

**COMPANY NAME GOES HERE**

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| --- |
| **PROJECT SPECIFIC HEALTH, SAFETY & ENVIRONMENT PLAN** |
| **Project:** | Project Name Goes Here |
| **Employer:** | Employer Name Goes Here |
| **Project Management Consultant (PMC)** | Project Management Consultant Name Goes Here |
| **Main Contractor** | Main Contractor Name Goes Here |
| **Project Duration** | XX Months |

|  |  |
| --- | --- |
| **DOC-CODE-XXX-XXX** | **Rev No.:** 00 |
| **Prepared By**QHSE Manager | **Sign:** |
| **Reviewed & Approved By**Project Director | **Sign:** |

**AMMENDMENT SHEET**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **REV** | **PAGE #** | **SUBJECT OF THE AMENDMENT** | **AMENDED BY** | **DATE** |
| 0 | All | First Issue | QHSE Manager | XX.XX.2020 |
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# Project Details

|  |  |
| --- | --- |
| **Project:** | Project Name Goes Here |
| **Employer** | Employer Name Goes Here | Street, UnitZip Code or Area CodeCity, Country |
| **Project Management Consultant (PMC)** | PMC Name Goes Here | Street, UnitZip Code or Area CodeCity, Country |
| **Supervision Consultant** | Supervision Consultant Goes Here | Street, UnitZip Code or Area CodeCity, Country |
| **Main Contractor** | Main Contractor Name Goes Here | Street, UnitZip Code or Area CodeCity, Country |
| **Project Duration** | XX Months |  |

# Document Control

|  |  |
| --- | --- |
| **Initial Issue** | See amendment sheet of this document page 02 |
| **Record of ongoing issues** | See amendment sheet of this document page 02 |
| **Amendments** | See amendment sheet of this document page 02 |

## Plan Briefing

This HSE Plan shall be briefed to all relevant stakeholders on the project. Key points and requirements of this HSE Plan shall be communicated during the HSE Induction.

For those designations that require a more comprehensive understanding of this plan, a copy shall be issued to them. The list of these designations is provided in the distribution list section.

## Distribution List

The following persons shall receive a copy of the approved HSE Plan.

| Distribution List |
| --- |
| Project Director |  |
| Project Manager |  |
| HSE Manager/Engineers |  |
| HSE Officers |  |
| Construction Manager |  |
| Project Engineers |  |
| Site Engineers |  |
| Site Superintendent |  |
| Foremen / Supervisors |  |
| Storekeeper |  |

Contact List: Please refer to project contact list in Annexure 02

# Project Description

## Location

[Insert Project Location Details]



## Scope

[INSERT BRIEF DESCRIPTION OF PROJEC SCOPE]

## Project Schedules & Milestones

### Project Plan

The project plan can be found in Annexure 03

### Working Hours

* Standard site working hours shall be from:
	+ Construction Site: 6:00 am to 5:00 pm Monday to Friday
	+ Site Offices: 7:30 am to 5:30 pm Monday to Friday
* One off-day as minimum per week shall be provided.
* Pauses of up to one hour per five hours shall be provided.
* Employees are provided with annual leave equal to or above national laws.
* Transparent and accurate records of employee attendance shall be maintained.
* During working hours one or more break times shall be given for rest, meals or prayer purposes provided that such time should not be less than one hour.
* Under no circumstances shall workers be forced to work overtime, stay in the employment premises beyond the hours of work fixed for them or be asked to work on holidays without their consent.

### Manpower Histogram

The project organizational chart is available in Annexure 03.

# Project HSE Management

## HSE Policy and Management

The project HSE Policy can be found in Annexure 01

## Roles & Responsibilities

### Contractor Project Director

* The Project Director is accountable for the operational planning, and implementation of HSE Plan for this project.
* Shall ensure that the project team have adequate resources to carry out their duties and responsibilities in accordance with the Project HSE Plan.
* Shall establish and maintain a direct line of communication with the HSE Manager.
* Shall monitor the site operation to ensure they are conducted in accordance with the Site HSE Management Plan and take urgent and appropriate action to prevent unsafe working practices or other infringements of statutory of the safety plan requirements.

### Contractor Project Manager

* Shall ensure that everyone, including subcontractors, comply with the requirements of the Project HSE Plan.
* Shall ensure all-necessary work procedures, method statements and work instructions are prepared, reviewed and issued for safe operation of the works on site.
* Shall monitor the site operation to ensure they are conducted in accordance with the Site HSE Plan and take urgent and appropriate action to prevent unsafe working practices or other infringements.
* Shall establish and maintain a direct line of communication with the HSE Manager.

### HSE Manager/Engineer

* Shall conduct site visits and inspections for monitoring of HSE compliance as per the project HSE plan and other legal requirements.
* Shall carry out audits to ensure the effectiveness of the implemented Safety & Health Plan.
* Shall be empowered to IMMEDIATELY STOP any unsafe or non-complying work activity on site and instruct employees to take immediate corrective action.
* Shall prepare the health and safety training programs.
* Shall prepare and update the emergency response plans.
* Shall check all work procedures and method statements before the activity is commenced to ensure that safety aspects (risks/hazards) of the operations are covered.
* Shall issue non-conformance reports for serious irregularities observed on site.
* Is responsible for implementing, reviewing and updating the HSE plan.

### HSE Officer

* Report to the HSE Manager/HSE Engineer.
* Shall monitor & guide the project team on implementing the safety practices required by site.
* Shall arrange induction safety training as required.
* Shall liaise with subcontractors and foremen to ensure they follow the safety standards required under the HSE Plan.
* Shall assist with the safety aspects for risk assessments and planning duties as required.
* Shall assist with the promotion of HSE on site.
* Shall carry out weekly regular inspections and review findings with supervisors and follow-up on corrective action taken.

### Construction Manager/Project Engineer/Site Engineer

* Accountable to the Project Manager for the implementation of the HSE Plan and the operational planning of all areas under their control.
* Shall establish and maintain a direct line of communication with the HSE team.
* Shall ensure that all workers under their control comply with the HSE Plan.
* Shall regularly review the health and safety procedures in coordination with the HSE officer to ensure that they adequately cover site operations and where necessary carry out risk assessments and develop further appropriate procedures to control those risks.
* Shall coordinate with HSE staff and/or EHS Authority and ensure remedial action is taken as necessary.
* Shall not permit the operation of any plant unless both the plant and operator are suitably certified.
* Shall ensure that periodic test; inspections and maintenance on plant and machinery are carried out as per safety staff recommendations.

### Site Supervisors, Foremen and Chargehands

* Shall be familiar with the safety procedures stated in the HSE plan relating to the work to be carried out under their supervision.
* Shall ensure that their subordinates and workers receive clear instructions relating to the work that they are carrying out.
* Shall ensure that the workplace is maintained in a safe and tidy condition.
* Shall assist in giving toolbox talks.
* Shall take prompt action to rectify unsafe conditions.
* Shall provide full co-operation to the HSE staff and comply with their recommendations
* Shall ensure that all necessary safety devices and personal protective equipment (PPE) are provided and used properly.
* Shall be familiar with the Emergency Response Plan and ensure that they are known to their subordinates and implement those procedures as required.
* Shall promote HSE awareness through leading by example.

### All Personnel/Labors

* Every person employed on the project is legally required to take reasonable care for the health and safety of themselves and others that may be affected by their actions or omissions at work.
* Co-operate with their employer to enable them to comply with the requirements of the project.
* No person shall intentionally or recklessly interfere with or misuse anything provided for safety, health or welfare under the relevant statutory provisions.
* All personnel shall wear or use the appropriate safety equipment or clothing and use the appropriate safety devices
* All personnel shall familiarize themselves with the relevant requirements of the Site HSE Plan.
* All personnel shall report any accidents and damage to property or equipment to their immediate supervisor, irrespective of whether persons are injured
* All personnel are encouraged to make suggestions to improve health and safety to their supervisor and the HSE staff.

