UNOPS – Myanmar

Project Health and Safety Plan – HS01

15-Dec-17

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1. Introduction

1.1. Intro and scope of the Project H&S Management Plan

UNOPS endeavours, in all its projects and operations, to prevent personal injuries, ill health and damage to property.

This Project Health and Safety (H&S) Management Plan (hereafter "the Plan") has been designed to assist the management of activities and support a risk-based approach to preventing dangerous acts that could lead to injuries or illnesses or serious incidents in the workplace.

This Plan is a live document that will be reviewed on a regular basis and updated if necessary.

1.2. Project description and key dates

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**
Project Location	Myanmar
UNOPS Project No.	20476-001
Project Duration	*6 months*
Project Health and Safety Management Level	*Level 3*
Project Overall Risk Score, and sub-scores for elements 2 and 3	*[Medium]*
UNOPS Project Manager	Mohan Kumar Tuladhar
UNOPS Project H&S Coordinator	*Nishantha MANAGE*

1.3. Roles and responsibilities

While the Project Manager holds the overall responsibility for Health and Safety management in the Project, other roles may hold accountability, or need to be consulted and informed of various work packages (e.g. the Contractor, the Office Director, the Programme Manager, the Project Design Manager). The table below outlines Roles and responsibilities for Infrastructure projects in the assurance set-up.

ACTIVITY	Director /Programme Manager	UNOPS Project Manager	Project Engineer*	Road Engineer	Contractor*
Ensure that local laws and regulations are understood and fully	A	R			

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considered within the H&S Plan					
Ensure planned review dates for the H&S plan are monitored	A	R			
Convene Design Phase Start Up Meeting and assign H&S responsibilities	A	R		I	
Eliminate foreseeable health and safety risks through engineering design solutions and, where that is not possible, take steps to reduce or control those risks	A	R		R*	
Carry out hazardous materials assessment for materials within the design, and where appropriate inform key stakeholders/work package contractors.	A	R		C	
Ensure regular liaison between parties on site on health and safety matters	A	R	C		
Ensure consultation with the workforce & visitors	A	R	C		
Check that design changes that affect H&S are recognised and assessed during construction phase	A	R	C		R*
Ensure that works contractors are procured using the appropriate FIDIC based contract. (Defines responsibilities for H&S / insurance etc.)	A	R	I		
Ensure that contractor(s) employ effective H&S management techniques	A	R	C		
Ensure effective arrangements in place for site security/access	A	R	I		
Ensure arrangements in place for Site induction and safety briefings	A	R	I		R*
Ensure that suitable welfare facilities and first aid arrangements are in place	A	R	I		
Ensure that reporting of accidents / incidents structural failures are reported in line with OD 42	R	C	I		R*
Ensure work permit system is established and implemented	A	R	I		R*
Ensure that risk assessments and method statements are compiled and implemented in a timeous manner	A	R	I		R*
Ensure that Fire and evacuation procedures are established and tested	A	R	I		

A - Accountable (overall responsibility)
C - Consulted (supports, has the information or capability required)
I - Informed (notified but not consulted)
R - Responsible (gets the work done)
R* - refers to Work Package Responsibility

2. Local laws, regulations and other compliance requirements

Health and Safety legislation and other relevant requirements in Myanmar are described in the UNOPS Myanmar legal register using form HSE03. This should also include the relevant requirements of interested parties that have been identified by the local office using form HSE02. A check for legal compliance has been performed to ensure that this project is compliant with legal and other requirements, using form HSE04.

A copy of the legal register is available *[HSE 03]*. UNOPS Project Manager will review these laws and regulations every *[12 months]* to make sure that there are no changes which may affect this plan.

3. Operational planning (for multiple sites, detail all site-specific information)

3.1. Activity risk assessment planning

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A staged approach to project/site hazard identification and risk control is a requirement of this plan.

