MENAL TECHNICAL SERVICES

HEALTH, SAFETY & ENVIRONMENT MANAGEMENT SYSTEM (HSE-MS) MANUAL

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1. Introduction to MENAL TECHNICAL SERVICES

HSE Management System (HSE MS)

The need to do our business with excellent Health, Safety and safe environment in all areas of our business concern makes HSE-MS a critical issue that is as important as our daily operations. Our HSE-MS is drawn in line with the established standards of all our corporate clients, Government, and other applicable industrial HSE standards governing the day – to –day activities of the industry.

Menal Technical Services operates under a well- defined set of operational principles, supported by policies and operational controls. One of these policies is the Health, Safety and Environment (HSE) Policy manual on which the Company's HSE policies are based.

These policies require a systematic approach to HSE management.
This HSE MS Manual provides specific HSE-MS operational guidelines.

Definition, Objectives and Scope.

Menal Technical Services places a very high premium on the way we carry out all our business activities. Considering the nature of our business in Mechanical, Instrumentation, Badges, Flow line construction, Haulage, Civil, Electrical and other allied Engineering services to our corporate clients. The need to have our activities performed in an acceptable safe, healthy and environmentally sound manner led to the establishment of this HSE management System.

A management system can be defined as:
`that structured framework of controls, from the highest level of authority (MD) down to lowest level (Casual labour), by this we ensure that the process activities are performed in accordance with acceptable HSE requirements, whilst allowing for continuous improvement of process performance.
In our HSE-MS drive, controls are regarded as relevant operational guiding policy, well-structured organization, Management review of policies and guideline to conform to the current industrial trend, Procedures, guidelines and standards.

The objectives of this HSE-MS manual are:

- To ensure that there is a step-by-step HSE-MS in place within Menal Technical Services operations. This is designed to ensure compliance with all applicable legislations and relevant policies, and to achieve continuous HSE performance improvement.
- To demonstrate that there are controls in place for all hazards and effects and that environmental aspects shall be evaluated and managed in accordance with the Clients acceptable requirements.

The HSE –MS ensures that:

I. Policies, objectives, organizational structure, responsibilities, specifications, processes, procedures, controls and resources are defined and fashioned to manage operational HSE impacts, according to acceptable standards.
II. Processes and methods are in place to technically identify, evaluate and control HSE risks to agreed performance standards and to recover from HSE incidents should they occur at any stage of our project execution.
III. Performance standards are specified as part of a programme of performance monitoring, audit and review in support of continuous improvement.
IV. All HSE risks inherent in the business are addressed within a framework of controls that are consistent with the Statement of Menal Technical Services business ethics and our Community Statement, HSE policy and HSE commitment.

The HSE-MS manual allows the Company to:

1. Communicate easily the HSE –Ms to staff, sub-contractors and the public.
2. Explain the process by which assurance on HSE performance is provided internally within the Company and externally to Clients and the public.

See Company HSE Organisational chart.

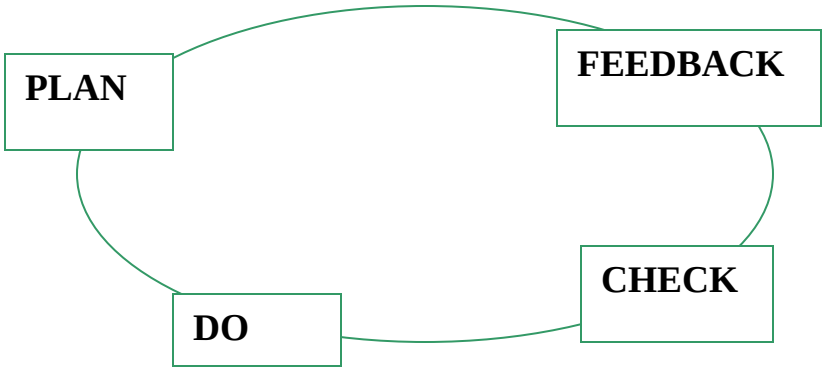
STRUCTURE.

The HSE Management System links HSE policy and strategic objectives at the management level, into the procedures, Guidelines, Rules, Regulations and actions at the Task level. The three management levels of HSE MS in our establishment are, Corporate, operational and sub-contractor. The HSE-MS is consistent at all levels with Corporate HSE policy and objectives.

The HSE management system consists of elements that match plan-do-check-feedback quality management principles.

The HSE-MS links to the other Management systems of Menal Technical Services through the HSE planning procedure. This ensures that planned HSE activity is consistent with all other planned business activity in the Company.

Figure 1 HSE-MS Cycle of Activities



DOCUMENTATION.

To ease understanding and facilitate communication of the HSE MS, it is documented in a range of specific HSE documents. These are shown in Table 1.

The HSE Management System Manual	Describes the overall approach and requirements of the system.

Table 1 HSE-MS Documentation

MENAL TECHNICAL SERVICES defines the structure of the HSE-MS

HSE-MS Elements	Focus/Intent
1. Leadership and commitment	Top-down commitment and company culture, essential to the success of the system.
2. Policy and objectives	Corporate intentions, principles of action and aspirations with respect to health, safety and environment.
3. Organization, Responsibilities, Resources, Records and Documentation	Organization of people, resources and documentation for sound HSE performance.
4. Hazards and effect management	Identification and evaluation of HSE risks, for activities, products and services and development of risk reduction measures.
5. planning and procedures	Planning the conduct of work activities, including planning for changes and emergency response.
6. Implementation and performance monitoring	Performance and monitoring of activities, operational control and how corrective action is to be taken where necessary.
7. Audit	Systematic assessments of system performance, effectiveness and suitability.
8. Management review	Periodic assessments by management, of system performance, effectiveness and fundamental suitability.

Table 2 HSE-MS Elements

Other HSE-MS Documents.

Menal Technical Services HSE MS manual describes HSE management activities at the corporate level. Other HSE documents describe the HSE-MS at the line level.

Accountability for HSE-MS

The owner of the HSE-MS is the Managing Director (MD). As owner, he is responsible for issuing the HSE-MS manual under his own signature and thereafter for issuing clear directives to the owner on how the HSE-MS must be maintained and implemented.

The custodian is the HSE manager (HSE). As the custodian, he is responsible for ensuring that the HSE MS is being maintained according to the owner's directives. He delegates the actual control and maintenance to the various HSE functions within the Company.

These positions are repeated down the organization at a level appropriate to the HSE-MS documented in a manual. The named personnel are responsible for ensuring that the HSE-MS is communicated, understood and carried out.

The owner/custodian ensures the HSE MS remains current. There is a requirement to review the HSE-MS on a regular basis.

2.0 HSE PLAN

2.1 Leadership and Commitment

ADEQUATE RESOURCE ALLOCATION

Adequate resource allocation shall be in terms of employment of competent personnel to implement the system. Funds shall be made available adequately equitably without starving other competing corporate needs. Equipment that are sound and up to date in expected standard specifications shall be provided and regularly serviced and maintained for optimum and friendly performance.

The issue of HSE-Ms in our company is given top priority from the management. Based on this, the Managing Director and other top management staff shall be prime movers in all matters relating to HSE in our operations. The management of the Company shall provide adequate resources for HSE. Efficient and competence persons shall be engaged in handling issues affecting our HSE as a mark of our total belief and commitment to HSE as an important aspect of our business operations.

ATTENDING AND CHAIRING HSE MEETINGS

To further demonstrate our unalloyed commitment to HSE-MS, the Managing Director shall be the chairman of all HSE meeting schedule within our Company. Other line managers in HSE and field operations, supervisors shall attend our regular HSE meetings compulsorily.

PROMOTING HSE COMMUNICATION ISSUES.

The managing Director along with other management staff shall encourage effective communication of HSE issues within the Company.
This shall be achieved by encouraging free distribution of HSE posters, Handbills, Bulletin, Magazines and by discussing critical HSE issues during HSE meetings.

CONDUCTING WORKPLACE INSPECTION

As a way of showing that the Managing Director is fully committed to all issues relating to HSE within the organization, He shall personally carry out an inspection of facilities and the environment of the workplace. By so doing, he shall have first hand information on the state of the work sites.

The Company's Management demonstrates visible commitment to HSE to enhance the credibility of her HSE policies and objectives and to communicate the importance of HSE issues and to develop a `safe working culture`. In practice, this commitment means providing adequate trained and competent personnel to develop, implement and maintain the HSE-MS, stick to the policy and achieve the overall HSE objectives. The company's HSE culture is based on:

- Belief in the company's ability to continually improve HSE performance.
- Creating a no-blame work environment.
- Setting clear objectives and targets for HSE and reviewing performance at regular intervals.
- Empowering and encouraging staff at all levels to take personal responsibility for and take a leadership role in HSE issues relevant to their professional work, their work environment, and our host communities.

Show of serious commitment to HSE in the organization is evidenced by:

- Giving room to employee's suggestions for improvement of HSE performance.
- Promoting HSE discussions in company meetings and in company bulletins.
- Including HSE plan and review in the company's operational planning cycle and meeting structure.
- Attending and chairing HSE meetings.
- Acting on HSE reports without delay.
- Operating an open-ended relation to external liaison- with authorities and the general public.
- Conducting HSE audits or inspections personally.
- Taking part in the implementation of HSE plans.
- Creating time for field ad-hoc site visits as well as for planned programmed of community visits and management asset Inspections.
- Taking part in incident investigations.
- Relating with sub- contractors on HSE matters and promoting improvements to HSE performance in meeting with Sub-contractors.
- Be present at HSE meetings/workshops outside the company.
- Appointing experienced and competent staff to develop, review and maintain the HSE management system.
- Setting specific HSE tasks and targets for individuals and departments.

Leadership in HSE issues is not centralized around company management.
Management supports local actions and initiatives employed to promote HSE and allows individuals to play leadership roles within their circle of influence.

2.2 POLICY AND STRATEGIC OBJECTIVES.

2.2.1 HSE policies

Menal Technical Services has defined HSE policies, which are in line with our client policies. These policies were drawn with the understanding of the nature of our business in engineering construction/haulage business with reference to the acceptable safety, health and environmental practices. The policies are flexible and easy to read and understand by any category of worker in our operations. These policies are drawn out for the understanding of the management and the workforce in order to perform their duties in such a way that all operational risks associated with our daily activities can be reduced and all forms of safety, health and environmental exposure to hazard can be properly managed. Samples of our corporate HSE policies are made available on our information board accessible to all persons. Copies of these policies are displayed at our project locations, workshops and other operational sites.
In order to demonstrate our seriousness in matters relating to HSE issues in the running of our business, the management of Menal Technical Services has put in place policies that show the commitment of our company to HSE implementation.
These policies are consistent with client's requirements and National Law.
The HSE policies are assigned by the Managing Director and are reviewed at regular intervals or when a new Managing Director assumes duty, whichever is sooner. The review does not necessarily result in a change except where necessary due to regulatory mandate.

The development of all these policies is a continual process based on:

- Nigerian Legislation, Guidelines from Governmental agencies and the Host Communities feedback, Non –Governmental Organization's input, and Industry at large.
- Feedback and learning points from HSE management performance reviews, incident monitoring and audits.
- Evaluation of risks and threats to continued HSE improvements including aspects of the operation that impact upon the environment.

The corporate Custodian of all corporate HSE policies is the HSE manager. Policies, whether HSE or otherwise are owned by the respective line managers.

In the execution of all works, it is the policy of our company that every reasonable effort shall be made to ensure that all employees have safe and healthy place in which to work and adequate welfare facilities, and the surrounding environment shall not be adversely affected by work activities.

The prevention of all accidents, particularly those involving personal injury or damage to property are recognized as being essential to efficient operation as well as to avoid hardship and suffering. While the overall policy responsible for safety rests at the highest management level, all individuals at every level will have responsibilities for carrying out the policy. With this in mind, employees should report potential hazards and observe safety rules, procedures and codes of work practices.

The company retains the services of good clinics, to cater for their employees and also ensure that adequate medical services are provided to cover all our operations. We encourage our employees to participate in voluntary First Aid training and other training programs.

Menal Technical Services environmental policy is a complete fulfillment of the recent clamour for improved living condition and sustainable development practices. The company is committed to ensuring clean and healthy environment especially in the course of work. Every effort will be concentrated towards minimization of noise, dust and other pollution agents released during our jobs. It is expected of every of our employee to provide healthy, safe and environmentally acceptable conditions both at work and at home. The policies are stated below.

2.2.1 HSE POLICY STATEMENT

HSE POLICY

The long-term business success of **Menal Technical Services** depends on our ability to continually improve the quality of our services and products while protecting people and the environment. Emphasis must be placed on ensuring human health, operational safety, environmental protection, quality enhancement, and community interest.

Menal Technical Services requires the active commitment to, and accountability for, HSE from all employees and contractors. Line management has a leadership role in the communication and implementation of, and ensuring compliance with, HSE policies and standards.

We are committed to

- Achieving **"Zero Incident"** of no harm to people, no fatality and no LTI
- Handling HSE in equal importance to other business activities
- Strict Compliance with 12 Life Saving Rules, 3 HSE Golden Rules and other applicable HSE rules in operation
- Manage wastes in accordance with acceptable procedure towards preventing pollution and guarantee healthy living condition
- HSE is a collective responsibility
- Ensuring that all works are carried out with strict adherence to procedures
- Protecting the health and safety of employees and contractors
- Personal Protective Equipment (PPE) must be worn while working
- Ensuring effective communication through posters, hand-bills, billboard, meetings, etc
- Ensuring competency assurance of personnel through periodic training

COMMUNITY AFFAIRS POLICY

The Company shall take all necessary steps to maintain good relations with the community with whom she comes into contact during the course of our project execution. This shall include observing all protocols and customs in the community, paying due homage as may be required by the community.

All Community related matters shall be handled by experienced member of Senior Management staff (i.e. The HSE coordinator). Where the HSE coordinator is unavoidably absent, his Assistant or Quality Auditor shall attend to community Affairs in consultation with our clients Community Liaison officer (CLO).

UNSAFE WORK STOPPAGE POLICY

In furtherance of HSE policy, every responsible officer/worker including safety officer is empowered to stop any work that is considered unsafe and capable of endangering people, equipment and the environment

SAFETY POLICY

It is the policy of the company to carry out its activities in such a manner that no fatality or serious injuries or damage to property arise there from. Every necessary step shall be taken to safeguard all who work for us including third parties.
Positive attitudes to safety shall be rewarded and negative ones frowned upon. Detailed Safety Procedures shall be in place and site management held accountable for its implementation on site.

In order to ensure an enviable safety performance, the following strategies will be adopted: -

1. The continuous identification of all accident causes.
2. The control of accident causes.
3. The minimization of accident losses

HEALTH POLICY

Menal Technical Services., shall lay
emphasis on the promotion of the total health concept and the protection of its employees and third parties

By this:

- All workers and third parties shall be medically examined by our Retainership Clinic prior to engagement. There will be pre-employment medical fitness.
- **Menal Technical Services** uses CAPITOL HILL CLINIC as Retainer ship Clinic located at No. 2, Omamofe Sillo Street, Off Deco Road, Warri –Tel.: 08037162448
- The company shall still maintain its "NO SMOKING" Policy as Smoking is a potential health hazard.
- There shall be availability of adequate filtered portable water for workers' consumption.

Since work may affect any or every system of the human body, it is therefore essential that early recognition of health hazards is established, monitored and controlled. The Company places great emphasis on the promotion of the total health concept and the protection of the workers. All workers in our employment shall be certified medically fit before employment and annual medical examination is conducted for all staff accordingly with fitness certificate.

ENVIRONMENTAL PROTECTION POLICY

Our Company is committed to ensuring clean and healthy environment especially in the course of our work. We shall take environmental sanitation and monitoring seriously to ensure that all FEPA (Federal Environmental Protection Agency) & Federal Ministry of Environment interim guidelines/ standards are complied with as regard our operations. Effect will be geared towards minimization of environmental hazards released during the course of work on project sites, Client's Environmental Department.

More so, it is expected of every employee to guide against unhealthy and environmentally unacceptable conditions both at work and at home.

SECURITY POLICY

The Company is also committed to ensure appropriate measures for the protection of its working environment from theft and sabotage. This is achieved through restriction of unauthorized personnel into office locations and work sites. Security personnel so engaged by the Company in its location/project sites are to ensure the security of personnel, machinery, Vehicles, work tools step shall be taken to safeguard all who work for us including third parties.

DRUG & ALCOHOL POLICY:

Menal Technical Services conducts its business with high level of sensitivity to drug abuse and alcohol at work place.

The abuse of drug and alcohol impair performance at work and can be a serious threat to health, safety, environment and productivity. The company management wishes to ensure that all employees recognizes this threat and aims at countering its effect by minimizing the risks involved. In order to achieve this, the following policy will apply:

- There shall be pre-employment drug and alcohol/medical test for employee to ascertain their condition and state of health before engagement.
- Employees who depend upon alcohol or drugs are encouraged to seek medical advice and to follow appropriate treatment promptly.
- It is strictly prohibited for any employee to be at work whilst impaired by, or not fit for work as a result of drugs or alcohol consumption.
- No smoking policy shall be strictly observed along with drugs and alcohol policies during operations.
- There shall be random medical check-up on personnel targeting on detecting alcohol and drugs content in workers during work hours. This shall be done by the company medical officers and the erring staff shall be made to face management consequence.
- The illicit use, possession, distribution, or sales of illegal drugs on company business or work location is strictly prohibited.

In pursuing this policy, the company will continue to respect the rights of individuals and will minimize intrusion into their private lives. It must be realized that the company as a good employer has established in-house rules to keep law and order within the enterprise for the safety of persons, properties and environment.

The alcohol and drug policy in our company is in line with keeping to the legislations such as:

- Declaration of occupational Disease Notice, 1956 (Cap. 126). P.5533
- First Aid Boxes (Prescribed Standard) Order, 1957 (Cap. 126, vol. iii) p.5551)
- Food and Drugs Acts (1990)
- Public Health Law 1963 Cap. 52 C & F Eastern Nigeria.

