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# 1.0 Introduction

## 1.1 Purpose

The Construction Site Safety Plan is developed for the Proposed Facilities for MICEPL project, located all over India. This Construction Site Safety Plan establishes the minimum safety requirements for all activities at the site and applies to all project stakeholders including MICEPL Project Manager, PMC, Architects & Consultants, contractors, subcontractor, suppliers, vendors, visitors, etc.

The "Site" means all the area located in the Project Plan.

## 1.2 Integration

The construction E&HS plan integrates Standard Safety procedures and practices and incorporates provisions related to Labor policies in India.

## 1.3 Scope

The Construction E&HS Plan is developed for site construction activities before civil, mechanical, electrical & other support services work completion and does not cover commissioning and startup or operation.

# 2.0 Safety Organization Responsibilities

## 2.1 Responsibilities

### a) Responsibilities

All working at project site shall be totally responsible for compliance, implementation of Health, Safety and Environment Policy.

#### ***Safety at Construction Phase:***

- Organizing, Co-coordinating and Co-operation between employees
- Co-coordinating the Safety, Health, Welfare measures by the employers
- Co-coordinating Supervision; to meet the joint facilities

#### ***Give Indications to the Vendors:***

- Co-ordinate the information to all the employers
- Take measures to assume that only authorized persons are entitled to come at the work place
- PM shall keep up and actualize the EHS plan and files in "Draft" and file

### b) Safety Instruction and Procedures

- Clear safety instructions and procedures are the basis for functioning of all at site. These safety instructions and procedures are the minimum safety requirements to be followed by all always at site.

- Every employee, contractor and visitors shall be responsible for fulfilling all safety instructions and procedures.

- Report unsafe conditions, situations and handlings to the Project Manager.



**c) Communications:**

***Kick-off Meeting:***

- The kick-off meeting should be seen as a start meeting, preliminary to the general or project oriented activities.
- In the kick-off meeting beside technical relevant information pay attention to the aspects of Health, Safety and Environment in general.

***Safety Meeting:***

- Specific appointment e.g. Action points as result of consultation between safety technicalities related to the project are discussed every fortnight.

***Pre-Job Meeting:***

- The Pre-Job Meeting is meant for consultation before activities start.
- A part of the meeting is a review to make detail appointment for specific plan on location directed to Health and Safety matters and actual deviation of the normal situation.

## **3.0 Project Rules/ Regulations and Disciplinary Program**

The basic Rules of Conduct for all Project personnel while on the job site:

All contractors/subcontractors management and employees must be familiar with the site safety standards and adhere to all requirements:

### **3.1 Orientation:**

- All job site personnel must attend an initial safety orientation before beginning work on the project.
- Attendance at the safety orientation shall be documented

### **3.2 Reporting Hazards:**

- Employees must report any unsafe conditions to their supervisor and/or the Safety Engineer/supervisor, without fear of reprisal.

### **3.3 Injuries:**

- Employees must report all injuries to their supervisor. All cases must be reported and treated at the First Aid Office. All injuries shall be reported immediately to the Project Safety Manager.

### **3.4 Smoking:**

- Smoking is totally prohibited on the site.



### **3.5 Safety Helmets:**

- All Contractor/Sub-contractors shall provide IS: 2925-1984 Safety helmets and their employees must wear at all times in the project site.

Employees may not modify Safety helmets in any way, such as drilling additional ventilation holes.

- All the contractors/ Sub-contractors should following color codes for safety helmets at site.  
Staff/ visitors - White Workers

Contractors - Yellow  
Plant Machinery staff - Blue  
Electrician - Red  
All Safety personnel - Green

### **3.6 Safety Shoes:**

- All employees must wear –1970 Safety shoes or boots on the Project site.

### **3.7 Hand Protection:**

- Gloves must be worn when working with materials or equipment with the potential injury due to sharp edges, corrosive materials, splinters, etc.
- IS 4770-1991 Rubber Gloves must be worn during Concrete works, Electrical works.
- IS 6994(Part I)-1973 Leather Gloves must be worn during- Hot works, Steel works, Mechanical works.

