

TABLE OF CONTENTS

1. INTRODUCTION	4
2. PURPOSE OF HSMP	4
3. SCOPE	4
4. OBJECTIVES AND TARGETS	5
5. BACKGROUND	5
6. HAZARD IDENTIFICATION AND RISK ASSESSMENT	5
6.1 RISK MITIGATION MEASURES	5
I. PERSONAL PROTECTIVE EQUIPMENT'S	5
II. HEALTH AND SAFETY	6
III. WORKING AT HEIGHT	8
IV. BARRICADES	9
V. STACKING	10
VI. HEAVY EQUIPMENT SAFETY	11
VII. TRENCHING	11
VIII. EMERGENCY	12
IX. HOUSEKEEPING	12
X. TRAFFIC MANAGEMENT	13
XI. TEMPORARY SIGNS	14
XII. ROUTINE INSPECTION	14
XIII. EDUCATION AND TRAINING	14
XIV. FIRST AID AND MEDICAL FACILITIES	15
XV. GENERAL	16
7. HEALTH AND SAFETY ROLE AND RESPONSIBILITY.....	16
8. REPORTING REQUIREMENT	17
9. INSPECTION AND AUDIT	17
10. H & S MANAGEMENT PLAN FRAMEWORK	18
11. LABOUR MANAGEMENT PROCEDURES	27
ANNEXURE:	
GREVANCE REDRESSAL FORMAT FOR THE COMPLAINTS RECEIVED.....	30
TOOL BOX TALK	31
SAFETY HEALTH ENVIRONMENT TRAINING RECORD	32
WORKING MAN-HOUR CALCULATION	33
ACCIDENT/INCIDENT INVESTIGATION REPORT.....	34
ACCIDENT ANALYSIS RECORD	36

ABBREVIATIONS

PHED	Public Health Engineering Department
ESMP	Environmental and Social Management Plan
CEMF	Construction Environmental Management Framework
NOC	No Objection Certificate
MoEF & CC	Ministry of Environment, Forest and Climate Change
CPCB	Central Pollution Control Board
SPCB	State Pollution Control Board
PWD	Public Work Department
MSRRDA	Manipur State Rural Roads Development Agency
NHAI	National Highway Authority of India
BSNL	Bharat Sanchar Nigam Limited
ASI	Archaeological Survey of India
PUC	Pollution under Control
CAR	Contractors All Risk
MSPDCL	Manipur State Power Distribution Company Limited
CGWB	Central Ground Water Board
CEMP	Construction Environmental Management Plan
BIS	Bureau of Indian Standard
CPCB	Central Pollution Control Board
EHS	Environment, health and safety
STP	Sewerage Treatment Plant
PPE	Personal Protective Equipment
OSHA	Occupational safety and Health Administration

FRAMEWORK FOR HEALTH AND SAFETY MANAGEMENT PLAN IN THE PROJECT CONSTRUCTION SITES

1. INTRODUCTION

This is Health and Safety Management Plan for Integrated Sewerage System for Imphal City Phase -II

2. PURPOSE OF THE HSMP

The purpose of the HSMP is to ensure that health and safety aspects, risks and liabilities identified are effectively managed during the construction, operation and closure of the proposed project. The HSMP specifies the mitigation, adaptation, prevention and management measures to which the Proponent is committed and shows how the Project will mobilize organizational capacity and resources to account for the factors evaluated in order to implement the compiled measures. The also HSMP shows how mitigation and management measures will be scheduled.

3. SCOPE

Consultant has developed this Health and Safety Management Plan (HSMP) to identify the health and safety management and mitigation actions required to implement the project in accordance with the requirements of the international standards. It provides an overview of the environmental and social baseline conditions on the route of the proposed scheme, summarizes the potential impacts associated with the proposed construction, rehabilitation and improvement works and sets out the management measures required to mitigate any potential impacts. This HSMP is to be utilized by the contractors commissioned for the project and will form the basis of site-specific management plans that will be prepared by the contractors as part of their construction methodology prior to works commencing. The potential impacts and associated mitigation measures and management procedures presented in this HSMP are based on the baseline information and assessment by PM&SC. The Management Plans presented in this HSMP detail the health and safety management procedures, processes and mitigation and monitoring measures required to complete the project with minimum environmental and social impact.

The health and Safety management plan covers the rules, regulations, guidelines and requirements, program, plan, training, meeting towards health, Safety and environmental practice to be followed in the project regards to,

- Safe job procedure of various activities
- Inspection and audit
- Accident reporting, investigating and cost calculating
- Emergency procedures
- First aid practices

4. OBJECTIVES AND TARGETS

The key objectives of the HSMP are:

- To outline mitigation measures against the possible degradation of the areas;
- To enhance positive aspects brought by the project;
- To ensure that the programmed will comply with relevant environmental legislation
- To propose mechanisms for monitoring compliance;
- To provide adequate channels of input for the different stakeholders throughout the project activity;
- To establish proven mechanisms to correct/adjust the finding
- To ensure full health and safety of local public as well as workers related to the project.

Safety target during execution

- Fatalities during execution – Zero
- Lost time accidents – Zero
- Fire – Zero
- Environmental incidents – Nil
- Vehicle/ transport incident - Nil

5. BACKGROUND

Construction work can be particularly hazardous. Personal protective equipment, fire safety, electrical safety, confined space entry, emergency preparedness, biological safety, chemical safety, hazardous waste disposal, vehicle safety and other precautions are essential for safe construction work.

In this context, the project monitoring unit of PHED decided to develop a detailed guideline to ensure the quality standards for effective management of Health and Safety issues in the implementation of New Development Bank supported Imphal Sewerage Project. All Construction Companies working in the projects are responsible for implementing the guidelines in their respective projects.

These guidelines are not intended to be a step-by-step procedure for each activity. It is a guideline document that outlines general activities, procedures, and requirements for all the projects throughout the construction phase of the sub projects. These procedures must always be read and implemented in conjunction with the related Contract Conditions.

6. HAZARD IDENTIFICATION AND RISK ASSESSMENT

6.1 RISK MITIGATION MEASURES

The guidelines organized are as follows;

i. Personal Protective Equipment's

Personal Protective Equipment (PPE) provides additional protection to workers exposed to workplace hazards in conjunction with other facility controls and safety systems. The contractor shall provide required PPEs to workmen to protect against safety and/or health hazards. Primarily PPEs are required for the following protection:

- ✓ Head Protection (Safety helmets)
- ✓ Foot Protection (Safety footwear, Gumboot, etc.)
- ✓ Body Protection (High visibility clothing (waistcoat/jacket), Apron, etc.)