This policy is drawn in line with the acceptable standard policy in practice.
It is our policy to,
Encourage employees who have alcohol or drug dependence to seek medical advice and to follow treatment.
Assist such employees do not jeopardize their job although alternative work may be considered.
It is strictly prohibited for any employee to be at work while impaired by drugs or alcohol.
For any employee to posses, distribute or sell alcohol or illegal drugs on Company business or work locations.
Menal Technical Services may take disciplinary actions against any employees who due to illegal drug or alcohol use are unable to work except where such person(s) are undergoing medical help.
Conduct unannounced searches for drugs and alcohol at work locations. Conduct, unannounced, periodic or random testing on employees on their consent.
Where an employee refuses to consent to such tests, the Company may draw whatever conclusions considered appropriate in the circumstance.
If on first time basis, a test result is positive the employee will be allowed to continue in employment provided there is compliance with appropriate rehabilitation procedures. If thereafter, a test result is positive, disciplinary action will be taken at the Company's discretion.
All Menal Technical Services sub-contractors are required to comply.
In pursuing this policy, the company will continue to respect the rights of individuals, and will minimize intrusion into the private lives of her employees.

SMOKING POLICY

It is Menal Technical Services Policy that,

- Smoking, being recognized as injurious to health, is actively discouraged.
- Smoking of cigarettes, cigars, or pipes is prohibited in all facilities, and other designated no-smoking areas, which includes, but is not limited to offices, public areas, and Company canteens.

OCCUPATIONAL HEALTH POLICY

It is our Policy to,
Identify and make an inventory of potential physical, chemical, biological, ergonomically and physiological health hazards associated with work and working environment.
Evaluate the risk to health associated with exposures to these hazards and take action to remove or adequately reduce them.

ASBESTOS POLICY

It is the Company's policy to,
Use no asbestos, and when practicable to replace all existing asbestos with a safe alternative.
Accept use of asbestos cement products provided precautions are taken to eliminate any exposure of people to asbestos dust during production operations.
Dispose off asbestos waste in strict accordance with our disposal procedures.

PERSONAL PROTECTIVE EQUIPMENT (PPE) POLICY

It is our policy to,

- Pursue hazard control methods that remove the necessity for the use of PPE.
- Where the use of PPE is unavoidable, to supply the PPE at no cost to those requiring it.

WASTE MANAGEMENT POLICY

It is our policy to,

- To take all practical and reasonable measures to minimize the generation of solid waste and otherwise.
- Not to discharge waste/spend oil to the surrounding.
- To manage and dispose of such wastes in a statutory and environmentally friendly manner.
- To track and maintain records of the full cycle of waste stream and provide an auditable trail as to its management and disposal.

TRANSPORT POLICY

- Management of Menal Technical Services shall implement this policy and support initiatives, which further enhanced performance.
- The transport Manager (operations) as activity owner for logistics operations shall maintain Company standards for land and water an provide guidance on their implementation.

All staff and sub-contractors shall ensure that:

- Transport activities are managed as an integral part of day-to-day activities and within a framework of controls that verifies compliance with company standards.
- All forms of land & marine and Materials handling equipment are registered and inspected prior to being used on company business and thereafter on a periodic basis.
- Company and contractor personnel(s) that are authorized to operate all forms of land, marine, Air transport and materials handling equipment on company business are registered and accredited by Transport manager.

- Programmes are in place to raise the awareness of operators to the full range of hazards that exist and how they may be controlled using approaches such as Journey Management.

EMERGENCY RESPONSE POLICY

The response to any emergency within the company will be directed towards:

- Saving life
- Care for the injured
- Protection of the environment
- Limitation of damage to assets
- Defense of Menal Technical Services`s good corporate image

The company shall provide the appropriate organization facilities, procedures and training so that immediate coordinated action can be taken to manage the situation in line with the above.

Maintenance of emergency equipment shall receive high priority. Close liaison will be maintained with appropriate Government and Industry organizations and communities. Regular exercises will be carried out to confirm effectiveness, and any necessary improvements made promptly so as to maintain our readiness at all times.

DISSEMINATION OF HSE POLICY

- Communicated to all employees through pep-talks, safety meetings, notice board, HSE handbook, etc. It will also be communicated to contractors where applicable.
- Available to Public in an explicit language and format
- Awareness to the employees and contractors with personal role in meeting the requirements of the policy.
- Documentation of record to show that information has been received.
- Information of revisions of HSE policies to all employees and sub-contractors**.**

Signed: MANAGING DIRECTOR
MENAL TECHNICAL SERVICES

Strategic Objectives

HSE objectives

HSE objectives emanate from HSE planning cycle and are consistent with the HSE policies. In pursuance of the total realization of our HSE, we express below our HSE objectives: -

- To preserve and prolong the life and health of all employees within our employment.
- T o work freely and ensure non-violation of all kinds of HSE regulations.
- To help diffuse and inculcate HSE awareness and consciousness into our employees.
- To make sure that HSE is advocated at all times throughout ones life span.
- To encourage long service of manpower and other labour force.
- To educate, enlighten and emphasis in others new findings and importance of HSE to all and sundry.
- To awaken the working morale and attitudes of workers towards appreciating their working conditions HSE wise.
- To broaden the HSE scope of workers and rekindle HSE awareness and consciousness in workers at any point in time.

2.3 ORGANISATION, RESPONSIBILTIES, RESOURCES, STANDARDS AND DOCUMENTATION

2.3.1 HSE ORGANISATION: THE CORPORATE ORGANISATION

Menal Technical Services has its corporate base office in Warri at No. 1 Queen Drive, Court four, Warri-Delta state-Nigeria. The company is broken in to 5 departments: See Menal Technical Services organizational chart for the flow of responsibilities.

1. Human Resources/Admin
2. HSE
3. Field Operations/logistics
4. Finance
5. Engineering

Each department has at is head a manager. The Managing Director (MD) controls all departments. The HSE Manager and all HSE functions answer to the General Manager. Within each department, line staff are controlled by their respective line supervisor.

The majority of Menal Technical Services`s operational activities are mostly construction of flow line, mechanical instrumentation, Electrical, Civil, Haulage and provision of essential engineering support service for the oil and gas and other allied industries and therefore HSE exposure is within these industries. The fabrication yards/workshops are also considered as areas or Assets and the yard Manager is the Asset Manager. The company's HSE-MS covers all the above operations.

Roles, Responsibilities and Accountabilities

The general responsibilities and accountabilities for positions in the entire organization are recorded as shown in the Company's corporate organogram.

Irrespective of the organizational units in which individuals work, there are generic responsibilities for staff at the same levels in the organization.

HSE Advice and Support from Specialist Functions

HSE Advisers in the organization give HSE advice and guidance to the line and management. They utilize resources from external bodies e.g. External Consultants etc to provide `best practice`.

Corporate HSE

HSE advisers, including the HSE Manager and the corporate HSE functions have no line responsibility for implementation of the HSE-MS, as HSE implementation is a line management responsibility in line with all other business responsibilities. Corporate HSE provides specialist HSE skills not found in the line, liaison with the company and external parties (including Clients) on HSE and corporate collation and steer on HSE-MS, data, tools, and procedures.

Line HSE

The number, location and skills of line HSE Advisers is decided upon by the appropriate line Manager.

HSE ORGANISATION AND RESPONSIBILITIES

The HSE organization and responsibilities are spelt out in clear terms to avoid overlapping of functions, which may result in communication breakdown in the course of project execution.

MANAGEMENT'S ROLE

The responsibility for ensuring implementation of the policy for health safety and environment rests directly upon the Management of Menal Technical Services as well as all employees at any level. Our Management is poised to shoulder this responsibility. Responsibilities will be assigned to supervisors and the necessary backing in terms of funds and authority will be given by management. Safety officers will also be appointed and will be present at every work site. The Safety Officers are to advise and ensure that all work activities are conducted in a safe manner. In addition to the above, Management will carry out the following measures to ensure effective implementation of the company's safety policy.

- Allocate sufficient resources to provide and maintain conditions and places of work that are, so far as in reasonably and practicably safe and healthy.
- Ensure that all machinery, plats and equipment are in good working order. Appropriate tools for the job will be made available and in safe working order.
- Provide where necessary, approved personal protective equipment and clothing and ensure that employees understand their proper usage.
- Ensure that adequate instructions are given to employees in all aspects of their work, especially those hazardous to health.
- Review operations and work methods from time to time in order to incorporate where necessary, changes in statutory obligations and new technologies.

a) PROJECT DIRECTOR

- The project Director is responsible for the overall safety of the project.
- To provide finance for the safe execution of the project.
- To monitor and appraise the involvement of key personnel periodically on HSE matters.
- To ensure that PPE`S are provided for all staff.
- To ensure that necessary training is provided to enhance workers performance.

b) PROJECT MANAGER

- The project manager is responsible for HSE on site.
- To co-ordinate all activities on site and see that works are executed in accordance with the work scope and standard construction specifications.
- To ensure that personnel participating in mobilization are experienced and qualified.
- To ensure that personnel participating in mobilization are medically examined inducted
- T o define line responsibilities

- To participate in audits, safety meetings and training programming.
- To monitor and report on HSE performance.
- Ensure the right equipment including PPE and tools are purchased for the project.
- Access the activities, which requires special care before putting them in care of the handlers.
- Monitor the issue and control systems in the store or site.
- To investigate and report any accident/incident that may occur on the site.
- To provide appropriate and conducive living accommodation for personnel.

c) SITE ENGINEER/SUPERVISOR

- The supervisor is responsible for the safety of his subordinates on site.
- To ensure that works are executed in accordance with the work scope and standard construction specifications.
- To participate in audits, safety meetings, training and accident investigation.
- To monitor and report on HSE performance.
- Ensure the right equipment and tools for the jobs are used.
- Ensure strict supervision and display all the qualities of a good supervisor.
- To break and follow work schedule to avoid fatigue and stress.
- Make inventory all hazardous substances on site.
- Monitor the issue and control system in the store.
- Ensure good communication link between management and the workers.
- Ensure personnel are issued with the correct PPE and that they are used.

d) HSE MANAGER/CO-ORDINATOR

- The position of the HSE manager/co-coordinator is an advisory capacity/role.
- The HSE manager/coordinator reports directly to the managing director
- To help formulate policy and programmes for safe execution of the project.
- To ensure personnel participating in mobilization, are medically examined and inducted.
- To ensure competency of personnel, organize and train personnel for the project.
- To monitor and report on HSE performance.
- To document and publicize reports accordingly.
- To investigate and report accidents/incidents.
- To ensure the right PPE are purchased, monitor the issuance and control system.

e) HSE OFFICERS

- The HSE officer reports directly to the HSE Manager/Coordinator and functionally to the project supervisor on site.
- To ensure the project is executed in accordance with the Temile/clients HSE policy and standard and statutory obligations.

- To document findings with highlights to main hazards and corrective actions from audits, accident investigations, safety meetings and emergency drills.
- To update hazard register and activities catalogue.
- To organize and participate in audits, safety meetings and emergency drills.
- Make inventory of all hazardous jobs and situations during the execution of the project.

f) WORKERS

- Employees are responsible for their own safety and that of their colleagues.
- To participate in safety meeting and unsafe act audits.
- To use and maintain always, PPE`s issued to them.
- To report any accident /incident that may occur in the workplace.

g) FOREMEN/SUPERVISORS RESPONSIBILITIES

The immediate responsibility for health and safety at work rests with the Line Supervisors. They are primarily concerned with preventing accidents, which result in injuries to persons and damage to company property. It is the responsibility of the supervisor to give clear and explicit work instructions and work practices stipulated for the job assigned. Necessary personal protective equipment must be worn before workers are allowed into such job areas that require precautions/subsequent protection.

2.3.2 HSE PROFESSIONALS

The HSE Officers will advice Management and supervisors on safety matters as may be necessitated by the job to be executed. He will carry out the following duties: -

- Give pep talk or early morning briefing to workers before the day's job begins.
- Ensure that workers wear necessary personal protective equipment.
- Ensure that appropriate work permits are obtained from clients and that the precautions stipulated are strictly observed.
- Conduct unsafe act on site daily.
- Attend clients safety meetings and implement all related action points as they affect company's operations.
- Ensure that the right tools are being used for the job.
- All equipment in services must be in good working condition.
- Hold safety meetings with the work force every two weeks and the minutes shall be properly documented and sent to the clients engineer in charge of the project being executed. A copy of such minutes is as well sent to the Company management for appropriate action.
- Display appropriate safety notices and sign boards in the work site.
- Ensure that functional first aid box is on site and all employees made to obtain treatment no matter how minor the injury may be.
- Regular inspection of work place and provide feedback for management.

- Investigating any accident/incident that may occur at work site and prepare report for management, which will be forwarded for serious consideration.
- Compile monthly safety accident statistics. Organizes and coordinate site safety meetings.

2.3.3 SUB-CONTRACTORS

SUB –CONTRACTOR HSE MANAGEMENT

An important way of monitoring HSE performance effectively is by evaluating and managing all activities of all our sub-contractors. Their activities shall be in line with our company's HSE standard. Our attention to Sub-contractor's HSE Management is important for the following reasons:

- To ensure that all sub-contractor's are compatible with those of Menal Technical Services and appropriate to the type of work that the sub-contractor will undertake.
- To ensure that all sub-contractor personnel are competent to perform their tasks.
- To ensure that all hazards and associated risks to the health and safety of sub-contractor personnel, Menal Technical Services staff and third parties, to the environment and to the assets of the sub-contractor, Menal Technical Services or third party have been identified, assessed and eliminated where practicable, are being controlled through formal planning methods and procedures and are covered by contingency plans to deal with identified consequences of potential loss of control.
- To ensure that both the sub-contractor and our project engineer are mutually aware of each others obligations for HSE management both under the law and as required by our HSE policies and objectives.
- To ensure that the responsibilities of both the sub-contractor and Menal Technical Services for HSE management are clearly defined within the sub-contractor terms and conditions.
- To ensure that the system for monitoring the performance of the sub-contractor HSE management system is fully defined.
- To ensure that HSE legislative requirements of Menal Technical Services when interfacing with a sub-contractor's are fulfilled.

The need to employ and develop indigenous sub-contractors from host communities often with relatively low oil industry experience, increase the risk of HSE incidents from sub-contractor operations. To address this problem Menal Technical Services operates a sub-contractor HSE Advisory Services that forms a part of the HSE department. This service provides coaching and advises to developing indigenous sub-contractor to help them to align their HSE management requirements and performance with those of Menal Technical Services

Sub-contract procedures

Menal Technical Services sub-contractor procedures are recorded in the sub-contractor policy and procedures Manual. A chapter within this Manual details the process to be followed to ensure all sub-contractor comply with our HSE –MS. Currently HSE requirements demanded by Menal Technical Services of sub-contractor operations are as contained in the Client work requirements. Compliance to standards is maintained through a process of pre-qualification, inspection, audit and site supervision.

Sub-contractor HSE Evaluation system

Sub-contractor HSE performance is evaluated necessary checklist. This is based around Safety management (SM) principles and measures potential and actual performance against targets. Sub-contractor Holders are required to estimate potential SM performance prior to issuing the sub-contractor and then inspect actual SM performance during the sub-contractor.

2.3.4 HSE COMMUNICATIONS

Communication

Menal Technical Services maintains procedures for communicating HSE information consistent with its policy and with applicable legislation and regulations. Line managers and supervisors can augment these procedures with local pro cedures if considered necessary.

The primary means of communication is the HSE meeting, held either monthly or weekly at line management discretion. Staff attends at least one HSE meeting per month. The HSE meeting can be replaced at management discretion with a line management meeting of which HSE is a formal agenda item. Meetings are supported by toolbox talks, held by supervisors on a daily basis. Sub-contractors are involved in the HSE meeting structure through quarterly Sub-contractor management HSE meetings hosted by departments.
In addition, HSE maintain an information board from which all staff have access to HSE documents, statistics and information. HSE statistics are posted at entrance to all major Menal Technical Services worksites.
HSE bulletins are issued to all staff at HSE Manager's discretion detailing specific HSE incidents or new information.

HSE suggestion schemes, competitions, incentive schemes and reward programmes are also executed at the management discretion.
Effective communication as an HSE management tool aims to:

- Inform staff, Sub-contractor, Clients and other stakeholders about the Company's HSE Policy, commitment, objectives, targets and implementation plan as well as performance in a transparent manner.
- Indicating the importance to staff (own and Sub-contractor) of complying with the HSE Policy and objectives, and their individual's roles and responsibilities in achieving it.
- Disseminate information about HSE risks and hazards of their work activities and the preventive and mitigation measure and emergency response procedures that have been established as well as the potential consequences of departure from agreed operating procedures.
- Obtain feedback as evidence of implementation and as tool for corrective action and improvements.

We also ensure that all necessary steps and places to employ in case of any emergency situation are clearly communicated to all categories of staff in our employment.

External communication

External communication of HSE issues is primarily to meet the following obligations:

- Reporting performance to Government regulatory Agencies (Ministry of Environment, etc.) as required by law.
- Reporting HSE objectives, goals and performance to clients, host communities and the public as part of a commitment to safe work by keeping them informed of our activities, the potentials effects of our operations on the environment and our commitment to manage them responsibly in a transparent manner. Publications such as safety annual report as well as specific and periodic reports on `The Environment`, `community assistance` are used in addition to regular contribution to the Management annual HSE Report.
- Receiving feedback from the public and Clients, regarding legitimate concerns about the HSE effects of our operations and of our HSE management in general.
- Community awareness and consultation programmes to keep host communities aware of potential HSE effects (including plans to manage them) of our planned activities in their areas ahead of mobilizing and starting work. This is usually the responsibility of project leaders who are assisted by HSE supervisors
- Participation in industry-sponsored workshops, seminars etc. to contribute knowledge to HSE management issues and learn new techniques.
- The need to pass HSE information to the entire workforce for effective implementation makes HSE communication an essential aspect of HSE MS.

