



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

TABLE OF CONTAIN

SR. NO.	TOPIC	PAGE NO.
1	Introduction	5
	1.1 Objective	5
	1.2 Scope	5
	1.3 Purpose	5
	1.4 Company Profile & Legal Document	
2	Summary	
	2.1 Mission	
	2.2 Our Core Values	
	2.3 Strength	
	2.4 Product & Service	
	2.5 Our Esteemed Clients	
3	Abbreviation	7
4	Definitions	8-11
5	Health & Safety Objective and Target	12
	5.1 Objectives	12
	5.2 Targets	12
	5.3 Safety Principle	12
	5.4 Safety Policy	13
	5.5 Health Policy	14
	5.6 Human resource policy	15
	5.7 Environment policy	16
	5.8 Quality policy	17
	Lifesaving rules & Do's Don't	18-19
	Legal compliance	20
6.0	Organization Structure	21
	6.1 Employee Selection Procedure	22-23
	6.2 List of employee with qualification & experience	24
7.0	Roles and Responsibilities	25-26
	7.1 Contractor Proprietor	25
	7.2 Partner / Licensed Supervisor	25
	7.3 Site Supervisor	26
	7.4 Worker	27
8.0	Safety dash board (Lead and Lag Indicator)	28
9.0	Safety Plan	29
	9.1 Work Permit	29
	9.2 Standard Operating Procedure (SOP)	29-31



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

9.3	Job Hazard Analysis (JHA)	32-33
9.4	Job Execution Plan	34

10.0	Safety Audit and review System	35-38
	10.1 Corrective and preventive action CAPA	39
11.0	Safety Training	40
	11.1 Training Calendar	41
	11.2 Training Record	42
12.0	Safety Communication	43
	12.1 Tool Box Meeting	43-45
	12.2 Safety Mass Meeting	46-48
	12.3 Two way communication system and line walk	49
13.0	Contractor Area Implementation Committee AIC	50
14.0	Personal Protective Equipment's	51
	14.1 Mandatory PPE's	51
	14.2 PPEs Audit and Timely Replacement of PPEs	52
	14.3 Certifying & testing of Tools and equipment	53
15.0	Skill Retention, Amenities and Liability	54-55
16.0	Reporting of Accident, Incident, Near Miss	56-57
17.0	Safety Rewards and Recognition	58
18.0	Consequence Management	59
19.0	Emergency Preparedness and Response	60-61
20.0	Self-safety Initiatives	62
21.0	Annual assessment of self-safety management	63
22.0	House keeping	64
	22.1 5S audit and slip / trip / fall	64



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

1.0 Introduction

The Proprietor of M/S MANDAL ENGINEERING (ME) believes that integration of best health and safety practices is a vital part for executing jobs inside Tata Steel BSL Ltd. Khopoli, JSW Steel Coating Product Ltd. Tarapur, JSW Paints Ltd. Vasind, JSW Steel Ltd. Dolvi.

In order to manage health and safety during the job execution phase in line with the company policy to meet the job completion in time, with exclusive control on accident/incident and cost overrun, effective safety management action plan needs to be implemented.

This Safety & Health Management System is a dynamic document and may be subjected to ongoing review and possible revision as and when required.

1.1 Objective

The objective of this manual is to provide requisite guideline for the implementation of health and safety of our employees (HSE) policy, safety system and procedure so as to ensure accident free environment within Tata Steel BSL Ltd. Khopoli, JSW Steel Coating Product Ltd. Tarapur, JSW Paints Ltd. Vasind, JSW Steel Ltd. Dolvi.

1.2 Scope

Applicable to all activities of M/S MANDAL ENGINEERING including its employees, sub-contractors and all those parties associated with the job execution within Tata Steel BSL Ltd. Khopoli, JSW Steel Coating Product Ltd. Tarapur, JSW Paints Ltd. Vasind, JSW Steel Ltd. Dolvi.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

1.3 Purpose

The purpose of this document is to provide guidelines & direction specific to Safe work and inculcate the safety culture in planning, procurement, execution of any job and maximize safety performance while working with Tata Steel BSL Ltd. Khopoli, JSW Steel Coating Product Ltd. Tarapur, JSW Paints Ltd. Vasind, JSW Steel Ltd. Dolvi.

The role of company is to manage the entire “assigned” Safety program and to coordinate the actions of all parties involved to ensure a concerted effort to achieve the maximum safety performance level during carrying out the job.

The manual shall apply to all work related activities to be carried out by personnel working inside Tata Steel Limited, and rest of India and also to any person assigned to or visiting the assignment during the execution phase of the job.

1.4 Company Profile and Legal Requirement

Name of the Firm	MANDAL ENGINEERING
Year of Establishment	16.05.2013
Vendor Code	404625
Name of Proprietor	SHRIKANT MANDAL
PAN No.	BDFPM4176E
Labor License No.	2110300110034531
ESIC Code	34000383710000606
P.F. Code No.	THVSH1742739000

- Attach the copy of Pan No., Service Tax Registration, Labor License, ESIC code, GST letter.
- Applicable Laws
 - Factory Act 1948
 - Maharashtra Labor Welfare Act 1963, Amendment 1984
 - The Environment (protection) Rule 1986

Registered Address:

CONTRACTOR NAME: MANDAL ENGINEERING

Address - Plot No .50/1/2/3, Pali Khopoli Road, Near Max Spare, Dahivali Boreti, Tal-
Khalapur, Dist-Raigad, Maharashtra 410203



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

2.0 Summary

MANDAL ENGINEERING (ME) is one of the leading Fabrication, Erection, Assembly, M.S. Pipeline, S.S. Pipeline, Hydraulic pipelines, Crane work & Civil work firm in **Tata Steel BSL Ltd. Khopoli, JSW Steel Coating Product Ltd. Tarapur, JSW Paints Ltd. Vasind, JSW Steel Ltd. Dolvi etc.**

We undertake all the types of providing services for Fabrication, Erection, Assembly, M.S. Pipeline, S.S. Pipeline, Hydraulic pipelines, Crane work & Civil works.

MANDAL ENGINEERING (ME) started its journey at **Tata Steel BSL Ltd. & JSW Steel Ltd.**, **MANDAL ENGINEERING** was registered in **TATA STEEL BSL LTD. AND JSW STEEL LTD.**, as E-Service provider with way back in **16/05/2013**.

Proprietor: Mr. **Shrikant Mandal** dreamed big which motivated him to sow first of **MANDAL ENGINEERING (ME)**. And thus started the work in the field of mechanical maintenance since **2013**. Under his guidance the company has flourished too many businesses.

2.1 Mission

We aim to provide best Injury free service along with Customer Relationship management.



ZERO ACCIDENTS / ZERO INJURIES / ZERO INCIDENTS

2.2 Our Core Values are:

- Excellence in safety, health and environment performance.
- Focus on customer satisfaction, quality and reliability.
- Continuous improvement to become the most competitive provider of high equality services.
- Motivate our team for innovation and reward for achievement.
- Authorization of employee to create real value for our customer and ourselves.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

2.3 Strength

We have a dedicated and driven team of qualified and experienced Supervisor along with Skilled and Semi-skilled workforce.

2.4 Product & Service

We are very much familiar with all types of

1. Manufacture of Equipment Product.
2. Fab & Erection
3. Assembly of Equipment.
4. All Pipeline (M .S ,S.S,G.I)
5. All Maintenance Work
6. Civil Work
7. Labor Supply
8. Sleeve Work

2.5 Our Esteemed Clients:

TATA Steel BSL LTD. KHOPOLI, JSW PAINTS PVT LTD VASIND, JSW STEEL LTD DOLVI, JSW STEEL COATED PRODUCTS LTD TARAPUR WORKS.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

3.0 Abbreviation

CAPA	Corrective Action & Preventive Action
CA	Contract Administrator
CO	Contract Owner
CP	Contractor Proprietor
CSMS	Contractor Safety Management Standard
ELCB	Earth Leakage Circuit Breaker
ESI	Employee State Insurance
EMP	Emergency Management Plan
GCC	General Conditions of Contract
HOD	Head of Department
HSE	Health, Safety & Environment
HIRA	Hazard Identification & Risk Analysis
HV	High Voltage
JHA	Job Hazard Analysis
LPG	Liquefied Petroleum Gas
MSDS	Material Safety Data Sheet
MoM	Minutes of Meeting
PPE	Personal Protective Equipment
SOP	Standard Operating Procedure
TSL	Tata Steel Limited
TBT	Tool Box Talk
TWC	To Way Communication
TPI	Third Party Inspection
FRCF	Fatality risk control plan
JCC	Job cycle check



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

4.0 Definitions

Contract: A written agreement between TSBSL and its contractor(s) to supply manpower, services, and/or materials or to carry out the whole or part of any work requested by TSBSL

CONTRACT ADMINISTRATOR (CA)

The Contract Administrator shall be responsible for managing all contractor safety related activities and shall ensure the overall implementation of the entire contractor safety management standard.

CONTRACTOR/CONTRACTOR PROPRIETOR (CP)

A person(s) or any non-company entity that has contracted with TSBSL to supply manpower, services, and/or materials

CONTRACT EMPLOYEE(S)

Any person(s) who is employed by contractors to carry out the contracted work. He/she is not employed directly by TSBSL

CONTRACT OWNER (CO)

Any TSBSL employee who has overall control of the contract or/and who certifies contractor invoicing/job during and/or after completion of work.

HIGHER RISK WORK

A Work or part of the Work that has got potential for an injury, property damage, loss of containments, ill health or a process incident or given consequences have already happened.

LOWER RISK WORK

A Work or part of the Work where the risk involved in the job is at a broadly acceptable level or has a very low potential of injury, property damage, loss of containments, ill health or a process incident.

Site

Site means the place so designated by owner for **MANDAL ENGINEERING (ME)** including such places in and around/adjacent, which are for storage of materials, equipment and machineries.