- ✓ Personal fall protection (Full body harness, Rope-gap fall arrester, etc.)
- ✓ Eye Protection (Goggles, Welders glasses, etc.)
- ✓ Hand Protection (Gloves, Finger coats, etc.)
- ✓ Respiratory Protection. (Nose mask, SCBAs, etc.)
- ✓ Hearing Protection (Ear plugs, Ear muffs, etc.)
- Site EHS officer should maintain record of issue and replacement of PPE.
- Store in charge must maintain 10% extra PPE of total requirement available in the store.
- Must issue the PPEs to employee and workers without any charge. Workers/Sub-contractor should deposit the PPE after completion of their work or no longer use.
- EHS officer should train workers for the use of PPE.
- PPE compliances should be checked during routine inspection, Safety audit etc.
- Safety shoes and helmet are mandatory PPE during construction work. All employees must wear helmet and safety shoes in all construction project area. No one should be permitted to enter the site without helmet and safety shoes.
- Occasional visitors should be provided helmet from security main gate during construction project round. Safety shoes cannot be insisted upon for such occasional visitors who are on construction project round. Normal shoes can be considered adequate for such occasional visitors.
- Safety helmets should be worn with chin straps in accordance with the color code:
- All Site-based personnel and visitors to site must ensure that suitable PPE is worn at all times while on the construction site. Additional PPE must be kept as appropriate to the location.
- Proper maintenance of PPE, including cleaning when dirty and replacement when damaged or worn out. Proper use of PPE should be part of the recurrent training programs for employees.

ii. Health and Safety

- Smoking and eating should be prohibited throughout the workplace except in designated areas.
- Adequate internal and external lighting should be provided by all Contractors at all workspaces.
- All portable electrical equipment should not exceed 220 volts with effective Safety Trip system excluding portable welding sets.
- Only qualified electrician is authorized for any electrical connection, disconnection and maintenance work.
- Instructions given on safety signs must be adhered to at all times.
- Safety sign, Posters and barricades should not be replaced or remove without permission from the EHS officer/ nominated person for EHS.
- Fire extinguishers must not be removed from their designated places except for extinguishing. Location of fire extinguisher must be clearly marked and known to all.

- Any person working on or near operational plant or equipment must be competent and trained in such work.
- Do not allow to touch any hazardous chemicals or unknown item at site except concerned person.
- Work place should be kept neat & clean. Wastage/Debris should be collected at identified areas after the completion of work on daily basis.
- Access should be free from any obstruction at site.
- Only authorized person should be allowed to sit along with driver on the machinery (if required).
- During heavy rain, improper lighting, heavy wind blowing at site, nobody should be allowed to work at heights.
- Horse playing, Fighting, Gambling and possession or used of firearms, ammunition, alcoholic beverages and illegal drugs should be prohibited at work site. Any person found in possession of or under the influence of controlled substance or alcohol will be immediately removed from site.
- Report all injuries to Project in charge immediately, no matter how slight they may be.
- Security personnel should be deployed at security posts\ gates and around affected area.
- No Alcoholic beverages or illegal drugs are permitted on work site. The contractor should ensure that personnel is made aware of and fully comply with this prohibition
Security guards must ensure no such persons or workers be allowed to the work site during non-working hours, especially if they drunk.
- Unauthorized person should not be allowed in the work site without permission from the concerned authority.
- All workmen should be screened before engaging them on the job. Physical fitness of the person to certain jobs like working at height or other dangerous locations to be ensured before engaging the person on work. The final decision rests with the site management to reject any person on the ground of physical fitness.
- Workmen under 18 years of age should not be employed at site. No children should be permitted inside the working area.
- Crèche should be provided in workmen colony if female workers are engaged. At construction sites where 20 or more women are ordinarily employed, a hut for children under the age of 6 years shall be provided.
- Contractor should ensure adequate supervision at workplace to the workers. Supervisors should ensure that all persons working under them should not create any hazards to self or to co-workers.
- Nobody is allowed to work without wearing safety helmet. Chinstrap of safety helmet should be always on.
- Usage of eye protection equipment should be ensured when workmen are engaged for grinding, shipping, welding and gas-cutting. For other jobs as and when site safety coordinator insists eye protection has to be provided.

- All the dangerous moving parts of the portable / fixed machinery being used should be adequately guarded.
- Other than the electricians with red helmet no one is allowed to carry out electrical connections, repairs on electrical equipment or other jobs related thereto.
- Power supply should be taken through Earth Leakage Circuit Breakers (ELCB) of 30mA Sensitivity.
- Inserting of bare wires for tapping the power from electrical sockets is completely prohibited at the project site.
- All major, minor accidents and near misses to be reported to Project Manager / Site Safety coordinator to enable the management to take necessary steps to avoid the recurrence.
- Adequate firefighting equipment should be made available at workplace and persons are to be trained in firefighting techniques with the co-ordination of Site Safety Coordinator.
- All the unsafe conditions, unsafe acts identified by contractors, reported by site supervisors should be noted down and / or safety personnel to be corrected on priority basis.
- Littering at site is prohibited so that the work area is clean.
- Do not allow to spill any chemical / fuel / substances on ground, which may pollute the environment.
- The full body harness should be tied to safe anchoring point.

iii. Working at Height

- No one should be allowed to work at or more than two meters height without wearing safety belt and anchoring the lanyard of safety belt to firm support preferably at shoulder level. The full body harness with double lanyard should be worn by worker working above 2 meters.
- Ladders being used at site should be adequately secured at bottom and top.
- Material should not be thrown from heights. If required the area should be barricaded and one person should be posted outside the barricade for preventing the trespassers from entering the area.
- All scaffoldings / work-platforms should be strong enough to take the expected load. The width of the working platform and fall protection arrangements should be maintained as per recommendation of Site Safety coordinator.
- Female workmen are not allowed to work on height & high-risk areas.
- The horizontal life line with adequate strength should be provided or used for the intended purpose only.
- The Contractor shall ensure that work is not carried out at height where it is reasonably practicable to carry out the work safely otherwise than at height.