The following media shall be adopted for dissemination of relevant HSE information across the board.

- Bulletin.
- Newsletters.
- Posters
- HSE handbills

HSE BULLETIN AND POSTERS

HSE posters shall be obviously displayed on notice boards at all work locations with slogans and themes of the month highlighted. These shall include statistical analysis of the projects HSE performance to date, indicated the remedial measures required for improvement or sustenance of performance levels.
HSE bulletin shall be issued periodically on site.

2.3.5 HSE MEETING PROGRAMME.

FREQUENCY OF HSE MEETINGS

Site HSE meetings shall be observed on a regular basis. This will provide the entire work force the opportunity to keep them abreast of all new development as regards safety at work.
To disseminate HSE information to all workers, HSE meeting shall be held. The meetings shall give workers the opportunity to hear others, contribute their quota and be heard. We believe that constant meeting as a way of passing HSE and other information to the workforce and getting feedback enhances overall performance improvement in HSE drive.
The HSE meetings shall be held on site at a regular interval as described below:

- Daily toolbox meeting: 10-15 minutes at work site prior to the commencement of the day's work, with the HSE co-coordinator/officer or site supervisor chairing the meeting. All site workers shall attend such meetings.
- Weekly HSE meeting: This is to be held on site with foremen and nominated workers. This meeting should focus on foreseen work progress HSE issues or problems.
- Monthly HSE meeting with client: This is to be held with the client and site representatives, as required. The meetings should focus on the projects HSE performance and areas of concern. Client's representative shall preside over the meetings.
- Site Monthly meeting: This is held regularly at least once a month at various operational sites. It is attended by the project manager, supervisor and foremen-, under the chairmanship of the project manager/supervisor.

During the meetings, the following are considered:

i. Review of previous meeting and matters arising.
ii. Review of unsafe conditions identified and improvement on various methods of accident prevention.
iii. Review of personal protective equipment and general site safety.
iv. Review good house keeping.
v. Take a look at plant/equipment record and maintenance logbook.
vi. Analyze work planned for the period until the next meeting to determine if unusual hazards are involved and discuss steps to be taken to prevent accidents and fire which may lead to hazards.

Also pep- talks are held with the workers during which specific hazards are identified and safe work method given by the safety officer.

- **Management safety meeting:** The management represents the safety task force of the company. It looks after the policy formulation and implementation of the safety department. It meets on a regular monthly basis to discuss safety matters and is composed of project manager, management safety coordinator, and project engineer(s). However, emergency meetings could be held to discuss urgent matters arising.
- **Pre-mob safety meetings/induction course:** On the award of a contract, a pre-mobilisation safety meeting is held. In attendance are the manager, project manager, HSE coordinator/officer and the site safety officer. During the meeting, the clients engineer spell out the scope of work and the work programme involved. A critical job analysis is carried out and various hazards expected emphasized . Based on these safe work methods are proposed and suitable plants, equipment defined and inspected with the induction course organized for the entire workforce.
- **Community meetings:** This should be held periodically with the relevant community representatives. The meeting should be interactive with various issues pertaining to project/ work discussed. The meetings shall be recorded by means of minutes, except for toolbox meetings, which are logged in the daily report book. Copies of the minutes of meeting will be read to all workers and displayed on notice boards for further reading.

HSE COMMITTEE MEETING: It is considered expedient to have a standing HSE committee to oversee the general performance and stir necessary review in the Company HSE practices. Based on this Menal Technical Services has put in place HSE COMMITTEE. The committee has the mandate of ensuring that HSE is upheld as a critical aspect of our business activity.
They shall meet on schedule.

CHAIRMANSHIP OF HSE COMMITTEE MEETING
In order to demonstrate high level of commitment by the management of our Company, the managing Director shall preside over all the committee meetings. In the absence of the MD, the Project Director/or Operations Manager shall preside over the Committee meetings. The involvement of the senior management in the HSE committee meetings signifies that the leadership commitment to overall HSE drive is taken with all seriousness and whatever decision taken towards improving on the existing HSE landmark receives the final authority for implementation.

MEMBERSHIP OF HSE COMMITTEE MEETING
The following shall make up the members of the committee.

- Chairman/Managing Director-committee chairman
- Executive Directors
- General Manager
- Operations/contract Manager
- HSE Manager/Coordinator
- Admin. Manager –Secretary
- Head, security & loss prevention
- Transport/logistic Manager
- Any other HSE critical officer.

ADMINISTRATION OF MINUTES OF HSE COMMITTEE MEETING
All HSE deliberations shall be included in the minutes of the meetings held. All identified areas that require immediate attention shall be followed up by the HSE manager to ensure implementation of these critical items.

2.3.6 HSE PROMOTION AWARENESS

Menal Technical Services shall organize and encourage HSE promotion and awareness among her entire workforce by employing the following methods.
HSE lectures and symposia shall be held on a regular basis for the attendance of all workers. Lectures will be based on site-specific issues, emphasizing on experiences and learning points.
HSE slogans shall be developed, in consultation with the workers on a weekly basis. Slogans shall focus on the projects HSE objectives and performance analysis. An incentive scheme shall be developed on work site basis. Work teams with highest performance in terms of meeting HSE objectives shall be given awards.

For awareness to be specific we shall use the following:

a) Personal contact
a) Notice board in offices and site.
b) Monthly Newsletters.

HSE promotion among our workers shall be given priority as a means of achieving accident free operations. We shall use the following methods to achieve HSE accident free operation. In order to demonstrate our commitment to HSE matters as an integral part of our core business the following methods shall be adopted in promoting HSE among our staff:

- An award for safe work shall be presented to the staff with outstanding HSE record.
- HSE competition in the use of PPE, observation and reporting of U/Acts & U/Conditions shall be encouraged.

HSE INCENTIVE SCHEMES.

Management shall motivate the interest of employees by involving them in HSE planning and programmes. Any employee who executes his job without regard to his own safety and that of others shall be disciplined accordingly.

- Safety award for the worker (s) with overall best HSE record.
- Targeted Man- hour award.
- HSE competition

2.3.7 HSE COMPETENCE REQUIREMENTS

Medical Examination before employment

In order to marry the right man to the right job and to determine the health conditions of the workers before employment, adequate medical check up shall be conducted for all intending employees. A competent medical attention shall be called for in this regard.

Employment of competent and experienced workers.

Another way of ensuring competence on the job is that only the right candidate for a particular trade is employed. Although, our company encourages selection of experienced hands that have acquired the requisite experience required for certain specific position.

2.3.8 EMPLOYEE ORIENTATION PROGRAMME

All new employees whether experienced or not are made to undergo, series of induction courses. During this process, new employees are conducted round all our facilities and locations. They are encouraged to ask questions on things they do not understand. In order to achieve good result from induction courses, specialized sectional heads are given opportunity to introduce the newly employed staff to the operational ethics of the company.

2.3.9 HSE TRAINING (GENERAL)

The management of the company believes in training both new and old staff. The company will continue to invest in this area. A trained and skilled worker is an invaluable asset. Both in-house and external training programmes are used. Employees should take advantage of this gesture in developing themselves and improving on their knowledge and safety awareness. The level of training will depend on the type of work and the level of supervision required. The aim is to acquaint the worker with he work processes and the necessary skills ad behaviour required of him. Apart from safety training, toolbox
briefing and weekly safety meetings are systems used to get safety across. The following training programmes shall be scheduled for staff in accordance with the HSE policy of the company on personnel competence. Staff shall attend any of the courses below as it relates to their operational need.

1. HSE induction
2. HSE Competence Development course (Level1,2 and 3)
3. Safe Job procedures
4. Basic fire prevention and protection
5. Defensive Driving Course (Land& Marine).
6. Basic first aid training
7. HSE Auditing (in-house training)
8. Incident investigation and reporting
9. Environmental protection Awareness/ISO 14001 Training
10. Other in house training.

In all our training programmes, sectional supervisors are required to carry out staff briefing at the close of the training.

2.3.10 HSE TRAINING (PROFESSIONALS)

Because of our seal for continuous improvement in HSE drive in our operations. Training is regularly organized for professional on our job. Selection of those to attend specific training is based on the need of such training as it affects the over all performance and improvement on the job.
The identified training need is usually tailored to the need of the job and the specification of our clients.

2.3.11 HSE LEGISLATION: REGULATORY AND LEGAL REQUIREMENTS

The Federal Republic of Nigeria has a body of legislation governing the management of health, safety and environment in the industrial sector. In addition, there is legislation specific to the industry. Responsibility for legislation and enforcement lies with:

- The Federal Ministry of Labour and productivity (General HSE in Industry)
- The federal Ministry of petroleum; Department of petroleum Resources (DPR) (Oil Industry)
- The Federal Ministry of Environment (Environmental issues and increasingly some safety issues)

Additional regulatory bodies exist at state level, specifically the state Environmental Protection Agencies reporting to the Min. of Environment.
Menal Technical Services maintains a listing of all relevant HSE legislation. Compliance with the HSE legislation is a line responsibility and is assured by compliance auditing. In order to ensure our good HSE performance and good patronage fro our clients, we ensure that all the HSE standards specified in our contract are adhere to.

2.3.11 HSE STANDARDS

Applicable standards for our operations are contained in our HSE manual.

Responsibility for control of standards

Each HSE standard shall have an owner and a custodian. The owner will be responsible for the technical content of the standard and for specifying its scope and application. All our work standards are drawn in line with our clients' requirement for specific operation.

Responsibility for the process of maintenance and revision of all HSE standards relevant to the Company HSE management system is vested in the HSE manager. The HSE manager can appoint an owner for each standard from within the line. Menal Technical Services ensures that all our mechanical and metal fabrication jobs are in line with both the national and international standard specification for engineering works. The use of Permit to Work is a must in our operations.

2.4 HAZARDS AND EFFECTS MANAGEMENT

Introduction

The Hazards and Effects Management Process, is the means by which Menal Technical Services ensures that HSE risk is systematically managed to an appropriate level of business control so ensuring compliance with HSE policy and achievement of HSE objectives.

Severity	CONSEQUENCES				INCREASING LIKELIHOOD				
	People	Assets	Environment	Reputation	A	B	C	D	E
					Never heard of in the Industry	Heard of in the Industry	Has happened in the Organisation or more than onece per year in the Industry	Has happened at the Location or more than once per year in the Organisation	Has happened more than once per year at the Location
0	No injury or health effect	No damage	No effect	No impact					
1	Slight injury or health effect	Slight damage	Slight effect	Slight impact		LOW			
2	Minor injury or health effect	Minor damage	Minor effect	Minor impact					
3	Major injury or health effect	Moderate damage	Moderate effect	Moderate impact			MEDIUM		
4	PTD or up to 3 fatalities	Major damage	Major effect	Major impact					
5	More than 3 fatalities	Massive damage	Massive effect	Massive impact				HIGH	

Hazard Analysis and Hazard Register

A hazard is anything that has the potential to cause harm including injury to persons, damage to property or causing environmental degradation.
For effective HSE management, it is essential that hazards associated with a particular substances, facility, job or operation be analysed and fully understood.

Menal Technical Services shall ensure the pre-job commencement inspection, as well as on-the job hazard analysis is carried out in all cases. At the pre-job commencement stage, all jobs shall be broken down into steps an for each step the likely hazards identified. Hazard associated with any substance or material to be used for the job shall also be analysed. Safe work methods/procedures and precautions will be developed to prevent the hazard from causing accidents during execution of the job.
Analysis of hazards at any stage shall involve but will not be limited to this following steps:

- Identification of hazards
- Brainstorming on threats that can release the hazards to lead to an accident.
- Initiation of recovery measures.
- Estimation of the level of impact if it occurs.
- Looking at the various scenario (consequences) of the top event.
- Planning recovery measures.

For the purpose of clarity, transparency and to aid review, the hazard analysis shall always be formally documented in hazards registers.
While executing the job, hazard analysis will always be carried out from time to time to review the hazards register, and put in place control measures as well as recovery measures to take of hazards that may either initially been overlooked or that may have been developed during the job execution.

Risk Assessment

For all facilities and activities it is necessary to make an assessment of the levels of HSE risk associated with the facility/ activity. Risk Assessment has 3 main steps, namely: **Identify, Analyse and evaluate the risk.** Risk levels are classified as Low, Medium (collectively often referred to as `tolerable`). All risks are managed to ensure the residual risk is a low as reasonably practicable (ALARP). High risks are not accepted and must be managed out of the activity/ facility. Classification is done according to a risk assessment matrix (RAM).
Once the potential magnitude of a risk reduction are to:

- Reduce the probability of occurrence (prevention).
- Reduce the consequences of incidents of occurrence (mitigation).

In Menal Technical Services, risk reduction measures start at the concept selection, design and planning stages when the opportunity is taken to lower risks to levels `As Low As Reasonably Practicable` (ALARP). The point at which ALARP is reached for individual risk considerations depends on local conditions, balance of cost and benefits, current state of technical knowledge and prevailing legislation and standards. Thus, the level of ALARP is under constant review through inspections, audits performance reviews etc.

Examples of risk reduction measures in place include:

- Communication of risk to staff, in order to induce personal care.
- Adequate supervision on the job.
- Gas/ fire /smoke detection devices.
- Ignition control systems.
- Personal protective equipment.
- Journey management.

HEMP Tools and Techniques and their Application in MENAL TECHNICAL SERVICES

HEMP tools are available for the life cycle of project development or operations. The key issue is to select the right tools for the different phases and to use them appropriately. The main tools in use in Menal Technical Services are recorded in the Table below.

Safety	Hazard Identification/Evaluation Job Hazard Analysis (JHA) Unsafe Act Auditing (UAA)
Health	Health Risk Assessment Periodic Medical examination
Environment	Waste Minimization. Site clean up exercise. Appropriate waste disposal.

Recording of Hazards and Effects

Once hazards and effects and their management methods are identified, they are recorded to ensure that they are consistently implemented and that everybody interfacing with the location, installation or activity is aware of hazards and associated risks and how they are managed. The records are used to ensure continuity in the HEMP process until a risk is completely addressed. Records from every stage are monitored to ensure proper completion. The monitoring is done by the HSE function at the corporate level and also during HSE reviews, audits, inspections, pre- start-up audits etc.

The principal records are:

- Hazard Registers (Safety)
- Environmental Aspect.
- Health Aspect.

2.4.1 Methods and procedures for Hazards and effect Management Job Hazard Identification/ Analysis, Safety Procedures and Standards

Metal Works

Mechanical welding, Instrumentation, Civil, Transportation and other allied works involve a lot of hazards in cutting and fitting of Metal materials, driving in and removal of screws, material handling, use of hand tools, dismantling/demolishing and erecting of iron partitions and supports, chiseling and amendment of boards to fit recommended specification sizes for installation.

This section highlights the hazards and precautions to be taken in order to control these hazards as injury may arise from the job mentioned above.

a) **Hazards**

Injuries can arise from mechanical welding works as a result of the following:

- Using bad tools, e.g. blunt Metal cutter or chisel.
- Wrong positioning whilst carrying out any installation work.
- Particles generated from Metal entering the eyes or lungs.
- Splitting of fragments from screw head.
- Fire outbreak form hot works.
- The presence of sharp/pointed objects and rubbish in worksite.
- Failure to use appropriate personal protective gears.

b) **Safety Procedures/Precautions**

- Only experienced and trained personnel must carry out all installation works.
- Personnel carrying out Metal and steel works must be protected with appropriate safety gears like helmet, safety shoes, gloves, nose mask, eye goggles and coverall.
- All hand tools must be inspected daily for defects before use. Any tool discovered to be defective should be repaired or discarded. Do not use hand tools for a job it is not meant for.
- Do not use improvised tools for the purpose and jobs they are not meant for.
- Personnel should take a good position when carrying out any installation.
- When installing at a height above 2m, care should be taken to avoid accidents. Safety harness and line should be used when and where necessary.
- When using ladders/scaffolds all necessary safety precautions as to the use of each must be observed.
- Sharp and pointed objects, Metal cut and other rubbish should be disposed of properly on daily basis.
- Work permit shall be obtained before any work commences.

The handling, installation, repairs and removal of wall storage space saver (wooden, metal and steel) are very prone to injuries especially cuts.

Generally, the handling of metal and iron objects demands extra care, thus the following procedures and precautions must be taken:

- Only experienced and well-trained personnel should be engaged.
- Personnel must be provided and use suitable personal protective equipment, e.g Safety shoes, hand gloves and coverall.
- All broken pieces of metal and iron must be kept separately and sent to the manufacturer for recycling or be disposed using either FEPA guidelines or Client's waste disposal procedures.
- When cutting metals to sizes, a suitable work bench, the right tool and a suitable ruler.
- Do not use defective tools or improvise.
- When in transit, extra care is needed to avoid breakage or damage.
- Iron can also cause injuries to personnel if not properly handled. Care must be taken when handling iron jobs.

Electrical Hazards Identification

Unlike obvious hazards, most people neither recognize electrical hazards, nor are they conversant with the possible effects of these hazards probably because of our total acceptance and familiarity with electrical devices and the fact that electricity travels unseen and seldom provides warning of impending danger.

a) **Electrical Hazards Fall into**

- Electric shock and flash burns which lead to injury directly as a result of malpractice such as carrying out maintenance on live equipment, use of wrong tools on live apparatus, improper wiring and poor connections, opening switches, removing fuses and shorting cables.
- Source of ignition leading to fire e.g. sparks caused by electrical faults such as short circuit or poor contact.

b) **Safety Precautions/Procedure**

- Only competent personnel authorized shall carry out the installation, connection, maintenance, isolation and rectifying of electrical/electronic activities and malfunctions.
- All electrical work shall be undertaken in accordance with accepted relevant standards in the work specification.
- Prior to carrying out any work on or near apparatus, a work permit duly signed by the asset holder must be obtained. Prior to carrying out any work on or near electrical apparatus where there is a risk of electrocution, the apparatus must be safely isolated.
- Personnel must be protected with adequate PPE. Hands shoes and clothing must be kept dry as much as possible, when electrical equipment is being handled.
- Electrical sockets must not be overloaded. All electrical apparatus must be operated in accordance with the instructions for their use.
- Do not use defective equipment and power tools.
- Carry out regular testing to avoid electrocution.
- Check all cords in use, both visually and for physical damage periodically.
- Do not abuse any piece of electrical equipment or apparatus.
- Ensure that electrical connections and repairs are properly done by competent persons.
- Always ensure that lines are dead or the power is off before embarking on any electrical works. Do not take someone else's word.
- Portable electrical apparatus must not be left unattended and do not use improvised electrical supply connectors.