## HSE Legal Requirements

The work will be done in accordance with legislation including but not limited to:

* Reference to Law A of 20XX – Titled ABC
* Reference to Law A of 20XX – Titled ABC
* Reference to Law A of 20XX – Titled ABC
* Reference to Law A of 20XX – Titled ABC

A more comprehensive legal register can be found in Annexure 04. The project legal register is a live document and will be regularly updated. The copy included in the annexure is a snapshot. The live document is kept on the project server.

### Interested Parties

| **Interested Party** | **Nature of Interest** | **How interest will be managed** |
| --- | --- | --- |
| *Authorities* |
| Authority 1 | * Execution per their requirements
 | * Competent person available when working around their assets
* Follow their permits / NOC’s
 |
| Authority 2 |
| Authority 3 |
| *Other Interested Parties* |
| Employer | * Safe delivery of project
 | * Follow employer requirements
 |
| Consultants | * Responsiveness of Main Contractor to their requirements
* Safe delivery of project
 | * Coordination Meetings
* Follow employer requirements
 |
| Sub-Contractors | * Support to allow their work to be complete
 | * Audits
* Inspections
* Meetings
* Clear contract requirements
 |
| General Public | * Uninterrupted traffic flow
* Safe access around work area
 | * Follow approved Traffic Management Plan
 |

## Management of Contractors

### Selection and Appointment

* All subcontractors will undergo a formal review process prior to engagement.
* The subcontractor will be required to submit a prequalification questionnaire to the CONTRACTOR head office.
* The head office team reviews the prequalification document and identifies if the subcontractor is suitable for work with the CONTRACTOR. The prequalification review includes a review of the subcontractors HSE, quality, financial and technical capabilities. The QA/QC and HSE capabilities of the subcontractor are reviewed by the QHSE Team in the head office.
* If the subcontractor is approved, their details will be included in the CONTRACTOR database of approved suppliers and subcontractors.
* Subcontractors required on the project will be selected from the CONTRACTOR database of approved suppliers and subcontractors.
* Subcontractors selected to provide a quote will be provided with scope of work documents. This scope of work includes any requirements for health, safety and environment.
* The project HSE Manager reviews the subcontractor proposals and approves those that meet the project requirements.

### Ongoing Management

**General Guidelines**

* Subcontractors must provide PPE for their workers. These shall be provided free issue from the subcontractor to their workers.
* Understand the project HSE policy, requirements and applicable procedures.
* Use the correct tools and equipment for the job.
* Keep tools and equipment in good condition. Inspect tools/equipment for defects before use and report defects immediately to the supervisor.
* Refrain from tampering with safety devices, equipment and welfare facilities.
* Report any accident, near miss or hazardous conditions to CONTRACTOR immediately.
* Obey all the posted warning signs.
* Follow instructions of the supervisors, ask questions if in doubt.
* Follow all requirements in this HSE Plan.

**Induction**

Subcontractors must undergo the CONTRACTOR HSE Induction to access the site.

**Violation & Disciplinary Action**

Any person of the subcontractor team found to be in violation of the project rules shall be removed from site.

**Method Statements & Risk Assessments**

Subcontractors must submit their method statement and risk assessment to CONTRACTOR for review. Once suitable, it shall be submitted to the PMC/Engineer for approval prior to starting any task.

**Subcontractor HSE Plans**

Subcontractors who have major scopes shall be required to submit their own HSE Plans for CONTRACTOR’s approval.

Subcontractors who have minor scopes shall be required to follow the approved CONTRACTOR HSE Plan

The requirement to submit subcontractor HSE Plan shall be clearly indicated in the contract.

**Subcontractor Emergency Response**

Subcontractors are required to follow the CONTRACTOR Emergency Response Plan.

**Performance Reviews**

The main performance indicator used to measure the subcontractor capabilities shall be the number and severity of observations and non-conformances identified.

All project observations, including those of subcontractors shall be recorded on the observation register.

Subcontractors with substantial scopes shall be audited once per year. The audit shall be mainly scheduled in May or November however this shall be confirmed at a later date.

**Reporting**

Subcontractors shall submit weekly and monthly reports to CONTRACTOR in the approved format.

## HSE Risk Management

The following methodology shall be followed when preparing risk assessments

| Risk Assessment Methodology |
| --- |
| 1 | Identify the hazard |
| 2 | Assess the risk (severity / likelihood) |
| 3 | Include additional control measures to reduce the risk further to a level that is ALARP (as low as reasonably practicable) |
| 4 | Re-assess the risk with the control measures (severity / likelihood) |
| 5 | Review the risk assessment regularly |
| 6 | Changes shall go through review process and communicated to all relevant personnel |

Persons preparing and reviewing health, safety and environmental risk assessments on the project shall have the following competencies:

* Minimum of 3 years construction experience
* Hold a minimum of level 3 qualification or equivalent in occupational safety and health

The person preparing the risk assessment shall consult with the stakeholders affected by the activity (contractors, workers, etc.) when this adds value to the risk assessment process.

### Risk Assessment Considerations

When preparing or reviewing the risk assessments, the following shall be considered:

* Whether the activity is routine or non-routine, and how this affects the risk.
* How supply chain can impact the risk
* Impact of subcontractors and suppliers on the activity
* Human behavior (ignorance, incompetence, violation, OHS culture)
* How young persons, persons with special needs, visitors or persons not involved in the project can be impacted by the risk.
* Simultaneous operations from other contractors (SIMOPS)
* Conditions that are not in the control of the organization (traffic, weather, geography, etc.)
* Plant and equipment
* Organization’s Standard Operating Procedures
* Organizational reporting lines

### Risk Assessment Likelihood

During the preparation of a risk assessment, the likelihood of the consequence occurring shall be selected from the following table:

| Risk Assessment Likelihood |
| --- |
| Rare (1) | Never occurred |
| Possible (2) | Has occurred once |
| Likely (3) | Has occurred more than once |
| Often (4) | Occurs several times per year  |
| Frequent (5) | Occurs frequently |

### Risk Assessment Severity

During the preparation of a risk assessment, the severity of the consequence occurring shall be selected from the following table:

| Risk Assessment Severity |
| --- |
| Negligible (1) | First Aid Case |
| Marginal (2) | Medical Treatment Case  |
| Significant (3) | Lost Time Injury |
| Serious (4) | Single Fatality or Permanent Partial Disability |
| Catastrophic (5) | Multiple Fatalities |

### Risk Classification

Risk classification shall be computed from multiplying the Likelihood with the Severity. The result of this

| Risk Classification |
| --- |
| 15 - 25 | Extreme Risk (E) | Activity should not proceed in current form |
| 8 – 12 | High Risk (H) | Activity can only operate under strict supervision and be subject to detailed HSE assessment |
| 4 – 6 | Moderate Risk (M) | Activity can operate subject to management and/or modification |
| 1 - 3 | Low Risk (L) | No action is required |

### Risk Assessment Control Measures

During preparation of the risk assessment, the control measures shall be prioritize based on the following:

| Control Prioritization |
| --- |
| 1 | Elimination |
| 2 | Substitution |
| 3 | Engineering Controls |
| 4 | Administrative Controls |
| 5 | Personal Protective Equipment (PPE) |

### Project Risk Register

The risk register template is found in Annexure 05. The project risk register is a live document and will be regularly updated. The copy included in the annexure is a snapshot. The live document is kept on the project server.

* The project HSE team shall maintain a project risk register.
* The project risk register is a live document and will be regularly updated to reflect actual risks on-site.
* The project risk register shall include subcontractor risks.
* The project risk register shall make reference to applicable method statements for controls.
* Medium or high-risk controls will include a summary of the controls required for those activities.