Hazard identification and subsequent risk assessment will be an ongoing process throughout the life of the project (up to defects notification period, if part of the contract). The Contractor receives already during the tender phase a schedule of key risks/hazards identified during design (form HS08, Schedule of Key Tasks, can be used for this purpose). These tasks should be carefully considered during the development of detailed Risk Assessments.

3.2. Hazard identification and activities risk assessment

UNOPS Project Manager ensures that the risk assessments developed by the Contractor(s) are aligned with the requirements of form HS05, including as a minimum:

- Contractor(s) has identified all foreseeable hazards within the assessed activity
- Hazards have been prioritized by their magnitude (high, medium or low)
- Adequate control/mitigation measures have been documented for each hazard
- Both routine and non-routine conditions and special conditions have been taken into account.

The Contractor has developed Risk Assessments *[using Form HS05* that were reviewed by the UNOPS Project Manager and accepted prior to works commencing. The requirement to produce Risk Assessments applies to activities performed by sub-contractors as well.

The workforce shall be briefed on the contents of appropriate Risk Assessment(s) prior to works commencing; briefings are formally recorded using form HS10.

The Risk Assessment(s) will be amended as necessary to ensure that the works progress in a safe manner. The Risk Assessment(s) for this Plan are attached as Annex 1C.

All UNOPS personnel have the authority to stop any activity that has the potential to cause injury or damage property until such times as the works are managed in a safe manner.

3.3. Objectives and targets

The project will have the following Health and Safety objectives and targets:

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#	Objective	Target (measurable where practicable)	Action/program	Responsible	Target Date
1	Provide training	a) IOSH certified On-line Health & Safety training for 3 people (MS 2 and WS 5), b) Face-to-face training of infra Project team and contractors representatives on HSE - 10 sessions c) Induction training at office	1. book training licences from HQ, participants complete training and do exam 2. Prepare training materials, carry out training workshop. 3. Maintain records of training	Infra Project Manager/QHSE Engineer	a) get licences for the training by 31 October 2018 b) All training completed by 31 Oct 2018
2	Consultation and participation	a) Infrastructure project teams to include HSE as agenda in project monthly meetings b) Face to face HSE training and site inspection visits	a) Infrastructure project teams to include HSE in project monthly meetings b) Review performance of trained participants to check effectiveness of training b) Face to face HSE training and site inspection visits	Infra Project manager/QHSE Engineer	31 Oct 2018
3	Establish robust HSE systems	The projects are certified to ISO 14 001 and to OHSAS 18 001 by 2016. Hence maintain the system and conduct internal reviews	Trainings, carry out internal review, update documentation, arrange for external assessors to come and verify.	Infra Project manager/QHSE Engineer	31 Oct 2018
4	Prevent falls from heights	a. use inspected, fit for purpose scaffolds. b. encourage use of safety harnesses.	1. Review working at heights at sites visited. 2. Emphasise while in training sessions	Infrastructure Manager and his team	31 Oct 2018
5	Minimize snakebites	Create awareness	1. Awareness on prevention of snake bites 2. Training on first aid for snake bites	Infrastructure Manager and public health specialist	31 Oct 2018
6	Avoid fatality	Zero fatality in all sites during 2017	6 months or the whole contract durations	Infra Project manager/QHSE Engineer/Contractors	31 Oct 2018
7	Minimise lost time injuries	Lost time injuries – maximum of 1 injury per site in 2017	1. Implement HSE plans in each site 2. Conduct HSE inspections and prepare monthly reports	Infra Project manager/QHSE Engineer/Contractors	31 Oct 2018
8	Minimise minor injuries	Maximum of 2 minor injuries per site throughout the project life in 2017	1. Implement HSE plans in each site 2. Conduct HSE inspections and prepare monthly reports	Infra Project manager/QHSE Engineer/Contractors	

