HSE PLAN

2019

P.O BOX: 1961
P.C: 130, AZAIBA

TEL.: +968-24138301
Fax.: +968-24138305

E-MAIL:
eceoman@eceoman.com
WEB SITE:
www.eceoman.com

1.INTRODUCTION

ECE recognizes the importance of Health, Safety & environmental (HSE) issues and is committed to establishing and implementing the plan & procedures as outlined ln ECE Manual. This commitment to HSE matters are highlighted by ECE policy statement as signed by Authorized Signature

2.REFERENCES

This HSE Plan was prepared based on the following documents:

- ECE Health, Safety & Environmental Manual
- ECE Health, Safety & Environmental Policy
- HSE Management System Procedures
- Project Specific Documentation

All revisions or modifications to this manual to suit the specific project requirements shall be incorporated during the construction phase of the project and will form part of this HSE Plan.

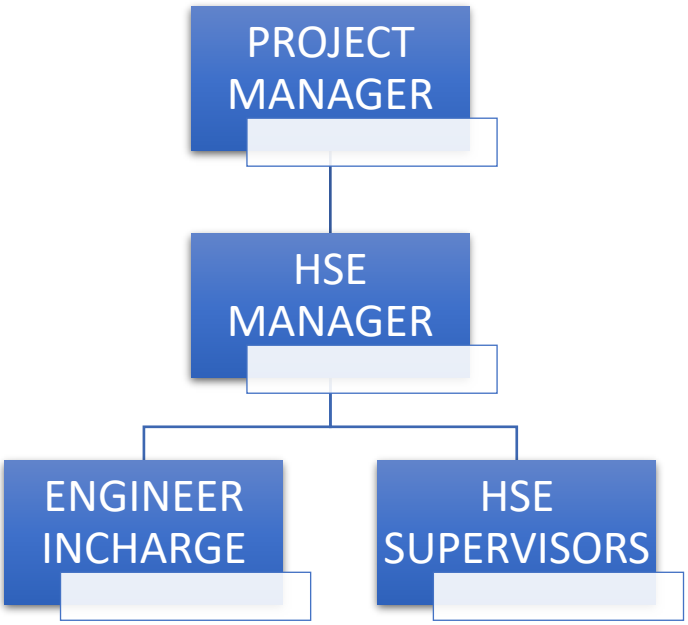
3.DEFINITIONS/ABBREVIATIONS

ABBREVIATIONS	**NAME**.
PM	Project Manager
SE	Site Engineer
SS	Site Supervisor
IFC	Issued for Construction
SPEC	Technical Specification
HSE	Health safety and environment

4. HSE POLICY

During the execution of this project, ECE shall maintain housekeeping standards at all work Sites and borrow/disposal pits to minimize the impact on the environment.
ECE shall use best efforts to prevent and take all reasonable precautions to avoid pollution or contamination of the land or water arising out of its performance of the work.
In addition, all guidelines shall be followed to ensure that waste disposal required during the construction phase is properly planned. This shall include preparation of a list of all hazardous chemicals stored or used during project execution.
ECE will take all necessary action and immediately notify client so that necessary action and measures are taken to contain, control, recover or disperse the substance.

5. HSE ORGANIZATION



6.RESPONSIBILITIES

1. **Project Manager**

   It is overall responsibility of PM to organize resources to perform construction activities as per project specification, in compliance with quality, schedule & safety requirements. Project manager shall be responsible of all construction activities at site.

2. **Project Safety Manager**

   Site Safety supervision and monitoring.
   Report to Project Manager any incidents and to client in case of the absence of the project manager, Investigation of incidents.
   Instructions to supervisors/Foremen on implementation of Safety measures initially and as follow-up, carry out personal Safety awareness visit once a week and record.
   Carry out supervisory inspection for Safety measures & Implementation of corrective measures
   Ensure all personnel attend Safety induction course prior to commentating Project Safety supervisor:
   Assist the Site Safety Manager in formulating Health and Safety prevalence, in line with policy of the Client's requirements of contract and activities involved.
   Training of supervisors and workers.

3. **Site Engineer**

   It is the responsibility of SE that construction activities are executed according to the relevant project specifications, product data sheet in compliance with quality, schedule & safety requirements. Site Engineer shall be responsible for coordination and management of all activities at site.
   He will ensure that all work is executed according to this method statement and requirements of quality dossier are fulfilled.

4. **QA/QC Inspector**

   QA/QC engineer shall be responsible to monitor works on site to ensure the work is carried out in accordance with this method statement and mentioned quality specification. Ensuring the works are carried out in safe and controlled manner and enforcing the use of PPE.

5. **Supervisor OR Foreman**

   He shall ensure that the works carried out as per this method statement with all the mandatory safety arrangements and HSE plan.

6. **Material Controller**

   Material controller will ensure & keep a track of all the incoming and erected material. He will ensure that the stacking of the material as per the building wise.
   The materials shall be stored above ground level with timbers packing after choosing a firm and dry area for storage
   The materials shall have stacked in location according to the areas and should be at lifting position adjacent to the area to be erected. this is facilitating the sorting and delivery during the erection.