Safety Plan

A safety plan is a guide for staying safe from deviation from safety standard and procedure. Safety plan must be relevant to job and must have adaptability if the condition changes.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Subcontractor

Any entity, person engaged, and / or used by a contractor to assist in execution of the work. Only one level of sub-contracting is allowed and the use of any and all subcontractors must be authorized by TSBSL before contracts are formed. Subcontractors shall be subject to same registration and selection screening processes required of a contractor. Subcontractors shall be subject to the same TSBSL safety performance requirements stipulated for all contractors

Owner/Proprietor/Partner

Owner/Proprietor/Partner means S. H. Insulation (SHI) and includes its representative, its successors in title and permitted assignees.

Works

Work means all the technical & professional services & responsibilities to be performed by MANDAL ENGINEERING as specified, stated, indicated in the contract.

Accident

An unplanned or undesired event which can result harm to people, property or the Environment.

Incident

Event that results into an accident or have the potential to lead to an accident. The term Incident includes "Near Misses".

Near Miss

A Near Miss is an event where no contact or exchange of energy occurred and thus did not result in personal injury, asset loss or damage to the environment.

Examples:

A person trips over an object and falls on the ground but did not get injured.

A hammer fell from a height of 10 m and the people working in the vicinity escaped Narrowly from being hurt.

Hazard

A Source or situation with a potential for harm in terms of human injury or ill health, damage to property, damage to the work place environment or a combination of these.

Risk

A measure of the likelihood that the harm from a particular hazard will occur, taking into account the possible severity of the harm.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Harm

Harm includes death, injury, physical or mental ill health, damage to property, loss of production or combination of these.

UNSAFE ACT OR CONDITION

Any act or condition that deviates from a generally recognized safe way or specified method of doing a job and thus increases the potential for an accident.

LOST TIME INJURY (LTI)

Work related injury or illness that renders the injured person unable to perform any of his/her duties or return to work on a scheduled work shift on any day immediately following the day of the accident.

First Aid case

“First Aid” as any one-time treatment and any follow-up visit for the purpose of observation of minor scratches, cuts, burns, splinters or other minor industrial injuries, which do not ordinarily require medical care.

MEDICAL TREATMENT CASE (MTC)

Work related injury or illness requiring more than first aid treatment by a physician, dentist, surgeon or registered medical personnel.

Fatality

Death due to a work related incident or illness regardless of the time between injuries or illness and death.

Exposure

The measurement of time during which the subject is at risk from a hazard.

ILL Health

Identifiable adverse physical or mental condition arising from and /or made worse by a work activity and/or work-relate situation

House Keeping

A place for everything and everything in its place i.e. maintaining the working environment in an orderly manner.

Risk Assessment

The process of analyzing the level of risk considering those in danger, and evaluating whether hazards are adequately controlled, taking into account any measures already in place.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Audit

Systematic, independent and documented process for obtaining “audit evidence” and evaluating it objectively to determine the extent to which “audit criteria” are fulfilled.

Corrective Action

Action to eliminate the cause of a detected non conformity or other undesirable situation. There can be more than one cause for non-conformity. Corrective action is taken to prevent recurrence whereas preventive action is taken to prevent occurrence.

Preventive Action

Action to eliminate the cause of a potential non conformity or other undesirable potential situation. There can be more than one cause for a potential non conformity. Preventive action is taken to prevent occurrence whereas Corrective action is taken to prevent recurrence.

Personal Protective Equipment (PPE)

All equipment and clothing intended to be utilized, which affords protection against one or more risks to health and safety. This includes protection against adverse weather conditions.

SWL

Safe Working Load: The maximum load that an item can lift in a particular configuration or application.

Training

The process of imparting specific skills and understanding to undertake defined tasks



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

5.0 Health & Safety Objective and Target

OBJECTIVE

1	Provide safe and healthy working environment.
2	Ensure safety of all workers
3	Follow all legal requirements
4	Ensure no loss or damage to property
5	Not to harm environment.

TARGET

1	Fatality – Zero
2	Lost Time Injury and Ill health issue – Zero
3	Man Days Lost – Zero
4	Usage of PPE – 100%
5	Safety Training – 100%



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Management Commitment and Leadership.

Policy Statement.

It is the policy of the Agency to provide a safe and healthful work environment for all permanent, temporary, and contract employees. It is also our policy to provide the same safe and healthful environment for our visitors. OSHA is not only committed to ensuring a safe and healthful work environment for others, but is equally committed to the safety and health of its employees. The development, implementation, and evaluation of this Safety and Health Management System (SHMS) shall be a cooperative effort between labor and management in order to prevent injuries, illnesses, and death from work-related causes and minimize losses of material resources. The information contained in this SHMS shall be used to assist employees and supervisors in carrying out their responsibilities of ensuring a safe and healthful working environment.

This SHMS establishes the framework of a continuing process for providing occupational safety and health guidelines and information to all personnel. OSHA's commitment is to ensure continuous improvement by establishing procedures for annual self-evaluation and follow-up. The safety, health, and well-being of OSHA's Federal employees, contractors, and members of the visiting public are a shared responsibility. Management will provide training and the time necessary for successful implementation of all aspects of this program.

Employee Participation

Each employee covered by this instruction is responsible for:

1. Following all of the safety and health rules and practices of the SHMS and safety and health programs;
2. Monitoring and reporting to their supervisor (or designee) any unsafe conditions for prompt correction;
3. Correcting any hazard that they have the ability to correct and report that event to the applicable supervisor (or designee), e.g. their Regional Administrator/Area Director/Unit Manager and/or Assistant Area Director (AAD)/Team Leader (TL);
4. Providing feedback to their applicable supervisor (or designee) regarding the need for additional controls to ensure safety and health standards are met;
5. Setting the example as a leader in occupational safety and health to others in the course of their professional duties;
6. Avoiding exposure to any recognized uncontrolled hazard; and
7. Participating meaningfully in SHMS activities, for example; preparing Job Hazard Analyses (JHA), conducting accident investigations, and serving on safety and health committees.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Worksite Analysis.

Inspections.

Safety and health inspections will be conducted at each OSHA office quarterly at a minimum with at least one union and one management representative participating. Corrective actions will be documented on the Corrective Action List (Appendix A) communicated to all affected employees, and retained at the office where the inspection was conducted

* OSHA ARCHIVE DOCUMENT * NOTICE: This is an OSHA ARCHIVE Document and may no longer represent OSHA policy. * OSHA



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Life Saving Rules

1. Starting the job without Work Permit/Clearance.
2. Working Under influence of drugs/Alcohol.
3. Working without Personal Protective equipment.
4. Non-compliance of Rules in all respects.
5. Tempering of Locks in Positive Isolation.
6. Condoning of any one of the above.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No. ME/CHSEMS/M/1

Issue Date 01/04/2021

Rev # & Date 02 13/08/2021

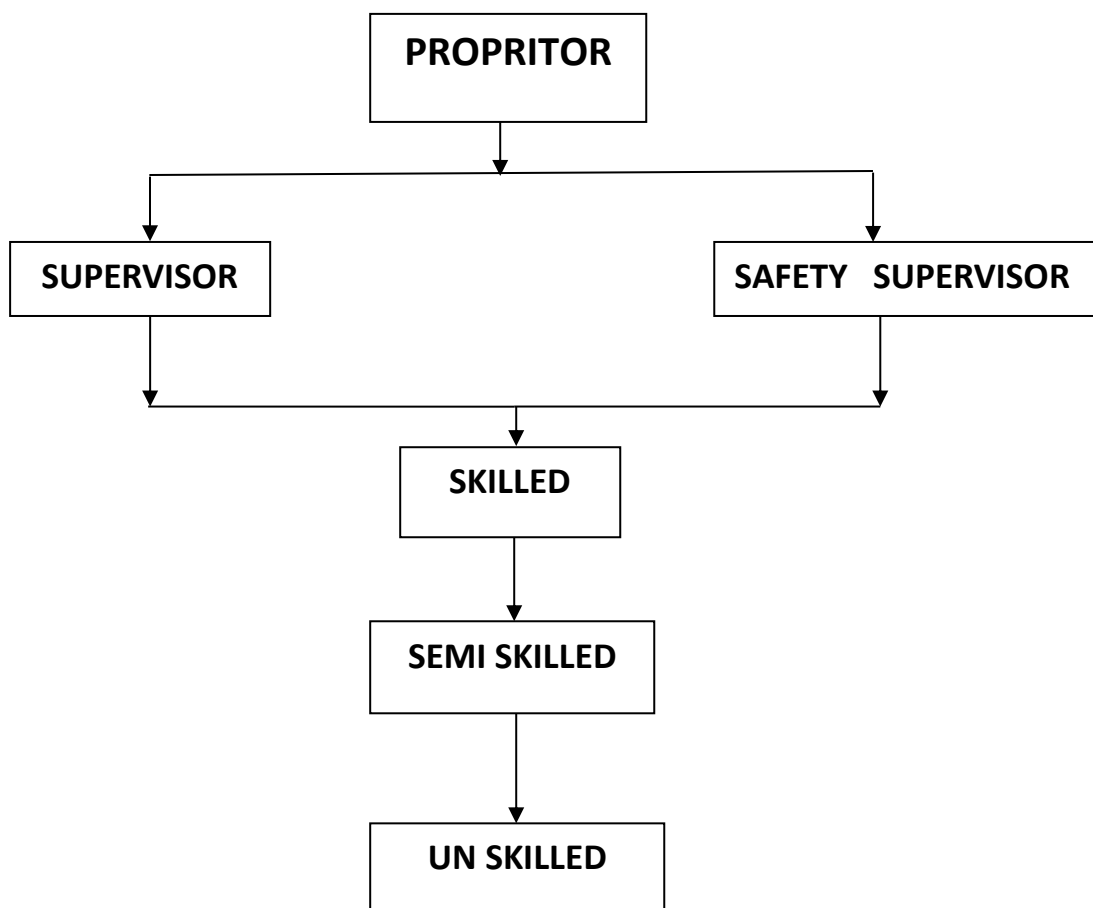
Sr. No.	DO's	Don't
1	Use Safety Helmet While on Job	Smoking & Chewing Tobacco is Strictly prohibited.
2	Use Safety Shoe While on Job	Photography Strictly Prohibited.
3	Use Safety goggles While on Job	Don't any equipment's without Authorization.
4	Use Safety hand gloves While on Job	Don't Use Mobile Phone while on Job.
5	Use Safety belt While on Height Job	Don't bypass the provided to Safety System.
6	Use always gangway provided on shop floor.	Don't use ring or bracelet while on job.
7	Use Fire Extinguisher in case of Fire.	Don't sleep under the parked vehicles.
8	Be careful from O H Crane.	Don't use Head Phone while on shop floor.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

6.0 Organization Structure





Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

6.1 Employee Selection Procedure

Employee Selection is the process of putting right men on right job. It is a procedure of matching organizational requirements w.r.t client's need with the skills and qualifications of people. Effective selection can be done only when there is effective matching. By selecting best candidate for the required job, the organization will get quality performance of employees. Moreover, organization will face less of absenteeism and employee turnover problems. By selecting right candidate for the required job, organization will also save time and money.