### Subcontractor Risk Assessments and Method Statements

CONTRACTOR shall review all method statements and risk assessments submitted by subcontractors. These method statement and risk assessment shall be submitted to the client for approval.

## Training

### Project Specific Training & Awareness

CONTRACTOR will provide the necessary trainings and guidance to enhance the employees’ knowledge and work competency which concentrates on safe work methods, application of safe system of work, and proper use and handling of equipment.

The Training Matrix which includes details on training audience, frequency, communication methods, language considerations is included in Annexure 06.

The training matrix is a live document and will be regularly updated. The copy included in the annexure is a snapshot. The live document is kept on the project server.

### HSE Induction

The HSE Officer shall conduct an induction to anyone looking to access the site including sub-contractors and visitors, this is to ensure that they are informed and familiar with the site HSE rules and regulations. Records of inducted personnel will be kept available in the site HSE department office. Induction stickers will be placed on helmets of employees who have undergone the HSE induction.

Topics for Induction:

* Project rules
* Site restrictions and limitations
* Violations & disciplinary action
* Emergency evacuation procedures
* Site hazards and risks
* Operational controls

Visitors and those persons who will be accessing the site accompanied by a project employee will receive a shorter induction. Workers returning from long leave shall be given a refresher induction.

### Toolbox Talks Meeting

Toolbox Talk (TBT) meetings will be conducted weekly on-site. It is mandatory for all site employees, including subcontractors to attend the toolbox talk presentation.

The objective of the toolbox talk is to provide a brief awareness session regarding a risk or hazard that is relevant to the project. The toolbox talk shall be a maximum of 15 minutes to ensure the topic is engaging.

In addition to the pre-made topics that the toolbox talk presenter may use as a guideline included in Annexure 07, additional topics can be presented. Records of people who attended the toolbox meeting must be maintained.

## HSE Incidents

### Incident Notification

* In the event of an incident / accident, the HSE Engineer shall notify the CONTRACTOR Project Director.
* The CONTRACTOR Project Director shall notify the PMC Project Director
* The HSE Engineer shall notify the PMC HSE Coordinator

### Incident Reporting

All employees are required to report incidents, including near misses.

**Minor Injury, Incident and Damage**

For minor accidents with damages below USD 3,000.00, near misses, dangerous occurrences with potential for major incident / accident.

* Initial incident report shall be submitted to PMC/Engineer within 24 hours.
* Formal investigation report and close out recommendations shall be submitted to PMC/Engineer within 72 hours

**Major Injury, Fatality, Incident or Damage**

For damages over USD 3,000.00 / Fire / Police Incident / Hospitalization or Advanced Medical Treatment:

* Initial incident report shall be submitted to PMC/Engineer within 24 hours.
* Formal investigation report and close out recommendations shall be submitted to PMC/Engineer within 72 hours

### Incident Report & Investigation

* CONTRACTOR shall use the incident report form ABCDEFG – Incident Investigation Report as a format for the formal investigation. This report is found in Annexure 08

## Consultation and Communication

### Employee / Workforce Involvement

Workers will have varying opportunities to be involved in the management of HSE. This includes:

* During pre-task briefings
* During toolbox talks
* Through the OSH Committee Meeting
* Suggestion Boxes
* Using the HSE Hotline

### OSH Meetings

| Meeting Title | Planned Attendees | Frequency | Suggested Agenda |
| --- | --- | --- | --- |
| Weekly HSE Meeting | * Project Manager
* Project Engineer
* Site Engineers
* HSE Manager
* HSE Engineers
 | Weekly | Review the performance of HSE on the project (observations, NCR’s, training requirements, KPI’s) |
| Weekly Meeting with Subcontractor | * Subcontractor Project Manager
* Subcontractor Engineers
* HSE Manager
* Site Engineer
 | Weekly | Review the subcontractor performance of HSE on the project (observations, NCR’s, training requirements, KPI’s) |
| OSH Committee Meeting | * HSE Manager
* HSE Engineer
* OSH Committee Meeting Members (workforce)
 | Quarterly | Feedback from labor on various points, agenda provided in below section. |

### Internal & External Communications

**Internal Communications**

The HSE management system of CONTRACTOR shall ensure that proper communication in HSE is in place. Communication regarding HSE to site staff shall be done through meetings, TBTs and inductions.

Most internal communications shall be through email. All communication to the project HSE Department shall be to the HSE Manager, who shall disseminate the information down to the HSE Team as required.

**HSE Hotline**

All employees are encouraged to communicate anonymously regarding issues relevant to the Occupational Safety & Health using the HSE Line XXX-XXXX. This line is anonymous, the name of the caller shall not be requested. All calls shall be notified to the Corporate QHSE Manager.

The Occupational Safety & Health Hotline number shall be communicated to all workers in the project induction.

**HSE Incentive Program**

Best Safety Performance shall be awarded once every month to project employees in order to promote positive HSE behaviors. The award shall be distributed in the month’s last mass weekly toolbox talk session.

The safety performance award will include a certificate signed by the Project Director, in addition to a prize such as:

* Phone calling cards
* High end safety glasses
* High end safety gloves
* Personal water thermos

### Consultation

**Projects OSH Committee**

* The project shall conduct a projects OSH committee meeting quarterly
* The project lead HSE representative shall chair the OSH committee meeting.
* The members of the OSH committee shall include other OSH practitioners on the project.
* A non-managerial worker shall be selected to represent the workforce.
* Minutes of the OSH committee meetings shall be kept.

The following shall be discussed in the OSH committee meeting:

* determining the mechanism for the consultation and participation of workers (example: the OSH committee meeting, toolbox talks, suggestion boxes, hotline, etc.)
* determining the needs and expectations of interested parties
* appropriateness of the occupational safety and health objectives and planning to achieve them
* assigning organizational roles, responsibilities and authorities
* determining how to fulfil legal requirements and other requirements
* determining applicable controls for outsourcing, procurement and contractors
* determining what needs to be monitored, measure and evaluated
* planning, establishing, implementing and maintaining an audit program
* recommendations for continual improvement
* requirements for training, method of evaluating training and competence improvements
* determination of the information that needs to be communicated, method of communication and audience

**Involvement in Risk Management Activities**

The construction team executing the work shall be consulted during preparation of task specific risk assessments including control measures

Workers shall be consulted regarding work related risks during the pre-task briefing (job safety analysis) or toolbox talk, including the control measures.

Workers shall be consulted during the pre-task briefings/toolbox talks on PPE, equipment, tools that are available or can be purchased.

Pre-task briefings/toolbox talks shall be designed to encourage the identification of hazardous activities on the spot where the work shall be conducted.

Suggestions from the workers on the control measures implemented, their effectiveness shall be considered. For valid concerns, a review of the risk assessment shall be triggered.

**Involvement in Incident Investigations**

Workers shall be consulted when conducting incident investigations.

The consultation shall include an enquiry as to what they believe the immediate causes that led to the incident.

The workers shall be consulted on what proposals they have to eliminate the incident from recurring.

**Consultation with Subcontractors**

Subcontractors who are engaged to do work shall be consulted. This shall depend on the scope of the contractor and involvement in the project.

Depending on the scope of the contractor and involvement in the project, the contractor may be requested to participate in the risk assessment process

### Site HSE Notice Board

Two HSE Bulletins will be made available. One shall be placed at the entrance of the project offices and another shall be placed at the entrance of the site. Information that shall be displayed on the HSE bulletin shall include:

* Emergency contact numbers
* Key statistics
* Important information pertinent to HSE
* Contact number of HSE Anonymous Line
* Construction License
* Project Directory
* Policy Statement
* Incident Reporting Procedure
* Action in the event of Major Incident Notice
* Visitors Notice
* Site Rules
* Lost Time Injury Rate

### External Party Complaints

All external party complaints shall be forwarded to the project manager who shall respond to them. All complaints shall be responded to. A nonconformity report shall be generated for each external party complaint.