2.4.2 ASSESSMENT OF EXPOSURE OF THE WORK FORCE.

The assessment of risk associated with any part of our operations, and the degree of employee's exposure to hazards, we shall employ the use of RISK ASSESSMENT MATRIX (RAM). Critical analysis of exposure to hazards using RAM shall provide us with a reliable result in exposure assessment.

Our Typical Operational hazard Register

S/N	ACTIVITIES	HAZARDS	WHO/WHAT MIGHT BE HARMED	CONTROLS/ RECOMMENDATIONS
1	Metal cutting and iron works	The use of defective & wrong tools, improper clamping, iron, poor balance, cuts from hand-saw or saw machine	The Carpentry/welders, Civil/ Project crew and visitors on site.	- Application of effective/ corrective tools. - Use of PPE/Correct work procedures - Adherence to PTW - Conduct daily briefing.
2	Installing and removal of partitions	Electrical wire or apparatus, stepping on sharp objects, heavy object dropping on feet.	-Project (electrical & civil) - Others in the vicinity.	- Use of correct PPE - Application of correct lifting procedures -Equipment protection -Strict adherence to PTW.
3	Cracking and chipping of concrete	Dust, hammerhead broken off, loosing grip of hammer, injury to palms/fingers, flying particles, no of safety gears.	- Civil crew - Others in the vicinity	- Use of correct PPE -Use of effective/ proper tool - Adherence to PTW - Follow safe job procedure.
4	Handling and cutting of iron	Damaged iron, cuts from broken iron.	- Concerned personnel - Project crew - Visitors on site	- Use of appropriate PPE - Use of correct/ effective tools - Use of warning signs.
5	Use of ladder	Defective ladder, wrong position or placement of ladder, unlashed or unsecured ladder, slippery rungs.	- All project crew - Visitors on site	- Use of corrective/effective ladder -Proper placement/positioning and use of ladder. - Use of adequate PPE
6	Use of drilling machine	Electrical hazards, defective machine, broken bits, improper use.	Concerned personnel - Other project crew - Machine /other equipment - Others in the vicinity	- Adherence to PTW - Use of correct PPE - Use of correct/effective tool/machines - Proper electrical isolation. - Avoid absent-mindedness on the job.
7	Driving (Vehicle)	Poor road conditions, weather conditions, bad brakes, over speeding, blind sports, defective vehicle, wrong overtaking, heavy braking, no seat belts on, no suitable safety equipment, other road users, over inflated tyres, under inflated tyres, tail getting, over heated radiator.	- Driver - Project crew - Vehicle - Other road users	- Preventive/corrective vehicle maintenance. - Strict adherence to road safety rules/regulations - Defensive driving /training for drivers and application of DDC techniques while on the road.
8	The use of grinding machine	Electrical hazards, defective machines, unsecured disc, abuse of machine and improper handling of machine, substandard disc, no adequate PPE.	- The operator - Others in the vicinity - The grinding machine	- Use of effective/efficient grinding machine. - Use of adequate PPE. - Adherence to operation guidance manual. - Hold the machine firmly to prevent it from flying off.
9	Driving in and removal of screws	Screw driver slipping away from grip.	- Civil crew - Others in the vicinity.	- Use of adequate PPE - Use of correct tool - Adherence to safe work processes/PTW - Conduct daily briefing.

WORK DESCRIPTION	THREATS	WHO MIGHT BE HARMED OR EXPOSED	CONSE-QUENCES	CONTROL OF HAZARDS	RECOVERY
Marine Transportation	-Uncertified swimmers on board -Uncertified captain/ marine engineers -Over loading -Uncertified water craft -Horseplay by personnel on board -Smoking in the craft -Absence of defective safety/rescue aids -Absence of first aid activity and effective means of communication. -Absence of twin power engines -Night sailing -Lack of navigational knowledge and waterways mastery -Loading/ off loading craft without competent supervisor -Exposure to attacks by sea pirates. -Craft without valid document	Marine crew, passengers craft, rescue aids, materials in transit	-Craft mishap leading to drowning and loss of materials -Fall into water by personnel -Fire outbreak -L.T.I. or death -Loss of craft and abandonment -Craft sinking -Attacks by sea pirates to rob materials on transit and inflicting body injury. -Arrest/detaining of marine craft by marine police or navy -Seizure of water craft -Failure of safety rescue aids.	-Ensure effective journey management -Engage qualified marine crew captain, quartermaster, deck hand etc. -Engage certified water craft -Dedicate lifesavers/divers -Load materials safely and observe safe working load or craft -Observe smoking rules -Observe no night sailing rules -Operator to study waterways and apply skills -Marine crew to watch out for sea pirates and apply all emergency procedures -Regular inspection of craft and all rescue/safety aids to be conducted _Post relevant signs and advise passengers before take off -Provide fire extinguishers.	Provide adequate first aid equipment, initiate MEDEVAC to base clinic and effective means of communication.
Offloading of materials out of Barge (Crane)	-Uncertified swimmer -Equipment failure -Wrong swinging method -Absence of competent signal man -Fire outbreak -Collapse of load and crane due to wrong positioning -Fall of personnel and materials into water -Lifting above the sling wire capacity	Crane operator and signalman. Crane and other water crew	-Fail of personnel and materials into water. -Fire out break leading to LTI/ death. -Fall of suspended load and near misses.	Conduct JHA before work commences, a dedicated lifesaver and diver. Engage a competent crane operator and signalman. Provide functional first aid equipment. Ensure load is not above SWL of crane. Obey all relevant operational rules.	

S/N	HAZARD SOURCE	THREAT (WHAT CAN CAUSE THEM)	CONTROL
1	**Visibility** Sun, reflection, sun down fused search light bulb	Blurred or obstructed vision. Too much, too little	Stop if unsafe, clear obstruction use visor, look away from strong light. Replace bad bulb.
2	**Weather** Rain/ storm, hamattan, sunshine, no cooling, Hot	Seasonal changes, poor visibility, fog formation.	Plan journey to reflect season. Stop if visibility is too low, wipe Navigation light, and wipe windscreen, foghorn, and ventilation on open windows.
3	**Vessel** Wind screen, lights wiper blade,. Fenders, Instrument parts. Extinguishers.	No/poor maintenance, dirty burnt stuck, worn-out blades. Removed, torn Electrical/mechanical/mechanical fault leaks.	Use vessel checklist clean wiper. Check and replace bulbs. Repair/Replace/check regularly. Check condition and refer to specialist
4	**Water** Seamanship, strong current, strong wind, lonely waters	Dept, bends, Tidal waves, high swell, Sea state, obstruction. Rough sea. Sudden traffic	Safe speed, use horn, proper lookout, slow down, be at alert, check tide, and take soundings. Horn when approaching corner, keep to your star boa
5	**Traffic** Heavy light, night and festive season	Poor attitude, creeks congestion poor navigation excessive at specific periods, stationary object, drunk crew members/passengers.	Self discipline; high awareness be alert, overtake with caution navigate defensively, watch out avoid congested no nigh sailing passenger not allowed Sailing
6	**Quartermaster** low awareness poor skills poor health psychological problem permit rout (map block sport) sailing hours	Poor attitude, no induction, skills not tested effects of work, substance abuse, low safe esteem, poor quartermaster screening, no knowledge exceeding endurance.	Training, test, induction inducts competence certification process task hazard analysis quartermaster database/contractor monitoring. On line information HSE information
7	**Security** piracy hijacking/seizure community occupational health.	Lack of awareness Lack of awareness Lack of awareness Lack of awareness Lack of awareness Non use of PPE	Security guidelines Security guidelines Avoid lonely routes, escort, co-operate Escort co-operate Refer to occupational guideline wear PPE.

HAZARD IDENTIFI CATION, ASSESMENT AND CONTROL-3

HAZARD DESCRIPTION	ASSESSMENT	POTENTIAL	ESCALATION FACTORS	CONTROL
Movement about vessels	-Slips, falls and trips, -Man –over board	-Personal injury fatality; - Damage to equipment/materials/vessels	-Slippery surface, (oil stick on the deck, Readings etc) -Obstruction and tripping hazards. -Lack of correct goof wear -No personal float ion device. -Unsafe access (ladders and gangway) -Transit areas Cluttered -Drunkenness	-PPE is available and worn. -Escape and transit areas are kept clean -PFD is available and worn -Non slip areas are kept clean and maintained in good order
a. Lightening b.heavy rain/fog/mist	-Risk of damage to boat and equipment e.g. Radio, injury. -Reduced visibility, hence risk of collision; -Sitting up of waterways thereby increasing risk of running a ground. 4.Bees from bush can sting passengers and crew on board. Growlers like can get on the vessel and bite personnel on board.	-Damage to vessel, communication breakdown, collision, personal injury, -Fatality	-Mooring vessel close to the bush; -Raining season -Areas of intensive erosion; -Incompetence crew and passengers.	-Pep talk prior to embarking and commencement of journey. -Follow procedures as stated in pep-talk (tips on thunder storm restricted visibility)
Carrying unauthorized passengers	Passengers without due and verifiable approval can be picked on board. Under the emporia of the event. These passengers are usually not certified swimmers and of unknown medical history, While on board they can become violent, take ill or fall over-board. They may also die on the boat in case of accidentt.	Robbery of the boats fittings, and Properties, snatching of the boat, illness; maneuver board fatality.	-Meeting with relations of passengers and boat crew. -Unsupervised passengers and crew on board. -Passage through busy routes.	-Pep talk for boat crew and passengers before boarding. Supervision of boat crew and passengers on board and behaviour throughout the journey. -Ensure competence of boat crew. -Post security (Navy Personnel on board the float.

Careless loading of materials on crafts/barges. Loading materials on defective crafts and barges	If materials for display are not properly loaded on barge, leading to shift of materials) if dancing troupe converge to only one side of the barge and if barge is defective, the barge could develop list which could make barge capsize.	Loss of stability, loss of materials, injury to passengers and boat crew. Fatality	-Unsupervised loading -defective crafts -Improperly briefed passengers and crew. -Lack of supervision of activities on barge.	-Strict supervision of loads and materials on barge. - Use only pre-mobbed crafts. -Ensure to give pep-talk to passengers and boat crew. -Ensure activities on barge are supervised.
Cramped berthing space at Jetty.	When Jetty is cramped, coming in to berth and casting off to go out becomes hazardous. Vehicles can be smashed against the embankments or against each other.	Damage to super structure. -Leakage -Sinking of craft. -Injury and fatality.	-Strong breeze/current -Absence of fenders on Jetty/vessel -Underwater obstacles -Wave created by passer-by boat -Incompetence of Q.M	Fenders to be arranged/installed on crafts. Engage competent Q.M and boat crew. ``No wave`` sign should be displayed at the vicinity of the Jetty.
Piracy	Armed bandits (Pirates) could attack boat crew, possibly kill the crew, steal the cargo and crew's personal effects.	-Loss of life Injury/ matchets /gunshot wounds. -Loss of property	-Value of cargo to robbery -If armed bandits are known to crew.	-Armed security (Navy Personnel on board the boat -Movement plan well in advance -Ensure communication with marine police -Maintain contact with local communities.
Swamping of third party's craft. Getting violent	If vessels under why do one not slow down well when passing smaller craft, they may excite enough wave to swamp the ones, especially those with low free board. This can lead to loss of the craft and property therein, which in turn can lead to village.	-Loss of third party vessels, property, loss of lives, injury to boat crew, court case. -Loss of reputation of event organizers.	-Over loaded canoes -Craft/cause not seaworthy -Poor boat handling -Closeness to busy water ways or community -False claims by villagers -Rough water -Inability to see -Reckless driving. QM of bigger third party crafts. -Q.M not slowing down on time	-Competence of QM -Take particular care when sailing around areas with heavy traffic. -Avoid potential trouble makers -Activate sound signals -Slow down on time.

Fire Hazards	Unlimited risk.	-Personal injury / death -Property loss/damage to craft and materials	-Smoking on board -Poor condition of electrical fittings -Carriage of unidentified/ flammable materials -Hazardous material storage -Notices not displayed -Fuel leaks	-Ensure good house keeping standards are maintained. Inspect fire-fighting equipment to ensure they are at an immediate state of readiness. No smoking requirements are observed
Pilfering from marine houseboat.	Thieves can access the marine craft by boat and remove items like radio, fire extinguishers, life buoys or any valuable.	-Grounded operation -Communication break down, making work teams activities ineffective -Loss of valuables	-Slack security -Closeness to busy telties -Crew's laxity	Security men answerable for stolen items under their care. Crew to keep vigilant watch on craft All on board to be watchful and vigilant
Food poisoning/cleanliness and hygiene/water contamination.	-Gastro- enteritis; -Diarrhea -Illness Dehydration and specific water/food borne diseases.	-Individual or all personnel incapacitation -Death	-Contamination of portable water through unclean drinking cups. -Poor food management, storage and cooking. -Unreported and untreated illness among catering crew. Poor monitoring of supplies of food. Break down of refrigerator at source	Treated and bottled water in tamper proof cork only to be served. All foods to be obtained from reputable suppliers. High standards of hygiene and cleanliness to prevail. All potable water sources other than bottled water to bacteriological and chemical analysis
Lack of floatation devices	-Not in correct places. -Not fitted correctly, not suitable for environment, not worn, defective, lack of training and use.	Death by hypothermic drowning	-Weather -Water temperature -Theft -Lack of knowledge on importance or use of floatation devices	-Drills/Pep-talk on the use of PFD`s -Ensure all PFD are good Ensure all on board are wearing PFD and correctly too.
Hunger	If the boat crew or passengers are hungry, it could lead to illness on board, poor performance, collision with another boat, apathy and indifference	-Loss of boats, property and fatality	-Poor or no feeding arrangement. -Inadequate provision of food to cover those present.	-Make necessary arrangement for feeding of crew and dancing troupe. -Food and water provided should be enough to catered for those present

Incompetent boat crew	Newly employed boat crew on CLIENT`S contractor vessels may not be experienced in major areas of seamanship or marine defensive driving thereby creating safety problems. Accidents could occur as a result of this situation.	-Injuries -Accidents -Loss of materials/property -Loss or damage to boat -Fatality	-Lack of and inadequate orientation and training. -Lack of toolbox meeting before work. -No/poor PPE`s -Poorly maintained craft. -Heavy storm, poor weather conditions etc	-Check and engage boat crew that have been in continuous service -Check and engage boat crews that have under gone (MDDC) marine HSE Awareness course. -Use only pre-mobbed crafts. Inspect crews PPE`s.

SEE MENAL TECHNICAL SERVICES HAZARD MANAGEMENT MANUAL FOR COMPREHENSIVE JOB HAZARD ANALYSIS FOR MENAL ACTIVITIES

2.4.3 SAFE HANDLING OF CHEMICALS.

In the event that we need to use any corrosive chemical in our operations, the use of SHOC cards is integrated into our chemical handling procedures. Also, the use of Material Safety data Sheet (MSDS) will be encouraged.

2.4.4 HAZARDS AND EFFECTS MANAGEMENT AND ASSESSMENT OF PPE

REQUIREMENTS

In order to adequately manage all identified job-related hazards in our operations, appropriate and functional Personal Protective Equipment shall be provided for all our employees. The HSE manager and his supporting line staff shall ensure that the quality of PPE supplied and distributed to staff do not constitute hazards to the users. It is clear to us in **Menal Technical Services** that wrong PPE can constitute a great hazard, based on this the provision of PPE`s for our employees shall be job-specific and the quality shall be guaranteed. This we consider as a primary way of managing series of hazards that are inherent in the usage of PPE.

PPE INSTRUCTION AND TRAINING

As part of our effort at achieving accident free operation at all time, **Menal Technical Services** company has developed a tactical approach towards the procurement and distribution of needed PPE for her staff. The PPE provided are always job specific and clear instructions are given on the best way to make use of these PPE`s.

RENEWAL OF PPE

Consideration is given to the time of replacing PPE in order to ensure that the issuance and the usage of PPE issued is justified, adequate monitoring is conducted by the HSE line management. All identified old and worn out PPE`s are replaced without prejudice.

2.5 HSE PLANNING AND PROCEDURES

A formal process is used to formulate and disseminate the company's HSE plans. This process, integrated into the Business Planning Process ensures that a corporate HSE plan is formulated for all our operations.
Supporting the corporate HSE plan are lower level operational HSE plans. These are developed by the various asset teams in the company following issues of the corporate plan. They are consistent with the corporate plan. Contract managers are free to integrate in to their asset HSE plans any HSE action they consider necessary at their level to ensure the HSE policy and objectives are met. Performance against the plan is reviewed at every HSE meeting. Contract managers review performance against their own plans at their HSE meetings. The HSE Manager monitors all performance against all plans.

2.5.1 BASIC HSE RULES

In other to ensure accident free operations and prevent communication gap within the work force, all applicable HSE rules are made available to all staff.
For instance, no smoking, compulsory use of seat belt, No drug etc rules are printed and are made available to all categories of staff. These rules are written in simple language for ease of understanding. All our operations are covered by safety rules. There is a rule on hygiene and good housekeeping to ensure that items are kept in their designated positions.

2.5.2 EMERGENCY RESPONSE PLAN AND PROCEDURES CONTINGENCY PLAN

- Establish emergency evacuation action plan on each site.
- To carry out on monthly basis, fire drill and medical evacuation drill, Man-over- board drills, etc. on site as applicable.