We follow the employee selection as per **Contractor's Safety Management System (CSMS)** and criterion as mentioned below:

Category A - Higher risk work

Qualification:

- Minimum qualification required for supervisor is Degree/Diploma in engineering or science and he should have knowledge of Work permit Positive isolation rules and general safety rules as per electricity act.

&

- Minimum of 3 years working experience at the shop floor/working site.

Category B - Lower risk work

Qualification:

- Minimum qualification required for supervisor is 10th standard and he should have knowledge of general safety rules like working at height

&

- Minimum of 1 years working experience at the shop floor/working site

"Site Safety Supervisor" will be deputed at all Higher Risk jobs. It is not required for Low risk jobs but contractors supervisors will be trained and considered as site safety supervisors also.

The **Employee selection Process** takes place in following order-

Appropriate sources for job opening through verbal or referral basis

1. Preliminary Interviews-
2. Medical checkup- .
3. Appointment letters-
4. Safety Training-



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Procedure for selection of skilled employee for job like fabrication

1. Check the experience of the candidate based on past employment.
2. Take verbal interview mainly asking job related questions and safety.
3. Min qualification for welder /gas cutting shall be experience 3 yr. or.
ITI certified is preferred.
4. Safety induction shall be given.

Procedure for selection of semi- skilled employee for job

The selections of **semi-skilled workers** are generally done on **referral** basis followed by a formal interview, medical examination and safety induction.

Procedure for selection of unskilled manpower as helper

1. These type is based on the referral or walk in type of selection.
2. All legal docs shall be checked
3. Safety induction shall be given.

All the employees before joining, has to undergo routine medical checkup and only medically fit persons are deployed to job.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

6.2 List of Employee with Qualification & Experience (CSM/F/20/01)

SR NO	EMPLOYEES NAME	DEG.	EXPERIENCE



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

7.0 Roles and Responsibilities

Our job descriptions clearly mention safety as one of the mandatory requirement.

Site In charge and every Supervisor shall be held responsible and accountable for implementation of company's Health & Safety policy and guidelines on safety.

7.1 Contractor Proprietor:

Contractor Proprietor will be responsible for completion of the assignment with total implementation of company's Health & Safety policy requirement, ensuring loss prevention program and complying statutory requirement/other applicable rules.

He must understand the health & safety policy of the company and should delegate responsibility to the supervisory personal involved in the execution work.

7.2 Safety Supervisor:

1. Implement the safety procedures mentioned in the Health & Safety manual.
2. Take appropriate action for the prevention of incident at worksite.
3. Ensure a systematic process for selection of employees.
4. Ensure the supply of standard PPE and other safety devices for the employees.
5. Ensure participation in safety meeting and line walk to establish 2 way communications.
6. Identify specific site requirements.
7. Formulate and implement plans to comply with statutory bodies.
8. Prepare and implement HSE plan and advice on HSE matters at all stages of execution.
9. Co-ordinate and execute planned Safety training and awareness programs.
10. Review Safety & Health performance and initiates actions for improvement.
11. Participate in Safety audits with the TSL team.
12. Taking an active part in the safety mass meetings & safety committee meetings.
13. Help & guide team to prepare Job Hazard Analysis (JHA).
14. Administer appropriate safe work practices / procedures within the Project.
15. Lead and assist in accident / incident investigations to ensure all accidents and incidents are properly investigated including near miss incidents, first aid cases, all reportable cases, property damage, etc.
16. Monitor the behavior of the people and provide necessary training to change the attitude and behavior of the workers towards working safely.
17. Establish, maintain, update site Emergency Response Team.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

7.3 Site Supervisor:

1. Ensure that Work Permit system is in place and being followed.
2. Organize work areas so that work is carried out to the required standard with minimum risk to men, equipment and materials.
3. Organize daily tool box talk before start of the activity.
4. Ensure the workers under him shall wear the necessary personal protective equipment's according to the requirement of the job.
5. Ensure the workers under him shall use the right tools according to the requirement of the job.
6. Eliminate all unsafe conditions in the work area.
7. Supervise the workers and correct them in case of any unsafe act/practice.
8. Taking an active part in the safety mass meetings & safety committee meetings.
9. Prepare Job Hazard Analysis (JHA) under the guidance of Site In charge for critical hazardous job to be carried out at his work places.
10. Participate in site Safety Audit with the Site In charge.
11. Give job safety instructions / awareness to workmen.
12. Ensure good housekeeping at site.
13. Inform all accidents / incidents/dangerous occurrences at site to the Proprietor/ Partner.
14. Submit the accident report to the Proprietor/ Partner

7.4 Worker:

1. Undergo the mandatory "Safety induction training" and other skill oriented Job specific Safety trainings.
2. Follow safety rules as briefed during safety induction.
3. Use and maintain PPE properly.
4. Comply with health & safety procedures applicable to their place and nature of work.
5. Participate in tool box talks and safety mass meeting.
6. Report all incidents / accidents / near-misses to the supervisor.
7. Use the correct tools and equipment for job.
8. Never do anything or horse play to endanger themselves or fellow workers.
9. Ensure that tools and equipment are in good condition.
10. Never tamper any safety devices, equipment and welfare facilities.
11. To be familiar with the facility safety requirements, safety rules and takes note of any special safety precautions in restricted areas.
12. Must obey all posted warning signs.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

7.0 Awareness / Training Information register (CSM/F/20/14)

List of Generic Training Topic: Various policies, Consequence management, Tool box meeting, JCC, Standard Operating Procedures etc.....

List of Specific training: like Work at height, Hot Work, Confined Space etc. whichever applicable

CONTRACTOR NAME	<u>Training Information Register</u>						Doc No.	CSM/F/20/14	
							Rev. No	0	
							Date	01.12.2020	
Name of the Person	Training Topic								
Name									
Certificate No:									
Issue Date :									
Renewed Date									
Name									
Certificate No:									
Issue Date :									
Renewed Date									
Name									
Certificate No:									
Issue Date :									
Renewed Date									
Name									
Certificate No:									
Issue Date :									
Renewed Date									
Name									
Certificate No:									
Issue Date :									
Renewed Date									

Note: in the case of External training certificate details to preserve in a file along with certificate number, issued by, issued date and renewed date.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No. ME/CHSEMS/M/1

Issue Date 01/04/2021

Rev # & Date 02 13/08/2021

7.1 Safety dash board (Lead and Lag Indicator)

Safety Dashboard is a simple and effective way to support our business 'Incident Management' process. It shall be displayed at our work site.

SR. NO.	LAG INDICATOR	TARGET
1	FATALITY	
2	LTI	
3	FIRST AID CASE	
4	ACCIDENTAL FREE DAYS	
5		
6		

SR. NO.	MONTH/DATE LEAD INDICATOR	TARGET
1	OBSERVATION	
2	NEAR MISS	
3	SOP TRAINING	
4	JHA TYRAINING	
5	EMERGENCY	
6	SAFETY BEHAVIOURAL	

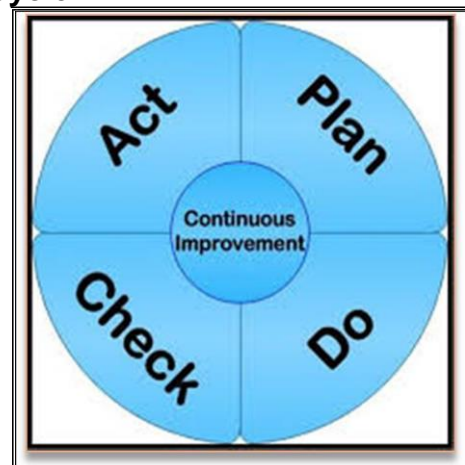


Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

8.0 PDCA Cycle for Safety Plan, SOP / Method Statement, Job Hazard Analysis and Work Permit for Safe Job Execution, Operation Control

A health and safety plan is a plan for a workplace that is designed in accordance with the legislative requirements covering the roles and responsibilities of the staff and the emergency action plan etc. A health and safety plan is a specific plan against a activity that is already set to go and it is designed to serve and protect the individuals affected by the organization in all matters of health, wellbeing and safety. The plan is equipped as per **PDCA cycle**.



Our health and safety plan (accident prevention program) is a valuable tool for organizing and managing the various aspects of workplace hazard.

1. It provides for a safe and healthful work environment by identifying and controlling hazards.
2. It provides a mechanism for organizing thoughts and approaches and documenting activities.
3. It provides a structure for action, especially in an emergency.
4. It helps compliance with state regulations and avoids the citations/penalties associated with non-compliance.

Our health and safety plan includes, SOP/Method statement, Job Hazard Analysis, Six directional hazard identification, daily safe job execution plan along with administrative controls.