### **3.8 Hand & Power Tools**

- Hand and power tools must be maintained in a safe condition, whether furnished by the contractor or by the employee. When power-operated tools are designed to accommodate guards, they must be equipped with appropriate guards when in use.
- Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains and other moving parts of equipment must be guarded if the parts are exposed to contact by employees.
- All hand-held power tools must be equipped with a constant pressure switch that shuts off when the pressure is released.
- Electric power-operated tools shall be of the approved double insulated type, or grounded in accordance with good electrical practice.
- Pneumatic power tools must be secured to the hose or whip by positive means. Safety clips or retainers must be maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.
- All employees using abrasive wheels must have eye protection and other tools must be operated using personal safety equipment.



- Contractors to maintain a record of the regular inspections of these tools, which will be reviewed during the weekly safety tours.

### **3.9 Eye Protection:**

- All Contractors/Subcontractors shall provide their employees IS: 7524(Part I)-1979 Safety goggles or approved equal rated safety glasses with hard side shields
- Additional approved eye/face protection such as face shields and welding masks will be required when performing hazardous tasks such as welding, burning, chipping, or grinding.
- Corrective lens manufactured to IS: 5983-1980 eye protectors (or approved equal) may be worn with hard side shields; other lenses require “over glasses” and/or the use of goggles. Electrical workers are not permitted to wear metal framed safety glasses.

### **3.10 Hearing Conservation Program:**

- Protective hearing equipment is to be provided and used in area where the noise levels exceed 85 dba

### **3.11 Respiratory Protection:**

- Respiratory equipment must be worn in areas where health hazards exist due to accumulations of dust, fumes, mists, or vapors.

### **3.12 Clothing:**

- Male workers shall wear tight fitting pants & and Female workers shall wear saris, blouses and long sleeved shirt over their regular dress.
- No Lungis, half pants and loose clothing's are permitted on project site.

### **3.13 Truck Transport of Employees:**

- Project personnel shall be transported from Labour camp to project site in vehicles with over head cover/tarpaulin.
- Project personnel are forbidden to ride on loads, running boards, sideboards, tailgates, or with legs or feet hanging over sides of trucks.
- Drivers must not start trucks until they and all internal passengers have seat belts secured and all riders comply with these rules and are properly seated.

### **3.14 Mobile Equipment:**

- Personnel are forbidden to ride on any mobile equipment where proper seating is not provided.
- Drivers must secure their seat belts.
- No mobile equipment shall back up without the assistance of a Banksman (spotter/flagman).
- Other people are forbidden to take the mobile equipment except drivers, such as shoves and lift trucks, etc.



### **3.15 Speed Limit**

- Vehicular traffic shall not exceed the posted speed limit. The speed limit in the site is 15 km/h.

### **3.16 Entry /Exit of Plant Property;**

- Security Personnel will be utilized to direct/control employee vehicle traffic entering and/or exiting Project plant property.
- Failure to follow their instructions will result in disciplinary action up to possible removal from the project.

### **3.17 Personal Fall Arrest Systems:**

- Positive fall protection is required for all elevated work areas in excess of 2 meters.
- This can be provided through the use of safety harnesses, guards, scaffolds, safety nets, etc.
- Where this is not feasible or the hazards of their erection are greater than the protection provided then an alternate work method must be developed and approved by the Project/Construction E&HS Department.
- All employees shall wear full body safety harnesses when they are more than 2.5 meters above ground level, within 2 meters of an exposed edge without complete fall protection, or when exposed to a lesser fall potential directly above dangerous equipment.
- All safety harnesses shall be to Indian Standards or equally approved shall be equipped with two shock-absorbing lanyards.

### **3.18 Electrical Equipment:**

- All personnel, except qualified, authorized and licensed electricians, must keep clear of electrical gear and wiring at all times.
- Only qualified, authorized and licensed personnel will be authorized to work on electrical equipment.

### **3.19 Compressed Air:**

- Personnel must never use compressed air to blow dirt from hands, hair, or clothing. They must not misuse compressed air or release it at another person.