## Monitoring, Inspection and Auditing

### General

This section shall include information regarding the monitoring and auditing of OSH performance, including information on reporting requirements, checklists and monitoring review.

### Internal Audit and Inspection

| Type of Audit / Inspection | Roles & Responsibilities | Frequencies |
| --- | --- | --- |
| Internal Audit | Corporate | Yearly |
| Subcontractor Audit | HSE Manager | Yearly |
| General Site Inspection | HSE Manager | Weekly |
| General Site Inspection | HSE Engineer | Daily |
| Vehicle Inspection | Driver | Daily |
| Vehicle Inspection | HSE Officer | Weekly |
| Machinery Inspection | Operator | Daily |
| Machinery Inspection | HSE Officer | Weekly |
| Portable Equipment | Foreman | Weekly |
| Electrical Equipment | Electrician | Weekly |
| Fire Extinguisher  | HSE Officer | Monthly |
| Smoke Detector | HSE Officer | Monthly |

### Non-Conformance and Corrective Action

**Identifying and Non-Conformances**

HSE non-conformances can be identified anytime by:

* Internal Audits
* External Audits
* Site Walks
* Inspections
* Client

**Corrective Actions**

* When a non-conformance is identified, the root cause shall be investigated.
* Once the root cause is identified, corrective actions shall be put in place to mitigate the possibility of recurrence.

**Reporting of Non-Conformances**

* Non-conformances can be reported by anyone on the project.
* Non-conformances identified by persons outside the QHSE Department shall communicate the non-conformance to their respective project HSE practitioner
* Non-conformances identified in the internal audit shall be submitted to the auditee.

**Recording, Monitoring and Managing Non-Conformances**

* Non-conformances identified internally shall be recorded on the Non-Conformance report.
* Non-conformances shall be registered on a project non-conformance register, these include both non-conformances identified internally by CONTRACTOR or externally by the client or authorities.

**Investigation Non-Conformances**

* HSE Non-conformities shall be investigated to identify their root cause
* Once the root cause is identified, the corrective actions shall be developed
* Corrective actions shall be prepared in order to mitigate recurrence of the non-conformance

Sample root causes can be obtained from below table:

| **EXAMPLES OF ROOT CAUSE(S)** |
| --- |
| Insufficient supervision | Incompetent supervision | Inadequate program / procedure / WI | Inadequate tools and equipment |
| Inadequate planning | Not enough training | Inadequate compliance with standard | Inadequate maintenance |
| Inadequate engineering | Not enough skill | Lack of discipline | Hazard not identified |
| Ineffective purchasing | Lack of motivation | Shortcuts not discouraged |  |

Root causes are considered as the underlying system failures that allowed conditions for the non-conformance to occur.

If the root cause is difficult to identify, analysis of root causes can be done with the help of any of the common tools for root cause analysis, such as:

* Why’s method
* Fishbone Diagram Method
* Taproot method

**Evaluating the need for Corrective Actions**

* Non-conformities indicate a system failure and require corrective actions addressing system failures.
* Minor lapses or deviations from requirement shall be considered as observations and require corrections rather than corrective actions.
* Observations shall be monitored in the observation register. Observation register format is included in Annexure 09.
* If observations are found to be recurring beyond what is normally expected, a Non-Conformance shall be generated.

**Recording and Communicating Corrective Actions Results**

* Corrective actions shall be recorded and included in the closeout of the Non-conformance.

**Corrective Action Timescales and Individual Responsibilities**

* Depending on the complexity of the corrective action, timescales for implementation will vary. As a guideline, project based corrective action timescales should not exceed 2 weeks.
* Where the implementation of corrective actions may expose the project to new hazards, a risk assessment shall be conducted to ensure risks are controlled and acceptable.

### OSH Monitoring Requirements

**Trend Analysis**

Monitoring of OSH performance shall be achieved by reviewing the data on OSH observations raised from the observation register. These observations shall be categorized by hazard/mpact:

* Confined Spaces
* Equipment, Vehicles & Machinery
* Electrical
* Environment & Waste
* Excavation
* Fire
* Health & Welfare
* Housekeeping
* Lifting Operations
* Material Handling & Storage
* Other
* PPE Compliance
* Working at Height

Furthermore, observations will be classified by the responsible person. Trends on the observation classification and responsible person will allow the HSE Manager to identify what areas or persons need to be focused on. When an observation is recurring, an NCR shall be raised which will follow the corrective action process explained in the previous section.

**Health Monitoring**

The following health categories shall be monitored when a trigger is initiated:

| **Monitoring Category** | **Trigger**  |
| --- | --- |
| Occupational Air | When work hazards expose people to hazardous fumes as identified in the risk assessment.  |
| Noise | When work scopes expose people to high noise as identified in the risk assessment.  |
| Lighting | When work scopes require activities to be carried out in low visibility areas as identified in the risk assessment. |
| Ventilation | When work scopes require activities to be conducted in confined spaces with low ventilation. Gas monitoring of Oxygen and Carbon Monoxide is required as required in the risk assessments. |
| Ergonomic (workplace design factors) and Wellness Program | Monitoring injuries that result from poor ergonomic practices. Recorded in internal monthly HSE performance reports. |
| Waste Management & Hazardous Substances | Monitoring of hazardous and non-hazardous wastes recorded in the internal monthly HSE performance reports. |
| Health Surveillance & Occupational Illnesses | As required by municipal law and federal law |

### HSE Reporting Requirements

* CONTRACTOR shall report monthly statistics using the form ABCDEFG Rev.00
* CONTRACTOR shall report monthly performance using the form ABCDEFG Rev 00
* CONTRACTOR shall report monthly performance to the Corporate QHSE Manager using form ABCDEFG.

Above forms are included in Annexure XX

## HSE Plan Review and Update

The HSE Plan shall be considered as a live document, in that the content consistently changes as the project develops. To overcome this, most documents that are expected to change have been included in the annexures. That way the base document does not need amending, however the annexures can be updated accordingly.

The HSE Manager shall be responsible for ensuring this document remains current. The controlled location shall be an electronic copy in the project HSE server. If no changes are made, the plan shall be reviewed every 6 months. If there are no changes made, then a revision or new issue is not required.

## OSH File

The OSH file shall be prepared during the execution of the project. It shall include:

* A brief description of the work carried out
* Residual hazards and how they have been dealt with
* Project directory listing all key parties involved in the project
* Key structural principles incorporated in the design of the structure (for example bracing, sources of substantial stored energy – including pre or post tensioned members) and safe working loads for floors and roofs
* Any hazards associated with the materials used
* Information regarding the removal or dismantling of installed plant and equipment
* OSH information about equipment provided for cleaning or maintaining the structure
* The nature, location and markings of significant services, including fire-fighting services
* Information and as-built drawings of the structure, its plant and equipment

# Operational Controls

Each project task will be controlled by a method statement and risk assessment. The risk assessment will identify the specific controls required for each task. The below section is an overview of the major specific requirements required for the project, which shall be included in the task specific risk assessments.

## Site Security Plan and Access Control

* Due to the vast open nature of the project, an access control system is not possible.
* Access to the site area shall be restricted to those who have conducted their induction, which is evident by an induction sticker on the persons helmet.
* Deliveries intended to the offices, site or laydown area do not require an induction, however they must be accompanied by a CONTRACTOR employee at all times. This shall be controlled by the Storekeeper.

## Project Permit to Work Procedures

CONTRACTOR shall implement and adopt a Permit to work system and training requirement. Failure to fully comply with PTW Requirements will lead to Permit or Certificate Cancellation.