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9	Minimise near Misses	Maximum of 4 near misses per site throughout the project in 2017	1. Implement HSE plans in each site 2. Conduct HSE inspections and prepare monthly reports	Infra Project manager/QHSE Engineer/Contractors	
10	Conduct Risk Assessment	Risk Assessment are done for each construction site	Conduct risk assessment for each construction site	Infra Project manager/QHSE Engineer/Contractors	

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3.4. Work permit system

The following activities at site will require the Contractor(s) to obtain a signed work permit from UNOPS *[Project Manager/Project Engineer]* before commencing these activities at site:

- *[Confined Space Entry, form HS12]*
- *[Hot Works, form HS13]*
- *[Excavation, form HS14]*
- *[Lifting, form HS15]*
- *[Working at heights, form HS16]*

3.5. Management of contractors and sub-contractors

- Bidders receive key documentation outlining the requirements of UNOPS Health and Safety Management Systemsduring the tender phase. The selected contractor shall comply with all UNOPS HS requirements for the whole duration of the contract. These requirements equally apply to any subcontractors hired by the contractor. It is the contractor's responsibility to ensure that subcontractors comply and to demonstrate such compliance in submittals and during verification processes by UNOPS.
- Ifpre-bid meetings, site visits and/or contract commencement meetings are carried out, H&S requirements and submittals should be discussed, both for day-to-day work and for H&S critical stages/activities.

4. Health and safety management at project site

4.1. Management of hazardous materials

Occupational diseases may occur as a result of exposure to hazardous substances in the form inhaled particulates, ingested materials or skin contact with substances. Such possibilities have been identified in the Risk Assessment(s) and appropriate controls put in place. The main types of hazardous materials that have been identified are:

Hazardous material	Risk rating	Control method	Responsible person
Paint which contains Lead	Medium	Avoid such type of paint	Project Engineer
Lubricants use for road machineries	Medium	Use PPE when it is used	Project Engineer
Wood preservatives	Low	Use PPE	Project Engineer
Cement	Low	Use PPE	Project Engineer
Fuel	Medium	Careful handling	Project Engineer

Hazardous materials/chemicals used at the site shall have Material Safety Data Sheets (MSDS). The MSDS are obtained from the manufacturer/supplier of the materials and should be requested with each purchase of products.

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Material Safety Data Sheets will be included in the Toolbox talks and risk assessment briefings. This information will be made available to any employee or sub-contractor or visitor who may interact with the materials/chemical substances on site.

4.2. Access and site security

UNOPS Project Manager will ensure that the Contractor(s) have put in place all measures to establish the site according to UNOPS guidance (GHS12).

It is the Project Manager responsibility to ensure that all site security requirements identified in the Risk Assessment for this activity are fully implemented.

4.3. Site Induction and Site Safety Rules

Site inductions will be carried out by the contractor. Arrangements for site inductions for this project shall be:

- Any new worker coming to the work site will be briefed on the site safety rules including the site logistics plan, hazards, evacuation procedures, emergency and first aid procedures, and the duties and responsibilities of all persons on site.
- A Site Induction briefing and Site Safety Rules has beendeveloped in *Myanmar language]* and in English.
- All attendees of the Site Induction briefing will be recorded and included in UNOPS Site Induction Register (form HS06).
- Visitors will be given a brief site induction (based on an either oral or writtenVisitor's induction) and will be accompanied at all times during their visit to the site(form HS08).
- UNOPS personnel at Site should ensure that workers carrying out safety critical tasks have the necessary induction, qualifications and/or on the job training/licensing for the tasks they carry out and registered on a training(form HSE09).

4.4. Workplace inspections

Inspections of the project site should be carried out weekly. Contractor(s) will undertake weekly inspections of the whole work site, and specifically of:

- *Equipment*
- *Ladder (form HS 18)*
- *scaffolds (form HS19)*
- *small tools (form HS20)*
- *lifting devices (form HS 21)*
- *electrical cables*
- *fire extinguishers*
- *First Aid Kits*

Records of the inspections should be kept using form HSE07 and/or other dedicated forms, or the Contractor(s) forms where approved by UNOPS:

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UNOPS personnel at site will be responsible to for the assurance of these inspections. UNOPS site team are responsible for ensuring that the inspection findings and recommendations are closed out in a timely manner.