Our personnel shall be trained such that anybody noticing fire will:

- Raise alarm/telephone clients fire service, medical and security affected zone will be evacuated to relevant muster point.
- Nearer capable personnel to use extinguisher on blaze provided that, it does not endanger his/her life.
- Supervisor/safety officer account for all personnel reporting discrepancies to base emergency controller.
- Reports on drills shall be documented and a copy sent to clients.

STANDBY VEHICLE/ BOAT

We shall provide standby vehicle on the site for any emergency that may arise in the course of our project execution.

- Emergency Response Contact telephone numbers
- Emergency Response duty rosters
- Emergency Response policy
- Emergency Response action checklist
- **Menal Technical Services** contingency plans and procedures

EMERGENCIES

This section deals with the basic course of action in emergency situation.

DEFINITION, AIMS AND OBJECTIVES

After all reasonable measures as contained in this policy manual, have been taken and all effort put in to prevent an unwanted event, accident may still happen. Accidents occur in varying forms and are of varying magnitude. Some could even result in sudden change in condition of either the human or material resources of the organization and apart from disrupting normal operation. This could be identified as an emergency situation. In order to avoid more damage resulting from confusion and stamped and prevent the situation from escalating, this section is directed towards identifying specific emergency situations for which specific plans or actions are drawn. All such plans must be practicable within the limit of human and material resources and aim at:

- Saving life
- Minimizing pain and suffering
- Reducing damage to property and
- Restoring normal operation

SPECIFIC EMERGENCY SITUATION

In our operations the following emergency situations are envisaged:

- Fire incident
- Severe injury resulting from lifting operation or falling from a height
- Speed boat accident
- Personnel drowning
- Epidemics spread
- Armed robbery attack on site
- Community Disturbance.

A. FIRE INCIDENT

In case of fire outbreak any employee at the point of incident shall:

a) First ensure his safety, sound the alarm and be calm.
b) Find the emergency exit and make sure it is free
c) Use the fire extinguisher at the early stage of the fire.
d) Direct the nozzle of the extinguisher to the base of the fire.
e) Stay slow and avoid breathing the heated smoke, vapour or fumes as much as possible.
f) If fire gets too big, get out and close the door behind you.
g) Phone the nearest fire brigade.

B. SEVERE INJURY RESULTING FROM OPERATIONAL ACTIVITIES

In case of any severe injury/injuries due to operational activities, victims should immediately be sent via the fastest means of transport to the nearest clinic/hospital. The available medical doctor will take charge on receiving the victim.

PERSONNEL DROWNING

Any employee who observed drowning should follow this procedure:

a) Raise alarm by shouting man over- board loud and clear
b) Launch a life buoy while holding firmly to the securing line and send for the site nurse.

SPEED BOAT CAPSIZE/ACCIDENT

Any speedboat accident reported by a third party is considered an emergency and the following procedure applies:

- At the scene of the accident, the uninjured attends to injured personnel-a self-help (first aid) safety measure applies while awaiting help from outside.
- A rescue team (who also form part of the search team) is dispatched to the scene of the accident.
- Victims are immediately transported to the nearest clinic/hospital for further attention.
- Members of the rescue team including a driver stay behind to salvage as well as recover tools and properties.

EPIDERMIC SPREAD

1. Isolate first victim
2. Send first victim immediately to the hospital.
3. Inoculate all workers against the disease / infection.
4. Eradicate source of epidemic.

ARMED ROBBERY ATTACK ON SITE

In situation of this ultimate objective is to save life and even avoid being harmed, so the following procedures shall apply:

- Do not cause any alarm while the bandits are in operation
- Obey all their instructions and /or command
- Do not to try to pull and fast trick.

After their departure, raise the alarm and inform base officer through radio communication.
Check for injuries to personnel, and if any send to the site nurse for severe cases should be sent to the hospital immediately. Evaluate losses and damage to properties.
Inform the law enforcement agents as well as company security forces.
Amend damage and return to normal operation.

RESCUE TEAM IN AN EMERGENCY

The rescue team in an emergency shall include the following:

- The site Engineer
- The site safety supervisor
- The nurse/first aider
- The clerk
- The foreman
- Security men.

Other members of the rescue team shall include employees from the security and foremen unit and shall be directed by the site supervisor. Every employee engage in the rescue operation must have had company-sponsored safety training courses in first aid, fire fighting and must be a certified swimmer for the purpose of water borne operation.

GENERAL COMMAND STRUCTURE IN AN EMERGENCY

In an emergency, the command structure expressed in organogram shall be applicable in this situation.

RESCUE PROCEDURE IN AN EMERGENCY

The following shall apply in an emergency:

- Free any trapped employee
- Evacuate the injured to the site clinic
- Staff nurse/trained First Aiders shall attend to the injured pending transportation to the nearest hospital.
- Arrest the situation by all available means i.e. fire extinguishers/hydrant, life raft, life buoy, speedboats etc while awaiting external help.
- Muster workforce at a pre- determined point (mustering point).
- Take roll call
- If necessary, dispatch a search part for any missing employee
- Prevent invasion and/or entry threatens life, evacuate the scene by means of standby medevac. Before complete evacuation from site, inform base officer of the situation and your route of escape if possible. All these shall remain the responsibilities of the rescue team and other employees as may be directed by the supervisor and/or the company supervisor.

EMERGENCY DRILLS

Because we know that accident does not inform you before it happens, we consider advance preparations to arrest any such case that arises. Such emergency drills we have planned for include, Fire drill, medical rescue.

2.5.3 HSE EQUIPMENT AND EQUIPMENT HSE INSPECTION

PROVISION OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

Workers are protected against risks and hazards related to work by the use of apparels known as personal protective equipment. Adequate PPE shall be provided for workers to be used for every operation. All visitors to the site shall wear appropriate PPE to be provided to workers are as follows:

- All workers shall be provided with, and wear at all times, overall, safety shoes and hard hats. The head, foot and body of workers should be protected.
- Hand gloves must he worn when executing work where hands are exposed to hazards or strain i.e. bush clearing, exposure to heat and chemicals etc.
- Safety goggles or face shield must be worn when executing work with potential hazard to the eyes i.e. grinding, blasting, sawing, chiseling etc. Goggles must also be worn when eyes are exposed to dangerous lights such as during welding.
- Ear protection (i.e. ear muffs or plugs) must be worn at all times in high noise area (i.e. above 85 decibels).
- Masks must be worn when working in an oxygen deficient atmosphere.
- Other protective equipment such as rain boots, raincoats, kneepads etc must be worn when conditions demand such. Any worker found with inadequate or defective PPE for the operation on hand shall be removed from site immediately.

It must be noted that PPE do not totally prevent or indemnify workers from injuries or accident, rather they only minimize the exposure levels to such.
Therefore, protection of workers is highly dependent on workers adherence to safety procedures and instructions.

- Employees shall be provided with adequate PPE. No job shall be done without appropriate PPE.
- The following PPE shall be stocked adequately on site during the project; Safety shoes, helmets, coverall, hand gloves, nose/mouth protectors, eye goggles, earmuffs, etc. There shall be a control system of all PPE in stock.

2.5.4 OCCUPATIONAL HEALTH

Arrangement for Health (Medical Examinations)

1. Prior to employment, an intending employee must undergo a full medical test and a certificate of fitness issued by a physician.
2. Self-medication is discouraged. All illness arising from work will be reported and appropriate medical treatment given.
3. We maintain retainer's clinic where physical examinations or referrals are done to take care of ailing workers.
4. First aid treatment for minor injuries at work will be the duty of the first aider who will be expected to be on site. A first aid box fully stocked with drugs according to the Clients requirement will be kept on site. A record book will be kept for dispensed drugs.
5. To ensure that there is continuity between the First Aider and the Retainer Doctors, the first aid treatment register should be regularly reviewed by the doctor for the he following reasons.

    - Provide advice on the effects of a particular job on health.
    - Periodic or special examinations to protect workers against hazardous substances.
    - Undertaking epidemical studies of exposed groups of workers to determine long-term effects of the substances used on their health. See our medical record.

MEDICAL

- All applicants must undergo a full medical test and a certificate of fitness issued by a physician, before employed for . The fitness certificate will be revalidated annually.
- All illness arising from work will be reported and appropriate medical treatment given. Self-medication is to be discouraged.
- A retainer ship clinic for our staff is situated here in Warri for physical examination and treatment referrals to adequately take care of our workers. And depending on our work site locations, maintained near site for acute response and emergency attention.
- For minor injuries at work, first line treatment shall be handled by qualified first aider who shall be on our every site of operations. Also a first aid box fully stocked with relevant medicines for anticipated injuries will be kept on site. A record book will be kept for dispensed drugs.

- A fully equipped site clinic where required shall be provided with a resident nurse and a dedicated ambulance to transport victims from the various work zones shall be provided on site.
- To ensure that there is continuity between the first aid and the retainer clinic, the first aid and clinic register will be regularly reviewed by retainer doctor to provide advice on th statistics of the effects of the work activities on the personnel health.
- Pets of any kind will not be allowed on site.
- Only clean hygiene waters will be served to workers on site. Transportation of portable waters shall be jerry can.
- Only food hygienically prepared shall be served to workers on site. Hygiene conditions of site kitchen and mess shall be audited periodically.
- No food or smoking shall be allowed on site.
- Each worker must be adequately protected against health hazards arising from the nature of his occupation.

Medical/First Aid administration

All employees shall be medically examined and certificates of fitness shall be obtained from our retainer clinic before sending such employees to any of our work sites.
Menal Technical Services has medical retainership agreements with the reputable Hospital/clinics for referrals and periodic medical examinations for all staff. See Clinics` name in our MEDEVAC procedure.
Equipped first aid box shall be provided on site and be manned by a qualified first aider in collaboration with the project Safety Officer. Drugs dispensation shall be properly recorded and exhausted drug replaced accordingly.
To this end, each worker must be adequately protected against health hazards arising from the nature of his occupation. Well-equipped first aid box must be provided on site and manned by a competent First aider.

Medical and Health Records (Health Programme).

Regulations require the keeping of a basic medical health record for all workers undergoing health surveillance. As a minimum, such records consist of identification details and a list of jobs performed with dates together with a list of the required health surveillance procedures to be followed, including any which have been undertaken.

Health Provisions at site

- Water served to workers must be boiled, filtered and carried in clean jerry cans. Source of water must have been certified.
- Wholesome food, hygienically prepared will be served at any time that work warrants centralized feeding at the same time, workers are advised to eat from restaurants with a high standard of hygiene.
- Hands must be washed after visiting the toilet. No smoking will be allowed. Smoking is injurious to health and workers who smoke are advised in their own interest.
- There are three routes of entry of toxic substances, into the body and these are by:

    1. Inhalations of dust, vapour or gas, these cause damage to the respiratory tracts, lungs, tissues or enters the blood stream.
    2. Injection of solids or liquids via the digestive system.

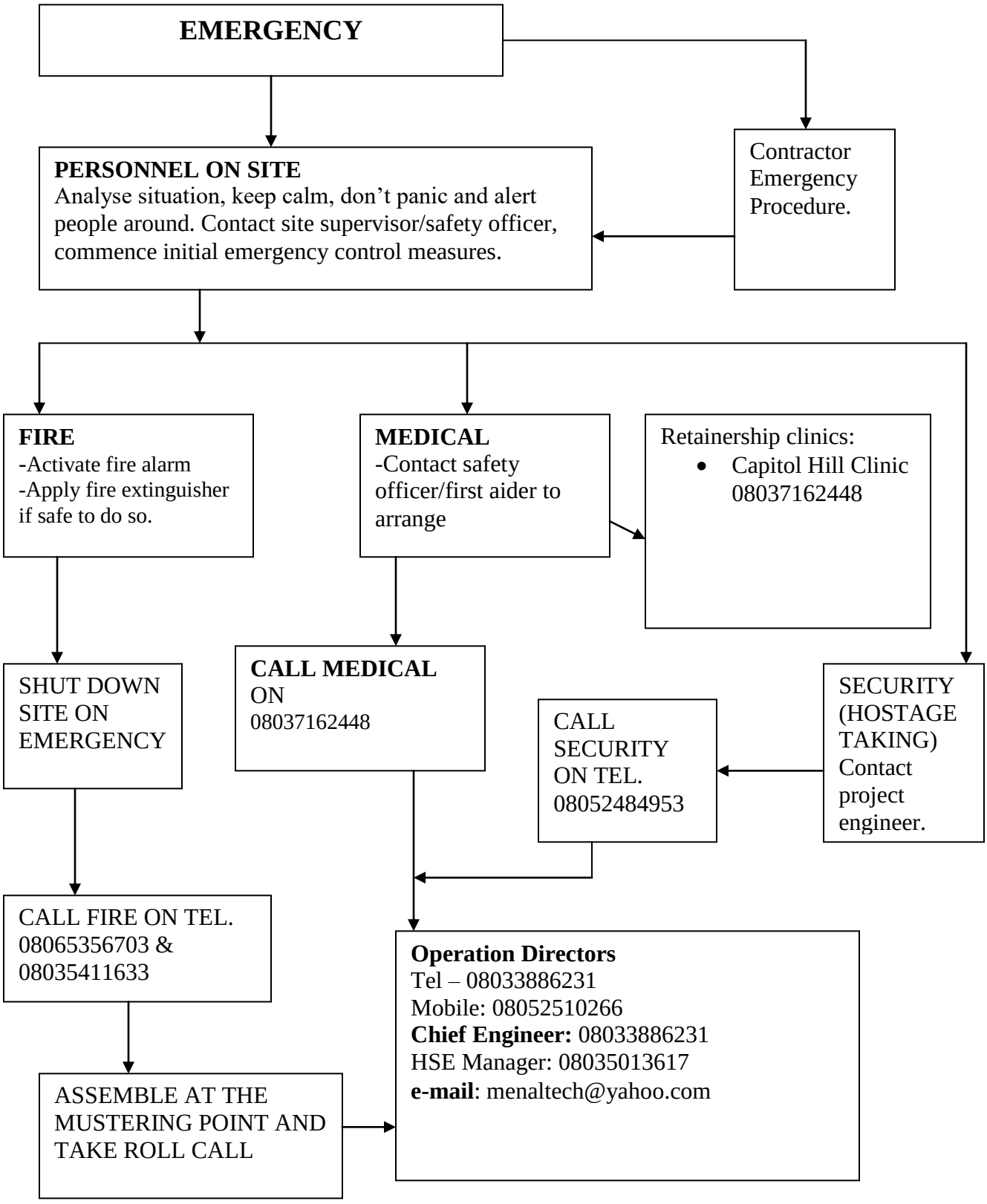
MEDEVAC (MEDICAL EVACUATION PROCEDURE)

The following procedure s shall apply in the event of an accident requiring evacuation of victims:

- From site accessible through water transportation after first aid must have been administered by site nurse to arrest bleeding and reduce pain.
- The victim must be properly and adequately bandaged according to the ethics of the nursing profession.
- Movement of the victim shall be by means of stretcher.
- The victim shall be carried to the standby MEDEVAC van/craft.
- The victim must be accompanied by a trained first aider or the site nurse.
- If the site nurse accompanies the victim, a nominated First aider shall hold brief for him pending his arrival.
- The transport officer and the office or yard staff nurse must be contacted immediately the victim leaves the site.
- The company (office/yard) nurse and transport officer shall prepare the ambulance ready to convey the victim to the company clinic.
- The yard/office staff nurse shall accompany the victim to the clinic.

The company's Doctor or Retainer ship Clinic Doctor takes over on receiving the victim. Industrial operation especially construction operations and other hot works are associated serious hazards that may sometimes call an emergency rescue operation. Separate procedures are in place for emergency Response.
Details of **Menal Technical Services**`S Emergency Response provisions are available to all staff.

MENAL TECHNICAL SERVICES EMERGENCY/ MEDEVAC PROCEDURE



2.5.5 ENVIRONMENTAL

Environmental Programme

Menal Technical Services is very committed to the protection of the environment, this is because it recognizes the necessity of protecting it from unacceptable damage and avoid nuisance to the public. We shall therefore undertake all necessary practical precautions to control and minimize the impact of its operations for such. Towards this end, pre and post environmental impact surveys shall be carried out and recovery and restoration measures shall be applied to mitigate the effect of the project activities on the environment.

Project Environmental Assessment

When necessary, an environmental impact assessment shall be prepared for the project prior to commencement of work on the site. The environmental impact assessment statement shall address the following:

- Project activity/environmental consideration..
- Possible/potential impact
- Amelioration/mitigation strategy
- Monitoring method/frequency

The conclusion and recommendations of the impact shall be applied throughout the project activities on site. A post project Environmental Assessment shall also be carried out to qualify the actual impact of the project activities on the environment.

Environmental Regulations

All project shall be planned and executed to ensure the preservation of the air, water, plant and animal life within the project environments and limit any nuisance to the local communities which may rise from such operations. Some typical specific precautions to be taken are as follows:

- All effluent, chemicals etc which pose a potential hazard to health, animal/marine life and the atmosphere shall be identified and procedures for plans for spillage of such shall be indicated.
- Indiscriminate bush clearing and tree felling shall be prohibited.
- All waste and sewage shall be properly disposed in accordance with the waste management plan.
- Spillage of fuels and other project substance shall be contained.
- Air pollution will be limited by adjusting engines to reduce exhaust and running of engines only when required for execution of the work.
- Chemicals, Fuels and lubricants will be properly stored and drips will be installed under any outlet of it.
- Hydro test water shall be disposed in accordance with clients waste water management policy.
- Tree or bush burning is prohibited. Cleared bush and felled trees will be properly disposed in accordance with the project waste management plan. Specific environmental impact regulations shall be included in the site/activity specific HSE plans.

Waste Management System

All waste materials generated during any of our operations shall be monitored and tracked by the Waste Management System. This relational database tracks waste type, source, transport, method, receiving point and all persons/Sub-contractors involved in all stages of the process.

