxygen cylinder should be placed 5 meters away from each other and 10 meters away from flame, standing upright and properly secured;
 - Clean the flammable and explosive materials within 15 meters of hot work area, or enforce firefighting and anti-explosive protection measures;

24. Isolation of hazardous energy

- All hazardous energy shall be identified and isolated before starting work.
- Hazardous energy shall include (but not limited to) electrical, mechanical, thermal, pneumatic, chemical, moving parts, potential energy, springs, hydraulic and cutting operations.
- A Lock Out / Tag Out / Test Out system must be employed before starting work.

25. Electric work/ hand tools

- A Permit to Work is required for Electrical Works.
- Agree with the Johnson Controls (through the Safe Method Statements) the EHS procedures and the necessary permits to work before working on live electrical apparatus.
- Only qualified electricians may carry out works on electrical installations, machines and tools.
- Electrical cables and connectors shall be of industrial quality and waterproof if exposed to outdoor / wet conditions.
- Electrical distribution systems and cables shall not create trip hazards, will be protected from mechanical damage, should not be immersed in water and shall have adequate insulation to prevent the discharge of current to any person, metallic structure, equipment or fitting.
- Ground Fault Circuit Interrupter (GFCI) / Earth Leakage Circuit Breaker (ELCB) is to be used and complied to requirement of workplace for the Johnson Controls jobs where employees use portable electrical equipment.
- Portable electrical apparatus and electric lighting shall be supplied by means of mains isolation transformers with the secondary winding centre tapped to earth. If for any reasons this is not practicable, safe working procedures should be agreed with Johnson Controls.
- Whenever a further reduction in voltage is required due to special circumstances (confined space, flammable atmospheres) the Contractor/Sub-contractor should agree the requirements with Johnson Controls.
- All temporary electrical systems and portable electric hand tools shall be maintained in good working order, regularly tested/inspected by a competent person and results should be recorded.
- Lock Out / Tag Out / Test Out shall be applied to de-energize the system before starting work.

<p>26. Explosives and sources of ionizing radiation</p>
<ul style="list-style-type: none"> ○ The Contractor/Sub-contractor shall not bring onto the site, explosives, explosive devices including cartridge operated tools, materials or devices that can emit an ionizing radiation without the formal approval from Johnson Controls and where appropriate, approval from local authorities (including permit). ○ Provide Johnson Controls with a Safe Method Statement covering storage and usage and with certificates of training provided to its employees.
<p>27. Hazardous substances</p>
<ul style="list-style-type: none"> ○ Contractor/Sub-contractor shall provide Manufacturers' Safety Data Sheets (MSDS) and risk assessments detailing the hazardous properties of products according to site EHS team's requirement and precautions to be taken (including monitoring and health surveillance as necessary) during use and storage.
<p>28. Asbestos</p>
<ul style="list-style-type: none"> ○ The Contractor/Sub-contractor shall not bring asbestos or any materials containing asbestos on the project. ○ Whenever the Contractor/Sub-contractor discovers asbestos or any material potentially containing asbestos, he will stop work immediately and notify Johnson Controls who shall instruct on further actions.
<p>29. Waste disposal</p>
<ul style="list-style-type: none"> ○ The Contractor/Sub-contractor shall specify in writing to Johnson Controls the means of disposal and obtain any necessary statutory approvals or certificates in accordance with local legislation. ○ Inform Johnson Controls of any waste removal from the site and should provide clear description and quantities being removed.
<p>30. Testing and commissioning</p>
<ul style="list-style-type: none"> ○ A Permit to Work is required for these types of work and should be managed by a qualified person. ○ The Contractor/Sub-contractor shall develop specific Testing, Start-up and Commissioning procedures including methods, EHS precautions and a plan of any activities. ○ Where appropriate or as required by the Client, a Lock Out / Tag Out / Test Out (LOTOTO) system will be used. The system and personnel involved will be under the control of a competent person. ○ Where practical, guards, interlock systems shall remain intact and operable, otherwise people must be protected and informed; (safety signs, barriers to prevent access to unauthorized persons) ○ Before handing over the equipment, plant or premises to Johnson Controls, the Contractor/Sub-contractor shall make certain / demonstrate that all items are in good, safe condition and cooperate to ensure smooth and safe transition of the Project to Johnson Controls. ○ Provide all the EHS related information to Johnson Controls before or as soon as practicable after handover (training, systems operating manuals, operational specifications, maintenance, cleaning, etc.).
<p>31. Alcohol and drugs</p>
<ul style="list-style-type: none"> ○ Alcohol and drugs are not allowed on Johnson Controls and/or the Client premises. ○ Persons under the influence of alcohol or drugs will be removed / not be permitted access to site. ○ The Johnson Controls reserves the right to carry out, or to have the Contractor/Sub-contractor carry out (at their own cost) alcohol and/or drugs testing on the project personnel.
<p>32. Report of accidents and dangerous events</p>
<ul style="list-style-type: none"> ○ The Contractor/Sub-contractor shall maintain a record of manhours worked on the project as well as information on injuries, illnesses and incidents during the course of the project.

- Report immediately to Johnson Controls serious cases of near misses, first aids, medical treatments, lost time and incidents (including fires) resulting directly from its Work or Services and that could have resulted in injury or damage to persons, property or the environment.
- All medical treatment cases (recordables) and lost-time accidents (one day off work or more, not including the day of the accident) shall be investigated by the Contractor/Sub-contractor and the reported to Johnson Controls.
- In the case of a serious accident/incident or an environmental matter, the Contractor/Sub-contractor will immediately verbally notify Johnson Controls and submit a notification within 24 hours. Johnson Controls require the Contractor/Sub-contractor to carry out / co-operate in an investigation.

33. Crisis management

- A Crisis Management Plan that consists of an Emergency Response Plan and the Business Continuity Plan shall be prepared by the Contractor/Sub-contractor for their own area of work where the Main Contractor does not have a site wide plan.
- The Emergency Response Plan shall cover foreseeable emergencies in the scope of work.
- A Business Continuity Plan shall be prepared to ensure job continuity after the Emergency Response phase.
- A dedicated Person in Charge and an alternate shall be nominated by the Contractor/Sub-contractor to Johnson Controls.

34. Disciplinary procedures

- All personnel working on the Project shall comply with the Environmental, Health & Safety and Security rules and procedures and to the local legislation in force for the Project. Individuals failing or ignoring such rules should be subject to disciplinary procedures as follows:
 - First event - Verbal Warning (but incident and persons details will be recorded)
 - Second event - Written Warning;
 - Third event - Penalty
 - Fourth event - Removal from the Project
- One serious infringement or incident related to Immediate Danger to Life and Health (IDLH) shall result in the immediate removal of the person(s) involved. IDLH cases related to:
 1. Lock Out/Tag Out/Try Out (LOTO);
 2. Electrical safety;
 3. Fall protection;
 4. Confined space;
 5. Rigging;
 6. Tampering with EHS equipment;
 7. Discharging, releasing or discarding wastes and pollutants into the environment.

35. Statutory improvement, prohibition and other notices

- If the local authorities issue an improvement/prohibition notice or any other statutory notice impacting the legal requirement on the project, the Contractor/Sub-contractor shall inform Johnson Controls immediately and comply with the new requirements.