



Our Health Safety Basic Plan & Methodology for WAH

As a construction company m/s Future Projects recognizes its responsibilities under the health & safety at work to ensure its operations are executed under 100% safe culture at all times in such a way that no one can get any casualties during the work.

As a construction company we had to work on various job specifications of the clients. As far as we are concerned we had commitment with the work as well as health and safety of the people engaged in the job.

We believe, there is a legal duty on individuals to contribute to safe working and a safe workplace. Our scope of work varies from project to project, our responsible authority tried their level best to educate our manpower regarding the nature of work and explain the hazards & risks during the work. There are following Basic HSE Plan which is as follows:-

1. Environmental Policy

- We are committed to protecting the health and safety of all people working at or visiting our site.
- We plan, manage, conduct and supervise all our work in compliance with client's safety policy and best practice of ours.
- We want to ensure that all workers have a clear understanding of their responsibilities along with that of the company.

2. Site Inductions

It is clear instruction by the owner of the company to every Project manager as :-“ You have probably gone through hundreds of site inductions and will probably go through hundreds more. The induction is important as all sites are different and have a wide range of hazards which will change as the site develops. This site induction is specific to this site and provides you with information on the current hazards of the site and tells you about the site rules. We had an opportunity to work with our client's safety policy which may be more efficient than ours. Our belief is you will definitely accept the good one and provide us a good name for your self as well as the company.

You had an arrangement in consultation with your safety officer to brief workers the importance of site inductions as all sites are different and have a wide range of hazards which will change as the site develops.”

Explain to the inductees the requirement to observe site specific elements appropriate to their own work activities and/or site wide hazards. These may include but not be limited to the following;

- a) Open Excavations,
- b) Work at Height,
- c) Overhead Power Lines,
- d) Confined Spaces,
- e) Excessive Vehicle Movements,
- f) Traffic Management Systems,
- g) Fire Risks.

Ensure that inductees are made aware of specific requirements for the production of risk assessments and method statements where specific hazards are identified. Make inductees



aware of areas of work that will require specific authorisation to proceed such as a Permit to Work. Ensure inductees are made aware of restricted areas and the reasons for the control measures in place.

3. To identify Project specific conditions/requirements

It is necessary to explain the project specific conditions / requirements to each and every work force who are supposed to engage into the work as per the assignment of responsibility in the company. The following to be discussed for the successful completion of the project in totality:-

- i.) The project & Its History
- ii.) Current stage & Work permit system
- iii.) Future Programme of work
- iv.) Type of construction
- v.) End use and clients
- vi.) Requirements, Location of statutory notices, The Alarm, Exist Routes, Fire Prevention
- vii.) No Smoking and be aware of other possible ignition sources
- viii.) Keep the site tidy- less material to burn

It is to be described the type of situations that you might expect to require evacuation for your site. So every key personnel at work should have a site layout plan available.

Ensure that workers know what the alarm sounds like on the site and how to raise it.

Ensure that they know the different routes (KEEP THEM CLEAR) that they may have to use to leave the site and where they should assemble for a role call.

Ensure that they know where firefighting equipment is situated, that they are trained to use any fire equipment and that they should only attempt to fight small fires, have a clear escape route and only after the alarm has been raised.

Stress prevention and give examples of ignition sources.

4. Environment & Waste Disposal

- All waste should be disposed of in the correct skips
- Under no circumstances shall liquid waste, such as paints or solvents, be allowed to soak into the ground or be poured down drains. This is "hazardous waste" and should be disposed of in line with current legislation.
- Bonfires shall not be conducted on site

5. Education of Signs on Site



6. Personal Protective Equipment

- Look after your P.P.E. and always wear it when required
- Please ask your supervisor to supply these items as and when required



7. Plant & Equipment

It is instructed to every worker, you are required to work safely and use plant and equipment correctly...they are **YOUR** responsibility.



8. Strictly Prohibited at site at any circumstances:-

- a) No horseplay



Someone could get hurt



b) No Drugs & alcohol

- Any persons caught in possession of or under the influence of drugs or alcohol will be removed from site
- If you are on drugs for any medical reason, please inform your supervisor at once



c) No radio & phone will be used at work at height.



d) Over weight Manually Handling at site

8) Working at height

- Use secure platforms with proper edge protection, Protect holes, leading edges and fragile materials



- Consider weather conditions
- If in doubt - speak to your supervisor



Any careless effort may put you in major accident as shown in above picture.