iv. Barricades

- The Contractor shall ensure the general construction area is protected; barricades must be erected before any excavation, extended as the excavation progresses and maintained until the project is completed.
- The Contractor shall furnish, erect, and maintain all the necessary signs, barricades, lighting, fencing, bridging, and flaggers that conform to the requirements set forth by OSHA.
- All the project construction sites should be fenced and barricaded with appropriate standards as prescribed in OSHA (STP, store, etc.).
 - ✓ Stairways
 - ✓ Hatches
 - ✓ Chutes/open trenches
 - ✓ Street openings – manholes.
 - ✓ Elevated platforms
 - ✓ Areas with moving machinery
 - ✓ Excavation sites
 - ✓ Construction sites
 - ✓ Temporary wall or floor openings
- The following list provides guidelines for using barriers and guards:
 - ✓ When necessary, reroute pedestrian and vehicular traffic to completely avoid a construction site.
 - ✓ Guard any permanent ground opening into which a person could fall with a guardrail, load-bearing cover, or other physical barrier.
 - ✓ Ensure that temporary floor openings, such as pits and open manholes, are guarded by secure, removable guardrails. If guardrails are not available, have someone guard the opening.
 - ✓ Ensure that all stairways, ladder ways, hatchways, or chute floor openings have handrails or hinged covers.
 - ✓ Ensure that enclosed stairways with four or more steps have at least one railing, and that open stairways with four or more steps have two railings.
 - ✓ Ensure that all platforms and walkways that are elevated or located next to moving machinery are equipped with handrails, guardrails, and toe boards.
 - ✓ Barricade any wall openings through which a person or tools could fall. Use gates, doors, guardrails, or other physical barriers to block the opening.
 - ✓ Mark and guard any excavation that is deeper than 12 inches.
 - ✓ Mark and/or guard potholes and sidewalk damage as appropriate.
 - ✓ Protect smoke detectors with some type of cover when construction work, such as dust or fume producing activities, may affect smoke detectors.
 - ✓ Barriers such as guardrails, hole cover, or other must be provided with suitable signage.
- A warning barricade should be kept five (5) feet back from the edge of any excavation, hole, platform or roof. A protective barricade may be placed closer, Barricades should be erected before a hole is cut and extended as the excavation progresses.

- ✓ Wherever construction debris is dropped without the use of an enclosed chute.
 - ✓ Work areas for electrical equipment with exposed energized parts.
 - ✓ The swing radius of the rotating superstructure of cranes or other equipment.
 - ✓ Wherever equipment is left unattended near a roadway at night.
 - ✓ Construction areas in energized electrical substations.
- Barricade signs should be fully informative, legible and visibility displayed (during day & night both).
 - Where barricades cannot be installed, safety nets should be installed close to the level of terrace at which danger of fall exists.
 - Barricades can be removed after restoration/filling the cut outs/ trenches.
 - Where secured foot hold is impracticable, safety belt with secure anchorage arrangement should be provided. A life line with sufficient strength should be provided all around the building to which the workers exposed to the risk of falling tie the hooks of their safety belts.

v. Stacking

- Construction materials should not be allowed to stored/scattered in the towns as per their convenience.
- PIU and PM&SC must ensure all the construction materials stored at designated place by the contractor.
- Materials should be segregated as per size and length and category and placed in neat, orderly piles that are safe against falling. If the piles are high, they should be stepped back at suitable intervals in height. Piles of materials should be arranged so as to allow a passageway of not less than 1m width in between the piles or stacks for inspection and removal. All passageways should be kept clear.
- Materials should be stacked on well drained, firm and unyielding surface. Material should not be stacked so as to impose any undue stresses on walls or other structures.
- Materials should be stacked in such a manner as not to constitute a hazard to passer-by.
- When the materials have to be handled manually, each workman should be instructed by his foreman or supervisor in the proper method of lifting heavy objects.
- Workmen should be provided with suitable equipment for his personal safety as necessary. Supervisors should also take care to assign enough men to each lifting job; the weight carried by each man should be determined by the distance to be moved, difficulty of movement presented, time required, etc.
- Whenever any stack exceeds 1.5 m height, suitable and safe means of access should be provided for the use of workmen and such means of access should not disturb the stability of the stack.
- Appropriate signs should be placed at all storage locations where special conditions exist or where special precautions are necessary.

- No section of the plant or other structure or part of a structure or sites should be left unguarded in such condition that it may fall, collapse or be weakened due to wind pressure or vibration.

vi. Heavy Equipment Safety

- When using heavy equipment, there are five basic guidelines that employees must always follow to ensure safety:
 - ✓ Know how to properly operate the equipment you are using. Training on proper operation should be documented.
 - ✓ Do not use heavy machinery when you are drowsy, intoxicated, or taking prescription medication that may affect your performance.
 - ✓ Use only equipment that is appropriate for the work to be done.
 - ✓ Inspect your equipment to ensure that it is in good working condition before beginning a job. In addition, ensure that regular inspections and maintenance are conducted as appropriate.
 - ✓ Do not stress or overload your equipment.
- Accidents do not just happen, they are caused. Therefore, employees should also follow these guidelines:
 - ✓ Ensure the following before leaving equipment unattended:
 - All buckets, blades, etc. are on the ground.
 - Transmission is in neutral.
 - Engine is off
 - Equipment is secure against movement.
 - Never get on or off moving equipment.
 - Do not attempt to lubricate or adjust a running engine
 - Turn the engine off before refueling.
 - Keep all shields and safety guards in place.
 - Avoid underground utilities and overhead power lines.
 - The following sections provide basic guidelines for working with forklifts, frontend loaders, and backhoes. Refer to the product documentation that accompanied your equipment for more information and specific instructions.
 - Always lower the bucket before servicing the equipment or leaving the loader unattended.
 - Be extremely careful when operating near banks and slopes.
 - When cutting a bank, be careful not to cause a cave-in. Do not drive on an overhang. Be extremely careful when operating near banks and slopes.
 - When cutting a bank, be careful not to cause a cave-in. Do not drive on an overhang.

vii. Trenching

- Provides requirements for employee entrance, working environment, and egress to/from open surface trenches and excavations.
- The estimated location of utility installations such as sewer, telephone, fuel, electric, water lines, or other underground installations that reasonably may be encountered during excavation work shall be determined prior to opening an excavation.
- Utility companies or utility locator should be contacted to precisely locate such

utilities Excavation may proceed with CAUTION if:

- Utility Company/Locator cannot be located or contacted
- Utility Company/Locator cannot locate utility
- When excavating operations approach the location of underground utilities, the exact location shall be determined by safe and acceptable mean.
- While excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.
- Runways/ramps shall be anchored to prevent movement or slipping.
- Employees exposed to public vehicular traffic shall be provided with and wear vest or other suitable garments marked with high visibility materials
- No employee shall be permitted underneath loads handled by digging or lifting equipment
- Employees entering bell-bottomed holes shall wear harness and life line protection
- Excavations near structures or buildings shall be protected by shoring or other means to assure stability of the affected structure.
- Excavations near foundation footings, sidewalks, pavement, or other appurtenant structures shall be protected by underpinning or other suitable means to maintain stability
- Excavated materials shall be kept a minimum of 2' from the edge of excavations or by the use of retaining devices.