### **3.20 Scaffolds, Ladders and Work Platforms:**

- Scaffolds must be assembled and used according to the manufacturer's guidelines or recommendations.
- Non-standard or "job made" scaffolds, ladders or work platforms must be assembled and used per a "registered Engineer's approval".
- Non-standard job made scaffolds, ladders or work platforms must be approved in advance by the PMC Safety Manager.



### **3.21 Hoisting Equipment:**

- Project personnel are forbidden to ride on any hook, load, or headache ball.
- Equipment operators must be qualified/ certified before operating equipment, with certification on their person.
- Equipment operator certifications shall be submitted to the Project/Construction E&HS Department prior to operator beginning work on this project.

### **3.22 Lifts:**

- Unauthorized lifts are not permitted. MICEPL Project Manager must be notified prior to any critical lift (a critical lift is any lift that exceeds 80% of the design capacity of the lifting device) being carried out.
- All lifting equipment and devices shall be maintained to manufacturer specifications.

### **3.23 Emergency Equipment:**

- Emergency equipment must not be used by project personnel for other than its intended use during an emergency, such as fire alarm equipment, fire extinguishers etc.

### **3.24 Sanitary Facilities:**

- For construction activities, Contractors/Subcontractor must provide portable toilets. Thereafter toilets wash-up facilities.
- Potable water must be provided for employee convenience and comfort.
- Each contractor/subcontractor is held fully responsible for seeing that his personnel abide by the applicable sanitary requirements and proper use of the sanitary facilities. Defacing or damaging of these facilities is forbidden.

### **3.25 Housekeeping:**

- Good housekeeping on the Project site is mandatory.
- The contractor has to adhere to general neatness of working areas, daily disposal of waste and trash, maintenance of clear passageways and walkways, providing adequate temporary lighting and ventilation (both natural as well as artificial) to perform the project related works, removal of projecting nails, removal of oil and grease, removal of loose unused construction material, provision for waste containers, and maintaining adequate sanitary facilities for the work force.
- The contractor and in turn its sub-contractors shall be responsible for cleaning them on daily basis. The contractor shall make necessary arrangements for a disposal tank for collection of waste materials generated during construction activities.
- The container shall be made on a concrete bed of size 3X3X3 m with three separate enclosures for collection of construction debris, wooden pieces and steel scrap. These enclosures shall be constructed with block work at the designated location as indicated by PMC.



- The construction materials/ debris from the site activities shall be accumulated and dumped at the designated disposal area on a daily basis.
- This collection tank shall be cleared once a week from the site.
- The plastic and unused electrical material generated from site should be collected in dustbins and disposed daily basis.

### **3.26 Unsafe Acts:**

- Unsafe acts will not be tolerated. It is everyone's responsibility to watch for unsafe work and halt it until the work can be done safely.

### **3.27 Fighting:**

- Fighting anywhere on the project site, including parking areas is strictly forbidden.
- Violators will be barred from site and possibly subjected to legal action by local authorities.

### **3.28 Alcohol & Drugs**

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- Intoxication or possession of alcohol or illegal drugs is strictly forbidden.

### **3.29 Weapons:**

- Possession of weapons on the site is strictly forbidden. This includes parking lot areas.

### **3.30 Tool Box Meetings:**

- Contractors and Subcontractors shall hold **Weekly** formal Tool-box safety meetings with their personnel to reinforce safe working procedures.
- These meetings shall be documented and copies of the minutes shall be forwarded to the Project/ Construction E&HS Managers.
- Safety Managers and Project Managers shall periodically attend such meetings for auditing and information sharing purposes.
- Contractors/Subcontractors shall conduct daily meetings between the supervisor/foreman and workers to discuss the job to be done, review safe work practices, potential hazards and come to agreement on the safe way to complete the task.

### **3.31 Task Instruction:**

- Task instructions shall be provided to the workers daily at all locations and for each individual work task.
- This is a mandatory safety process and failure to utilize will result in disciplinary action up to and including termination from the job site.