The Following type of Permits & Certificates are applicable to Project:

|  |  |
| --- | --- |
| Permit Name | Permit Form No. |
| Hot Work | ABCDEFG  |
| Lifting Operations | ABCDEFG |
| Confined Space | ABCDEFG |
| Excavations | ABCDEFG |
| Electrical Isolation | ABCDEFG |
| Mechanical Isolation | ABCDEFG |

Permit forms shall be attached in Annexure XX

### Authorized Permit Issuers and Receivers

The following shall be authorized to issue and receive permits.

|  |  |  |
| --- | --- | --- |
| Permit | Authorized Permit Issuer | Authorized Permit Receiver |
| Hot Work | Project Engineer | Site Engineer(s) |
| Lifting Operations | Lifting Appointed Person | Site Engineer(s) |
| Confined Space | Project Engineer | Site Engineer(s) |
| Excavation | Project Engineer | Site Engineer(s) |
| Electrical Isolation | MEP Engineer | Site Engineer(s) |
| Mechanical Isolation | MEP Engineer | Site Engineer(s) |

If for whatever reason the authorized permit issuer is not available, the permit issue role can be delegated to someone else. This delegation must be in writing (email or letter is acceptable)

## Traffic Management Plan

A separate traffic management plan for this project shall be submitted under document reference ABC-XXXX.

## Material Storage Plan

|  |
| --- |
| [INSERT LAYDOWN AREA PLAN] |

## Identification and Management of Asbestos and Other Hazardous Materials / Substances

### Asbestos

There are no asbestos containing materials to be used for the execution of this project. In the unlikely event that the project team comes across any asbestos material, the supervisor shall:

1. Stop All Work
2. Inform the HSE representative
3. The HSE representative shall inform the management team who shall engage an approved asbestos removal service provider.

### Types of Hazardous Substances

The types of hazardous material to be available on this project include:

* Paint
* Oil
* Grease
* Batteries
* Chemical Waste
* Containers of Hazardous Waste

### Management of Hazardous Material / Substances

Based on the project scope, hazardous waste generation is expected to be minimal and so the overall impact on the environment is localized, non-critical and reversible. Having said so, the following controls shall be in place:

* A copy of the Material Safety Data Sheet (MSDS) for the substance will be available at the location of storage and with the storekeeper.
* It is the responsibility of the storekeeper to ensure that MSDS’s are available with him.
* Chemical storage area will be available ventilated with temperature control.
* Fire extinguishers (suitable for chemical fires) shall be available at the location of the chemical store
* Chemical storage area shall be equipped with spill kits suitable to contain 20% of the maximum drum/container.
* Managing and safekeeping of the chemicals will be under the responsibility of the storekeeper.
* Substances will be held in secure appropriate containers with the substance clearly identified on the exterior of the container.
* All containers holding hazardous substances will have their lids closed as soon as they are not in use. Only minimum quantities required should be removed
* COSHH assessment will be carried out to ensure that users of substances are properly informed, instructed and trained in the hazards and control measures to be used.
* Empty containers will be removed as soon as possible, and arrangements made for their safe disposal.
* All hazardous substances will be kept separate from normal waste and disposed of as approved by the Authority.
* Procedures/instructions for the control of hazardous substances shall be implemented as per MSDS.
* Suitable personal protective equipment is identified, provided, and properly used as appropriate.
* All spills to be promptly dealt with in accordance with the instructions on MSDS or the substance container.
* Waste material is disposed of in accordance with the instructions on the MSDS and in accordance with Waste Management Procedures using approved hazardous waste disposal service providers.

### Hazardous Material / Substance Training

Persons exposed to hazardous shall be trained as per the requirements of the HSE Training Matrix.

* The training content is available in form ABC-XXXXX - Hazardous Chemical Substances - TBT Content is available in Annexure 07
* Persons exposed to hazardous materials / substances shall be trained twice per year.

## Site Safety Rules

The following are rules that shall be followed by all persons entering the project.

Rule # 1 - Minimum Mandatory PPE: Hard Hat, Safety Shoes, Safety Glasses, Reflective Vest

Minimum mandatory means it does not matter whether you are doing work or not, if you are on-site, you should be wearing the PPE.

Rule # 2 - Only inducted personnel can enter the worksite

It does not matter if you have work for 10 minutes, 1 minute, 30 seconds or 3 seconds, if you are going to site, you must be inducted

Rule # 3 - Smoking is only allowed in designated smoking areas

Designated smoking areas will be provided for those who chose to smoke. It is forbidden to be standing on-site and smoking, this includes electronic cigarettes.

## Emergency Management Plan

CONTRACTOR shall prepare an Emergency Response Plan which shall address the following:

* Emergency evacuations
* Medical emergencies
* Civil unrest
* Natural disasters

The emergency response plan will include:

* Locations of emergency alarm systems
* Assembly and evacuation points
* Head Count Process
* Emergency tests and drills
* Crisis management plan (media briefings and external communications to be covered)

The emergency response plan shall be submitted under a separate submission.

## Manual Handling

The following table shall be used when selecting persons to conduct manual handling operations. Though it is difficult to micro-manage this, as a general rule, persons shall be discouraged to handle any loads greater than 32 Kilograms.

|  |  |
| --- | --- |
| Employee Age (Years) | Allowable Load Limits for Manual Lifting |
| 18-20 | 30 KG |
| 20-35 | 32 KG |
| 35-50 | 26 KG |

### Manual Handling Guidelines

* Always lift using the leg and thigh muscles with back straight. Never twist or bend your back when carrying a heavy load
* Be sure that the load is within your lifting capability and ensure that the Center of Gravity of the load is nearest to you.
* Seek assistance (when needed) before lifting heavy loads. Do not take chances.
* Body posture is very important when lifting. Correct positioning will reduce the risk of back and muscle injuries. During lifting, the following shall be considered:
* Stance: Face the direction of travel, stand over the weight. Feet slightly apart and one in front of the other. This position enables you to keep your balance
* Back: Keeping a reasonably straight back lets the powerful leg muscles do the work, and also protects the spinal column
* Grip: Take a proper hold. Grip with the palms of the hand and the roots of the fingers. Never lift using only the finger tips
* Arms: Keep arms as close to the body as possible. The body itself then takes some of the weight instead of just the arms and hands.
* Chin: Before lifting, raise the head slightly and tuck the chin in. This helps to keep the back in an upright posture
* Feet: The feet should be apart, the width of the hips and the leading foot should always point in the direction you intend to move off in
* Body: Use your body as a counterweight to save energy and muscular effort

### Manual Handling Training

Persons that are exposed to the risks of manual handling shall be trained as per the requirements of the HSE Training Matrix. Training shall be delivered in the form of toolbox talks and PowerPoint classroom training.

* The PowerPoint classroom training can be found in presentation named Manual Handling.
* The toolbox talk awareness training content is found in ABC-XXXXX - Manual Handling - TBT Content available in Annexure 07.
* Training frequencies are detailed in the project’s training matrix found in Annexure 06.

## Working at Height

* Only competent personnel shall be deployed for the task.
* All the activities above 2.0 m height shall be considered as Work at height.
* Fall safety protection shall be ensured by application of appropriate work at height safety PPEs, Safe system of work and continuous monitoring & supervision.
* Work at height activities shall be carried out as per approved Method and Risk assessments.

### Exclusion Zones

* Exclusion zones shall be put in place any time there is the possibility of material falling from height.
* Exclusion zones shall be barricaded using warning tape.
* Exclusion zones shall have signages that indicate a risk of falling objects.

### Safety Harness

* Where it is not practicable to provide a standard working platform and the working at height exceeds 2m, full body safety harnesses will be worn by the workers.
* Lifeline will be used on critical activities and will be anchored to a firm structure as to its purpose for fall prevention.
* Harnesses shall be inspected by the HSE Officer every three months. A record of this shall be maintained.

### Work at Height Training

Persons that are exposed to the risks of working at height shall be trained as per the requirements of the HSE Training Matrix. Training shall be delivered in the form of toolbox talks and PowerPoint classroom training.