Administrative controls may include rotation of workers to reduce exposure time, specialized training or using less hazardous procedures. The best procedures are usually those recognized as safe by professionals working in the field. They are often referred to as “standard operating procedures,” (SOP’s), “operating instructions,” “safe practices” etc., and are often found in something like a manual.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

8.1 Method Statement

For all the activity, Method Statement will be prepared by the responsible site supervisor and safety supervisor would be the part of preparing the JHA /HIRA. This would be then submitted to the Proprietor for approval.

All the method statement would be required approval before the execution of job.

8.2 Work Permit:

No job shall be started without obtaining valid Work Permit from the authorized person of TSBSL. The permit shall be returned to the issuing authority after completion of job.

8.3 Standard Operating Procedure (SOP CSM/F/20/05):

Standard Operating Procedures are written documents that are used to prevent incidents occurring when using machinery or equipment that has a risk or hazard associated with it.

Separate SOP for every job must be obtained after approval from the concerned department and SOP must be kept at worksite. Initiatives for pictorial SOP and in local language (Hindi) have also been taken. The contents of the SOP should be explained to the workers by the site supervisor and the same shall be displayed at site. All jobs must be carried out as per SOP.

CONTRACTOR NAME		STANDARD OPERATING PROCEDURE			Doc No.	CSM/F/20/05
SOP No					Rev. No	0
Sop Description					Effective Date	01.12.2020
Department					Section	
					Page	
Step No	Activity	Associate	Responsibility	Process/Tools/PPEs/	Remark / Reference	
		Safety				
		Environment				
		Quality				
Prepared By				Approved By		
Name & Designation :				Name & Designation :		
Signature with date :				Signature with date :		



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

8.4 Job Hazard Analysis (JHA CSM/F/20/13):

CONTRACTOR NAME	<u>Job Hazard Analysis</u>		Doc No.	CSM/F/20/13
			Rev. No	0
			Date	25.10.2020
Department & Section				
Location of job				
Job description				
Activity Name				
Sequence of basic job steps	Potential Hazards	Safeguard / Controls to be put in place	Responsibility	
Required PPE	Required Tools & Equipment	Required Training		
Prepared By: Name Sign Position	Reviewed By Name Sign Position	Approved By Name Sign Position		

JHA is a systematic method of identifying hazards & control measures to safely perform a specific task. It describes job tasks in step-by-step manner to identify associated hazards in each step and outlines appropriate hazard controls that minimize the risk of human injury or illness to the individual(s) performing that task. JHA is consisting of:

- Breaking down a job into several steps
- Identifying hazards at each step
- Developing safe job procedures for each step

Basic Job Steps:

Break down the job into a sequence of steps. Each step should accompany some major task. That task will consist of a series of movements.

Potential Hazards:

To complete a JHA effectively, the hazards or potential hazards associated with each step must be identified. Every possible source of energy must be identified. It is very important to look at the entire aspect to determine every possible hazard that might exist which contributes to accidents and injuries.

Recommended Preventive Measures:



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Using the sequence of Basic Job Steps and Potential Hazards, necessary actions to eliminate, control or minimize hazards should be decided that could lead to accidents, injuries, damage to the environment or possible occupational illness. Each safe job procedure or action must correspond to the job steps and identified hazards.

Recommended tools, tackles and PPE:

The required tools, tackles and PPE should also be decided to complete the job in a safe manner.

The contents of the JHA (Potential hazard and Safe guard/Control measures) should be communicated to the workers.

The JHA should be reviewed, approved and signed by the supervisor **before** the task is started. Understanding every job step is very important. Whenever a job steps changes or a new step is introduced, the JHA must be reviewed and updated.

Name & Signature of Supervisor: Kedar Bhat
Shubham gharat



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

8.5 Six direction hazard: [This will come under TSL work permit] (CMS/F/20/08)

Six Direction Hazard Identification

This is required for all routine works where Work permit is not applicable. This is to carried out prior to work start

(Note: This has to be filled up every day at the job site by site supervisor)

Job Title		Section/Location	
Working Agency		Contactor if any	
Date		SOP No.	
Direction	Hazard Observed	Precaution/Measures to be taken	Remarks
North			
South			
East			
West			
Top			
Bottom			
Signature		Name & Designation	

8.6 Daily Safe Job Execution Plan



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Our Site supervisor must use this daily safe job execution plan and execute all jobs as per this plan. The important points are given below:

1. **Tool Box meeting:** Before starting any job Tool box meeting is mandatory. All of our workers and supervisors must participate in daily tool box meeting. Tool box meeting format/register must be filled after the meeting.
2. **Work Permit:** Our supervisor must obtain work permit from TSBSL line manager/Foreman before starting the work. Work Permit must be available at work site.
3. **Six Direction Hazard:** This format must be filled as per the hazards of work site.
4. **PPE checking:** PPE check of all workers must be done before starting any job. Damaged PPE to be replaced immediately.
5. **Tool Check:** All tools must be checked before starting any job. Damaged/defective tools to be replaced.
6. **Positive Isolation:** It is required while working in any energy source. Positive isolation key must be kept at a designated place. Company name and mobile number must be written on the lock.
7. **SOP:** Separate SOP for every job must be obtained from the department and SOP must be kept at worksite. All jobs must be carried out as per SOP.
8. **Barricading of Work Area:** Work area must be barricaded and display board to be fixed.
9. **Job Hazard Analysis:** JHA must be carried out for all critical work to mitigate the hazard.
10. **Job specific safety standard:** Specific safety clauses as per contract for hazard control must be followed.
11. **Supervision:** Supervision of job must be done by the site supervisor. Any special instruction from the department must be followed.
12. **Housekeeping:** Good housekeeping of work area free from slip/trip/fall hazard must be maintained.
13. **Return of Work Permit:** Work permit must be returned to the department after completion of the job or at the end of each shift for further renewal, if required.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

8.7 Operation Control:

- **Communication over Mobile Phone/Email.**
- **Daily manual Attendance Recording System.**
- **Maintaining Data on Excel Sheet and Follow Up.**
- **Daily Work Reporting On Company WhatsApp Group.**
- **In The Morning TBT Conducted All Work Side.**

Operation Control: This is the to be carried out on a PDCA manner as described step by step as below.

1. **Request for Quotation**
2. **Quotation Negotiation**
3. **Business Award through Purchase Order**
4. **Selection of Manpower based on the work**
5. **Define Roles and Responsibility**
6. **Collect Standard Operating Procedure for the work allotted from TATABSL**
7. **Convert SOP in Local Language**
8. **Prepare Visual SOP for easy understanding of all skill and unskilled workers**
9. **Prepare safety manual**
10. **Prepare and execute Job Hazard analysis, Job Execution Plan, HSE Plan, Audit plan, Safety dash board.**
11. **Prepare list of tools and tackles, arrange all tools and tackles duly tested and meeting requirement of TATABSL**
12. **Provide training on safety standard, Job specific skill development, Emergency preparedness and Response, use of tools and tackles, PPE**
13. **Establish two-way communication, by Tool box meeting, Job Cycle check, Line walk.**
14. **Conduct self-Annual assessment audit to verify safety system and all processes are in line with the requirement**



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Mandal Engineering	<u>List of all Major Activities</u>	Doc No.	CSM/F/20/09
		Rev. No	00
		Date	01.12.2020

9.0. List of Activities

Sr. No.	List of Activities
1. 2. 3. 4.	Welding. Grinding. Gas Cutting. Material Handling

Signature



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

10.0 Contractor Safety Audit and review system (CSM/F/20/18)

CONTRACTOR NAME		CONTRACTOR SAFETY AUDIT		Doc No.		CSM/F/20/18			
				Rev. No		0			
				Date		01.12.2020			
Department:		Section:							
Date:		Time:							
Departmental representative:									
Description of Severity rating:				Audit Team Members:					
1 = Untidy area minor issues sets pool example									
2 = Restricted access, unacceptable trash, disorderly									
3 = Rule or procedure violation, potential injury									
4 = Unsafe condition, serious injury potential									
5 = Immediate serious injury potential, stop activity									
Name of Contractor with vendor code									
Total contractor's people working at site =				Criteria					
	Description	Good Citizens	Number of Violations	SEVERITY	Violations X Severity	Violations X Severity	Potential 4 & 5 Fatality & Serious	Unsafe Conditions	Unsafe Act
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
Sub totals					X				
Severity Index = $\frac{\text{Total of (Violations X Severity)}}{\text{Total Nos. of Violations}}$									

Safety Audit is a systematic and wherever possible independent examination to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve the organization's policy and objectives.

Interpretation of severity



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

Severity 1: Untidy, doesn't meet standards

- Paper cups and trash on ground
- Poor maintenance of safety signs.
- Loose scrap scattered around
- Trash in roadside drainage.

Severity 2: Untidy, blocks access, sets a bad example

- Trash or materials block access.
- Trash or materials not stored properly.
- Inadequate access to work areas.
- Less than 5 cubic meters of trash.

Severity 3: Rules or Procedure Violation

- Not wearing PPE
- Serious trash accumulation, more than 5 cubic meters of trash.
- Cords across walkway/ tripping hazards.
- Incomplete scaffolds no one in danger.
- Ladder not tied off, no one present.

Severity 4: Serious hazard, can cause serious injury if not corrected

- Incomplete scaffold.
- Incomplete barricade.
- Inadequate fall protection, no one present.
- Inadequate lock out protection, no one present

Severity 5: Imminent Danger, STOP WORK and correct immediately

- Worker at height with inadequate fall protection.
- Worker without proper lock and tag protection.
- Worker in excavation without adequate protection.
- Confined space violations.

We follow the safety audit as per CSM audit criteria. We conduct field safety



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

audit. The supervisor and safety supervisor are responsible to carry out the safety audit as per the given format mentioned above.