4.5. Site induction and training

Induction, training and awareness activities have been planned and consideration given to ensuring that personnel doing HS critical activities are covered.

Planned training	Nominated staff	Frequency
First Aid Training	Site engineers-UNOPS/Contractor	Every 6 months
IOSH Working Safely	UNOPS Engineers/Contractor's Engineers	Annually
Induction training	Contractor Staff	Commencement of contract
Tool Box talks	Contractor's staff and labors	Daily or at the start of new activity

The HSE training matrix (form HSE09) can be used to keep detailed records of site inductions, toolbox talks and training.

4.6. Emergency and evacuation procedures

Emergency and evacuation procedures will be tested through appropriate drills that will be held every 3months and, where possible, may involve relevant interested parties UNOPS and Contractor's personnel).

As a minimum, the Emergency Plan and procedures shall include:

- emergency contact numbers (HS03) available on notice and information boards over the project work areas and site offices
- emergency procedures, incorporated in the project site inductions briefing
- Emergency drills shall be recorded (HS04)

Emergency procedures should be periodically reviewed to ensure continued relevance.

5. Communication and information sharing

5.1. Internal communication

Internal communication for the Project will include as a minimum:

- H&S weekly meetings. They may be dedicated to H&S or H&S may be one part of the agenda. Additional H&S meetings will be organised when needed. Meeting minutes will be distributed to UNOPS, Contractor's team and sub-contractors.

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- Weekly inspections (form HSE07); including Health and Safety items will be performed jointly by UNOPS team and the Contractor(s) team; the report will be prepared by UNOPS H&S Manager/Coordinator and shared with the Contractor(s) for necessary actions.
- Site H&S monthly report (form HSE23); the monthly report is a monthly summary of the site weekly inspection report findings and corrective action. It is prepared by UNOPS site H&S Manager/Coordinator to be shared with the Contractor(s) and with UNOPS Senior Management in the country as well as with UNOPS HQ.
- Toolbox talks
- Information and guidance signage will be present at site in English and Myanmar language.
- The Site Notice Board will be used to convey daily updates and information
- *Additional communication channels envisaged by the project*

5.2. External communication

Queries on health and safety management from local communities, journalists, business community, neighbours, local representatives, and any other external parties will be handled according to the following protocol:

The focal point for the incoming communication is the Project Manager. Stake holder mamangement meetings will be held if issues arise.

All the minutes will be shared with participant and among the all stakeholders.

Consultation with the workforce

Arrangements for consulting and coordinating with the workers at site will be as follows:

- An employee representative will participate in the regular and extraordinary meetings between UNOPS and the Contractor(s)
- All Contractor's and sub-contractor's employees will be encouraged to raise any suggestions and concerns on environmental and social management of the project on an ongoing basis and during meetings, briefings, toolbox talks, etc.

[Add any other planned measures for facilitating consultation with the workforce]

5.3. Accident and incident reporting and investigation

All significant accidents or incidents and high potential near misses shall be reported to UNOPS HQ using form HS22.

They should be thoroughly investigated and action taken to prevent recurrence. For Class 2 incidents, the outcomes of the review shall be reported to UNOPS HQ using form HS17. Lessons learned should be captured.

UNOPS and Contractor's personnel have an obligation to report all incidents and near misses to the UNOPS Project Manager/H&S coordinator, and will receive proper induction in this sense. Significant incidents and accidents should be recorded in the table below:

Incident description	Date	Corrective action taken

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5.4. H&S risks during operation

To prevent/reduce risks at the use and maintenance phase or during the facility/structure operation, UNOPS will provide the project end user with an operation and maintenance manual, which explains how to operate and maintain the asset in a safe manner.