* The PowerPoint classroom training can be found in presentation named Fall Protection.
* The toolbox talk awareness training content is found in ABC-XXXXX - Working at Height - TBT included in Annexure 07.
* Training frequencies are detailed in the project’s training matrix found in Annexure 06.

## Fixed and Temporary Electrical Installations

Possible hazardous electrical activities and systems shall be identified in the project and effective electrical hazard management practices shall be followed as per minimum applicable requirements mentioned in the specifications. It will not be limited to the following:

* Periodic inspection of tools, power cords, and electrical fittings for any damage or wear prior to each use.
* Use of the correct size fuse, and appropriate cords.
* Use of inspected, safe working power tools with the guards.

An independent Electrical Safe System of Work shall be developed for this project.

## Personal Protective Equipment

Minimum mandatory Personal Protective Equipment for this project shall be:

* Helmet
* Safety Glasses
* Safety Shoe
* Reflective Vest

Other relevant PPE like hand gloves, ear plugs, gas monitor, dust mask, safety harness etc., must be worn to suit the requirement of the risk assessment.

The project office shall keep on hand a set of PPE which shall be maintained in the HSE Department office. The office shall maintain the following numbers of visitor PPE.

|  |  |
| --- | --- |
| PPE | Quantity |
| Hard Hat | 4 Pieces |
| Safety Shoes – Size 38 | 1 Piece |
| Safety Shoes – Size 40 | 1 Piece |
| Safety Shoes – Size 42 | 1 Piece |
| Safety Glasses | 5 Pieces |
| Safety Gloves | 24 Pairs |
| Reflective Vests | 4 Pieces |

## Plant and Equipment

* Plant and equipment shall be inspected prior to entry on the project.
* Plant and equipment shall be inspected by the HSE Department once per week
* Plant and equipment shall be inspected by the operator daily
* It is forbidden for any plant and equipment to be used without the clearance of the HSE Department.
* All plant and equipment operators shall be third party certified to operate that class of equipment.

For portable power tools and hand tools, refer to section Portable Tools.

## Housekeeping Arrangements

* Housekeeping is everyone’s responsibility. Each supervisor will ensure their team keeps the area tidy.
* The HSE Officer shall monitor the supervisor’s work area and ensure the housekeeping is appropriate.
* Should the housekeeping not be enough, an observation shall be raised
* Repetitive failure to keep the work area proper will subject the supervisor to disciplinary action.

## Lifting Equipment and Lifting Operations

* All lifting equipment to be used on the project will be tested and inspected regularly (6 months) by a 3rd party and will have a valid certificate.
* Equipment will be properly marked with an identification number and safe working load.
* Copies of all test and examination certificates will be available with the store in charge and safety officer.
* A register of all lifting equipment used will be kept.
* Defective lifting equipment will be withdrawn immediately from the site
* No item of lifting gear will be used to support a load greater than the safe working load of the lifting gear.
* Lifting equipment and other lifting appliances belonging to the project will only be used by project personnel.

## Welfare and Site Accommodation

While selecting the Camp for workers, consideration was given to meet the minimum below requirements:

* Accommodation units is constructed in such a manner to provide protection against adverse weather conditions.
* All rooms are well ventilated.
* Accommodation facility is away from traffic areas and noisy activities.
* It is ensured that internal area is not less than 4.5m2 per person.
* Each room has space for occupant’s luggage, clothes, personal items, and a lockable storage for each resident.
* Provision of appropriate fire extinguishers is ensured at accommodation area.
* Air conditioning units are provided in all rooms throughout the camp for all residents
* Daily cleaning of the accommodation facilities by the cleaners is being done.
* Availability of beds with form springs or suitable hardboards is provided and fitted with a mattress, a blanket, bed sheet and a pillow.
* Any evidence of bed bugs and pest infestation shall be reported immediately to the Camp Boss.

### Recreational and Sports Facilities

Recreational and sports facilities in the selected camp are available.

* Television room
* Indoor games (Caroms, Cheese, Darts)

### Laundry Service

Laundry facility is ensured for all personnel accommodated in the camp. The provision of this service shall be ensured at least twice in a week.

Every Tuesday & Saturday laundry is being collected for washing at selected accommodation camp.

### Toilets and Washing Facilities

Provision of suitable toilet and washing facilities in the camp adjacent to all accommodation and recreational areas.

* Each toilet room is lighted naturally or artificially by a safe type of lighting at all hours of the day and night.
* Sanitary facilities: Provision of lavatories, water closets, showers, urinals, hand wash basins and mirrors.
* Proper ventilation.
* Continuous supply of hot and cold water all sanitary facilities
* Wastewater, including floor-washing water is properly disposed of such that it does not pose a hazard to health and environment.
* Daily cleaning as well as maintenance is done whenever required.

### Camp Medical Facility

A first aid facility operated by a registered nurse is provided inside the camp for primary medical treatment of personnel. It is equipped with the minimum requirements for equipment and medical supplies.

### Transportation Facilities

Transportation of camp residents to the site is available. It is not mandatory for the residents to use this transportation option.

### Camp Dining Facilities

It is ensured that dining room of the camp is large enough and facilities are in compliance with minimum applicable requirements as per relevant legislative requirements. This shall be ensured during the camp inspection audits.

### Workers Site Facilities

* Adequate drinking water coolers will be provided at site for the workers.
* Cleaning of the coolers shall be done daily.
* Water shall be delivered to site within 1 hour of the workers arriving to site.
* Drinking water shall always be protected from contamination by keeping lids securely on.
* Adequate toilets shall be provided with a ventilation system.
* Toilet shall be cleaned at thrice a day or more as per requirement to ensure standard hygiene.
* Adequate toilets and bath rooms will be provided.

### Food and Food Premises

* No food will be consumed on the construction site.
* All food will be delivered to the rest area for consumption.

### Health Insurance

All employees shall be provided with health insurance. Costs of issuance and renewal of a comprehensive health insurance shall be borne by the contractor. The provided health insurance shall be accepted at government hospitals, however in case any hospital is not covered, the employee shall be fully reimbursed for any work-related injuries.

### Sickness and Absenteeism Monitoring

Timekeeper shall record all sickness and absenteeism and inform the HSE Engineer on a monthly basis. The HSE Engineer shall monitor the absenteeism records to identify any possible trends that could be associated with the work carried out.

## Scaffolds and Ladders

### Scaffolding

* Scaffolding will not be disturbed or altered by any unauthorized persons. Where alterations are required Authorized Scaffolders will carry out the work under competent supervision using experienced scaffolders.
* Where materials are to be positioned on scaffolding the Site Engineers & Scaffolding Coordinator must ensure that the scaffolding has been designed to carry the load
* Scaffolds will be inspected at weekly intervals by the authorized scaffold inspector who will sign and date the "Scaffold Tag" after each inspection. Scaffolding not considered safe will have the scaffold tag withdrawn and a prominent "DO NOT USE" sign displayed.
* No scaffold may be erected which impedes normal access or can be accidentally struck by moving plant or cranes without prior consultation with The PROJECT management so that a safe system of work can be agreed.
* If there is any doubt about the security of any anchorage, suspension points or ties for a scaffold e.g. strength of existing buildings/structures or those under construction the safety of the erection must be ensured.
* All scaffolds will be provided with suitable access and where ladders are used for this purpose they will be of an adequate length and properly secured by lashing or fixing to prevent displacement.

Mobile scaffolds will be constructed with the same complete components of the stationary scaffolding. Access/egress ladders will be provided. Working platform will be enclosed with top rail and mid rail bracing pipes and toe board for material fall protection.

Mobile scaffolding will only be used on level ground surface.

### Ladders

* Ladders will be in good condition and free from defects i.e. broken rungs, split stiles.
* Ladders will not be painted to hide defects.
* Be securely fastened at the top or footed at the bottom where fastening is not practicable.
* Be properly positioned at the base.
* Extend at least 1m (5 rungs) above the working platform.
* Be at an angle of not more than and less than 75 degrees or 1/3 of the length.