First party audit system - a guideline for safety audit

1. Reaction of People:

Observe how people react when you come to audit into an area. Such as putting on helmet, safety goggles etc. changing their position, rearranging or stopping the job, providing isolation lock etc.

2. Position of people:

Observe what people are doing. Such as pulling or lifting heavy objects, position where people could fall, Trappe, collide, hit, struck with anything, ergonomic concern, fatigued, stressed etc.

3. Permit to work:

Check the work permit for its adequacy. E.g. filled up correctly, Gas Hazards permit, Confined Space permit, Electrical Power Cutting, Energy isolation, Hydraulic / Pneumatic energy isolation as applicable. Six directional hazards identified, tool box meeting etc.

4. SOP:

Ask for SOP of the job. Check the adequacy of the SOP e.g. steps for performing the job, related hazard identified correctly, adequate process of doing the job are written to maintain the quality and eliminate / control the hazard, responsibility are assigned correctly etc.

5. Clothing & PPEs:

Check for personal clothing tucked in and covered the body adequately. Minimal PPEs required for protection against exposure to hazard are available, using properly, quality of PPEs etc. check for availability & use of job specific PPE.

6. Tools & Equipment:

Observe for condition of tools, inspection & test report, right tools for the job, quality of homemade tools, using properly etc.

7. Housekeeping of Work area:

Observe for working area barricading, unwanted materials / scrap / spares / tools / cottons etc haphazardly kept on floor, unsafe wiring / cable laying, spillage / accumulation of oil / water / coolant, emergency escape route, safety signage etc.

8. Training:

Interview the person at site to assess the skill level, emergency response, evacuation, use of fire extinguisher etc.



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

10.1 Corrective Action and Preventive Action (CAPA) Sheet

MANDAL ENGINEERING	<u>Corrective Action and Preventive Action (CAPA) Sheet</u>	Doc No.	CSM/F/20/11
		Rev. No	00
		Date	01.12.2020

Date of Audit:

Department:

Location:

Brief Description of severity - 4, 5 Violation

Root Cause	Corrective Action	Preventive Action	Consequence Management, if any	Responsibility	Target Date	Status



Contractor Health, Safety & Environment Management System (CHSEMS)

Doc. No.	ME/CHSEMS/M/1
Issue Date	01/04/2021
Rev # & Date	02 13/08/2021

11.0 Training Matrix

Introduction

Training is an essential part of any Safety Program. Management recognizes that imparting relevant training is an absolute requirement for safe job execution. Training includes necessary job-related safety procedures and safety standard/SOP, statutory requirements, safe practices, and behavioral safety.

Objective

Objective of this procedure is to identify training requirement, establish training modules and imparting relevant safety training to all our employees engaged in the activities.

Scope

This procedure focused on requirements of Safety training for all our employees engaged in TSBSL jobs as well as refresher training on regular basis to ensure that the skills are updated.

Target Groups

All workers of our group

Identification of training need

All training is divided into 4 groups –

1. General Safety orientation training.
2. Job specific safety training.
3. Supplemental safety skill training.
4. Emergency preparedness and response training.



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 40 of 74

Training matrix:

Training matrix (CMS/F/20/15) is prepared for identify the training need to individual as per the work

Contractors Name		TRAINING MATRIX									Doc No.	CMS/F/20/15
											Rev No.	0
											Date	01.12.2020
Training Topics Trade		Company Owner	Site Safety supervisor	Site Supervisor	Machine Operator	Gas Cutter	Sheet Fixer - Work at height	Fitter	Welder	Driver	Helper	
Generic Training (Common for all)	PPE Standard											
	Behaviour Based Safety training & House Keeping											
	HSE Policy											
Specific Trade Training	Working at Height / Fall Protection											
	Working in Confined Space											
	Fire Safety on Cable Run / Safety in Welding & Cutting/ Positive Isolation/Electrical Safety/ Inspection & Testing Earthing System / Machine Guarding, Power Tool Safety Training											
	Working on Gasline											
	Scaffolding erection & dismantling											
	Scaffolding Inspection Training											
	Risk Assessment /ISA/ PPE Standard/Work permit/ Incident recording & reporting											
	Rigging & Slings											
	Defensive Driving											
	Power Tool safety Training											
CSM Documentation												
Completed By Name :								Signature:				

Based on this the training program (internal or external) is made available in a form of Training Calendar 2020- 2021

Topic		2021									2022		
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Fire extinguisher training	P												
	A												
Height work training	P												
	A												
Work place safety training	P												
	A												
S o p information training	P												
	A												
Behavioral safety training	P												
	A												

P= Plan date and A= Actual date



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 41 of 74

The supervisors will conduct the training session and Records of training shall be maintained in a register by the Supervisor

Training Topics can be following

- A. Various Policies
- B. Emergency Response & Preparedness
- C. Activity wise SOP's
- D. Job Hazard Analysis
- E. Tool Box Meet
- F. 6 Direction Hazard
- G. Work Permit
- H. Mass Meeting / Area Improvement
- I. Dash Board indicators (Lagging and Leading)
- J. Near miss, Incidents, Accidents
- K. Use of PPE
- L. Contractor's safety Audit/ Line Walk Audit
- M. Violation Observation technic
- N. Corrective / Preventive Actions

On actual training the Training attendance (CSM/F/20/16) is maintained



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 42 of 74

CONTRACT OR NAME	Training Attendance Sheet			Doc No.	CSM/F/20/16	
	Training Program Name			Rev. No	0	
	Location :	Training Date:		Date	01.12.2020	
Sr. No	Name Of the Employee	Employee ID	Department	Contact No	Remark	Sign
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
Trainer Name:						
Trainer Signature :						

12.0 Safety Communication (Two-way Communication)

One of the keys to a successful safety program is regular communication between management and employees. Employees need to be kept up to date on safety-related programs, policies, accidents and the overall effectiveness of the company safety efforts.

The date, time and venue of such mass meeting shall be intimated to all employees in advance. The participation of workers, supervisors and managers in safety mass meetings is mandatory.

The presence of Proprietor and communicating the safety issues to the workers in such meeting and also listening to the worker's suggestion during the meeting is ensured for implementation.

Following are two-way communication carried out at our organization

1. Contractor safety audit (CSM/F/20/18): This audit is carried out by Safety Supervisor along with Site supervisor on daily basis. Severity index is calculated based on the observation of violation and its severity



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 43 of 74

Safety mass communication matrix

$$\text{Severity Index} = \frac{\text{Sum of (violations X severity)}}{\text{Total number of Violations}}$$

2. Line Walk (CSM/F/20/19): This audit is carried out by Safety Supervisor along with Site supervisor and Proprietor on twice a month frequency. The purpose is to established communication between Top to bottom and bottom to top.
3. Safety Campaign calendar: The purpose is to established awareness among the employees for various aspects of safety. The frequency of campaign is one campaign every month on different safety subjects. (like road safety, housekeeping etc.) safety awards all can be found in that event and it is a good way to promote health and safety culture
4. Safety education: The purpose is to established awareness among the employees for various trades of safety subjects through in-house as well outside training based on their activities.
5. Mass meeting (CSM/F/20/13): The purpose is to established awareness/ involvement within the employees for various safety issues, lagging and leading indicators, current events etc.
6. Toolbox meeting (CSM/F/20/12): This is carried out by Site supervisor and /or safety supervisor on daily basis for the work allotted to the team. Topics of Toolbox are SOP of the particular work, Hazards involve in it, PPE required for the same.



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 44 of 74

Sr.	Type of safety communication	Method	Frequency
1	Contractor Safety Audit	Contractor Safety Audit format	Daily
2	Line Walk	Line Walk format	Twice a month
3	Safety Campaign	Campaign photographs	One per month
4	Safety education	in-house or external Trainings	As and when
5	Safety Mass meeting	Tool Box Meeting	Daily
		Area Improvement Meeting/ Minutes of meeting / Mass TBT	Twice a month
6	Self-Assessment audit	Self-Assessment audit by own	Once a year
		Self-Assessment audit by consultant	Once a year



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 45 of 74

**MANDAL
ENGINEERING**

TOOLBOX MEETING (TBM)

Doc No.

CSM/F/20/12

Rev. No

00

Date

01.12.2020

Date _____

Location: _____

Department: _____

PRESENT: Site Supervisor _____ kedar bhatt _____

Site Safety Supervisor: Shailesh masane _____

ITEMS DISCUSSED: (Indicate if not discussed)

1. Safety contact and review of action items from last meeting
2. Items of importance pertaining to General Safety for the total work site:
(Ask employees to mention any incident / near-miss during the past day which may or may not have caused damage to property or injury to any personnel, either the contractor's, or any others).
3. Items of Safety Interest:
(e.g., Red Stripes, Orange stripes, Green stripes, Safety alert tips for Safety communication, Hazards & Safety conditions which are applicable to this group's work area).
2. Standard Operating Procedures (SOP) relevant to this group:
3. Reminders to employees on their personal responsibilities regarding: (PPE, housekeeping, tools and tackles, electrical equipment condition, six directional hazards, special requirements- e.g., permit to work, no-alcohol regulations, safe behavior, the importance of teamwork approach, any hazardous material etc.)
5. Safety message handouts /circulars to be shared with contract employees:
6. Actions resulting from this meeting and points raised by contract employees and supervisors.

(to be recorded in the format given below)

TEM	ACTION BY	WHEN



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 46 of 74

Attendance:

SR.No	Name	EMP Code	Sign	SR. No	Name	EMP Code	Sign
1				16			
2				17			
3				18			
4				19			
5				20			
6				21			
7				22			
8				23			
9				24			
10				25			
11				26			
12				27			
13				28			
14				29			
15				30			

Signature of Supervisor/ Safety Supervisor- Shailesh masane_____

Date _____

Note: As TBM is generally conducted every shift, a register for recording the details above should be maintained Also JCC should be followed by every TBT



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 47 of 74

Job Cycle Check (JCC) **CSM/F/20/04** is the tool to verify the activity of TBT is performed in correct direction.