WASTE MANAGEMENT PLAN

Menal Technical Services in its strict adherence to Environmental Protection interim guidelines, procedures and practices so as to effectively manage wastes generated in the course of company operation, shall ensure that:

i. No spillage incidents resulting in contamination of water ways, creeks, rivers, farmlands, fish ponds, etc.
ii. To ensure that all waste products generated during the company activity are disposed of in approved locations.
iii. Educate staff and sub-contractors employees on oil spills/clean up procedure.
iv. Maximize use of available courses on environment and pollution prevention and control to raise the general awareness of all staff and sub-contractors employees.

The following steps are to be followed in ensuring effective segregation and Disposal of wastes:

- All forms of waste generated on all sites as well as our base offices will be segregated for ease of disposal in accordance with an approved and universally accepted waste disposal method. Below is the expected segregation of waste based on colour code.
- **BLACK BIN:** This waste bin is meant for all general waste, which includes; Used papers, Packaging materials, etc.
- **GREEN BIN:** All forms of food waste such as bread, groundnut, corn etc are to be deposited in this bin.
- **BROWN BIN:** Plastic wastes; polyethylene and other related wastes are to be kept in the bin.
- **RED BIN:** All kinds of hazardous wastes, Paint and used oil should go into this bin for onward disposal.

All waste collected in this manner would be taken to the approved central waste disposal site.

SPILLAGE MANAGEMENT PLAN:

In a bid to ensure an environmental friendly operation, we shall ensure that no spillage occurs. But in the event that due to some unforeseen situations, spillage occurs, the spread shall be curtailed and the emergency clean up response shall be activated to stop the spread of such substance. Our entire hydrocarbon for transportation or energy generation shall be kept in secured location with regular checks.

FIRE EMERGENCY PROCEDURE

Menal Technical Services personnel are being trained such that anybody noticing fire Shall:
Raise alarm.
Call clients fire services, medical and security.
Affected zone will be evacuated to relevant muster point nearer. Capable personnel to use extinguisher on blaze provided that it does not endanger his/her life.
Site Engineer/Safety Officer account for all personnel reporting discrepancies to base emergency controller.

SITE SECURITY PLAN

Security plan is a comprehensive and feasible analysis of methods of assets protection put together into a compact form for protecting the organization's assets.

A site security plan shall be developed for every project and shall address the following:

- Security threat survey
- Fencing
- Lighting
- Access control
- Gate passes where applicable.
- Movement of equipment across **Menal Technical Services** facilities to project site.
- Housekeeping
- Security patrol and static guarding a project site
- Emergency response/evacuation plans.
- Key telephone numbers
- Incident reporting
- Site liaison with host community etc.

SITE SECURITY EMERGENCY RESPONSE PROCEDURE

The most important thing about emergency response procedure is that there must be a plan. In other words a detailed set of rules that will take into account any foreseeable disaster that would endanger the safety of lives and assets of the organization.

TYPES OF EMERGENCY

- Civil disturbance (labour unrest)
- Fire
- Strike
- Riot
- Sabotage (vandalization of properties)
- Flood
- Hijack
- Internal theft.

THE PLAN MUST INCLUDE THE FOLLOWING:

- Detailed manner of steps to be taken in any given emergency and whom
- What to be done and who is to do it.
- Crisis response must be swift and responsive

The response will be directed towards

- Saving of life
- Caring for the injured
- Defense of **Menal Technical Services**`s corporate assets
- Limitation of damage to assets
- Protection of the general public and the environment.

Security emergency response should take the following format:

- Labour crisis or disturbance
- Strike/civil disorder
- Community disturbance
- Stealing/theft.

RESPONSIBILITIES OF SECURITY DURING EMERGENCY

- Establish communication with police
- Activate emergency steps to protect people, property and valuables, information or other assets
- Mobilise an emergency guard force.
- Control movement of personnel and others
- Control emergency entrances and exits
- Control classified and dangerous areas
- Control evacuation as ordered
- Guide against theft of valuables.

In some circumstances, depending on the nature of the emergency team, security personnel may be involved in fire fighting and rescue, first aid and other assistance as may be needed, thus the security director should always be a member of any emergency planning committee as well as the emergency team.

HAULAGE/TRANSPORTATION

2.5.6 Road transport

- All Nigerian Highway laws shall be observed
- All vehicles shall be inspected and client certified prior to mobilization.
- All vehicles must be fully equipped with reflectors, spare tyre, wheel spanner, jack, fire extinguisher, triangle and vehicle particulars.
- All vehicles shall be maintained on a regular basis.
- All vehicles shall be equipped with safety belts for drivers and passengers. All drivers and passengers shall fasten their seat belt when in motion.
- Speed limits shall be adhered to as well as traffic rules and regulations.
- All vehicle drivers will hold a valid driving license and must attend clients or Client's Defensive Driving course.
- Drivers shall carry out daily checks of vehicles before proceeding on the journey. No journey shall commence if vehicle check is incomplete. Heavy-duty vehicle drivers shall have a motor mate when on duty.
- Any truckload shall be provided with the necessary load securing devices a warning signs.
- Transportation of workers shall be by means of adequate and safe vehicles. Standing shall not be allowed on buses.
- Low-loaders, pick-ups, cranes or excavators shall not be used for transportation of personnel. Personnel's riding on construction equipment is prohibited. Operations are to ensure that ``NO RIDER`` signs are posted on vehicles and obeyed.
- Night driving is not allowed during any activity of the project. All journeys are to be planned that arrival at destination is achieved by 19000hrs. In the unlikely event that night driving is required, client's approval must be sought for such.

Marine Transport

- All Nigerian Marine laws shall be observed
- Boat shall be diesel driven
- All boats and marine vessels shall have correct valid certificates in accordance with the provisions of the Nigerian Merchant Shipping Act1962. They shall be surveyed by competent surveyors.
- All boats and marine vessels shall be inspected and client certified prior to mobilization.
- Use of dugout canoes or similar contraptions for the project operations is strictly prohibited.
- All boats and marine vessels must be in good condition and shall be fully maintained throughout the duration of the project
- All boat shall have two windscreen wipers, independent engine propeller trains, a radio link and reserve fuel for 50km. On board safety equipment for full competence plus one spare shall include ear defenders, crew saver life jackets (or similar), life rings, first aid and safety notices.
- All boats and marine vessel drivers shall be appropriately certified and must pass the CLIENT`S defensive boat-driving course.
- All marine vessels (i.e. tugs etc) shall have a minimum crew of one master, one engineer and one hand.
- Master and engineers shall posses valid certificates of competence.
- All boat and marine vessels crew shall wear adequate PPE at all times.
- Speed limits shall be adhered to as well as traffic rules and regulations. Drivers are to sound horn when approaching other vessels or curves. Drivers shall slow down when passing any other marine vessels.
- Quartermasters or engineers shall carry out daily checks of boats or marine vessels before proceeding on journey. No journey shall commence if vessel check is incomplete.
- Alcohol, drugs, firearms and smoking are strictly prohibited on all boats and marine vessels.
- Night sailing is not allowed during any activity of the project marine trips are to be planned that arrival at destination is achieved by 1800hrs. In the unlikely event that night sailing is required, client's approval would be sought for such.
- Detailed procedures shall be prepared for all night activities for clients' approval.
- Dead man's throttle will be installed on all boats and marine vessels

PROCEDURE FOR HANDLING INDUSTRIAL GAS CYLINDERS

- ✓ Handle the cylinder with caution
- ✓ Open and close valve slowly to avoid explosion
- ✓ Close valve immediately after use
- ✓ Leave residential Gas always to allow for congility
- ✓ Keep in upright position
- ✓ Store cylinders in cool and well ventilated area
- ✓ Cylinders should be properly clamped in either a cage or trolley.

PRECAUTIONS:

- ✓ Do not expose cylinders to heat, sparks, naked flame or electric
- ✓ Keep cylinders away from oil and Grease
- ✓ Stock away from combustible materials
- ✓ No smoking sign within vicinity of cylinders.

NOTE:

- ✓ Gases (Oxygen / Acetylene) must be
- ✓ Appropriately marked for easy identification in line with colour codes.
- ✓ Installation of blow-out (Spark Arrestor) to avoid carbon flash back.
- ✓ Gas duration period (i.e date tested OKAY and Expiry date) should be conspicuously displayed as safety guide.
- ✓ Above all, oxygen and acetylene should be parked separately.

PROCEDURE FOR LPG STORAGE

STORAGE

- LPG Bottle should be stored in upright position
- Storage area should be well ventilated
- Storage area should be kept away from direct heat
- Storage area should be quarantined
- Appropriate warning signs should be put in place
- Fire extinguishers should be available in strategic positions within reach.

HANDLE

- ✓ Use appropriate designated transportation for cylinder movement
- ✓ Vehicle used for transportation of cylinders must carry spark arrestors
- ✓ After work or break period, shut off cylinder and decompress hoses
- ✓ Appropriate PPES should be used during handling.

PROCEDURE FOR VULCANISING TYRES

- Identify vulcanizing area/tyre of a vehicle.
- Ensure the vehicle concerned is in good position (Leveled ground)
- Ascertain the fitness of tools/use the right tools for vulcanizing work.
- Put vehicle on gear and hand brake.
- Wedge the free tyre of the vehicle as a back up to the brakes before suspending the vehicle
- Slack the nuts of the tyre with required/correct wheel spanner/tool
- Position required jack on an identified solid area and jack up the vehicle.
- Support the suspended vehicle with axle stands.
- Do not leave a suspended vehicle on a jack alone, support it with axle stand.
- Do not work/carry out repairs under a suspended vehicle without enough support.
- Use tyre cage/guards while pressurizing/inserting pressure into the tyre
- Remove faulty tyre and amend/change
- Do not over-pressurized or under-pressurized tyre
- Do not remove or suspend four tyres of a vehicle at the same time except extremely necessary and must be properly supported
- Minimize exposure of vehicle under suspension to avoid incident
- Use correct tonnage jack to lift repair vehicle
- Ensure good housekeeping and dispose waste properly.

PROCEDURE FOR CHARGING DRY CELL BATTERIES IN THE WORKSHOP

- ✓ DO NOT SMOKE OR BRING NAKED FLAME TO BATTERIES ESPECIALLY DURING OR JUST AFTER CHARGING.
- ✓ PLACE BATTERY ON WOODEN OBJECT, NOT ON BARE GROUND
- ✓ REMOVE VENT SEAL ON THE SIDE OF THE BATTERY BEFORE CHARGING
- ✓ SWITCH OFF CHARGER BEFORE CONNECTING THE BATTERY.
- ✓ CONNECT CHARGER FIRMLY TO POSITIVE AND NEGATIVE TERMINALS ACCORDINGLY.
- ✓ AFTER CHARGING, OFF THE CHARGER BEFORE DISCONNECTION TO AVOID EXPLOSION
- ✓ AFTER CHARGING, LEAVE BATTERY FOR THIRTY MINUTES BEFORE FIXING IT INTO THE VEHICLE FOR USE
- ✓ USE PPE DURING BATTERY CHARGING
- ✓ OBSERVE INDICATOR ALWAYS ON THE DRY CELL BATTERY
- ✓ WHITE INDICATOR MEANS CHARGING NECESSARY
- ✓ RED INDICATOR MEANS REPLACE BATTERY
- ✓ GREEN INDICATOR MEANS BATTERY IS IN GOOD CONDITION
- ✓ STOP WORK WHEN IN DOUBT OR CONSIDERED NOT SAFE
- ✓ CONSULT SHOC CARDS AVAILABLE FOR GUIDANCE

PROCEDURE FOR FILLING A VEHICLE WITH LUBE-OIL

S/N.	INSTRUCTION	ACTION PARTY
1	PLACE AN OIL CAN IN A DRIP TRAY	MECHANIC
2	POUR OIL FROM THE JERRY CAN INTO THE OIL CAN	MECHANIC
3	REMOVE THE OIL FILTER CAP ON THE VEHICLE. PLACE A SUITABLE TUNDISH IN THE FILL POINT AND POUR OIL INTO THE ENGINE FROM THE OIL CAN USING THE TUNDISH.	MECHANIC
4	USE SUFFICIENT OIL TO FILL THE ENGINE .CONSULT THE MANUFACTURERS DATA FOR THE AMOUNT REQUIRED. USE THE ENGINE DIP STICK TO DETERMINE THE EXACT AMOUNT NEEDED [FILL ONLY TO THE MARK ON THE DP STICK]. NOTE: AFTER THE INITIAL FILL THE ENGINE SHOULD BE RUN TO CIRCULATE THE OIL AND TO FILL THE OIL FILTER. THE LEVEL SHOULD THEN BE RECHECKED AND ADDITIONAL OIL ADDED AS NECESSARY.	MECHANIC
5	ANY SPILL ONTO THE ENGINE AND THE DIP STICK SHOULD BE WIPED USING RAG.THIS SHOULD BE THROWN INTO THE DUST BIN.	MECHANIC
6	ALWAYS MAKE USE OF SHOC CARDS FOR CHEMICALS SUCH AS LUBE OIL	MECHANIC

CRANE OPERATION PROCEDURE

If starting the crane prolonged shut down in cold weather, open and close the grapple several times after the warm-up period and before using.

- Remove all 4 chock blocks.
- Check tracks for obstacles
- Check wheels, flanges, park brakes and gears for lube and damages, wheel motors for overheating
- Check ladders landing and elevator for damage.
- Check for damaged wiring, oil leaks and bent sill beam.
- Look for loose object on walkways and remove.
- Inspect wire ropes on drum for spaces between wraps and for wear and lube.
- Check busbar and pickups.
- Press emergency stop (red) button in cab and try all control to make sure they are not sticking.
- Press reset button and grapple pump start.
- Operate hoist and carefully check that limits work.
- Operate grapple spin and open /close to check.
- Ensure no recent damage to cab and the rest of the crane.
- Test hoist and travel limit at the start of each shift.
- Balance load properly.
- Use controller to “stop” not limit switches.
- Read manufacturer’s operating instruction book.
- Do not ride on ladder or landings.
- Before boarding the crane, it is essential that the operator understand your intention, signal or speak to the operator and get his acknowledgement.
- Be alert at all time around moving equipment.
- Never ride on the grapple or load.
- Make sure that all fire extinguishers are mounted properly in working order.
- Never work under the path or load.
- Keep protective guards in place.
- Be observant and report any signs of damage or wear to the cranes, component or tracks
- Raise the hoist to the top and close the grapple until the times meet. If left open one side will seep shut faster than the other, causing problems when you start-up again

PAINTING WORK PROCEDURE

Surface preparation by:

- Wire brushing.
- Power brushing.
- Sandpaper.
- Clean surface with wet rag and allow to dry.
- Allow sun to shine on surface object.
- Mix paint with thinner.
- Apply first coating.
- Apply second coating.
- Apply third coating.
-

HAZARDS

- Inhalation(Stomach bite)
- Reddish eye/Eye injury
- Skin irritation
- Slip and Fall

CONTROLS

- Use of nose mask.
- Use of eye goggle.
- Use of long sleeve coverall and hand glove.
- Ensure Good housekeeping.
- Use safety belt to protect yourself against fall if working at height

PROCEDURE FOR MARINE TRANSPORTATION

Check general conditions of the boat examples

- Test horn/whistle inspects mooring ropes and ensures that is in good condition, adequate length and good splicing.
- Clear deck and mooring bits area of loads, loose items and other obstructions.
- Observe movement of tide.
- Obtain authorization and fill journey management form

BEFORE EMBARKING AND DISEMBARKING OF PASSENGER

- Ensure passengers have their swimming certification.
- Ensure that the vessel is firmly alongside, steady and properly moored.
- Ensure obstruction free and clear access in and out of the vessel.
- Ensure that all passengers wear their correct life jacket.
- Ensure that passenger embark or disembark without luggage.

HAZARDS	CONTROLS
• BLIND SPOT	• SLOW DOWN & BLAST HORN
• FISHING NET	• SLOW DOWN & AVOID
• LOADED CANOES	• SLOW DOWN & AVOID
• BAD WEATHER	• SLOW DOWN
• FLOATING LOGS	• SLOW DOWN & AVOID

APPROACHING THE JETTY

- Advice passengers and crew not involved with the mooring operation to clear from the deck.
- Use your horn to alert all other vessels.
- Instruct all passengers to remain seated in the cabin.
- Reduce speed to minimum in other to maintain steerageway.
- Ensure the craft will not obstruct other waterway users.
- Ensure the safety of passengers, crew, boat and load.

ALONGSIDE THE JETTY

- Moore vessel with adequate length of rope, taking care of tidal fluctuations.
- Mooring shall only be on bits.
- Mooring lines shall not be lead through sharp corners.

DRY PLANT OPERATION PROCEDURE

- The dry plant should be identified with code / tag number or name
- Dry plant be inspected regularly
- Plant operatives should have an awareness and understanding of equipment/material safety data for raw material/ intermediate, products and effluent/waste
- Use competent operator to operate the equipment
- Ensure that good housekeeping are carryout on the equipment
- Ensure the dry plant equipment are pre-mobbed
- Provision of first aid box within the area
- Wear relevant personal protection equipment (PPE) safety shoe hard hat coveralls hand glove etc
- Location of plant should be identified
- Use competent engineer/technician for regular maintenance
- Ensure safety officer is on site
- Provision of means of MEDEVAC in case of emergency
- Ensure the plants are fit for the purpose
- Ensure the condition of main process plant and equipment (clear, empty etc as appropriate)
- Effective supervision monitoring and recording is in place
- Monitoring and recording of key process (parameter, temperature pressure etc) in plant logs
- Ensure that all instrumentation ,alarm settings, microprocessor signals and hard wire trips pertaining to the installation are functional
- Ensure configuration system to verify all pipe work and connections
- Verify all ancillary equipment, this may include pumps, fan, heat exchanges condensers etc
- Check the calibration and performance of all vessels and instrumentation pertaining to the installation.
- Emergency procedure will need to tie in closely with the on and off site emergency plans provided.