viii. Emergency

- Mobilize the fire squad (security) at emergency site.
- Cordon off the affected area and guide traffic / emergency vehicles and control unnecessary gathering of persons around the site.
- Ensure vigilance at security posts / gates and be in constant contact with construction manager / area manager and other numbers connected with safety, security, firefighting and management.
- Entries to the demolition area should be restricted except authorized persons only.
- As the height work of pumping stations, STPs, etc. extra safety precaution should be made available, Extra safety precaution mean appropriate safety nets, proper use of safety belt, proper platform, lifeline rope to be tied at proper place etc. should be provided.

ix. Housekeeping

- All the contractor must prepare excess earth/debris and other construction materials disposal Plan for their respective project construction site.
- Adequate time shall be assigned to ensure that good housekeeping is maintained.
- This shall be carried out by team of housekeeping squad.
- The contractor shall be responsible to provide segregated containers for disposal of

debris at required places and regular cleaning of the same.

- Proper and safe stacking of material are of paramount importance at yards, stores and such locations where material would be unloaded for future use. The storage area shall be well laid out with easy access and material stored / stacked in an orderly and safe manner.
- Flammable chemicals / compressed gas cylinders shall be safely stored.
- Unused/surplus cables, steel items and steel scrap lying scattered at different places within the working areas shall be removed to the identified location(s).
- All wooden scrap, empty wooden cable drums and other combustible packing materials, shall be removed from work place to the identified location(s).
- Empty cement bags, if any and other packaging material shall be properly stacked and removed.
- The Contractor shall ensure that all his sub-contractors maintain the site reasonably clean through provisions related to housekeeping.
- The contractor at all times should keep the premises free from accumulation of waste materials or rubbish caused by their operations.
- Keep the premises clean and free from fire hazards, and maintain the work and materials stockpiles neat and orderly throughout the construction period to permit safe and convenient access and movement of workers.
- Water sprinkling should be done to prevent the spread of debris, dust or other contaminants into the air or surrounding areas at all times.
- Construction debris and rubbish as generated by construction activity should be removed by contractor daily and not allowed to accumulate. It shall be deposited in a designated place.
- Scrap materials for reuse in temporary work shall be segregated and properly stored, protected and covered as for new materials.
- Construction debris removed from the upper levels of the site shall be deposited directly into a Dump site and it should be transported through covered truck.
- The contractor should remove from the premises and site, all project signs, tools, scaffolding, surplus materials and temporary work and structures upon completion of the work and shall leave the work and the premises clean and acceptable to the owner.
- All surplus earth and debris are removed/disposed off from the working areas to officially designated dumpsites. Trucks carrying sand, earth and any pulverized materials etc. in order to avoid dust or odor impact shall be covered while moving.
- The tyres of the trucks leaving the site shall be cleaned with water, wherever the possibility of spillage on carriageways meant for regular road traffic exists.

x. Traffic Management

- Construction activities may result in a significant increase in movement of heavy vehicles for the transport of construction materials and equipment increasing the risk of traffic- related accidents and injuries to workers and local communities.

- Contractor shall control the Traffic by designated site staff.
- Warn the road user clearly and sufficiently in advance.
 - ✓ Provide safe and clearly marked lanes for guiding road users.
 - ✓ Provide safe and clearly marked buffer and work zones
 - ✓ Provide adequate measures that control driver behaviour through construction zones.
 - ✓ Provide additional support in the form of a flag man at all times, to assist the operator of the equipment or a heavy transport vehicle
- Warning signs shall be displayed in the area wherever required such as deep excavation, work at height or any other area pointed out.
- Materials hanging over / protruded from the chassis / body of any vehicle especially during material handling shall be indicated by red indicator (red light/flag) to indicate the caution to the road users.
- No parking of trucks/trolleys, cranes and trailers etc. shall be allowed on roads, which may obstruct the traffic movement.

xi. Temporary Signs

- The Contractor shall provide sign boards mentioning work area or temporary facility area. These signboards shall be properly displayed in appropriate locations.
- The signboard shall be prepared by experienced signboard manufacturer. It shall contain the description in English, Hindi and local language. It shall also contain relevant and appropriate graphics.

xii. Routine Inspection

- Inspections by the contractor and PIU and PM&SC Team that can be classified under this inspection program are:
 - ✓ Daily Inspection of site, plant and equipment (before the start of day)
 - ✓ Weekly Inspection of scaffold.
 - ✓ Monthly Inspection of electrical hand tools by competent electrical supervisor
 - ✓ Quarterly Inspection of temporary electrical systems by competent electrical supervisor.
 - ✓ Half-yearly inspection of lifting machinery, lifting appliances and equipment etc. by competent person. The list mentioned above is not exhaustive. Contractor may add additional categories.

xiii. Education and Training.

- Daily basic Tool Box Training should be carryout by the contractors at site before start of the work
- EHS officer should conduct training on EHS in regular interval
- Monthly safety meeting should be conducted by the contractor
- Motivational program for improve & implement Safety at site should be conducted by the contractors

xiv. First-aid and Medical Facilities.

- All the contractor must ensure the availability of adequate number of first Aid facility at respective project construction site. The first aid box should be well maintained in hygienic condition and should be correctly labelled as “First Aid Box”. The medicine should be checked for the expiry dates. The contact details of the qualified first aider should be displayed at various location for immediate contact for first aid help.