### **3.32 Asbestos Material:**

- No asbestos material is allowed at site



### **3.33 Indian Codes & Regulations**

The Contractor shall be wholly and solely responsible for full compliance with the provisions under all the applicable labour laws and/or regulations such as:

The Payment of Wages Act 1948,

The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996,

The Employees Liability Act 1938,

The Workmen's Compensation Act 1923,

The Industrial Disputes Act 1947,

The Maternity Benefit Act 1961,

The Employees Provident Funds and Miscellaneous Provisions Act, 1952,

The Employees State Insurance Act, 1948,

The Contract Labour (Regulation and Abolition) Act 1970,

The Factories Act 1948

#### **Indian Standards:**

IS: 3696 (Part I) -1966 Safety code for scaffolds and ladders: Part I Scaffolds

IS: 3696 (Part II)-1966 Safety code for scaffolds and ladders: Part II Ladders

IS: 3764-1966 Safety code for excavation work

IS: 4082-1977 Recommendations on stacking and storage of construction materials at site (first revision)

IS: 4130-1976 Safety code for demolition of building (first revision)

IS: 4912-1978 Safety requirements for floor and wall openings, railings and toe boards (first revision)

IS: 5121-1969 Safety code for piling and other deep foundations

IS: 5916-1970 Safety code for constructions involving use of hot bituminous materials



IS: 7205-1974 Safety code for erection of structural steel work

IS: 7969-1975 Safety code for handling and storage of building materials

IS: 8989-1978 Safety code for erection of concrete framed structures

IS: 7293-1974 Safety code for working with construction machinery

IS: 10291-1982 Safety code of dress in Civil Engineering works

IS: 875-1964 Code of practice for structural safety of buildings and lo  
loading standards

IS: 1905-1980 Code of practice for structural safety of buildings, masonry walls

IS: 10386-1983 General aspects: Part 1 – 1983, Part 2 – 1982, Part 6 – 1983, Part 10 – 1983  
Amenities, protective clothing and equipment, construction, storage, handling, detection and  
safety measures for gases, chemicals and flammable liquids

IS: 2925-1984 Safety helmets

IS: 7524

(Part I)-1979 Safety goggles

IS:1179-1967 Welding helmets

IS: 5914-1970 Safety shoes

IS: 4770-1991 Gloves

IS: 12254-1993 Rubber/ PVC knee boots/ gum boots

### **GENERAL SITE RULES**

- All at project site are advised to follow all times DOs and DON'Ts given below for the safety of every one working in project.

**Warning:** Deliberate ignorance of these safety rules will be viewed seriously and liable for penalty/ removal from site.

#### **DO's**

1. Under go EHS induction Training before entering into project site/ ensure all your employees received EHS induction Training
2. Provide and ensure proper use of PPE such as Safety shoe, Safety helmet, Safety gloves, Safety belt (when working at height) etc by all the employees in the project
3. Comply with method statement wherever applicable
4. Ensure "Work Permit" prior to start of activities such as work at height, Hot work, Deep excavation etc.,



5. Ensure all activities related to Electrical energy is handled by competent person/authorized electrician only.
6. Ensure that proper lugs are provided to welding cables
7. Ensure that proper wedging/locking of wheels is done for mobile scaffold/Concrete Mixer/ Transport vehicles before starting the work activity
8. Ensure proper barricading/ covering where there is a danger of fall of persons/ fall of material from top.
9. Check front, back and bottom of the vehicle before starting to move the vehicle
10. Watch vehicle movement and cautions while walking in the project area.
11. Clean and kept workplace neat and tidy and remove all wastage/scrap from the work spot after completion of each work without delay.

### **DONTS**

1. Persons below 18 years of age, pregnant ladies and persons who are physically incapacitated and aged are not permitted at project sites.
2. Smoke in the project premises
3. Drink liquor in the project premises
4. Use open place for Toilets (Use Toilets provided in the project site)
5. Run the vehicle beyond 15 Kmph speed
6. Play with Hazardous chemicals
7. Interfere in others work
8. Enter areas not of your concern without permission
9. Work at height and under HT lines during raining, lightening and heavy wind
10. Dress: No Lungi/ half pant during working at project (Wear full pant and shirt).

### **4.0 Education and Training**

Safety education and training of personnel is a major component of any loss prevention program.