Our Methodology for work at Height

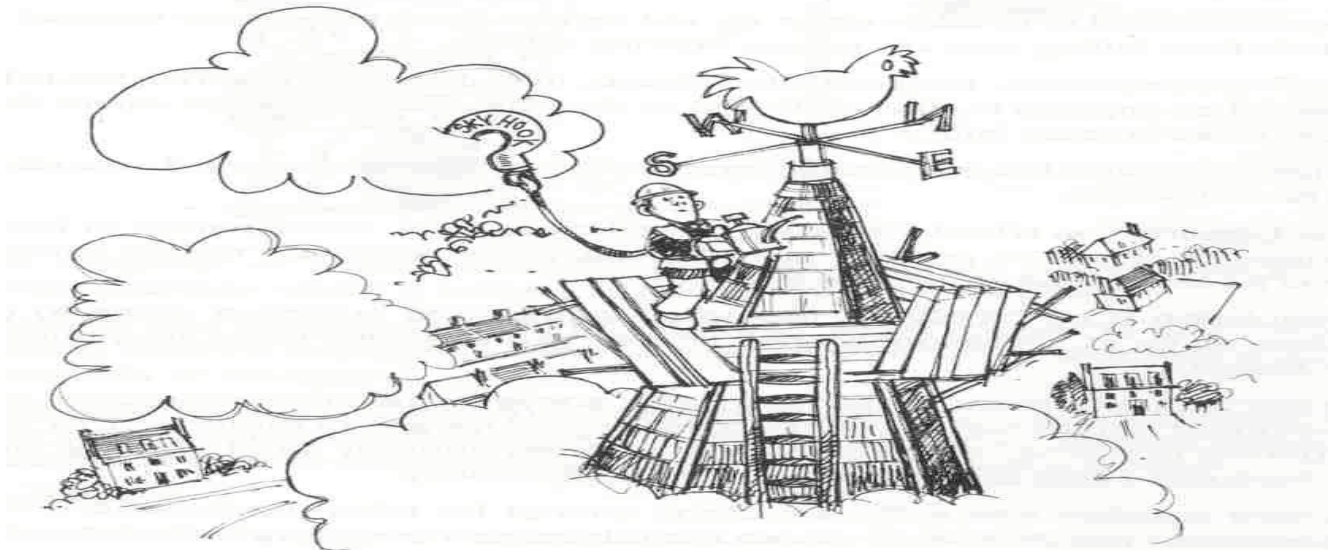
Only trained operatives are allowed to erect alter or dismantle scaffolding, mobile Towers or any other erection fabrication & plumbing work at height. Always ensure alloy towers and system scaffolds are erected to the manufacturers build guide or fall arrest tools which had following features:-



- Safety nets
- Crash Decks
- Air bags
- Bean bags
- Harnesses
- Arrester blocks
- Shock absorbing lanyards

All of these systems depend on being used properly, regularly inspected and any defects being reported to the right person. They should only be used where working platforms are not practical.

Where the risk assessment requires the use of fall arrest equipment it must be used in accordance with a safe system of work including emergency rescue procedures. You can see the use of fall arrester in the picture given below:-



The above said precautions initiated by our management during the project work. We believe in continuous improvement by the way of education as well as Training on regular basis for the improvement among the working team. Our workers are the real asset for our company, their safety matters more for us.

Implementation of Safety Policy

1. Employee Training :-

- a) **Induction Training:** - New recruited employees are introduced with all the working personnel of the company. They will make aware about the work culture of the company.
- b) **Class room training:-** One day class room training organized by their seniors to explain the work



- c) **On the Job Training:-** One week training arranged at site to understand their responsibility as well as accountability of the work.
- d) **Training assessment:** - After completion of above said schedule, assessment is being done by the owner of the company on behalf of the information provided by senior personnel of the company.
- e) **Training Effectiveness survey:-** On yearly basis training effectiveness survey executed by the top management of the company.