First Aid box content: - As per “Building and Other Construction Worker act 1996” Schedule III, first aid box contents are,

- i. A sufficient number of eye wash bottles filled with distilled water or suitable liquid clearly indicated by a distinctive sign which will be visible at all times.
 - ii. 4 % xylocaine eye drops, and boric acid eye drops and soda bicarbonate eye drops,
 - iii. Small sterilized dressings.
 - iv. Medium sized sterilized dressings.
 - v. Large sized sterilized dressings.
 - vi. Large sized sterilized burn dressings.
 - vii. Packets of sterilized cotton wool (15 cm).
 - viii. 200ml bottle of cetrimide solution (1 %) or suitable antiseptic solution.
 - ix. 01 bottle (200 ml) of mercurochrome (2 %) solution in water.
 - x. 01 bottle (120 ml) of Sal-volatile having the doses and mode of administration indicated on the label.
 - xi. 01 pair of scissors.
 - xii. 01 roll of adhesive plaster (6 cm x 1 meter).
 - xiii. 02 rolls of adhesive plaster (two cm x one meter).
 - xiv. Sterilized eye pads in separate sealed packets.
 - xv. A bottle containing tablets (each of 325 mg) of aspirin or any other analgesic.
 - xvi. Roller bandages 10 cm wide.
 - xvii. Roller bandages 05 cm wide.
 - xviii. 01 No. tourniquet.
 - xix. A supply of suitable splints.
 - xx. Packets of safety pins.
 - xxi. Kidney tray.
 - xxii. A snake bite lancet.
 - xxiii. 01 bottle (30 ml) containing potassium permanganate crystals.
 - xxiv. 01 copy of the first-aid leaflet issued by the Directorate General.
 - xxv. Triangular bandages.
 - xxvi. 02 pairs of suitable, sterilized, latex hand gloves.
 - xxvii. Two pairs of suitable, sterilized, latex hand gloves
- Other than first aid treatment, the treatment involving medical treatment will be given in the nearest Hospital or Government Hospital
 - Contractor can tie up with the local hospital for workers health checkup and emergency treatment facility.
 - Contractor ensures the availability of ambulance at construction site in case of emergency.

xv. General

- Person / equipment / material should be enter & exit the site only through the gate designated. Only license holder driver / operator should be allowed to operate any vehicle /Machinery. All vehicle /machinery should be inspected by a competent person prior to use.
- PIU and PM&SC must ensure that the labor engaged by the contractor is paid regularly as per prevailing labor laws, and that no arrears are allowed to accumulate on this account.
- Regular working hour shall be 9.00 am to 6.00 pm including one hour for lunch on all working days. Working days at site shall be from Monday to Saturday i.e. 06 days in a week
- Access and egress routes for construction personnel, visitors and delivery vehicles shall be tentatively developed by the Contractor to suit acknowledged constraints and conditions. The vehicles shall be parked in the designated area only. Parking for site operatives must be organized by the Contractor to ensure that there is no inconvenience to local residents. Car parking will not be permitted on work site.
- The Contractor shall ensure at all times that no employee is working under the influence of alcohol / drugs which are punishable under Govt. regulations.

7. HEALTH AND SAFETY ROLES AND RESPONSIBILITY

As per the organization structure, each one within organization structure have roles responsibilities towards EHS.

Following are the important responsibilities of every individual role.

1) **Project Manager:** -

- Overall responsible for the aspect related to the EHS at the site.
- Effective resource management and planning.
- Ensures all legal and statutory requirements are met.
- Ensuring all the legal, employer requirement, engineering standards adhere to the EHS regulations.

2) **Deputy Project Manager:** -

- Enforce and Implementation of the EHS rules applicable to the site.
- Guide the middle management with assigning work responsibility with adherence to the EHS standard during the work.
- Monitor EHS performance.
- Interact with the employee to manage and resolve the EHS issue at the site.
- Encourage the use of Personal Protective Equipment.

3) **Site Engineer and Supervisor:** -

- Site engineer shows their leadership and commitment towards EHS by ensuring the execution of work with methodology integrated with EHS.
- Impart their participation in the Toolbox talk, site-specific training, revision of work methodology, accident/incident investigation.
- Ensures all the control measures are in place, maintain high standards of housekeeping by segregation and disposal of waste.
- Ensure the use of Personal Protective Equipment.

4) **EHS Officer:** -

- The EHS officer will ensure compliance with respect to the EHS management system.
- Inspect the workplace for the EHS non-conformance and report to the concern site personnel for rectification.
- Participate in accident investigation and recommend corrective and preventive measures
- Monitor the high-level hazard jobs to ensure that carried out in a safe manner and correct whenever he believes to correct.
- Ensure the quality of Personal Protective Equipment
- Facilitate in-house training program like Induction, Job Specific- Fire Fighting, Electrical Work etc.
- Conduct emergency drills.
- Participate in the EHS meeting and maintain the minutes of the meeting.
- Facilitate to administer for first aid.
- Enforcement of site requirement, promote safety culture through awareness program, safety campaign.

5) **Workers:** -

- Responsible for the following instructions from their immediate supervisor and work in a safe manner.
- Ensures to perform their work in a safe manner and safe for other working nearby them.
- Not to indulge with any horseplay
- Ensures their activity will not hamper the environment.
- Report any unsafe condition or unsafe act to their superior immediately.
- Attend toolbox talk on a regular basis.
- Strict use of provided Personal Protective Equipment at the site.

8. REPORTING REQUIREMENTS

The contractor is required to fill and submit all the checklist and compliances in the monthly progress report submitted. If by any reason or under unavoidable circumstances if any of the criteria not fulfilled, the contractors need to submit a report mentioning the reason of not adhering to the guidelines and when it will be followed.

9. INSPECTION AND AUDIT

The PM&SC and PIU will do regular monitoring of environment, social, health and safety aspects during different stages of project. The PM&SC and PIU will conduct a joint inspection and audit of the sites and area every six months to ensure proper implementation of ESMP. All the project related activities within the labor camp, working site, storage and disposal areas would be scrutinized within the purview of this document. The prerequisites at site and labor camps will be ensured including the availability of sufficient living and working space, appropriate and adequate supply and use of Personal Protection Equipment's (PPEs), appropriate and adequate facilities in the labor camp, working site and storage areas, appropriate barricading and covering of work space, materials and muck, well maintained and serviced machinery / equipment's & accessories, experienced laborers, emergency plans,

monitoring of ambient air and noise levels etc. Environmental Monitoring will be carried out through regular site visits that assess potential environmental risks and impacts and environmental checklist duly filled in for construction phase. Besides, Ambient Air Quality and Noise Levels will be monitored on regular basis at various project locations at different stages of the project cycle.

10. H&S MANAGEMENT PLAN FRAMEWORK

This checklist is a guide only. It will be used to the extent that it is appropriate to the Contractor. Other work site-specific checklists will be developed for the purposes of completing physical inspections.