#### **4.1 TRAINING**

- Contractors/Subcontractors are responsible for providing safety and health training for their employees.
- The Project Safety Department will assist with training requirements as required

#### **4.2 Project Site Safety Orientation**

- All Project employees, contractors, and subcontractors are required to attend the site safety orientation course, prior to working on the site.
- The information provided during the orientation will include, but is not limited to such topics as:

1. Job rules, personal safety and conduct
2. Hazards reporting
3. Reporting of injuries/pre-existing conditions
4. Emergency procedures



## **5. Working with Chemicals**

### **6. Safety Activities and Program including disciplinary measure and incentives.**

## **5.0 FIRST AID / Medical Facilities**

- MICEPL Project policy is to place highest priority on the safety and health of all personnel working on the site through use of a strong E&HS Program.

- Prevention is the key element used to reduce the number and severity of occupational injuries and/or illness. When unplanned events occur, it is important that adequate emergency medical services be established so that prompt and competent medical care is provided to project personnel.

- Project will provide appropriate emergency rescue, first aid and medical staff, facilities and procedures necessary to respond to anticipated onsite emergencies.

- These facilities and services will be established and maintained, based on a detailed review of risk factors, present at the site.

### **5.1 Medical/First Aid Facility**

#### **First Aid Box:**

- First Aid box should be placed in project office clearly identified and contains a sufficient quantity of suitable first-aid materials and nothing else.

- First Aid Box should be checked weekly once to ensure they are fully stocked and all items are in a usable condition. Sufficient quantities of each item should always be available in first aid box.

· Emergency Vehicle should be available round the clock near Project Office.

· The first-aid box contents should be protected from dampness and dust.

### **5.2 Physician/Medical Services**

- Project will establish a working relationship with a designated hospital to ensure prompt, professional care for all occupational injuries and illnesses.

- The Safety Manager (Vendors) shall ensure that the designated hospital provided with general project scope, anticipated safety/health hazards, and the importance of good "medical management".

## **6.0 Accident/ Incident Investigations & Analysis**

Prevention is the key element used to reduce the number and severity of occupational injuries and/or illness.



- It is the project policy that all incidents and environmental releases, regardless of severity, are reported immediately to the MICEPL Project Manager / PMC Project Safety Manager, and a joint written investigation will be conducted, even where no injuries occur.
- These incidents include potentially serious injuries (near misses), illnesses, equipment damage, or hazardous liquid spills.
- The contracting or subcontracting Safety Officers shall prepare reports to satisfy their own corporate reporting requirements.
- All reports and investigations must include cause of the incident, any "Unplanned events" occurring as well as corrective actions to be taken to prevent recurrences.
- Corrective actions taken shall be fully documented. The incident investigation is to identify and correct inadequacies in the Site E&HS Program and/or those of our Contractors and Subcontractors.

### **6.1 Labor Regulations**

**IS: 3786-1983** - Method for Computation of Frequency and Severity rates for Industrial injuries and classification of industrial accidents - All the incidents and accidents are classified and recorded as per IS: 3768-1983 reporting system.

### **6.2 Monthly Safety Performance Report**

- Monthly, the PMC Safety Manager will report on the project's injury and illness experience to the Project Manager.
- Each contractor shall compile a similar report. The report is due in conjunction with the project monthly report.

Project Report to be compiled by the site E&HS department before 25th of each month and distributed as required.

- The monthly report will show the number of man-hours worked on the project, the number of safe days worked, the number of days away from work and non-lost time injuries, days lost to injury, etc, for Company, Contractors and subcontractor work. Lower tier subcontractors, staff and staff support work hours are also included in the report

### **6.3 Learning**

- Near miss and incident report data will be analyzed for trends to identify and correct systematic deficiencies to maintain the highest level of E&HS performance.

### **7.0 Fire Prevention & Protection**

- All contractors must comply with the Project Fire Prevention/Protection practices as outlined plan below. They must train their personnel to follow procedures when fire is discovered.

#### **7.1 Fire Prevention Policies**

- As per Project policy, prevention of fires is utmost goal.
- Emphasis is placed on pre-planning of work; hot work permits controls.
- Flammable gas, liquid, and material control.
- Control of smoking.
- Training and use of warning signs, proper electrical wiring, and proper waste storage and removal.