7. **E.C.E Supervisor**
   He will ensure that all the works will be done as per the drawings, with quality specifications and of this method statement.
8. **H.S.E Watchers**
   To use the correct methodology, material, equipment and tools for the execution of their duties. Also, to report and suggest improvements / modifications to existing manuals and methods.
   Advises project personnel on HSE related matters and monitors compliance with HSE Plan recommendations

7. HSE GOALS / OBJECTIVES

ECE dedicated to the concept that all accidents are preventable.
Accordingly, ECE is committed to achieving and sustaining the "ZERO Accident" goal through continuous improvement practices

8. HSE INDUCTION / TRAINING & AWARENESS

- **FIRST AID TRAINING**
  The Nurse will be fully qualified to provide the training. All Construction Foremen and Charge Hands will be trained during the mobilization period to handle first aid cases especially the ones related to the health hazard tasks identified in ECE HSE Manual.
  The Site Safety Manager/Supervisor shall attend and record these training sessions.
- **ENVIRONMENTAL TRAINING AND COMMUNICATION**
  ECE shall educate all employees on environment by:
  Talks in tool box meetings, Issue of handouts, Display of posters
  Emphasis shall be put on the following matters during training:
  Disposal of different types of waste (industrial and non-industrial).

9. HSE MEETINGS

During the project execution, the following Safety meetings will be held:

- Daily Safety meeting.
- Safety meeting with subcontractors.
- T.B.T. meetings.
- Training Safety meetings.

All the above-mentioned meetings shall be attended and recorded by the PSM or Safety Supervisors except those meetings held in the Client's office where attendance by these parties is impractical. Major Subcontractors will attend the monthly Site meetings and the weekly Site meetings.
The Project Safety supervisor will generate the agenda for the Safety meetings in line with the project objectives. He will also be responsible for monitoring the quality and attendance level of Safety meetings.

10. HSE REPORTS, RECORDS AND STATISTCS

It is ECE intention to ensure that all personnel involved in this project are fit for the job; healthy and live in hygienic conditions. All personnel will be made aware of health hazards surrounding their working environment to achieve this, the following manuals shall be implemented:

- All drivers will be medically examined and tested prior to start of work.
- A Medical nurse will examine all personnel working and exposed to highly potential risk.
- The nurse in the camp clinic shall maintain the records for all medical tests

11. MATERIAL HANDLING, STORAGE TRANSPORT AND DISOPSAL

1. Site Supervisors will instruct personnel in the use, inspection and maintenance of hand tools.
2. The site will be provided with individual tool lockers or tool boards to aid in tool organization and the prevention of tool loss.
3. Site personnel are expected to return hand tools to the proper place once a job is completed.
4. Site personnel will turn in defective tools to their Supervisor or storekeeper for replacement or repair.
5. Once work is completed when working at heights, personnel will lower all hand to the site floor level. Tools are not to be left at heights unless properly secured.
6. Personnel carrying tools aloft will have them properly secured to their person to prevent.
7. Screwdrivers with deformed heads will not be used until the heads have been properly repaired.
8. Screwdrivers will not be carried in a person's pockets.
9. Screwdrivers will not be thrown to a fellow worker but will be handed.
10. Screwdrivers will not be used to open cans and containers.

12. HAND AND PORTABLE POWER TOOLS

The purpose of this section is to provide requirements for the safe use of hand tools and applies to all hand tools. Personnel who use tools require a skill or knowledge and must be deemed competent by a Supervisor.

It is the responsibility of all personnel to inspect tools for damage prior to use. The tool must be in good condition and "fit for purpose".

13. SCAFFOLDING & LADDERS

SCAFFOLD INSPECTION.

A competent person will inspect the scaffolding system:

1. After it has been constructed, and before it is Out into service
   a. At the beginning of each four tour
   b. After an incident that could affect its integrity
2. The inspection will ensure the following:
   a. Erected square and clamp l
   b. Braced and Sited
   c. The base.

14. WELDING, CUTTING AND GRINDING SAFETY

- Only a certified Welder allowed to use any type of welding or cutting equipment.
- The Welder must lock the welding and cutting gear in the shop after work to prevent someone from misusing the equipment. A duplicate key will be available from the Site Manager in case of an emergency.
- the Welder must not attempt to cut or weld on a container (drums, cans, fuel tanks, lines, etc.) that contains or has contained flammable substances. A proper tool will be used to remove the top from a drum (barrel cutting tool).
- Prior to welding or cutting in an area not equipped with a gas detector, a site competent person will first check the area and the adjoining areas on all sides, with a portable gas detector to determine if it is safe. If work is to be stopped for a period, it will be rechecked before continuing.
- The Weider and/or Helper will check and remove any equipment containing hydrocarbons, flammable debris or substance within a 35-foot area where welding or cutting is to be performed. Any areas at lower elevation where slag, sparks, etc. could fall will be cleaned as above or covered with a fire resistant material if it is impractical to move the flammables. These areas will be clearly marked to exclude personnel. The Site Manager will have the area checked prior to issuing a Permit to Work.
- Both the Welder and Helper will wear proper personal protective apparel to protect them against skin burns.
- Both the Welder and Helper will wear proper eye protection during the welding, cutting or cleaning operation.
- All site personnel will be advised not to directly watch the arc or its reflections off a wall. These personnel will wear appropriate eye protection when warranted.
- A piece of metal will be properly supported and secured when being cut.
- The Welder must check both welding leads and oxygen and acetylene hoses regularly to see that they are in good condition. Splices are prohibited.
- The Welder and Helper will protect the welding leads and hoses from damage.