SOP No.

Name of the field supervisor.

Name of the Auditor.

Date of Audit

S. N	Points to be checked	Yes	No	N/A
01	Written Procedure available at site.			
02	Are personnel Trained?			
03	Are Personnel Used specified PPE/tools during the required steps as listed in the SOP?			
04	PPE/tools used by the operator was listed in the SOP.			
05	Performed the task steps in the same order as listed in the SOP?			
06	Precautions for common hazards (i.e. Line of fire, pinch points, hot materials) are mentioned in the SOP.			
07	The equipment/machinery/tools used in this task are maintained and functioning as designed (I.e., Not broken)			
08	Is SOP adequate as per the task.			
09	Is any other points need to be amended in SOP?			
10	Access and lighting are adequate to perform routine tasks.			
11	Comments if any?			

[illegible]



MANDAL ENGINEERING

Health & safety management
System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 49 of 74

MANDAL
ENGINEERING

SAFETY LINE WALK REPORT

Doc No.

CSM/F/20/19

Rev. No

00

Date

01.12.2020

Visual Evidence

Photo -1	Photo -2	Photo -3
Photo -4	Photo -5	Photo -6



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 50 of 74

Photo -7

Photo -8

Photo -9

Line walk is followed by Minutes of Meeting

MANDAL ENGINEERING	<u>Minutes of Meeting</u>	Doc No.	CSM/F/20/13
		Rev. No	00
		Date	25.10.2020

Project		Doc No.	
Date		Time	
Meeting Type		Location	
Prepared by			

Attendees: -



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 51 of 74

Safety Pause:

ITEMS	DESCRIPTION	ACTION BY	DATE	STATUS

Sign and Stamp

13.0 Contractor Area Improvement Committee

In line with regular implementation and continual improvement Contractor will form a committee of following members

- Proprietor
- Safety Supervisor
- Site supervisor
- Contractor Owner (if required)
- Other member as and when required

Based on the information received from following,

- Job Hazard Analysis
- Contractor's safety Audit
- Line Walk audit
- Violation record
- Observation report
- Dash board report
- Incident reports
- Near miss Reports

Committee will take actions to implement the system effectively and improve Leading indicators Meetings shall be conducted twice a month and record shall be kept on Minute of meeting CSM/F/20/13 or Tool box report CSM/F/20/12.



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 52 of 74



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 54 of 74

Replacement policy is mentioned in register based on the usage of PPE. In case of PPE is not usable will be replaced immediately irrespective of time period mentioned in register.

Regular checking of all PPE is carried out on prescribed frequency and record is kept on CMS/F/20/22














MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 55 of 74

Contractor Name		PPE - Inspection Checklist		Doc No.		CSM/F/20/22		
				Rev		0		
				Date		01.12.2021		
SELF INSPECTION CHECKLIST								
Sr.No	Images	Description	OK	NOT OK	OK	NOT OK	OK	NOT OK
1		FULL BODY HARNESS 1.1 Is Manufacturer Identification Readable 1.2 Harness Having ISI CE Mark 1.3 Harness Not Soiled and Damaged By Soil and Chemicals 1.4 No Change in Harness Due to Heat 1.5 Check Stitching (Damaged/Burned/Cut/Pulled) 1.6 All Metal Parts Fit 1.7 Any Other Observation 1.8 Check All Buckle By Inserting and Pullyng 1.9 Harness Shelf Life Should Not be more then 3 years from 1.10 Is Harness Ok for Work 1.11 Harness Rejected and Destroyed beyond use.	1	2	3	4		
2		Cover All 2.1 Is Manufacturer Identification Readable 2.2 Is Cover All Clean and Tidy 2.3 Is Cover All Torn From Side. 2.4 Is Cover All Damaged By Chemicals/Paints 2.5 Is Cover All With CE And ISI Marking						
3		Dust Mask 3.1 Is Manufacturers Identification Readable 3.2 Are there holes in the filter? 3.3 Is there a deterioration or loss of elasticity in straps? 3.4 Is there a deterioration of metal nose clip? 3.5 Is there excessive dirt? 3.6 Is It in Useable Condition						
4		Safety Shoes 4.1 Is Sole In Useable Condtion 4.2 Are All Lace Rivet in Good Condition 4.3 Check For Lace Cut/Broken 4.4 Is Shoe Damaged Due to Chemical/Paints 4.5 Is CE /ISI Marking Available 4.6 Is It in Useable Condition 4.7 Is Manufacturers Identification Readable						
5		Gum Boot 5.1 Is Sole In Useable Condtion 5.2 Are Boot Clean 5.3 Check For Cut/Tear 5.4 Is Shoe Damaged Due to Chemical/Paints 5.5 Is CE /ISI Marking Available 5.6 Is It in Useable Condtion 5.7 Is Manufacturers Identification Readable						
6		Safety Google 6.1 Is Manufacturers Identification Readable 6.2 Is Google Clean And Neat 6.3 Are the Glasses Clear 6.4 Does It Fit Proper 6.5 Are the Any Paint Damage 6.6 Is there Shape Change Due TO Heat 6.7 Is it in Usable Condtion						
7		Gloves 7.1 Is Manufacturers Identification Readable 7.2 Is There CE/ISI Marking 7.3 Is There Any Cut/ Wear Tear over it 7.4 Are Gloves Clean and Tidy 7.5 Is it in Useable Condition						
8		Helmet 8.1 Is Manufacturers Identification Readable 8.2 Is there CE/ISI/EN 397 Marking 8.3 Is Foam Shell In Good Condtion 8.4 Check For Straps Cut/Loose Stching 8.5 Check The Locking of Straps Buckle . 8.6 Check if Any Demorfamtion in Shape Due to Heat 8.7 Is it in Useable Condition						
9		Welding Hood 9.1 Is Manufacturers Identification Readable 9.2 Is Welding Hood in Good Condition 9.3 Is Welding Hood Glass Clean And Proper 9.4 Is CE/ISI Marking On Welding Hood 9.4 IS Welding Hood In Useable Condition						
10		Face Sheild 10.1 Is Manufacturers Identification Readable 10.2 IS CE/ISI Marking On Face Sheild 10.3 Is Face Sheild in Clean and Clear Condition 10.4 Are Face Sheild Adjustment Straps in Good Condition 10.5 Is Face Sheild in Usable Condtion						
11		Apron 11.1 Is Manufacturers Identification Readable 11.2 Is Apron Damaged/Torn/ 11.3 Check if Stching/Loose /Cut 11.4 Is Apron in neat and Clean. 11.5 Check If Apron damaged by Chemical/Paints 11.6 Is Apron in Useable Condition						

TATA STEEL BSL standard for the PPE



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 56 of 74

Sl. No.	Type of PPE	Is code
1	Safety Helmet	IS 2925 – 1984
2	Full Body Safety Harness	IS 3521 – 1989
3	Safety & Welding goggles	IS 8940 – 1978 / IS 1179 – 1967
4	Ear Plugs, Ear Muffs	IS 9167 – 1979
5	Dust respirators & Nose masks	IS 9473 – 2002
6	Hand gloves- Rubber/Cotton and leather	IS 4770 – 1968 / IS 2573 – 1986/ IS 6994 – 1973 part I
7	Face Shields	IS 8940 – 1978
8	Apron	IS 4501 – 1981
9	Leg Guard	IS 6153 – 1971
9	Safety Shoes	IS 1989
10	High visibility reflective jacket	Not part of the standard
11	Fall Arrestor	IS 8519 – 1972



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 58 of 74

15.0 Skill Retention Policy:

- we adopted the following for skill retention of our employee.
- **Open communication between employees and management:** Holding regular meetings (Tool Box meeting, Mass meeting, Safety Committee meeting and two way communications with Proprietor's involvement with employees) in which employees can offer ideas and ask questions. We have an open-door policy that encourages our employees to speak frankly with their Managers without fear of repercussion.
- **Management involvement:** Our Site In-charges/Supervisors spends time **coaching** the employees, helping good performers for reward, recognition or appreciation and minimizes poor performance.
- **Financial rewards:** Financial awards for employees who meet performance goals and stay for a predetermined time period. We also, provide meaningful annual rises if they meet pre specified performance goals.
- **Statutory Welfare Schemes:** The statutory welfare schemes include the following provisions (Thru TS BSL facilities):

1	Drinking Water: At all the working places safe hygienic drinking water should be provided.
2	Facilities for sitting: Especially in factories, suitable seating arrangements are to be provided.
3	First aid appliances: First aid appliances are to be provided and should be readily assessable so that in case of any minor accident initial medication can be provided to the needed employee.
4	Latrines and Urinals: A sufficient number of latrines and urinals are to be provided in the office and factory premises and are also to be maintained in a neat and clean condition.
5	Canteen facilities: Canteens are to be provided by the employer so as to provide hygienic and nutritious food to the employees.
6	Lighting: Proper and sufficient lights are to be provided for employees so that they can work safely during the night shifts.
7	Washing places: Adequate washing places such as bathrooms, wash basins with tap and tap on the stand pipe are provided in the port area in the vicinity of the work places.



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 59 of 74

- | | |
|---|--|
| 8 | Changing rooms: Adequate changing rooms are to be provided for workers to change their cloth in the factory area and office premises. Adequate lockers are also provided to the workers to keep their clothes and belongings. |
|---|--|

Non Statutory Schemes

Our non-statutory welfare schemes include the following schemes:

1	Regular medical check-ups for employees: This is being done for each employee once in a year and before employment.
2	Employee Assistance Programs: Various assistant programs are arranged like counseling service by our supervisors so that employees or members of their immediate family can get counseling on various matters.
3	Annual Bonus and Leave encashment: Annual bonus and leave encashment amount are credited to employee's bank account once in every year.
4	Harassment Policy: Proper action to protect an employee from harassments of any kind and also for protecting the aggrieved employee.
5	Maternity Leave – Female employees can avail maternity leaves.
6	Employee Referral Scheme: Employee referral scheme is also in place to encourage employees to refer friends and relatives for employment in the organization.