- During routine fire inspections, if a hazard is noted, the responsible supervisor takes the necessary action to immediately correct the discrepancy. Work site supervisors must advise the Project E&HS managers of hazardous situations that cannot be corrected by their personnel.

### **7.1.1 Inspection of Tools, Equipment and Electrical Cords/Wiring**

- Inspection of Tools, Equipment and Electrical Cords/Wiring
- All hand tools, equipment, and vehicles are required to be regularly inspected to ensure it's working condition.
- Electrical extension cords must be equipped with non-conductive plugs.
- The use of extension cords by means of multiple outlet plugs from single outlets is prohibited.
- All non-essential electrical equipment and appliances must be disconnected or turned off when not in use.

### **7.1.2 Storage Areas for Flammable/Combustible Liquids/Materials**

- Flammable and/or combustible materials are required to be stored in segregated areas, in compliance with Project safety practices and regulatory requirements.
- Sources of ignition are prohibited in storage areas.
- All combustible materials must be kept at least 10meters away from other sources of ignition.

### **7.1.3 Welding and Burning Operations**

- Welding and burning operations have a high potential for causing personnel injuries and fires; therefore all PMC and contractors supervisors shall follow precautions and procedures as a minimum:

Welding or burning in a hazardous area without obtaining a permit/authorization from the responsible authority is prohibited.

Check to make sure CO2 or DCP fire extinguishing equipment is available in the work area.

Do not use matches to light torches. Spark ignites must be used. Torches must not be used to light smoking materials.

Welding screens/barricades must be used to reduce welding flash .

## **7.2 Fire Protection**

### **7.2.1 Fire Extinguisher**

- Each contractor must provide Fire Extinguisher to comply with Project requirements or Safety Manager's requirements.



- Contractors' supervisory personnel must ensure that all fire extinguishers in their control areas are sufficient for expected hazards, are accessible, in proper working order, and fully charged.

#### **7.2.2 Inspection of Fire Extinguishers**

All fire extinguishers are to be inspected by the contractor safety representative, or a designated individual, on a Weekly basis to identify any deficiencies, conditions that may prevent emergency use of the appliance, must be corrected immediately.

- Fire Extinguisher shall be visually inspected prior to each use.

- Safety representative keeps a consolidated record of the location of all extinguishers, maintenance received, and other conditions relative to the condition and maintenance of fire appliances.

- Each fire extinguisher must have an inspection tag attached. The tag provides data such as the date of the inspection, date recharged, and inspector's signature.

### **8.0 Environmental Hazards**

At MICEPL Project site, all contractors will use comprehensive professional environmental/ industrial hygiene methods, procedures and guidelines to anticipate, identify, evaluate and control workplace exposures that may cause illness.

- All hazards should be avoided wherever alternatives are available.

#### **8.1 Hazard Communication**

- Contractors and Subcontractors are responsible for complying with the Hazard communication Programme.

#### **8.2 Heat Stress**

- Contractors/Subcontractors will establish the necessary programs to ensure that project employees work safely in heat stress conditions.

- The reduction of adverse health effects can be accomplished by engineering controls, work practices, training, acclimatization, monitoring, water and electrolyte balance and the recognition and treatment of heat stress emergencies.

### **8.3 Environmental Protection:**

I. Contractors and subcontractors shall comply with the following:

II. Oils, grease, fuels, lubricants, paints, solvents, acid or alkali's, chemicals, or contaminated waste waters shall not be allowed to migrate into the site drain system, or discharge any of this material on the ground.

III. Spills of petroleum products, chemicals or other materials must be reported immediately to the Project/Construction E&HS Department and immediate spill containment and clean up actions will be taken.

IV. Washing and maintenance of vehicles may only be done in specifically designated contained areas

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## **9.0 Emergency Response Procedures**

Construction work can be very hazardous. The policies and procedures in this plan are established to prevent accidents, fires, explosions, etc. When these policies and procedures are violated or ignored or unforeseen circumstances occur, a plan of action must be established for each type of situation so that loss of life and property are avoided and disruptions are minimized. The Emergency Response Procedures for the Project are based on the following: A system is required that meets the needs for an emergency response to a situation on the construction project.