GENERAL HEALTH AND SAFETY PHYSICAL INSPECTION CHECKLIST

Project Title: Integrated Sewerage System for Imphal City Phase II				
Contractor:				
Worksite Location: Date:				
Persons carrying out inspection:				
Indicate in the following manner: <input checked="" type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable <i>N/A</i> Not Applicable <i>N/C</i> Not Checked				
1. HEALTH AND SAFETY SYSTEM				
	Item	Observation	Remarks/Recommendations	Target Date
1.1	<i>OHS policy displayed</i>			
1.2	<i>Accident report book</i>			
1.3	<i>Induction records</i>			
1.4	<i>Injury management policy available</i>			
1.5	<i>Workplace inspection records</i>			
1.6	<i>Emergency procedures in place</i>			
1.7	<i>Training records</i>			
1.8	<i>Documented safe work procedures</i>			
1.9	<i>Protective clothing & equipment records</i>			
1.10	<i>MSDS available</i>			
1.11	<i>Health & safety systems manual</i>			
1.12	<i>Management safety representative appointed</i>			

Item		Observation	Remarks/Recommendations	Target Date
1.13	<i>Contract risk assessment available</i>			
1.14	<i>Contract site specific health & Environmental safety system available</i>			
2. HOUSE KEEPING				
2.1	<i>Work areas free from rubbish & obstructions</i>			
2.2	<i>Clear access and egress in the workplace</i>			
2.3	<i>Surfaces safe and suitable</i>			
2.4	<i>Free from slip/trip hazards</i>			
2.5	<i>Floor openings covered</i>			
2.6	<i>Stock/material stored safely</i>			
AISLES (WALKWAYS)				
2.7	<i>Unobstructed and clearly defined</i>			
2.8	<i>Adequate lighting</i>			
2.9	<i>Vision at corners</i>			
2.10	<i>Wide enough</i>			
3. ELECTRICAL				
3.1	<i>No broken plugs, sockets, switches</i>			
3.2	<i>No frayed or defective leads</i>			
3.3	<i>Power tools in good condition</i>			
3.4	<i>No work near exposed live electrical equipment</i>			
3.5	<i>Tools and leads inspected and tagged</i>			
3.6	<i>No strained leads</i>			
3.7	<i>No cable-trip hazards</i>			
3.8	<i>Switches/circuits identified</i>			
3.9	<i>Lock-out procedures/danger tags in place</i>			
3.10	<i>Earth leakage systems used</i>			
3.11	<i>Start/stop switches clearly identified</i>			
3.12	<i>Switchboards secured</i>			
3.13	<i>Appropriate firefighting equipment</i>			

Item	Observation	Remarks/Recommendations	Target Date
4. MOBILE PLANT AND EQUIPMENT			
4.1	<i>Plant and equipment in good condition</i>		
4.2	<i>Operators trained and licensed</i>		
4.3	<i>Warning and instructions displayed</i>		
4.4	<i>Warning lights operational</i>		
4.5	<i>Reversing alarm operational</i>		
4.6	<i>Daily safety inspection procedures/checklists</i>		
4.7	<i>Fault reporting /rectification system used</i>		
4.8	<i>Satisfactory operating practices</i>		
4.9	<i>Fire extinguisher</i>		
4.10	<i>Tyres satisfactory</i>		
4.11	<i>SWL of lifting or carrying equipment displayed</i>		
4.12	<i>Certificates of competency sighted</i>		
4.13	<i>Plant keys and unattended plant kept secure</i>		
5. MACHINERY AND WORK BENCHES			
5.1	<i>Adequate work space</i>		
5.2	<i>Clean and tidy</i>		
5.3	<i>Free from excess oil and grease</i>		
5.4	<i>Adequately guarded</i>		
5.5	<i>Warnings or instructions displayed</i>		
5.6	<i>Emergency stops appropriately placed and clearly identifiable</i>		
5.7	<i>Operated safely and correctly</i>		
WORK BENCHES			
5.8	<i>Clear of rubbish</i>		
5.9	<i>Tools in proper place</i>		
5.10	<i>Duckboards or floor mats provided</i>		

Item	Observation	Remarks/Recommendations	Target Date
6. HAZADOUS SUBSTANCES			
6.1	<i>Chemical register developed</i>		
6.2	<i>Stored appropriately</i>		
6.3	<i>Containers labelled correctly</i>		
6.4	<i>Adequate ventilation/exhaust systems</i>		
6.5	<i>Protective clothing/ equipment available /used</i>		
6.6	<i>Satisfactory personal hygiene practices</i>		
6.7	<i>Waste disposal procedures</i>		
6.8	<i>Material safety data sheets available</i>		
6.9	<i>Chemical handling procedures followed</i>		
6.10	<i>Appropriate emergency/first aid equipment - shower, eye bath, extinguishers</i>		
7. WELDING			
7.1	<i>Only trained personnel permitted to weld</i>		
7.2	<i>Gas bottles securely fixed to trolley</i>		
7.3	<i>Welding fumes well ventilated</i>		
7.4	<i>Fire extinguisher near work area</i>		
7.5	<i>Only flint guns used to light torch</i>		
7.6	<i>Flash back spark arresters fitted</i>		
7.7	<i>Vision screens used for electric welding</i>		
7.8	<i>LPG bottles within 10 year stamp</i>		
7.9	<i>PPE provided and worn</i>		
8. EXCAVATIONS			
8.1	<i>Shoring in place and in sound condition for all trenches more than 1.5m</i>		
8.2	<i>Excavation well secured</i>		
8.3	<i>Signage displayed</i>		
8.4	<i>Banks battered correctly and spoil away from edge</i>		

Item		Observation	Remarks/Recommendations	Target Date
8.5	<i>Sufficient clear areas and safe access around excavation</i>			
8.6	<i>Separate access and egress points from excavation</i>			
9. MATERIAL HANDLING AND STORAGE				
9.1	<i>Construction site storage areas established</i>			
9.2	<i>Stacks stable</i>			
9.3	<i>Heights correct</i>			
9.4	<i>Sufficient space for moving stock</i>			
9.5	<i>Material stored in racks/bins</i>			
9.6	<i>Shelves free of rubbish</i>			
9.7	<i>Access around stacks and racks clear</i>			
9.8	<i>Drum Checked</i>			
9.9	<i>Pallets in good repair</i>			
9.10	<i>Heavier items stored at lower heights</i>			
9.11	<i>No danger of falling objects</i>			
9.12	<i>No sharp edges</i>			
9.13	<i>Safe means of accessing high shelves</i>			
9.14	<i>Racks clear of lights/sprinklers</i>			
9.15	<i>Bunding and containment provided and operational</i>			
10. PUBLIC PROTECTION				
10.1	<i>Appropriate fencing, signpost, scaffold secured and in place</i>			
10.2	<i>Signage in place</i>			
10.3	<i>Suitable lighting for public access</i>			
10.4	<i>Footpaths clean and free from debris</i>			
10.5	<i>Dust and noise control</i>			
10.6	<i>Work site access controlled</i>			
10.7	<i>Traffic control procedures in place</i>			
10.8	<i>Public complaints actioned</i>			