16.0 Reporting of Accident, Incident and Near Miss & Investigation

Introduction

This procedure defines the system for reporting and investigation of accidents as well as implementation of recommended corrective actions to prevent the recurrence. It also outlines the communication channel to ensure effective communication.

Objective

This procedure is intended to assist in the accomplishment of the following:

1. Reporting and recording of Near miss, Property damage, Injury, Fire, Explosion & if any.
2. Conducting investigation at the quickest opportunity upon occurrence of an incident/accident to gather pertinent facts.
3. Identifying the root causes of accidents/incidents/ near miss and recommending corrective and preventive actions.
4. Communicating channel for dissemination of information (root causes) to all concerned to prevent its recurrence and future course of action.
5. Reporting to all statutory authorities and complying legal requirements.

Scope: This procedure is applicable to all activities at TSBSL work premises.



MANDAL ENGINEERING

Health & safety management
System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 61 of 74

MANDAL
ENGINEERING

Near Miss, Unsafe Act /Unsafe Condition Reporting form

Doc No.

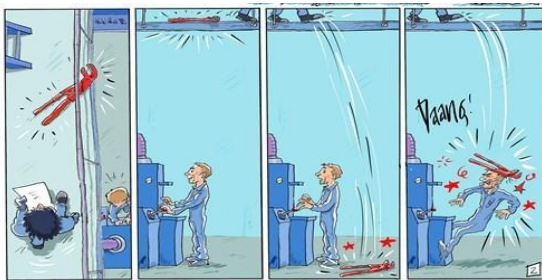
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Rev. No

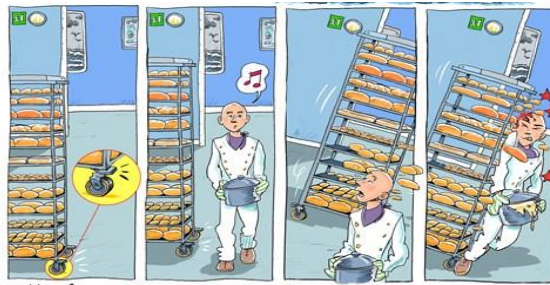
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Date

01.12.2020



Unsafe condition • Unsafe act • Near miss • Accident



Unsafe condition • Unsafe act • Near miss • Accident

Title			
Description			
Location		Date	
Immediate Actions			
Corrective actions			
Name of employee		Designation	
		Signature	



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 62 of 74



17.0 Safety Reward & Recognition and Consequence Management

- Warning Letter
- Appreciation Letter
- Deduction of Money from salary for Penalty (Punishment)

17.1 Safety Rewards and Recognition

Recognitions and reward increases the motivation of workforce. It inculcates the safe behavior and ensures no harm while at the time of execution, increased participation in safety management system, increased safety awareness, encourages team to work safely, report any near miss or incidents proactively.

We are keen in appreciating good work done by the employees in the field of safety.

Reward is in terms of some gifts. Employee is appreciated and recognized by Proprietor in mass meeting among all the work force once in quarter

Following criteria is laid down for rewards and recognition for an employee of

- Near miss, incident or accident reporting
- Good work done in safety
- Knowledge of safety standard
- Following rules and regulation of TSBSL

We initiate quiz and safety culture program to improve awareness.

- 1) Best safety slogan award
- 2) Safety Quiz
- 3) Best housekeeping
- 4) Best 100% attendance



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 64 of 74

17.2 Consequence management

We are very keen on observing safety at work place and is aspired to achieve ZERO HARM. To achieve the same company encourages its employees on one hand. Also to have some sort of control and discourage the unsafe behavior and unsafe practice, we laid down following consequence management criteria

Sl.	Safety Violation Status	Consequence
1	First Violation	Verbal warning & Counseling (Record to be maintained)
2	Second Violation (within 6 months of first violation)	Warning letter (written confirmation)
3	Third Violation (within 6 months of Second violation)	Mark absent for one day (written confirmation in personnel file)
4	Fourth Violation (within 6 months of third violation)	Termination from job (written confirmation in personnel file)

MANDAL ENGINEERING	<u>Violation Register</u>	Doc No.	CSM/F/20/27
		Rev. No	00
		Date	01.12.2020

All the violations are recorded in Violation register CMS/F/20/27. Source of Violations are

- Contractor safety Audit
- Line walk
- Safety audit by other party

S no	Name of person	Date of violation	department	Details of violation	signature



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 65 of 74

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18.0 Safety Motivation Program /Campaign

In order to ensure the involvement of all workers in health and safety activities and inculcate the safety culture amongst the working group, we developed a few motivational programs for the employees.

Motivational program like safety quiz, safety person of the month and safety suggestion scheme are in place. Prizes shall be awarded to the employees whose safety performance is best in a particular quarter. The winners of such competitions are also awarded prizes. The records are maintained in a register.

There is a **mechanism for bad & good safety performer** which is transparent and known to employees. Responsibility of campaign are defined and topic based campaign are conducted.

The following theme based safety campaigns are presently in place:
Responsibility: Site in-charge and Safety Supervisor

Campaign Theme
Good Housekeeping
Safety Awareness by Safety Quiz
Visual SOP
Training on SOP
Road Safety
Safety Suggestion
Safety skit
Safety slogans
Health Awareness by Health Quiz



19.0 Emergency Preparedness and Response

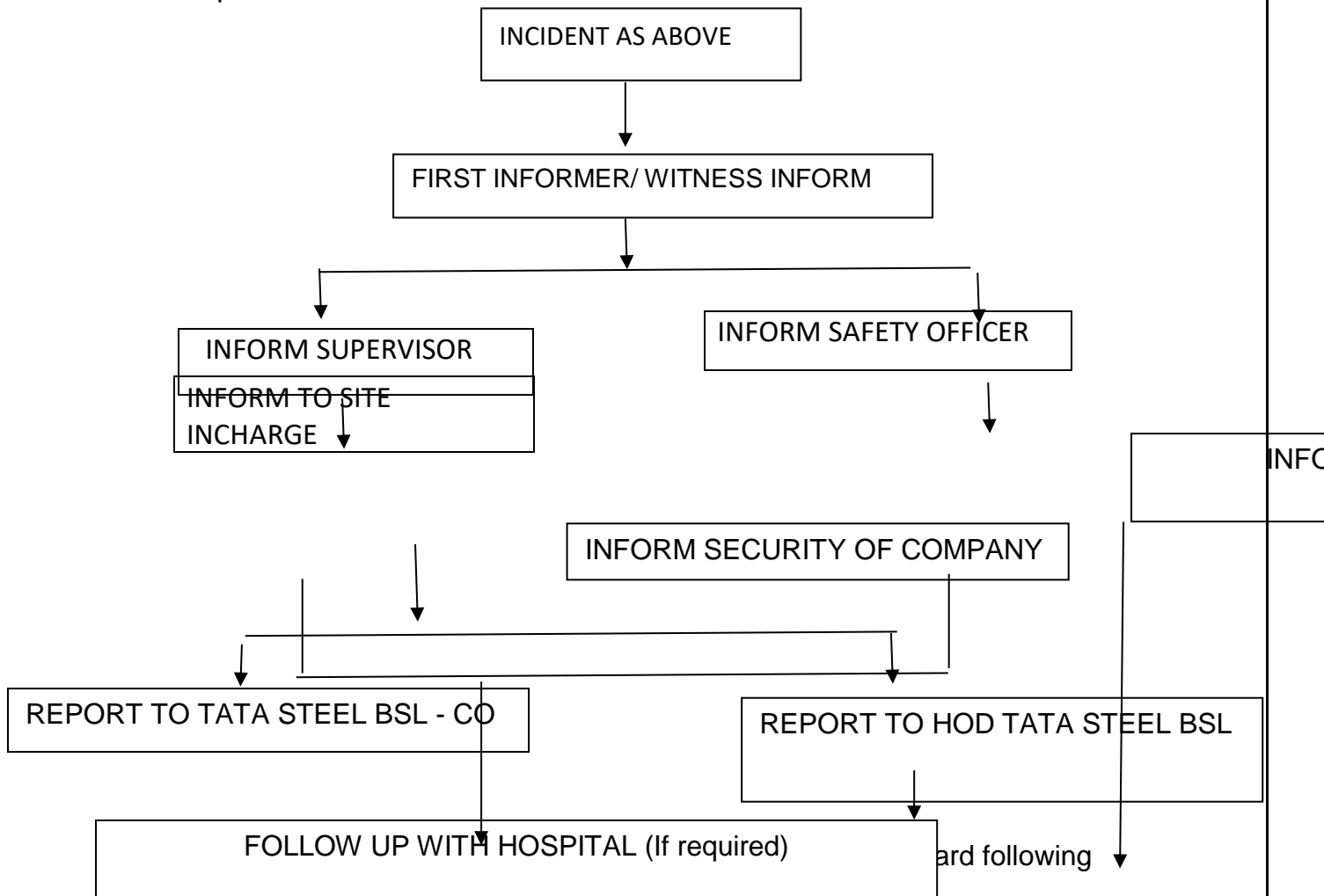
We follow the Tata Steel BSL Emergency Preparedness and response system.

Scope of this section is Tata Steel BSL Khopoli plant. It has following emergency

- Fire
- Explosion
- Acid tank rupture

Following procedure is developed for our employees

1.0 Any employee observes either of these incidents, he should follow following path
supervisor



1.0 In case of emergency swiveling sound of Siren, all the employees shall gather



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 68 of 74

at
the nearest emergency assembly point having symbol



- 2.0 Supervisor shall ensure that all employee left from the work area.
- 3.0 He should carry count head count and shall check for any left over.
- 4.0 Post counting he shall inform this to the Tata Steel BSL Safety professional and
Security
- 5.0 When the siren sounds continuously then it's a sign of ALL CLEAR.
Supervisor shall instruct all the employees to go back on work.