2. Personal Protective Equipment

PPE plays important role at site work. It varies from work to work. Our Qualified Safety Officers are responsible for the delivery of the followings:-

- a) Use of PPE
- b) Type of PPE
- c) Quality of PPE
- d) Maintenance of PPE
- e) Replacement & Discarding of PPE

3. Work Permit System

Work permit system made the company management aware about the types of work going on at site. So every work had permit system in our organization such as: -

- a) Work at height permit
- b) Electrical Work Permit
- c) Excavation Permit,
- d) Stock transfer permit

4. Incident Prevention Management

a)Definition of Incident:- As far as our knowledge is concerned regarding incident management system is “ **to restore a normal service operation as quickly as possible and to minimize the impact on business operations, thus ensuring that the best possible levels of services quality and availability are maintained.**”

Therefore as per our past experience during the work of several years along with skilled & semi skilled workers did very small mistakes during the routine life style. We had system in place to observe them for not doing the following activity:-

- i)Bike driving without Helmet & valid driving license
- ii) Use of Phone while Driving
- iii)Use of disorder vehicle
- iv) Avoiding overloads

b)Accident: - An unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury is called as accident. We always intent incident never transfer into accident.

c)Near miss:- It is smaller in scale, relatively simpler to analyse and easier to resolve. It is the eye opener to be alerted for not repeating the same incident in future. We had system in place for reporting to our management on monthly basis.

d)Hazard: - It is situation that poses a level of threat of life, health, property or environment. It is a risk assessment practice to avoid accident at work place, society or environment. Our safety officer is responsible for the visit of each & every working site and report the hazard to project manager for implementation of remarks.

5. Incident Reporting and Investigation



We had system in place for the reporting of incident as well as investigation by the authority. Our safety officers are responsible for the reporting of incident. Investigation is done by our management levels as per the intensity of the incident.

6. Emergency Planning for Natural & Manmade Disaster

We are working for a city like Mumbai, where each & every time we have to face the manmade disaster as well as natural disaster. Our people are well trained & instructed whom to contact in case of emergency.

Our Classroom Training had main focus to let the new comer know about Project work, where they have to work.



As far as my knowledge & experience is concerned, the following have important role to execute any project successfully in time:-

1. **Study of Project work:** - It is very important to know the volume of work, for example :- as we may not reach to the destination whenever we doesn't have the map or address ,the same with the project whenever we don't know the volume, we cannot do anything.
2. **Identify the most crucial Issue of the Project:** - We may take lesson from human life, we had limited over to show our potential, if we unable to identify the issues, we may not get desired result. We had seen or seeing, the various parents in the societies. Some parents are happy with what they achieved in their life, but some are worried regarding their achievement in life. If you survey the past of the happy parents, you will find they identified the consequences and planned accordingly from the beginning of the issue.

Same with the Projects, It had short span of time to achieve the Target. Project is always full of troubles, but we don't have to afraid by the consequences, It needs to identify the issue and plan for the solution.

There is not any issue in the earth, which may not be solved, but the right way is required to apply.

3. Planning, Co-ordination, & Communication:-

The following had important role for the timely execution of the work:-

- a.) Work plan for the Day, Month & Year
- b.) Evaluation of resources as per the plan
- c.) Delegation of work as per the ability of manpower
- d.) Collection of Report
- e.) Co-ordination & Communication among the team

What is MGL?

MGL extends for M/s Mahanagar Gas Limited (A Joint venture of GAIL (India) Ltd., British Gas (U.K.) and Govt. of Maharastra) is a professionally managed company actively engaged in providing Piped Natural Gas (PNG) to Domestic, Commercial, Industrial consumers & supplying Compresses Natural Gas (CNG) to vehicles in Mumbai, Navi Mumbai & Thane area.



Types of Pipes laid in MGL

1. **Carbon Steel Pipeline** :- Used in the development of Steel network
2. **SS Pipeline** :- Used in CNG
3. **MDPE Pipe Line** :- Used in the development of LP & MP Network
4. **GI Pipe line** :- Used in plumbing up to 8th floor i.e. 24 Mtrs. (approx height)
5. **ERW Pipe Line** :- ERW stands for Electric Resistance Welded Pipe. It is used for those buildings whose height is more than 24 Mtrs in place of conventional threaded GI Pipe.

Our Scope of work as PMC Contractor for Domestic & Industrial Connection

MP Laying:- Medium Pressure pipeline is that line, which is to be laid down stream of District Regulation Station (DRS) up to upstream of Service Regulator. Maximum Gas Pressure in this line shall be 4 Bar.