## Cantilevers and Platforms

* Not applicable to this project.

## Roofs

* Not applicable to this project.

## Excavations and Trenches

### Preparation

* Ground conditions for excavations deeper than 1.2m will be determined by soil analysis, boreholes or trial pits.
* All excavations require a permit.
* The requirement for and design of support systems shall be the responsibility of the Site Engineer and Project Engineer.
* Excavation activities shall be performed under a specific method statement prepared by the Site Engineer or Project Engineer in consultation with the Site HSE Representative.
* The Site HSE Representative shall assess the risk in the form of a Risk Assessment in consultation with the Site or Project Engineer. The Site Engineer shall adhere to the control measures required in the Risk Assessment.
* The Site Engineer is responsible to brief the Foreman on the requirements of the method statement and risk assessment.
* The Foreman shall communicate the requirements to the workers executing the job in a pre-task briefing or toolbox talk. This shall include information such as uncovering marker tiles, cables, pipe work etc.

### General

* All personnel shall be a minimum of 5m away from any heavy machinery doing excavation work.
* Trucks for the removal or dumping of excavation spoils shall be maneuvered by a banksman. These trucks shall be provided with backstops when unloading spoils into an excavation.
* Excavated soil shall be stacked a minimum of 0.6m away from the excavation edge.
* The height of excavated soil stacked close to the edge shall be less than 1.5 times higher than the distance from the excavation edge to the soil stack.
* No machinery or equipment shall be kept within 2m from an excavation edge.

### Access

* The Foreman is responsible for planning the excavation work to ensure that suitable access is provided.
* Access type such as steel ladders, wooden platforms, sand bags, etc shall be as per the method statement / risk assessment.
* Travelling distance to the nearest access/egress shall not be more than 7.5m.
* A minimum of 1 access point shall be prepared to allow emergency response teams to effectively maneuver a person out of the excavation on a stretcher.
* Access shall be provided while the excavation work is in progress, not only when the excavation is complete.
* Access ladders shall be securely fixed to the ground and extend no less than 1m above the surface.

### Barriers and Signs

* Any excavation deeper than 1.2 meters will have physical solid barriers to stop anyone from falling into the excavation.
* Solid barriers can include concrete barriers, plastic barriers, scaffold tube or excavated spoils of 0.6m height subject to client approval.
* Rebars affixed to warning tape are not considered solid barriers.
* All excavations will have warning signs erected.
* Barriers required for work in the right of way shall be as per authority requirements.

### Trial Pits

* All trial pits shall be conducted by manual hand excavation, the use of heavy machinery is forbidden.
* All conditions on the trial pit NOC issued by the authority or client shall be complied with. Any deviation shall be considered a serious violation by the supervisor executing the work.

### Working Near Live Services

* All excavation work within 5m of known underground services shall be conducted manually, unless approved by the authority or client.
* The use of heavy machinery is forbidden, including for the purposes of moving excavated spoils away from the trial pits, unless there is written approval from the authority or client.
* All conditions on the authority or client NOC shall be complied with. Any deviation shall be considered a serious violation of the supervisor executing the work.

### Support Systems

* The requirement of support systems shall be considered for any excavation deeper than 1.2m.
* The Site Engineer and the Project Engineer shall identify the type of support systems to be used, while considering soil conditions, water conditions, nearby structures or excavation exposure to vibration
* The details of the support system, method of installation and removal shall be identified in the method statement. The selection of shoring method may be justified with calculations.

## Confined Spaces

* Supervisors shall ensure that all personnel entering a confined space are properly trained and informed of the hazards and controls associated with confined space entry.
* Contractor shall prepare a task risk assessment identifying hazards associated with confined space entry and which engineering and administrative or PPE controls shall be used to reduce the existing or known risk at all level As Low As Reasonably Practicable (ALARP)
* Permit to work must be acquired from the Contractor. Details of work procedure and time scale must be mentioned. Number of performing bodies must be declared.
* Pre-Entry Inspection must be carried out
* Entry point must be barricaded/isolated and ONLY performing authority is required to be in the area.
* Full body harness must be used. Lifeline must be in place.
* Workers must have knowledge on emergency signals.
* Emergency response must be known by the workers.
* Gas testing has been carried to ensure the confined space is safe from chemical vapors. Ensure that there are no harmful chemical vapors in the confined space.
* Presence of oxygen supply in the confined space must be adequate. Use of artificial air producing equipment is necessary to provide air circulation inside the confined space.
* Ensure that lighting is sufficient.
* NO one is allowed to work in a confined space alone. Buddy system (2-man team – 1 inside, 1 outside) must be in place to monitor the health condition of the worker inside the confined space.
* Communication must be done continuously by phone or verbal continuously to ensure that worker inside the confined space is in good condition.

## Demolition and Decommissioning

* Not applicable to this project.

## Piling

* Not applicable to this project.

## Electrical and Gas Welding

* All welding operations will be carried out by certified, competent, and trained welders.
* All welding equipment shall be in good condition and properly maintained with maintenance record.
* Any damaged cables or electrode holders will be properly repaired or replaced.
* All welding return cables should be fixed to the work place or as close as possible if this is not practicable.
* Proper cable connectors will be used to join runs of cable.
* Welding areas will, whenever possible, be screened off using flame retardant sheeting or other suitable material.
* Cable routes will be properly managed to keep runs as short as practicable and to avoid trip hazards.
* All welding operations require a hot work permit.

Welders shall be equipped with and shall wear:

* Face and eye protection with the correct grade of filter
* Welder’s gauntlets
* Long-sleeved flame-retardant overalls
* safety shoes
* Fire blankets
* Fire extinguishers

## Gas Cutting

Gas cutting equipment shall:

* Be in good condition and not be corroded.
* Be properly color coded i.e. black-oxygen, maroon-acetylene, yellow-LPG, blue-argon etc.
* Be accompanied by a valid test certificate.
* Hoses will be properly color coded to the internationally recognized standard for the gas being used, in good condition and fitted with hose connectors attached by permanent clips.
* Check valves and flashback arresters will be used on both hoses at all times.
* Users will check the equipment for perished, damaged hoses, regulators, and pressure gauges, etc. Defects will be reported to their supervisors.
* Gas cylinders will not be left lying around. Arrangements should be made to store cylinders in an open mesh fenced compound.
* Cylinders will be in trolleys or tied off when on site.
* They will be properly shut off when not in use and safety caps will be fitted when being moved.
* Hoses will be routed to avoid trip hazards or damage.
* Hot work permit shall be acquired before commencing with the task. Work area will be inspected prior to issuance of the permit.

## Working over or Adjacent to Water

* Not applicable to this project.

## Mobile Equipment

* Refer to section 5.12

## Portable Tools

* All project tools and equipment will be suitable and adequate for the purpose.
* Guards and electrical trip switches will work effectively and will not be removed or by-passed.
* All tools will be maintained in a safe working condition.
* Suitable storage for string tools will be provided.
* The project management will nominate or employ the services of a competent qualified electrician to inspect and tag electrical power hand tools transformers, distribution boards, extension cables etc. on an at least quarterly basis.

The storekeeper will keep on site a register of all electrical power hand tools in use.

The register will detail all electrical leads will be connected to the power source through standard industrial waterproofed plugs and sockets, which will be in good condition.

### Machinery Guarding

* Unauthorized personnel will not operate, interfere or tamper with any project plant or equipment.
* Persons authorized to use machines will first check that guards are in position and that any other safety devices, e.g. emergency stops are in working order.
* All plant or equipment brought onto the Client’s premises will be properly guarded to prevent injury.
* When possible, wood cutting machines shall be provided with automatic guards.