TATA STEEL BSL



EMERGENCY CONTACT DETAILS

Emergency Control Room		2222 / 2121		
Security Office (Main Gate)		2541/42/43		
Security Office (API)		2545		
Medical Center		2511/2525		
Ambulance Room		2510		
Fire Pump House		2732		
Sr.	Name (Mr.)	Designation	Mobile	Intercom
1	Executive Plant Head			2001/2003
2	Brajesh Nahar	Operation	9730744888	2800
3	VV Bindoo	Operation	9860455255	2840
4	NK Chourasia	Safety	7757082881	2519
5	SP Tiwari	Safety	9503113208	2508
6	RS Salaria	Maintenance	9673335597	2600
7	VS Biniwale	Electrical	9975492596	2703
8	Sanjay Pathak	Security	9970025711	2141
9	AK Singh	Security	9503113004	2546

Emergency response team



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 69 of 74

- site supervisor /Safety supervisor
- Contractor's Proprietor
- company officer / section area in charge
- HOD of HSE

During the emergency and post emergency roles of individuals are as below.

Roles of Informer:

- When he/she find such incident, report to site supervisor /Safety supervisor by either mobile or shouting by "Help Help ..."

Role of site supervisor /Safety supervisor:

- On receipt of message of incident, verify the intensity of incident and Communicate with Security officer of company.
- Ensure required PPE's
- Aware to all employee to take safety precaution
- Communicate to Contractor's Proprietor
- Communicate to TATA Steel BSL CO.

Role of Contractor's Proprietor:

- Immediate take responsibility and arrange safe process to rescue.
- Co-ordinate with company officer
- Ensure safe locations for the employee and depute key person to take care off.
- Ensure the Post emergency activities are carried out by the concerned and Analysis is carried out to avoid future reoccurrence

Role of company officer / section area in charge:

- Co-ordinate with worker of affected emergency area.
- Set up a communication point for any emergency situation
- Communicate with HOD of HSE and brief the situation.
- Communicate with hospital (if required)
- Communicate with other agencies based on the situation.
- Ensure the Post emergency activities are initiated by the concerned and Analysis is carried out to avoid future reoccurrence



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

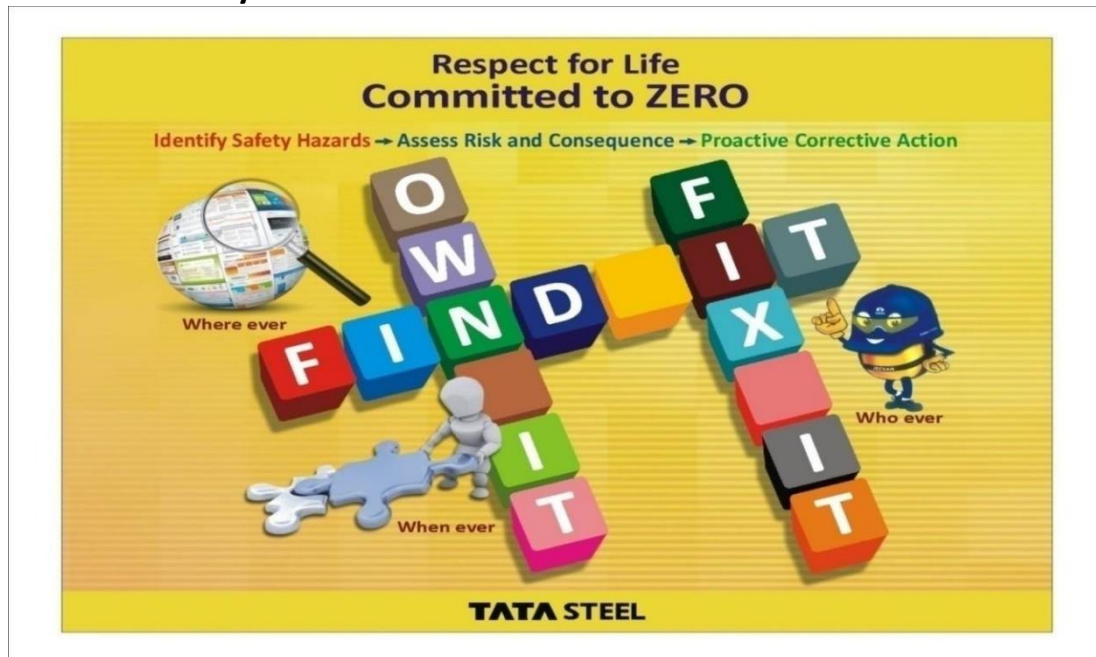
Page No. 70 of 74

Role of HOD of HSE:

- Ensure the actions taken are in line with the situation.
- Extend the help to company officer / section area in charge / Proprietor (if required)
- Ensure the Post emergency activities are initiated by the concerned and Analysis is carried out to avoid future reoccurrence.



20.0 Self Safety Initiative



With a view to further enhance the safety performance and control industrial accidents & losses; we introduced quite a few self-safety initiatives by involving the top management. We believe in Tata Steel's proactive measures by **“Find it, Own it and Fix it”**.

Following measures have been taken for self-safety initiative:

- Only trained employees are deployed to do the job.
- No employees shall do any job that appears unsafe.
- Employees are encouraged to report Near Miss incidents.
- Work place hazard communication to employees is regularly provided through tool box talk, by the supervisor concerned before starting the job.
- Emergency evacuation program is organized for employees' time to time.
- Basic site safety rule has been framed for all employees and adherence to these rules is also monitored.
- Employees are encouraged to give safety suggestion. Records of number of suggestions received and number of suggestions implemented are also maintained.
- Safety poster, warning signs have been displayed at conspicuous locations.
- Safety motivational programs for employees e.g. Safety quiz, safety suggestion, best safety performer etc. are organized time to time and winners of such competitions are also awarded.



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 72 of 74

21.0 Annual assessment of self-safety management system & processes

Safety performance evaluation form (this may be modified time to time)

	Evaluation Criteria	Scoring criteria (100 marks)	Actual score	Remarks
1	Zero Fatality / permanent disability / serious injury	0 Fatal – 10 marks 1 Fatal- consequence as per safety circular and 0 mark		
2	Zero Lost time injury	0 LTI – 10 marks 1 or more LTI – 0 mark		
3	Zero First aid case (FAC)	0 FAC – 10 marks 1 or more FAC – 0 mark		
4	Zero Dangerous occurrence	0 DO – 5 marks 1 or more DO – 0 mark		
5	Severity Index of contractors safety audit	Severity Index <2.5 – 5 marks Severity Index.>2.5 and<3.5 –3 mark No audit and severity Index >3.5– 0 mark		
6	Safety violation of fatal potential of severity 4&5 (limit- max 2/month)	Max 2 per month – 10 marks Between 2 – 10 – 5 marks More than 10 – 0 mark		
7	Safety non compliance cost recovery- (consequence management circular) Major & Minor safety non compliance	Major or Minor non compliance- 0 mark No non compliance- 5		
8	PPE – compliance to standard, appropriate and quality	Scale of 1 to 5 (5- excellent, 1- very poor)		
9	Tools and tackles – compliance to standard, appropriate and quality	Scale of 1 to 5 (5- excellent, 1- very poor)		
10	Near miss reporting	5 or more per month- 5 marks <5 per month- 3 marks No reporting 0 mark		



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 73 of 74

11	Training on SOP, emergency preparedness to all contract employees	Scale of 1 to 5 (5 – excellent and 1- very poor)		
12	Leadership engagement- Contractor proprietor engagement	1 or more visit per month – 5 marks No visit – 0 mark		
13	Housekeeping standard – slip trip fall hazards, safe condition, pathway	Scale of 1 to 5 (5- excellent, 1- very poor)		
14	Supervisors safety behavior and safety attitude and his ability to react on safety audit points / non compliance	Scale of 1 to 5 (5- excellent, 1- very poor)		
15	Alignment with Tata Steel values, policy, ethical behavior and Social accountability compliance (SA-8000) etc.	Scale of 1 to 5 (5- excellent, 1- very poor)		



MANDAL ENGINEERING

Health & safety management System manual

Doc. No. CMS/M/20/1

Date: 01.04.2021

Page No. 74 of 74

22.0 Compliance to Generic & Specific Safety Clause

We strictly follow the generic and specific safety clauses/standards framed by Tata Steel with reference to hierarchy of hazard control as per our job contract. To eliminate safety violation by our workforce at various work sites, process of doing job has been standardized which is visible.

The following specific safety standards are followed by all our employees:

SS/ENGG-07	Personal Protective Equipment (PPE)	Safety Standard (✓)
SS/GEN-02	Loose Clothing	
SS/GEN-04	Foot Protection	
SS/GEN-05	Hand Protection	
SS/GEN-06	Eye Protection	
SS/GEN-07	Head Protection	
SS/ENGG-13	Barricading	
SS/ENGG-15	Storage of construction materials at site	
SS/GEN-36	Fire Prevention	
SS/GEN-09	Equipment and Machinery Guarding	
SS/GEN-39	Guidelines for small m/c used by contractor in works	
SS/GEN-24	Track line safety inside Tata Steel works	
SS/GEN-22	Road Safety	
SS/GEN-30	Travelling by road	
SS/GEN-25	Work Permit system	
SS/GEN-26	Positive Isolation	
SS/ELEC-01	Safety Standard for the Temporary Electrical Wiring	
SS/ENGG-03	Working at height and continuous fall protection	
SS/ENGG-08	Scaffold-General Specifications	
SS/GEN-10	Working in Gas line	
SS/PRO-01	Working in Confined Space	
SS/ENGG-05	Welding & Gas Cutting	
SS/ELEC-05	Use of Portable Powered and Hand Tools	
SS/ELEC-06	Standard for Portable Electrically Operated Tools	
SS/GEN-29	Transportation Safety	
SS/GEN-16	Access and Visitor Control Security Procedure	