Item	Observation	Remarks/Recommendations	Target Date
11. AMENITIES/ FACILITIES			
12.1	<i>Washrooms clean</i>		
12.2	<i>Toilets clean</i>		
12.3	<i>Lockers clean</i>		
12.4	<i>Meal rooms clean and tidy</i>		
12.5	<i>Rubbish bins available – covered</i>		
12.6	Drinking water supplied		
12. FIRE CONTROL			
13.1	<i>Extinguishers in place</i>		
13.2	<i>Firefighting equipment serviced/tagged</i>		
13.3	<i>Appropriate signing of extinguishers</i>		
13.4	<i>Extinguishers appropriate to hazard</i>		
13.5	<i>Emergency exit signage</i>		
13.6	<i>Exit doors easily opened from inside</i>		
13.7	<i>Exit path ways clear of obstruction</i>		
13.8	<i>Alarm/communication system – adequate</i>		
13.9	<i>Smoking/naked flame restrictions observed</i>		
13.10	<i>Minimum quantities of flammables at workstation</i>		
13.11	<i>Flammable storage procedures</i>		
13.12	<i>Emergency personnel identified and trained</i>		
13.13	<i>Emergency procedures documented – issued</i>		
13.14	<i>Emergency telephone numbers displayed</i>		
13.15	<i>Alarms tested</i>		
13.16	<i>Trial evacuations conducted</i>		
13.17	<i>Personnel trained in use of firefighting equipment</i>		

13. BARRICADING (Controlled and Implemented by Safety in Charge)		
SL.No	Particulars	Observations Recorded
11.1	Name of Sub project	
11.2	Name of the person responsible to ensure Safety Barricades	
11.3	Type of Barricading Used (if soft Which type of Tape / material used)	
11.4	Type of Barricading Used (Hard)-state which Barricades used	
11.5	Date of Barricading	
11.6	Place of Barricading	
11.7	Name of the Work for which Barricading is implemented Eg. Confined space , Hot , Electrical , Height , Pit , Hazardous)	
11.8	Risk issues associated with the work	
11.9	Entry restrictions to the workers	
11.10	SOP have been followed or not	

1. SAFETY CHECKLIST	YES	NO	NA
All worker is wearing safety helmets			
Workers working with ropes, wires or cables are wearing gloves			
All crane, excavator or other plant drivers have the required certificates and licenses			
All workers engaged in mud or slush equipped with gumboots			
All workers handling cement or concrete are equipped with gloves			
Safety cordon is established around all excavation			
Appropriate warning sign boards in English are available and properly located			
Safety officer and supervisors are available at site			
Welder and/or gas cutters are using welding helmet and gloves			
Proper and safe access is provided to excavation and trenches			
Adequate shoring is in place before any trench entry is attempted			
Any electrical equipment is properly earthed using insulated and carried on poles			
Lighting is connected using insulated wired, proper plugs and sockets and all hand lamps havewire mesh covering			
First aid kit is available at site			
Emergency numbers and procedures are available at site			

2. CHECKLIST FOR CONSTRUCTION WORKER'S CAMP SITE	YES	NO	NA
<i>Quarters for male and female workers</i>			
<i>Sleeping utilities (e.g., beds, pillows, blankets, mosquito nets etc.)</i>			
<i>Power/ Electricity supply</i>			
<i>Drinking water supply</i>			
<i>Toilets for male and female workers</i>			
<i>General purpose water supply (cooking, washing, bathing)</i>			
<i>Cooking facilities and areas</i>			
<i>Solid waste management</i>			
<i>Waste water management</i>			
<i>Pest control</i>			
3. CHECKLIST FOR EXCAVATION WORK	YES	NO	NA
<i>Is clearance or excavation taken to prevent damage to underground utilities</i>			
<i>Has cable detector been used to detect the cable underground</i>			
<i>Are the workers aware about the location of first aid location</i>			
<i>Are the emergency rescue equipment, such as breathing apparatus, a safety harness, basketstretcher is available at site</i>			
<i>Have adequate precaution been taken for employee from water accumulation</i>			
<i>Are workers provided with proper briefing about the cave-in and other hazards in pit beforeproceeding to work</i>			
<i>Are the excavation equipment parked at least about 6mtr from the excavation site</i>			
<i>Have workers not with him the alcohol during entering the pit</i>			

PERSONAL PROTECTIVE EQUIPMENT (PPE) STATUS

<i>SL NO</i>	<i>PARTICULARS</i>	<i>YES</i>	<i>NO</i>	<i>REMARKS</i>
<i>1</i>	<i>Sufficient no. availability & usages of PPEs</i>			
<i>2</i>	<i>Gum boots</i>			
<i>3</i>	<i>Gloves</i>			
<i>4</i>	<i>Cap/helmets</i>			
<i>5</i>	<i>Aprons</i>			
<i>6</i>	<i>Welding goggles</i>			
<i>7</i>	<i>Practice of water sprinkling to avoid dust emission at the site</i>			
<i>8</i>	<i>Safety Precautions Display/Signage Boards (No.)</i>			
<i>9</i>	<i>Installation of barricades near the site</i>			
<i>10</i>	<i>Maintaining safe slope at work site and avoid collapsing of soil/ avoid accidents</i>			
<i>11</i>	<i>Construction waste stacking and disposal</i>			

In – Charge Safety Manager

(SIGNATURE)

PM&SC Official

(SIGNATURE)

PHED Official

(SIGNATURE)

14. LABOUR MANAGEMENT PROCEDURES

1. INTRODUCTION

The Labour Management Procedures (LMP) is developed to manage and mitigate potential risks under the Imphal Sewerage Project, funded by the New Development Bank. The LMP sets out the Project's approach to meeting state and central government requirements as well as the objectives of the New Development Bank's Environmental and Social Framework.

2. ASSESSMENT OF KEY POTENTIAL LABOUR RISKS

Occupational Health and Safety (OHS) risks are low to moderate in the Imphal Sewerage project. Since the majority of contracted workers are unskilled and untrained local population, however, risk remains that some incidence may occur that lead to injuries.

Employment risks: Workers are being hired by the contractor, either directly as project staff or indirectly as part of contracts with consultants or service providers. The practice shows that civil works subcontractors do practice a Labour contract with a lump-sum payment for a certain type of service or scope of work.