DRS is a device used to reduce pressure from 19 Bar to 4 Bar which is interface between Basic Steel Grid Network and Medium Pressure gas network. Pipeline laid in 1mtr. Top cover from ground level,(details specification will be followed as per tender's specification).

Service Regulator is a device used to Reduce pressure from 4 Bar to 100/75 Mbar which is the interface between Medium Pressure and Low Pressure Gas Network.

LP Laying:- LP extends for Low Pressure PE Pipeline Laying done inside society. This work is executed after Service Regulator. SR regulates the pressure 4 bar to 100mbar, it means in LP network existing pressure will be 100mbar. Pipeline laid at 1mtr. Top cover from ground level,(details specification will be followed as per tender's specification). We have to built hand sketch as laid drawing with measurement duly signed by Third Party Inspection Engineer & MGL Engineer.

Flushing & Testing: - After Laying we have to do flushing & testing by Air with the help of pneumatic compressor. Flushing is done to clear the pipeline and testing is done to identify the laid network is leakage free and ready for commissioning. We have to built Flushing & Testing Report which will also duly signed by TPI and Mgl Engg.

Commissioning: - After Laying & Testing, we have to built commissioning Report, There are various stages for the commission as per the length of pipeline:-

1. Mp length up to 25 mtrs is in the scope of MGL AIC
2. Mp Length after 25 mtrs is in the scope of O&M Department, It will co-ordinate by MGL AIC and we will let it know the date & timing of commissioning.



3. LP Commissioning is in the scope of MGL AIC.

Stages to be stepped before commencement of MP work:-

1. Request for MP Execution Plan from Oct to Mar (Construction season for MP Laying)
2. Survey of the area as per Plan Drawing along with MGL representatives (TPI/AIC)
3. Request for Engineering Activity Permission from the authority either i.e. Private/ BMC/MBMC/TMC/PWD/NHAI
4. Survey along with Authorized Representative of the authority, MGL and Contractor Representative.
5. Demand Note for Payment
6. Demand Note Submission in MGL for payment
7. Cheque Submission to Authority
8. Receipt of Permission

Work Execution Schedule for Medium Pressure Pipeline (19Bar to 4Mbar)

1. Arrangement of Resources, (Labours, Safety Related materials , Free Issue materials from Mgl)
2. Job Order
3. Trenching
4. Laying
5. Jointing
6. Backfilling
7. Flushing & Testing
8. Crimp guard Installation with 1mtr GI Pipe with RIV(In case of commercial meter)
9. Laying Report (Hand Sketch)
10. Material Upload in SAP
11. Re-instatement of excavated Trenches
12. Collection of NOC from Societies (If MP laid in private Premises)
13. Commissioning
14. As laid (AutoCAD)
15. Billing to MGL

Work Execution Schedule for Low Pressure Pipeline (4 bar to 100mbar)



1. Arrangement of Resources, (Labours, Safety Related materials , Free Issue materials from Mgl)
2. Job Order
3. Trenching
4. Laying
5. Jointing
6. Backfilling
7. Flushing & Testing
8. Crimp guard Installation with 1mtr GI Pipe with RIV
9. Laying Report (Hand Sketch)
10. Material Upload in SAP
11. Re-instatement of excavated Trenches
12. Collection of NOC from Societies
13. Commissioning
14. As laid (AutoCAD)
15. Billing to MGL

Work Execution Schedule for GI Laying up to MCV (100mbar)

1. Arrangement of Resources, (Plumbers, Safety Related materials , Free Issue materials from Mgl, Self Purchase material in stock)
2. Job Order
3. Work at height permit.
4. GI Laying
5. MCV Installation
6. Testing
7. Commissioning
8. Report – Laying Report, MCV Report, Testing & Commissioning Report
9. Consumption Upload
10. As laid drawings Submission
11. Billing

Work Execution Schedule for Meter Installation Up to Conversion (100mbar to 21mbar)



1. Arrangement of Resources, (Plumbers, Safety Related materials , Free Issue materials from Mgl, Self Purchase material in stock)
2. Job Order
3. Collection of MJC Report
4. Meter Installation
5. Meter Installation Report
6. Testing
7. Conversion of stove
8. Consumption Upload
9. MJC Submission
10. Billing