- The Welder will route welding leads and hoses so that they do not present a trip and fall hazard.
- The Welder and Helper will wear proper respiratory equipment when cutting or welding materials such as galvanized metals, brass, bronze, etc.
- The Welder will not allow a lighted torch to come in contact with any person's body.
- Keep gloves and clothes free of grease and oil.
- The Welder will confine layouts, fabrication, etc. to the welding shop or designated safe welding area.
- The Welder will not allow anyone to adjust gauges on his cutting equipment.

15. LOCK OUT AND TAG OUT PROCEDURES

If repair and maintenance work is required on any equipment or device at any of the different locations of the facility, the following steps are taken:

- The official at the site where this equipment to inform the maintenance department of the defect in the stomach and it needs repair and maintenance.
- The official at the site where this device to stop it from work in the usual way by pressing the stop keys by Stop Buttons.
- The site administrator to disconnect the power supply - Closing gas valves - Closure of compressed air valves and steam from the stomach to be performed maintenance.
- The site official to make sure that the isolation of energy from the engine was done properly by trying to operate after the insulation to ensure that it does not work again and then return the keys to the operation Off.
- Maintenance workers discharge the remaining energy collected in pipes such as compressed air - steam - compressed gases or electric charges left with condensate
- The maintenance department official or his representative in coordination with the official of the site where the stomach and as far as possible secure the closure of the sources of energy from the engine by chains and locks of each lock is different from each other and keep each of its key, if possible to do so and if not Possible to do the following:
  - Turn off the power switch to turn the equipment on and off on the keyboard.
  - Closure of air valves, compressed gases and steam.

16. CRANES, RIGGING AND LIFTING EQUIPMENT / OPERATIONS

The Crane Operator will perform three functions to the crane at the beginning of each tour of duty before putting the equipment into operation:
Service the equipment for proper lubrication of all rotating and hinging components, as well as the prime movers.
Survey the crane for potential equipment failures or malfunctions.
A Safety survey of the crane consisting of visual and physical inspections. Physical Inspection by the Crane Operator will include, but not be limited to the following areas:

- Hydraulic control levers.
- Brake levers.
- safety dogs and/or locking devices and limit switches.
- Electrical activators and kill switches.
- Load blocks, swivels, hooks, and Safety latches.
- Load hooks for possible cracks and normal throat opening.
- Crane turntable welds for cracks.
- For cracks and loose or defective parts.
- Clutches, brakes, throttles, etc., linkage for defective pins and missing keys.
- Crane's framework for bends or cracks.
- Boom braces for bends or twists.
- Wire rope and reeling for wear or improper sizing.
- Power train guards.
- Wire rope drum guards and spooling.
- Hydraulic and fuel leaks.
- Gauges and instruments in working order.
- Any discrepancies found during the inspection will be reported to the Site Manager, repaired and logged in the equipment report before the crane is used. Class "B" minimum Size all fire extinguisher shall be in each crane cab.

17. PERSONAL PROTECTIVE EQUIPMENT

All personnel shall be provided with the minimum required PPE of helmet, hi- Visibility vest, Safety spectacles/goggles and Safety shoes. The minimum P.P.E shall be worn always outside of offices.

All vehicles and equipment drivers shall wear minimum required PPE outside of their vehicles or equipment There shall be no exceptions to this rule regards of position or status. Management and supervision shall set an example to all

Additional PPE shall be provided and used where necessary, such as:

- Goggles/face shield for grinding, chipping concrete, drilling, etc.
- Welding mask and apron.
- Dust mask or respirator.
- Hand gloves for material handling.
- Rubber gloves for hazardous materials handling.

This list is not exhaustive, and PPE shall be provided as appropriate. All P.P.E shall be of good quality and approved for the service.

Whenever personnel are required to work above 2 meters (6 feet) without any edge protection (such as guard rails, scaffolding, etc.), Safety belts harness shall be worn with the lanyard attached to fixed overhead structure or installed lifelines.

18. ABRASIVE BLASTING AND PAINTING /COATING

Safety Supervisor will collect, and segregate data and information obtained from daily and weekly reports provided by Supervisors and Safety Engineers. This data will be segregated and compiled to come up with statistics and measurements for HSE performance on the project.

The Site Manager and Safety Supervisor will review, analyze these measurements and compare them to targets established for each category.

Deviations between measurements and targets will identify areas that need improvement. These areas will be prioritized based on their potentials of impact on HSE performance.

Teams (max. three persons) will be nominated to investigate, identify root causes and provide detailed recommendations for improvement of performance identified.

The team report is due one week after commissioning the Team for review.

Safety Supervisor will maintain a log of all HSE topics being reviewed and analyzed for improvement, with a targeted completion date for each item