3. BRIEF OVERVIEW OF NATIONAL LEGISLATION

Following acts are applicable: -

- Minimum Wages Act 1948
- Payment of Wages Act, 1936
- The Payment of Bonus Act 1965
- Employees provident fund Act 1952
- The Workman Compensation Act, 1923
- Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979
- MP Building and other construction workers Act (Regulation of Employment and Conditions of Service) 1996.
- Sexual Harassment of women at workplace Act, 2013
- Child Labour (Prohibition and regulation) Act, 1986
- The Contract Labour (Regulation and Abolition) Act. 1970

4. RESPONSIBLE STAFF

Project Manager of Contractor's Team are accountable and responsible for all the workers associated with the project. Social and Environmental specialists of Contractor 's, Project Manager of Project Implementation Unit's and Team of Project Management & Supervision Consultants are jointly responsible for the following:

- Implement this labour management procedure. Ensure that civil works contractors comply with these labour management procedures.
- Monitor contractors and subcontractors' implementation of labour management procedures.
- Monitor and implement training on LMP and OHS for project workers.
- Ensure that the grievance redress mechanism for project workers is established and implemented and that workers are informed of its purpose and how to use it.

5. POLICIES AND PROCEDURES

- As specified in the labour code, employment of project workers are based on the principles of non- discrimination and equal opportunity. There will be no discrimination with respect to any aspects of the employment relationship, including recruitment, compensation, working conditions and terms of employment, access to training, promotion or termination of employment. The following measures are being followed by contractors and implement and monitored by the PIU's & PM&SC, and to ensure fair treatment of all labour:
 - Recruitment procedures will be transparent, public and non-discriminatory, and open with respect to ethnicity, religion, sexuality, disability or gender.
 - Applications for employment will only be considered if submitted via the official application procedures established by the contractors.
 - Clear job descriptions will be provided in advance of recruitment and will explain the skills required for each post.
 - All workers will have written contracts describing terms and conditions of work and will have the contents explained to them. Workers will sign the employment contract.
 - Unskilled labour will be preferentially recruited from the surrounding communities.
 - The contracted workers will not be required to pay any hiring fees. If any hiring fees are to be incurred, these will be paid by the Employer.
 - Depending on the origin of the employer and employee, employment terms and conditions will be communicated in two languages, in the state language and the language that is understandable to both parties.
 - In addition to written documentation, an oral explanation of conditions and terms of employment will be provided to workers who may have difficulty understanding the documentation.
 - All workers will be 18 years old or above for civil works.
 - Work hours are set 8 hours a day, 48 hours a week, with a weekly rest day for engaged labours.

6. AGE OF EMPLOYMENT

- Contractor will ensure that no construction workers under 18 years are employed.
- Contractors will be required to verify and identify the age of all workers through proper documentary evidence. The penalty procedure are being followed if underage workers are found working on the project.

7. TERMS AND CONDITIONS

- The employment terms and conditions applying to contractor's team members are being set out in this document. These internal labour rules will apply to all who are assigned to

work on the project.

- Labour wages, hours and other applied provisions are as per the standard labour law and policies. Work hours are set 8 hours a day, 48 hours a week, with a weekly rest day for engaged labours.

8. GRIEVANCE MECHANISM

- A grievance mechanism is a procedure that provides a clear and transparent framework for addressing grievances related to the recruitment process and in the workplace. This typically takes the form of an internal procedure for complaints as well as external process, followed by consideration and management response and feedback system.
- A common grievance mechanism (GM) should be developed for stakeholders including all types of workers to raise workplace concerns. GM should be accessible to all labour, worker, employees and community through various means (written, telephone, fax, social media and online etc.). Grievance logbook should be maintained in site office.

9. CONTRACTOR MANAGEMENT

- Construction and other contracts include provisions related to labour and occupational health and safety as provided in the state/Central Government Legislation.
- Contractor will manage and monitor the performance of contractors in relation to contracted workers, focusing on compliance by contractors with their contractual agreements (obligations, representations, and warranties) and labour management procedures. This includes inspections, and/or spot checks of project locations and work sites as well as of labour management records and reports compiled by contractors. Contractors' labour management records to be maintained by contractor and reviewed and monitored by PIU and PM & SC.

ANNEXURE: GRIEVANCE REDRESSAL FORMAT FOR THE COMPLIANTS RECEIVED

(To be completed by the concerned PHED/ Contractor)

Name of work & Package No.		
Project Name		
Name of Project Manager		
Name of Contractor & his Project Manager		
Name of Complainant & his status (citizen/ official of ULB or any other organization/ others)		
Number (given in the register) of the complaint		
Nature of Complaint (Safety issue/ utility breakage/ accident/ quality related/ restoration/ damage to structure / others)		
Date of Complaint		
Date of Complaint informed to contractor		
Time required/ given to contractor for resolution (in case of safety &/or accidents, the time given shall be immediate but not exceeding 5 hours)		
Complaint attended	Date of Start	
	Action Taken	
	Date of closing of complaint	
Whether the complaint is attended in time	Yes / No	
If the complaint is not attended in time, whether the complainant was informed. If yes, when and how. If not, why		
Signature of the contractor's representative		
Reconciliation from the complainant	Date	
	Reconciliation Done by (Name)	
	Statement of aggrieved (Satisfied / Not Satisfied)	
Name & Signature of PM&SC representative		

WORKING MAN-HOUR CALCULATION

WORKING MAN-HOUR CALCULATION

Name of Project:

Name of Contractor:

Name of Client: PUBLIC HEALTH ENGINEERING DEPARTMENT, MANIPUR

Contract Agreement No:

Date

Duration

Sl. No.	Month	Category		Total Working Hours	Remarks
		Skilled	Unskilled		
Total				-	

SIGNATURE: (Project Manager): Date :

SIGNATURE: (Project Director): Date :

ACCIDENT/INCIDENT INVESTIGATION REPORT

Name of Project	
Date & Time of Incident	
Location of Incident	
Name and ID no. of Injured person	
Designation of Injured person	
Age of Injured person	
Address of Injured person	
Name and ID no. of job Supervisor/Site Engineer	
Incident witness Name and ID	
Nature of Incident	
Nature of Injury	
Body part which received Injury	
Description of Accident/Incident	
Observation	
Equipment/Material involved and Extent of Damage	
Cause of Accident/Incident	

ACCIDENT/INCIDENT INVESTIGATION REPORT

Immediate Action taken			
Corrective actions			
Preventive Actions			
Additional Information (If any)			
Sl.No.	Recommendation(S)	Action By	Closing Date

(Use additional sheet if required)

Investigated By		
Name:	Name	Name
Designation	Designation	Designation
Signature	Signature	Signature

To

All concern

Manager HSE

Project Manager

Manager Representative

AGM, DGM, GM, PD, MD

: For information and necessary action please