### **9.1 Training**

- All Contractors and Subcontractor personnel will be briefed on the emergency reporting response procedures during the new employee orientation and at frequent "Tool Box" E&HS meetings.
- Emergency procedures and telephone numbers will be posted at key locations throughout the jobsite.
- Emergency evacuation plans for all work areas, contractors, and office areas and shall be identified by competent persons trained in emergency procedures.
- As directed by the Project Manager, the Project/Construction E&HS Manager shall schedule announced/unannounced drills, in order to ascertain the effectiveness of the training being provided.

**9.2.1 Emergency Contacts** Post this form in the site project offices of the Site Safety Manager and PMC offices.

**Project name:**

**Project No.**

**Project Head :**

**Construction Safety Manager :**

**Electrician :**

**First Aid :**



### 9.2.2 Fire

- Evacuate the area. Call for help.
- Do not attempt to extinguish fire without stopping the fuel source.
- If possible do so without greatly exposing personnel to injury.
- Use available fire extinguisher or fire equipment to extinguish fires in enclosures.

### 9.2.3 Inhalation

- Move to fresh air immediately any worker suffering from headache, dizziness, unconsciousness, or other symptoms of oxygen deficiency.
- Call for emergency assistance immediately.
- If breathing has stopped apply artificial respiration at once. In any event, do not hesitate or delay emergency treatment.

### 9.2.4 Alarm Activation

- Any individual observing a fire, spill, leak, medical emergency or any unusual hazardous condition must immediately notify their immediate supervisor.

## 9.3 Emergency Evacuation Plan

### 9.3.1 Fire/Explosive

- All personnel will shut/put down any spark emitting equipment and evacuate, to the closest Emergency meeting point, *unless you must pass near the emergency*. In that event move cross wind to an alternate remote assembly area.

9.3.2 If vehicles cannot be safely removed they should be parked on the side of the road, turn off the engine, leave keys in the vehicle, and walk to the closest Emergency meeting point.

9.3.3 Once arriving at a Emergency meeting point, contractor personnel should check in with the assembly area coordinator as soon as possible and report their name, company and their supervisor's name.

9.3.4 Contractor personnel should remain at the Emergency meeting point until additional instructions are received. Instructions will be given orally.

## 10.0 Site Traffic Plan

### 10.1 Barricades, Restricted Roads and Road Closures

- Some roads or access ways may have to be restricted by signs for specific reason(s), use of such roads must be cleared through the Project Manager or designee.
- Contractors shall not block off or otherwise make any road impassable or hazardous without PMC's prior approval.
- Approval for road closure will be based on availability of alternate roads for emergency vehicles.

## 11.0 Subcontractor Safety, Health and Environment Program



Project requires that every contractor and their lower tier subcontractor's place the highest importance on E&HS at all times during the performance of the work on site.

- Subcontractors shall fully participate in and cooperate with all E&HS programs implemented by Project, to meet the E&HS objectives of the project, and shall provide all statistics, information, training and education in E&HS required by such programs.

### **11. 1 General Safety Policy**

- Each contractor/subcontractor must provide the mandatory PPE for their employees prior to entry to the site. All expenses relating to the provision of Personal Protective Equipment shall be paid by the contractor/subcontractor and not by individual or groups of employees.

- Each contractor must actively promote safe work performance on the part of all employees. Site supervisors shall participate in and implement such activities as safety meetings, safety inspections and safety recognition programs. The contractor must ensure that all employees will be equipped with all personal protective equipment as required by local laws, regulations and codes or by this Safety Manual.

- Each contractor must provide method statements for their expected work activities to the PMC Manager. These work procedures will be reviewed by PMC using the Job Hazard Analysis (JHA) method. Contractors will be required to modify their work practice or method if the PMC Project JHA process reveals a potential for injury or accident. Periodically Project Team will audit Contractor / Subcontractor to assure that the prescribed methods are being followed in the day to day execution of the work.

### **11.2 Security**

- The contractors and subcontractors shall secure all equipment boxes and buildings and establish internal procedures to minimize theft and sabotage of any nature.

- Contractors and their employees must comply with all Project Security Practices and Requirements. Failure to comply could result in immediate dismissal.