ELECTRICAL INSTALLATION WORK PROCEDURE

The following items should be checked before installation:

- Proper isolation/cutting off source of power supply be carried out prior to electrical installation or repairs works.
- Ensure good and appropriate/fit-for-purpose ladder used in case of height works.
- Trained, competent and certified technicians/electricians be used to handle electrical installations
- Adequate warning signs be present at work site.
- Obtain authorization (PTW where applicable) before work commences
- Adequate work space, access and maintenance facilities.
- Connection of conductors.
- Identification of conductors.
- Identification of the sizes of conductors in relation to current lifting capacity and voltage drop.
- Correct connection of all equipment with special attention to socket outlets, lamp holders, isolators, switches, residual current devices, miniature circuit breakers and protective conductors.
- Presence of fire barriers and protection against thermal effects.
- Method of protection against direct/indirect contact with live parts i.e protection by insulation of live parts, or protection by barriers, or enclosure/gaurds
- Use appropriate Personal Protective Equipment (PPE) especially insulated/rubber hand gloves, coverall, safety shoe, hard hat, among others
- Presence of appropriate devices for isolation and switching
- Provision of equipment and protective measures appropriate to adverse environment condition
- Presence of diagrams instruction and other similar information
- Prevention of mutual detrimental influence
- Presence of under voltage and over voltage protective device.
- Precautionary measure should be taken such that no danger to person or property can occurrence if the circuit being tested is defective before carrying out electrical installation risk assessment, safety plan and implementation procedure must to approved.

WELDING MACHINE OPERATION PROCEDURE

- Use personal protective equipment (PPE) when using welding machine, including welder's apron, coveralls, leather hand gloves, eye goggles/face shield, safety shoe, ear muff, etc.
- Consider where the welding machine will be used. If wet, dusty, or flammable condition likely ensure that the electrical connection to be used are suitable for the working condition
- Ensure competency of the welders
- Ensure good house keeping at work place.
- Use fit for purpose welding machine (certified welding machine)
- Use the right welding machine for the job
- Use the right electrode that match the welding machine
- Operate the welding machine according to the manufacturer instruction and within their design limitation
- Never remove safety instruction when welding machine is being used
- Keep the welding machine in good condition with regular maintenance
- Welding machine be inspected before use.
- Disconnect welding machine when not in used, before servicing
- Ensure guards are provided to protect rotating parts.
- Examine the welding machine for damage before use and do not use damaged machine
- Welding machine model name ,number and serial number be monitored
- Use competence technicians/engineer for regular maintenance
- Adopt mechanical carriage/lifting of welding machine at work place (If possible, provide wheel tyres for welding machine for easy push and roll)
- Install spark arrestor on welding machine and its integrity be checked always.

METAL CUTTING AND IRON WORK/HOT WORK PROCEDURE

As a guide, we must note the following

- Handle the cylinder (oxygen/acetylene) and other cutting devices with caution
- Keep cylinders in upright position
- Store cylinder in cool area and carry out hot work in a well ventilation area
- Cylinders should be properly stored in a cage or trolley
- Open and close valve slowly to avoid explosion
- Close valve immediately after use
- Use pre-mobbed/certified cutting machine
- Ensure welding cable and burning touch are in good shape
- Avoid welding/electrical cable in water (To avoid electric shock)
- Keep cords and cables away from heat, oil and sharp objects
- Use competence welder
- Ensure there is presence of functional fire extinguishers around the work area with fire wadens
- Use relevant personal protective equipment (PPE)
- Maintain good housekeeping

PROCEDURE FOR USE OF LADDER

The following guidelines must be followed to minimize the risk of falls when using portable ladders;

- Keep the ladder, safety feet, and auxiliary equipment in good condition at all times, and inspect before each day's use and after it tips over.
  - Safety feet and other auxiliary equipment shall be kept in good condition to insure proper performance.
  - Keep ladder dry and free from oil, grease, mud etc.
  - Verify that the joint between the steps and side rails is tight. All hardware and fitting are securely attached and movable parts operates freely without binding or undue play.
  - Remove damaged ladders from service immediately and label them as "out-of-service" and notify the appropriate supervisor.
  - Do not use ladder as braces, skids, gin poles or for other than their intended purpose.
- Select anticipated ladder based on load capacity.
  - The ladder should have information from the manufacturers the load rating. The ladder should be able to carry the load and person's weight.
  - Portable ladders are not suitable for all situations. For example, a portable ladder is not a good choice when it is necessary for a person to carry heavy loads or shift their centre of gravity while on the ladder.
  - Multi-section extension ladders must maintain a minimum overlap distance and extend a minimum of 0.9meters past the top of the landing point.
  - Do not use portable ladders when working under (<20')live electrical lines. Do not use metal ladders when working on or near electrical devices (e.g., changing light fixtures, etc.) and the ladder could become energized.
- Position the ladder appropriately and maintain a safe distance while on the ladder.
- Wear proper footwear; closed-toe, sturdy, and clean.
- Do not use ladder that additional height is added.
- When positioning your ladder, ensure it does not disturb entrance, passage, window opening, if possible place barricades or have someone stand to watch.
- The foundation upon which the ladder will be placed must be even, firm, leveled and not subject to skidding/slippage. Do not use blocks, rocks, boxes, other items to level up or gain height.
- The base of the ladder should be 1foot out from the wall for every 4 feet of height. The side rails of an extension ladder that is used to access a higher landing must extend a minimum of 3feet beyond that landing.
- Face the ladder while climbing and descending. Maintain three points of contact at all times.
- Secure extension ladder with tie downs or blocking at the base. If using step ladders, ensure that the ladder is fully opened and locked in place.
- Do not lean so far that the naval passes outside of the ladder's side rails. Do not lean sideways out of the ladder's width.
- Properly transport, store, and maintain ladder.
- Never paint a wooden ladder as it can hide structural defects.
- Ladders should be stored horizontally on racks or hooks with support points at the top, middle and bottom of the ladder to prevent sagging and warping.
- Ladders should be secured while being transported in a vehicle.
- Get assistance when carrying large ladders to the work area.
- Store ladder in a sheltered area where they will not fall unexpectedly and will not block access to hall ways and fire exits.

NOTE: SEE MENAL WORK PROCEDURE MANUAL FOR DETAILS

2.6 IMPLEMENTATION AND PERFORMANCE MONITORING

2.6.1 HSE performance

MENAL TECHNICAL SERVICES HSE performance indicators

All **Menal Technical Services** functions report against a range of corporately set performance indicators. These are reported weekly to the HSE Manager and quarterly to the HSE Committee. The Company reports performance annually against these indicators to the Management. Indicators are normally reported as actual performance against targets and or trends over time periods. Additional HSE performance indicators can be requested by Management depending upon the Company HSE performance.

Environmental Performance Indicators

Environmental performance indicators result from the application of HEMP procedures to aspects of our Company's operations that impact upon the environment. They are recorded in the Environmental Registers of every operational HSE MS. Refer to our HSE performance statistics.

2.6.2. ACCIDENT/INCIDENT REPORTING AND INVESTIGATION

ACCIDENT AND INCIDENT REPORTING

Report of all accidents and incidents shall be sent to both **Menal Technical Services** and client's management. Accident/incident report shall include the findings of the accident investigation and recommendations to forestall future reoccurrence. Accident/Incident report shall be in accordance with the contract accident report format and should include the following:

- Completed incident notification form.
- Investigation findings (summary)
- Scene/site photographs and illustrations
- Third party correspondence (if required)
- Statement reflecting potential effects on project schedule (if any)
- Recommendations to forestall future reoccurrences.
- All accidents reports should be completed timely and promptly and submitted to the HSE manager or co-coordinator for action. Corrective actions highlighted in the report will be reviewed and implemented by The company Management and disseminated to all workers.

Menal Technical Services has a procedure for reporting and investigating all incidents and near misses with actual or potential impact on people, assets, the environment and Company reputation. It defines incidents, classifies them into types and describes the procedure \s for notification, investigation, formal documentation, reviews and follow-up including implementation of remedial action items, lateral learning points and closeout.

Detailed guidance is provided in the document on terminology, assessing injuries and other effects and assessing incident potentials. See accident reporting and investigation form in our HSE MANUAL

INVESTIGATION

The management of **Menal Technical Services** shall immediately report to the client all accidents/incidents occurring within the duration of the project whether or not they result in injury to person or damage to property.

The immediate notification shall also be informed when a person is involved in loss of working days through an accident as well as when he resumes work.

Every accident occurring must be promptly reported by the victim (s) or wit nesses. This is very important because without such information, the machinery for investigating it will not be set in motion. When accidents are not investigated, the lessons that should have been learnt from them will be lost. More than that, it will not be possible to prevent future reoccurrence. On the other hand, accidents that are promptly reported by the fastest means of communication available receive immediate attention.

In such instances, the facts about the accident are readily obtained and these can be used to prevent future reoccurrence.
Also, prompt reporting of accidents will facilitate compliance with Government regulations, which require notification of certain accidents within 48 hours.

PURPOSE OF ACCIDENT INVESTIGATION

Accident investigation has been and is still viewed by many employees as a fault – finding exercise. They regard it as an activity to find out whom to blame, a scapegoat or someone to whom sanctions will be applied. Such employees neither report accidents nor co-operate during investigations. They are the type who will always say ``I don't know anything about the accident; I was not there``

However, accident investigations has very sound objectives which include the following:

- To prevent future reoccurrence
- To determine cost of accident
- To publicize causes of accident
- To comply with statutory requirement
- To compile accident data
- For purposes of workmen's compensation claims.

TECHNIQUES OF INVESTIGATION

All accidents including`` near misses`` should be investigated firstly by the line supervisor, depending on the seriousness of the potential or actual accident, injury or loss, the level and depth of investigation will vary. In some cases, the supervisors accident report will surface . In other cases, an investigation by the safety department (Safety Officer) or a multi disciplinary team of experts/ specialists will be necessary. To facilitate investigation accident reforms are usually designed to suit individual companies and all that is required is to supply the information asked for on the forms. For fatal or major accidents, full investigation report may be required.

To gather information about an accident requires some techniques the investigator or team has to visit the scene of the accident for inspection and interview eyewitnesses. This should be done as soon as practicable after the accident in other to ensure that facts gathered are meaningful and realistic.

- Go to the scene of accident promptly. When there are injuries, immediate action should be taken to administer first aid and professional medical attention if necessary, then investigation can proceed.
- Talk with the injured person if possible.
- Talk with eyewitnesses. Stress getting the facts not placing responsibility or blame.

- Listen for clues in the conservation around you, unsolicited comments often have merit.
- Encourage people to give their ideas for preventing the accident.
- Study possible causes – unsafe conditions and practices.
- Take measurements, photographs and make sketches. Examine permits and instructions applied in course of work in which accident occurred.
- Write up a report.

The report should be written with the summary coming up in the first part.
Then a detailed description follows as the body of the report while observations and recommendations occupy the last part. The recommendations should be itemized in the order of importance. Sometimes, they can be marked ``urgent``, ``important`` or ``desirable``. Accident Reporting Form which are now in use in many companies, facilitate report writing.

CAUTION:

During accident investigations, the investigator should endeavor to avoid the following pitfalls:

- Do not act as a police man
- Do not start off with a pen and paper in your hand. This act immediately puts into a person's mind officiousness and that everything being said is recorded . Many at once become reluctant to give the facts.
- Do not put blame throughout the investigation
- Do not lead witnesses; ask open- ended questions.

FOLLOW UP

The implementation of approved recommendations should be monitored.
Publicize any corrective action taken so that all can benefit from the experience.

DEFINITION

ACCIDENT: The occurrence of an event without ones foresight or expectation that results in harms, injury, damage to property, equipment, products or environment.
INCIDENT: An undesired circumstances or near misses that have the potential to cause an accident.
HARZARDS: The potential to cause harm, include ill health or injury, damage to property, plant, products or the environment, production loss or increased liabilities.

LOST TIME INJURY: An injury to person caused in the place that prevents that person returning to work within 24hrs of the injury occurring.

NEAR- MISS: A near miss is an incident, which had the potential to cause injury or damage.
All accidents and incidents shall be investigated and reported. The major objective of the investigation shall be to identify the root cause and prevention of reoccurrence.

2.7 AUDITS AND INSPECTION

2.7.1 AVAILABILITY

Facilities` inspection and Audit

Members of the HSE TEAM execute an annual high-level inspection programme, the Management Facilities Inspection Programme. This requires Management to confirm implementation of HSE management procedures, practices and standards at each work location is effective.

HSE Inspections and Auditing

HSE audits and inspections shall be carried out on all work sites on a scheduled and random basis. Prior to each mobilization, a site inspection and audit plan, defined in relevant HSE plan, shall be issued to all site supervisors.

Inspections and auditing shall provide a day- to –day means of checking compliance with HSE policy requirements. While audits shall provide a more formal and comprehensive assessment of adherence to the written framework of the HSE procedures and aspects as :

- Compliance with permit to work (PTW) system.
- Operational conditions of HSE equipment
- HSE features on pant and equipment
- Reliability, serviceability and maintenance of work tools and equipment
- Emergency and contingency plan readiness and drills including use of fire fighting equipment and first aid.
- Correct use of Personal Protective Equipment
- Employee HSE awareness and demonstrated use of safe work practices.
- Site inspections and audits should not be construed as faultfinding exercise but rather as a means of correction of short falls while sustaining gains. The audits shall focus on the adherence to application of HSE requirements on the site.

WORKSITE AUDIT AND INSPECTIONS

Inspections and audits on all work-sites shall be carried out periodically. According to the requirements and details in site inspections and audit plan, the audit and inspection team shall comprise of workers, foremen, supervisors and management. These shall include daily site inspections to be carried out by the site supervisors and foremen prior to commencement of the day's activities on site.

Audit and inspection finding shall be recorded with follow-up actions indicated.

PREMOBILISATION AUDIT

To ensure that all relevant procedures are in place and effective, pre-mobilization audits will be carried out on all sites, prior to commencement of work on the site location.

MARINE VESSELS AND HOUSE BOAT AUDIT

Prior to mobilization for marine projects, all marine vessels shall be subject to a HSE audit. All defective or inadequate facilities shall be rectified, replaced or new ones provided.

UNSAFE ACT AUDIT (UAA)

The unsafe act audit is an important audits which HSE procedures and means of evaluation of adherence to HSE performance on site. It shall assist in indicating HSE procedure application trends and identify areas of concern for corrective action, hence preventing actual incident occurrence.

Prior to site mobilization, training on the application of unsafe act audit report system shall be given to all workers. Emphasis shall be placed on the understanding of the function and objective of the system and the actual filling of the unsafe act audit report form.

2.8 Management Review of HSE MS.

Menal Technical Services management regularly review the HSE MS to ensure its continuing suitability, adequacy and effectiveness. Changes to HSE Policy, Objectives and other elements of the HSE MS are an output of the management review process.

The HSE Review

The HSE team is the highest review panel within **Menal Technical Services**, presided over by the MD. It meets regularly to review the performance of the HSE issues.

The HSE Manager is secretary to the HSE TEAM meetings and develops the agenda for every meeting. Additional HSE TEAM meetings can be called by any member of the HSE TEAM should HSE performance warrant it.

Management Review

The Company demand for annual performance reporting on HSE from the HSE Manager. An annual report stating the achieved milestone and statistics of HSE performance for the year must be made available to the management. This forms the basis of review for the year ahead.

Changes in the HSE MS

Changes and reviews of the HSE MS are not only triggered by the HSE Dept, they can also be triggered at any level within the Company by:

- The formal HSE-MS review process
- The requirement to continuously improve HSE performance
- Changes in Regulations
- Changes in operations (HSE) objectives
- Management initiatives
- Changes to facilities and/ or processes, which have or may have a major impact on HSE
- Significant changes in the organizational structure not already allowed for in the HSE MS
- An unsatisfactory audit of the HSE MS leading to significant changes or remedial work

Conclusions of an investigation into an incident where the actual or potential consequences are significant and which recommend significant changes to the HSE MS.

APPENDIX 1: SUMMARY OF PLANNING INFORMATION FOR HSE TRAINING

KEY: P= Required to attend before work starts at site.

M= Mandatory competence for specialized works.