## Falling Objects

* Areas where there is a potential of falling objects shall be barricaded to ensure nobody enters the barricaded area.
* Signage shall be included in Arabic and English explaining the hazard of falling objects.

## Slips, Trips and Falls

* All places of employment including passageways, storerooms and service rooms shall be kept clean and orderly and in a sanitary condition.
* Aisles and passageways shall be wide enough to allow emergency egress. The minimum width shall not be less than 90cm
* Covers and/or guardrails shall be provided to protect employees from hazards of holes in floors, open pits, tanks, vats, ditches, etc.

## Animals and Reptiles

* Not applicable to this project.

## Workplace Bullying and Violence

* The Contractor will establish a working environment where workplace bullying is discouraged.
* This project has a strict no tolerance policy for violence, anyone found violating these rules shall be dismissed from site
* Persons who feel threatened can report the case anonymously using the HSE Helpline
* All cases of workplace violence and bullying shall be reported to HR, who shall conduct a full investigation and take necessary action based within the limits of the law.

## Impacts / Hazards from Adjacent Activities

* The impacts and hazards from adjacent activities shall be controlled by ensuring the work area is cordoned with appropriate signages.

## Temporary Works

When setting up temporary structures (office and laydown area), the HSE Department shall be consulted to ensure:

* The positioning of portable buildings on site allow for safe access and egress of persons using portable buildings.
* A level concrete base shall be provided for each portable building and the gap between the bottom of the building and the ground shall be filled to prevent accumulation of combustible waste materials under the building.
* Spacing between portable buildings shall consider the requirements of the UAE Fire and Life Safety Code.
* The construct of temporary structures shall be as per the requirements of the UAE Fire and Life Safety Code.
* Electrical installations to every portable building are made by a competent electrician.
* Electrical distribution boards and associated cables, wall sockets and other fixed electrical installation in portable building shall be tested every 6 (six) months.

## Existing Services

In the case where the work approaches existing services, the following precautions shall be taken:

* Contractor shall ensure competent persons are available when working near external assets.
* When working close to the assets, a permit shall be obtained from the asset owners.
* It is forbidden to work near the assets unless the competent person is available on-site.
* The permit requirements shall be strictly followed.

## Services Coordination

* When there is work that interferes or comes close to existing utility services, the project shall apply for a permit from the asset owner.
* The requirements on the permit/NOC shall be fulfilled.

## Occupational Health Arrangements

### Medical Fitness

Only those employees who have medical fitness for work certificate shall be allowed to work.

### First Aid

Trained first aiders shall be available as per the below requirements:

1. At least one first aider per shift with less than 50 employees; and
2. At least one first aider per 50 employees per shift with more than 50 employees

Minimum contents of first aid kit shall be available as per are listed below

| **Item No.** | **Product Description** | **Item Quantity (by size of kit)** |
| --- | --- | --- |
| **Small** | **Medium** | **Large** | **Travel** |
| **Required** |
| 1 | Pocket First Aid Guide  | 1 | 1 | 1 | 1 |
| 2 | Contents list  | 1 | 1 | 1 | 1 |
| 3 | Disposable gloves, latex free, powder-free, different sizes (small/medium/large), pairs  | 2/2/2 | 3/3/3 | 4/4/4/ | 1/1/1 |
| 4 | Laerdal pocket mask or resuscitation face shield  | 1 | 1 | 2 | 1 |
| 5 | Adhesive plasters, water resistant, low allergy, assorted sizes  | 40 | 60 | 100 | 10 |
| 6 | Medium sterile dressing (12 x 12 cm)  | 4 | 6 | 8 | 1 |
| 7 | Large sterile dressing (18 x 18 cm)  | 1 | 2 | 2 | 1 |
| 8 | Eye pad sterile dressing  | 2 | 3 | 4 | 1 |
| 9 | Finger sterile dressing  | 2 | 3 | 4 | 0 |
| 10 | Burns sterile dressing (preferably water gel  | 1 | 2 | 2 | 1 |
| 11 | Triangular bandage  | 2 | 3 | 4 | 1 |
| 12 | Conforming bandage  | 1 | 2 | 2 | 1 |
| 13 | Alcohol free moist cleansing wipes  | 20 | 30 | 40 | 4 |
| 14 | Safety pins, assorted sizes  | 6 | 12 | 24 | 2 |
| 15 | Adhesive tape, preferably hypo-allergenic  | 1 | 1 | 1 | 1 |
| 16 | Sterile eye wash  | 0 | 0 | 0 | 1 |
| 17 | First Aid scissors – Tough cut type with skin protective leading edge  | 1 | 1 | 1 | 1 |
| 18 | Roller bandages, 50 mm/100 mm wide  | 2/2 | 4/4 | 8/8 | 2/2 |
| 19 | Skin disinfectant (spray)  | 1 | 1 | 1 | 1 |
| 20 | Medical Waste disposal bag  | 1 | 2 | 4 | 1 |
| **Optional / Based on first aid needs assessment**  |
| 21 | Splints for limps fracture, small & large  | 1/1 | 2/2 | 3/3 | 1/1 |
| 22 | Paper stitches (e.g. Steri-StripTM), packets  | 1 | 2 | 4 | 1 |
| 23 | Pair of forceps or splinter tweezers  | 1 | 1 | 1 | 1 |
| 24 | Hand sanitizer (min. 61.% ethyl alcohol)  | 1 | 1 | 1 | 1 |
| 25 | Emergency blanket (foil blanket)  | 1 | 2 | 3 | 1 |
| 26 | Torch, preferably kinetic  | 1 | 1 | 1 | 1 |
| 27 | Epinephrine auto-injector  | 1 | 1 | 1 | 1 |
| 28 | Analgesic tablets  | 2 | 4 | 8 | 2 |
| 29 | Rapid Nasal packing  | 1 | 2 | 3 | 1 |
| 30 | Cold packs (mind. 10 x 12.5 cm)  | 1 | 2 | 3 | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Size of Kit** | **Small** | **Medium** | **Large** | **Travel** |
| Lower risk, e.g. offices, shops, libraries  | Less than 25 employees | 25-100 employees | More than 100 employees | Per vehicle |
| Higher risk, e.g. food processing, assembly work, engineering, construction, manufacturing etc.  | Less than 5 employees | 5-25 employees | More than 25 employees | Per vehicle |

In addition to the above, the following requirements must also be met.

* Motor vehicles shall carry first aid kits.
* First aid kits shall be inspected by HSE Engineer and first aider. Consumable items shall be replenished as needed. All inspections shall be recorded.

## Waste / Emission Arrangements

Contractor is committed to minimizing the adverse impacts of construction activities on the environment by ensuring that appropriate environmental protection (no pollution, no spillage, etc.) controls are taken.

* All tasks performed shall conform to the environmental standards laid down by the CLIENT as applicable to this contract.
* Supervisor and foreman will hold on a regular basis a toolbox talks with his workforce to communicate the task instructions to the employee.

### Waste Management System

* All wastes will be identified, segregated, handled and disposed of as per Municipality requirements.
* All Waste transportation and disposal shall be done by a licensed and approved waste provider.
* Contractor shall demonstrate regulatory compliance and good waste management practices that protect the environment.
* Site Management will enhance awareness amongst personnel to minimize generation of waste on site and subsequent handling.

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| WASTE COLLECTION POINT LAYOUT |

# Annexures

|  |  |
| --- | --- |
| **Reference** | **Document Title** |
| Annexure 01 | Project HSE Policy |
| Annexure 02 | Contact List |
| Annexure 03 | Project Plan, Org Chart & Histogram |
| Annexure 04 | Legal Register |
| Annexure 05 | Risk Register Template |
| Annexure 06 | Training Matrix |
| Annexure 07 | Toolbox Talk Topics |
| Annexure 08 | Incident Investigation Form |
| Annexure 09 | Observation Register Template |
| Annexure 10 | Permit Forms |