### **11.3 Compliance with Safety Rules**

- All contractors shall comply ensuring that their employees, agents and subcontractors comply with all Project Safety Policies, rules, regulations, practices and procedures.

- All contractors shall comply with the provisions of the contract, rules and regulations of India and local authority laws, statutes and standards.

### **11.4 Failure to Comply**

- Failure to comply with the requirements of this document, Project shall notify the contractor verbally and/or in writing.

- The contractor shall, upon being advised of its noncompliance, immediately take all necessary corrective actions in order to comply.

- If a subcontractor fails to initiate prompt corrective action, Project Team may take any or all actions provided for in the contract terms and conditions necessary to achieve compliance. Costs incurred by the subcontractor as a result of such actions shall be for the subcontractor's account.

### **11.5 Inspections**



Establish periodic inspections of the following:

- Project work areas – daily
- Project E&HS inspections – monthly
- Fire extinguishers – after each use, Weekly, annual inspection

Equipment inspections – before entry to project site and the following as noted:

- Cranes – annual certification, inspect monthly, before large lifts and document
- Rigging – before use and monthly, document
- Dozers, loaders, aerial lifts, etc. – monthly, document

## 12.0 Control Procedures

### 12.1 Personnel - Identification and Control

- MICEPL, PMC and contractor, vendor's employees entering the site will be checked for proper identification badges, prior to entering the site.
- If an employee does not have his/her ID badge, his/her foreman or supervisor must come to the gate and sign for the employee.
- If the personnel enter the site without ID badge, they will be required to sign in/out with the Project Security Personnel.

### 12.2 Visitors

- Prior to any visitor being allowed on-site, authorization shall be obtained from MICEPL Project Manager. The visitor after producing identification shall be logged in and out by the security officer on duty.
- All visitors in the construction areas shall comply with all Project E&HS rules, regulations and procedures.
- Site visitor's badges and safety equipment will be issued in accordance with established policies.

### 12.3 Tools

- Contractor's tools shall be marked for identification. Visitors or employees found with such tools in their possession on leaving the project and without a material pass will be detained. The site Security Manager will be notified to investigate and take appropriate action.

### 12.4 Motor Vehicles & Equipment

- All motor vehicles in the Project must be in safe operating condition.
- Contractor vehicles must have their company logo displayed on both sides of the vehicle.
- Contractor self-propelled, rubber-tired equipment must have the company name or logo displayed prominently on both sides of the equipment.
- Red flags shall be used on any load that extends beyond the front, side or rear of the vehicle.
- All traffic signs and signals, whether fixed or portable must be obeyed; drivers must cooperate with Project security officers and others appointed to direct traffic.
- Vehicles needing access onto the Project site on a regular basis may be issued a vehicle entry authorization decal.



- The permit is to be displayed on the windshield / windscreen of the vehicle.

#### **12.5 Cameras**

- No cameras shall be allowed on site without the permission of the MICEPL Project Manager.

#### **12.6 Notification of Violations**

- Contractors shall immediately notify the site Security Manager of all thefts and security violations and shall submit a monthly summary of thefts and security violation.

### **13.0 Control Procedures**

#### **13.1 Safety Notice Boards**

- PMC & Contractors will provide safety notice boards that display information such as safety inspection results, safety memorandum/newsletter, monthly accident summary report, and safety posters. The content of the board shall include the following:

Project Name

Status date

Number of Man hours as on date

Cumulative Man hours completed as on date

Number of reportable accidents

Loss of Man hours due to accidents

Total number of Safe Man hours clocked

A notice board shall be erected at the main entrance to the work area. The PMC Safety Manager will be responsible in ensuring that the statistic board is updated to reflect the safety performance of the site.

#### **13.2 Warning and Safety Signs**

- Warning and signs shall be adopted as visual aids for accident and fire prevention.
- Posters and Safety Banners shall be displayed to promote and to maintain safety awareness at site.

#### **13.3 Safety Incentive Program**

- Safety incentive program will be conducted every month to motivate the workers towards safety.
- The incentive program will informed during the orientation and regular tool box talks to workers.
- Encouraging the workers by highlighting the incentive programs of the management to aim at Zero injury.