Course title	Code	Who to attend	Required P or M	Remarks
HSE induction		All new employees	P	
HSE Training	CDP1	All **Menal Technical Services** staff	P	
HSE appreciation	CDP2	All technical men and foremen		
HSE Supervisor	CDP3	HSE adviser, supervisors, and all line managers.	P	
Basic fire fighting		All employees	M	
Swimming survival & HUET Training	Swimming test	All water borne workers	M	
Driver Education programme	DEP 1&2	All transport personnel involved project operations.	M	
Marine Def. Driving	Marine DDC	All Marine craft workers/ boat operators	M	
Fire warden training	Fire prevention & control	Persons appointed as Fire warden	P	
First Aid training	First & CPR training	All first aiders / Employees	M	

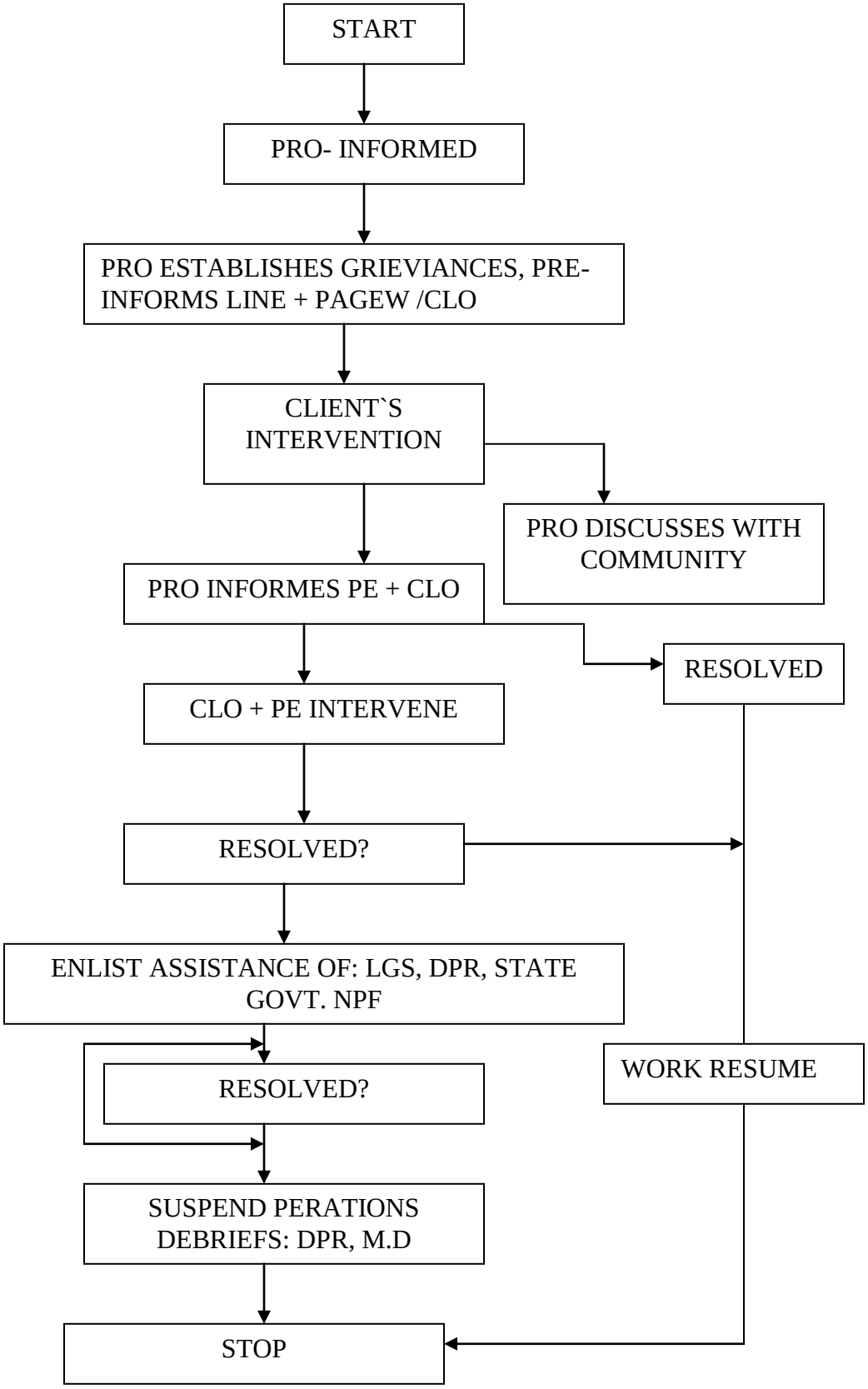
APPENDIX 2: MENAL TECHNICAL SERVICES HSE MONITORING PROGRAMME

In order to adequately monitor our programme and plans for effective implementation.

Menal Technical Services has put in place a monitoring schedule as shown below.

ACTIVITY	PARTICIPANTS	RESOURCES	FREQUENCY		T	I	M	I	N	G					
				J	F	M	A	M	J	J	A	S	O	N	D
HSE Meeting	All Staff	Agenda **Menal Technical Services** Minutes	Monthly	x	x	x	x	x	x	x	x	x	x	x	x
Inspection/ Audit	Site Engineer	Checklist	Monthly	x	x	x	x	x	x	x	x	x	x	x	x
Management Audit	Project Manager, Site Engineers, Hse Coordinator		Quarterly			x			x			x			x
Emergency Drill -Fire- -Man-Over Board -Serious Injury/illness Etc			Monthly	x	x	x	x	x	x	x	x	x	x	x	x
Equipment Inspection	HSE officer, supervisors, Operators, mechanics etc.		Monthly	x	x	x	x	x	x	x	x	x	x	x	x
Vessel/ vehicle inspection	HSE officer, supervisors, Drivers/Operators etc		Monthly	x	x	x	x	x	x	x	x	x	x	x	x
Driver/Quarter masters meeting	Drivers/Operators, HSE officer.		Monthly	x	x	x	x	x	x	x	x	x	x	x	x
Health/Safety items for inspection (e.g PPE)	HSE officer, site nurse/Firstaider.														
Fumigation			Quarterly			x			x			x			x

APPENDIX 3: MANAGING COMMUNITY DISTURBANCE



APPENDIX 4: IN-HOUSE TRAINING PROGRAMME JANUARY-DECEMBER 2017

QUARTERLY IN-HOUSE HSE TRAINING/REFRESHER

COURSE PLAN FOR 2017

MONTH	HSE TOPIC	TRAINER	CATEGORY OF STAFF	VENUE	DURATION
JANUARY FEBRUARY MARCH 2017	BASIC FIRST AID COURSES	SAFETY OFFICER	SELECTED STAFF	MENAL CONFE-RENCE HALL	1 DAY
APRIL MAY JUNE 2017	BASIC FIRE FIGHTING/ PREVENTION REFRESHER COURSE	SAFETY OFFICER	SELECTED STAFF	MENAL CONFE-RENCE HALL	1 DAY
JULY, AUGUST, SEPTEMBER 2017	BASIC JOURNEY MANAGEMENT REFRESHER COURSE	SAFETY OFFICER	SELECTED STAFF	MENAL CONFE-RENCE HALL	1 DAY
OCTOBER NOVEMBER DECEMBER 2017	BASIC ENVIRONMEN-TAL MANAGEMENT REFRESHER COURSE	SAFETY OFFICER	SELECTED STAFF	MENAL CONFE-RENCE HALL	1 DAY

EXTERNAL TRAINING/STAFF COMPETENCY DEVELOPMENT PLAN FOR 2017

TRAINING/COURSE	TARGET PERSONNEL	TARGET NOS.	TRAINING PERIOD	TRAINNER	DURATION
COMPETETENCE DEVELOPMENT TRAINING	DREDGE MASTERS & OPERATORS	SELECTED STAFF	1ST QUARTER 2017	PEMO NIGERIA LIMITED/ NITRAMLAND	1 WEEK
SWIMMING /DDC TEST/TRAINING	SWAMP RELATED STAFF	SELECTED STAFF	1ST QUARTER 2017	CLIENT BASE TRAINING	1 WEEK
COMPETENCE DEVELOPMENT TRAINING	DREDGE MASTERS & OPERATORS	SELECTED STAFF	2ND QUARTER 2017	PEMO NIGERIA LIMITED/ NITRAMLAND	1 WEEK
SWIMMING /DDC TEST/TRAINING	SWAMP RELATED STAFF	SELECTED STAFF	2ND QUARTER 2017	CLIENT BASE TRAINING	1 WEEK
FORKLIFT/ SELF LOADER/ PIPE HANDLER COMPETENCE TRAINING	DRIVERS & OPERATORS	SELECTED STAFF	3RD QUARTER 2017	ENERGYRAY INTEGRATED SERVICES LIMITED	1 WEEK
HOISTING & LIFTING TRAINING	HOISTING & LIFTING SUPERVISORS	SELECTED STAFF	3RD QUARTER 2017	ENERGYRAY INTEGRATED SERVICES LIMITED	1 WEEK
ISO 9001:2008 RE-CERTIFICATION TRAINING/PROCESS	E.A. TEMILE COMPANY	E.A. TEMILE COMPANY	3RD QUARTER 2017	STANDARD ORGANIZATION OF NIGERIA	2 WEEKS
DESIGNATED FIRST AIDER (DFA) TRAINING	FIRST AIDER	SELECTED STAFF	4TH QUARTER 2017	NIGERIAN RED CROSS SOCIETY	1 WEEK
HELICOPTER UNDERWATER ESCAPE TRAINING (HUET)	SWAMP RELATED STAFF	SELECTED STAFF	4TH QUARTER 2017	LYM CONSULTS, WARRI	1 WEEK

MANAGEMENT QUARTERLY AUDIT/MFI PLAN/PROGRAM FOR 2017

TYPE OF AUDIT/MFI	AUDIT TEAM/FACILITATORS	AUDIT PERIOD	DURATION OF AUDIT
GENERAL/WORKSHOP/TOOLS/ EQUIPMENT STATUS AUDIT/PROJECT SITE VISIT/INSPECTION	MANAGING DIRECTOR/MANAGERS / SUPERVISORS/HSE OFFICERS	JAN-MARCH 2017	1 DAY
GENERAL/PERSONAL PROTECTIVE EQUIPMENT (PPE) AUDIT/PROJECT SITE VISIT/INSPECTION	MANAGING DIRECTOR/MANAGERS / SUPERVISORS/HSE OFFICERS	APRIL-JUNE 2017	1 DAY
GENERAL/ENVIRONMENTAL/ FACILITY AUDIT/PROJECT SITE VISIT/INSPECTION	MANAGING DIRECTOR/MANAGERS / SUPERVISORS/HSE OFFICERS	JULY-SEPT. 2017	1 DAY
REVIEW OF AUDIT ACTIONS & AUDIT CLOSE OUT STATUS FOR 2017	MANAGING DIRECTOR/MANAGERS / SUPERVISORS/HSE OFFICERS	OCT-DEC. 2017	1 DAY

MONTHLY EMERGENCY DRILL PLAN FOR 2017

TYPE OF DRILL	DATE OF DRILL	DRILL FACILITATORS	DRILL PARTICIPANTS
MAN OVERBOARD	27/01/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
FIRE OUTBREAK	27/02/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
MILITANT ATTACK	29/03/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
MAN OVERBOARD	28/04/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
SPORADIC GUNSHOT	29/05/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
ABANDONED SHIP	28/06/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
MAN OOVERBOARD	28/07/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
FIRE DRILL	29/08/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
MEDEVAC	28/09/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
ELECTRIC SHOCK	27/10/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
FALLING FROM HEIGHT	28/11/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL
FIRE DRILL	28/12/2017	MD/SAFETY OFFICER/SUPERVISOR	ALL PERSONNEL

MONTHLY HSE MEETING PLAN FOR 2017

DATE	TOPIC FOR DISCUSSION	PARTICIPANTS	DURATION	FACILITATORS
31-01-2017	REVIEW OF 2016 HSE PERFORMANCE, CASCADE OF MENAL HSE POLICY & KPI FOR 2017	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
28-02-2017	CASCADE OF 12 LSR & THEIR APPLICATION IN MENAL OPERATION	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
31-03-2017	REVIEW OF HSE PERFORMANCE FOR FIRST QUARTER-JAN-MARCH 2017	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
28-04-2017	IMPORTANCE OF SHOC CARDS/MSDS IN MENAL OPERATION	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
31-05-2017	IMPORTANCE OF INCIDENT REPORTING & INVESTIGATION IN MENAL OPERATION	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
30-06-2017	REVIEW OF HSE PERFORMANCE FOR SECONG QUARTER-APRIL-JUNE 2017	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
28-07-2017	SAFETY PRECAUTIONS IN CRANE/HIGH RISK OPERATION	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
31-08-2017	PERSONAL PROTECTIVE EQUIPMENT (PPE) TYPES, IMPORTANCE & THEIR MAINTENANCE IN MENAL OPERATION	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
29-09-2017	REVIEW OF HSE PERFORMANCE FOR THIRD QUARTER-JULY-SEPT. 2017	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
31-10-2076	WASTE MANAGEMENT IN MENAL OPERATION	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
30-11-2017	CAUSES OF ROAD ACCIDENT, PREVENTION & CONTROLS IN MENAL OPERATION	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS
29-12-2017	REVIEW OF HSE PERFORMANCE FOR FOURTH QUARTER-OCT.-DEC. 2017	ALL WORKERS	1 HOUR	MANAGING DIRECTOR/ MANAGERS/SUPERVISORS/ HSE OFFICERS

UNSAFE ACT/ UNSAFE CONDITION REPORT FORM

LOCATION:

PROJECT:

AUDIT TEAM:

S/N	OBSERVED UA/UC	ACTION TAKEN	ACTION PARTY	TARGET

INDUCTION/ORIENTATION FORM

NAME OF STAFF……

JOB DESCRIPTION……

DIVISION/DEPT……..

Instruction / guide has been administered to the above named staff on HSE camp/ site regulations/ guides as contained in MENAL TECHNICAL SERVICES policy manual/ booklet.
NAME OF SAFETY OFFICER…….

SIGNATURE……DATE…….

UNDERTAKING

I have received the above instructions and understood them clearly. I hereby undertake to keep to the HSE camp/Site regulations. I will accept any disciplinary action on me for non-compliance.

NAME OF STAFF……

SIGNATURE……

HSE WEEKLY REPORT

DATE OF REPORT…….
PROJECT…….
CONTRACT NO…….
JOB DESCRIPTION……
……..
REPORT OF…….
NO. OF PERSONNEL ON SITE: STAFF---COMM—INSP—TOTAL MANHOUR ACHIEVED--- EXPOSURE HOUR----YTD-----CUMULATIVE MHRS WITHOUT LTI-----
TOOL BOX MEETING TOPIC……
NO. OF TOOL BOX MEETINGS YTD……
NO. OF HSE MEETING YTD…….
NO. OF INDUCTION MEETING YTD……
NO. OF UA REPORTED YTD…….
NO. OF UC REPORTED YTD……..
NO. OF FAC YTD……
NO.OF EMERGENCY DRILL YTD……
NO.OF LTI, YTD…….
NO. OF MTC YTD……
NO.OF RWC YTD……
NO. OF NM YTD……
NO. OF AUDITS…….TYPE……YTD……..
SAFETY TRAINING NO……TYPE……YTD……
NO. OF PERSONNEL…….YTD…….……..
NO. OF COMM. DISTRUPTION……YTD……..
NO. OF LOST DAYS……..YTD……..
MHRS LOST TO WEATHER…….YTD……..
REMARKS…….
……
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……
SIGNATURE……..DATE……

HSE DEPARTMENT

MONTHLY SAFETY SLOGAN SCHEDULE FOR 2017

S/N.	MONTH	SLOGAN	ORIGINATOR
1.	JANUARY 2017	SAFETY PAYS GOOD PROFIT	E. EWUOLA
2.	FEBRUARY 2017	UNSAFE WORK IS HAZARDOUS WORK	E. EWUOLA
3.	MARCH 2017	NO ACCIDENT, NO PAIN	E. EWUOLA
4.	APRIL 2017	TAKE HOME PAY, NOT PAIN	AJIRI AGATEMOR
5.	MAY 2017	DO NOT GIVE HOLIDAY TO SAFETY	JOSHUA EYEWU (MD)
6.	JUNE 2017	ACCIDENTS ARE CAUSED, PREVENT THEM	E. EWUOLA
7.	JULY 2017	SAFETY FIRST AND ALWAYS	E. EWUOLA
8.	AUGUST 2017	SAFETY IS A COLLECTIVE RESPONSIBILITY	AJIRI AGATEMOR
9.	SEPTEMBER 2017	THERE IS NO IGNORANT IN SAFETY, ACT SAFELY	E. EWUOLA
10.	OCTOBER 2017	MAKE SAFETY YOUR COMPANION ALWAYS	E. EWUOLA
11.	NOVEMBER 2017	THINK SAFETY, WORK SAFELY	E. EWUOLA
12.	DECEMBER 2017	YOU ARE THE BEST GIFT TO YOUR FAMILY	JOSHUA EYEWU (MD)

THREE YEARS CUMMULATIVE HSE PERFORMANCE RECORD

CLASSIFICATION	TARGET 2014	ACTUAL 2014	TARGET 2015	ACTUAL 2015	TARGET 2016	ACTUAL 2016	TARGET 2017
SAFETY							
Fatalities	0	0	0	0	0	0	0
Lost Time Injury	0	0	0	0	0	0	0
Restricted, Work cases	0	0	0	0	0	0	0
Medical Treatment Cases	0	0	0	0	0	0	0
Road Traffic Accident	0	0	0	1	0	0	0
Marine Traffic Accident	0	0	0	1	0	0	0
Fire incidents	0	0	0	0	0	1	0
Incident/Minor Injuries	0	0	0	0	0	0	0
Equipt.Maintenance	12	12	12	12	12	12	12
Unsafe Acts	45	41	45	40	45	40	45
Unsafe Conditions	25	22	25	21	25	23	25
Near misses	0	0	0	0	0	0	0
HEALTH							
Medical Evacuation	0	0	0	1	0	0	0
Unhygienic condition	0	0	0	0	0	0	0
Non-injury First Aid	0	0	0	0	0	0	0
Visits to Clinics/Hospital	0	0	0	2	0	0	0
Non-Accidental Death	0	0	0	2	0	0	0
ENVIRONMENT							
Pollution	0	0	0	0	0	0	0
Community Development Projects	2	2	2	2	2	0	0
SECURITY							
Theft Case	0	0	0	0	0	0	0
Sabotage	0	0	0	0	0	0	0
HSES ORGANISATION							
Inspections/Audit	4	4	4	4	4	4	4
HSE Meetings	12	12	12	12	12	12	12
Emergency Drills	12	12	12	12	12	12	12
Internal Training	4	4	4	4	4	4	4
External Training	4	4	4	4	4	4	4
Daily Pep-Talk	360	252	360	310	350	309	310
Journey Management	12	12	12	12	12	12	12
Management Site Visit	12	12	12	12	12	12	12
IVMS Decoding	12	12	12	12	12	12	12
LFI Cascade	12	12	12	12	12	12	12
Waste Management	12	12	12	12	12	12	12
MAN HOURS	**440,000**	**380,000**	**450,000**	**395,000**	**450,000**	**398,200**	**450,000**

REFERENCES

1. MENAL TECHNICAL SERVICES HSE-MS MANUAL
2. MENAL TECHNICAL SERVICES HSE POLICY DOCUMENTS
3. MENAL TECHNICAL SERVICES POLICY STATEMENT
4. MENAL TECHNICAL SERVICES HSE PLAN AND ADMINISTRATION
5. MENAL TECHNICAL SERVICES ENVIRONMENTAL MANAGEMENT PLAN.
6. MENAL TECHNICAL SERVICES WORK PROCEDURES