6. Audit and monitoring

6.1. Project files and records

UNOPS health and safety management electronic files will form the archived component of the records for this project, in line with the UNOPS Record Retention Policy and to facilitate internal and external audit and review. As a minimum they will consist of:

- A copy of UNOPS Myanmar Office legal register
- The Project Health and Safety management plan with its Annexes
- H&S meetings minutes
- Weekly site inspection reports
- Work Permits
- Monthly ESM site reports
- Incidents investigation reports and near misses
- Emergency Drill records
- Record of training and toolbox talks
- A copy of any H&S related correspondence in the project including any nonconformities notification for the Contractor(s)
- Internal and External Audits records
- Copy of the latest UNOPS HQ Management Review records
- Incidents investigation reports and near misses

The UNOPS H&S system shall be formally documented to allow for control and accountability.

6.2. Audit and monitoring

Health and Safety performance at site will be regularly monitored through:

- Weekly site inspections
- Ad hoc site inspections
- Internal reviews if requested by UNOPS HQ
- External audit visit if requested by UNOPS HQ
- *[Other, for instance audit requirements from Donor or local authorities]*

Record of inspections, external audits and internal reviews should be recorded using form HSE16.

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7. Revisions of the Plan

Revision date	Name and title	Description of main changes
Click here to enter a date.		
Click here to enter a date.		
Click here to enter a date.		
Click here to enter a date.		
Click here to enter a date.		

8. Table of references to Templates and Guidance documents

TOPICS	TEMPLATES	RESPONSIBILITY	GUIDANCE
Legal review	HSE02 Register of interested parties HSE03 Legal register HSE04 Check for legal compliance	UNOPS	
Risk Assessment	HS05Risk Assessment	UNOPS	
	HS10 RA briefing register	Contractor	
Work permits	HS12 Confined space permit HS13 Hot works permit HS14 Excavation permit HS15 Lifting permit HS12 Working at heights permit	UNOPS	GHS02 Lifting GHS04 Excavations GHS09 Work at height GHS11 Confined space
Site induction and training	HS06 Site induction register HS08 Visitor induction register HSE09Training matrix	Contractor	See catalogue of Toolbox talks
Site weekly inspections	HSE 07 HSE inspection report – site HS18 Ladder inspection record HS19 Scaffold inspection checklist HS20 Small tools inspection record HS21 Lifting devices inspection record	Contractor	GHS07 Scaffold

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Management of contractors and sub-contractors			See guidance for Contractors working with UNOPS
Emergency and evacuation procedures	Site emergency and evacuation plan HS03 Emergency contact numbers HS04Emergency drill record	Contractor	GHS10 Accident response
Accident/incident reporting	HS22 Incident report form HS16 Incident review form	UNOPS	
Communication and reporting	HSE23 Monthly HSE report – site	UNOPS	
Audit and monitoring	HSE16 Internal review (audit)	UNOPS	

= UNOPS responsibility (usual set-up in assurance position)

= Contractor responsibility (usual set-up in assurance position)

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Project Emergency Contact Numbers

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**		
Project Location			
Contractor			
Date of issue		**Revision**	

Service	Telephone Number	Name/Details/Address
UNOPS representative		
Contractor Contact		
Site First Aid givers		
Nearest Doctor		
Nearest Medical Clinic /Hospital		
Ambulance Service		
Nearest Fire Service		
Nearest Police Service		
Services Providers Electricity Water Service Gas Service		
Other		

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Emergency Drill Record

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**
Location of the drill (address)	
Date of Emergency drill	
Time warning system was initiated	
Warning system initiated by	
Weather condition	
Emergency coordinators present	
Approximate number of people evacuated	
Time taken to fully evacuate	

Overall Standard of Emergency Drill	**Unsatisfactory**	**Satisfactory**
(tick the correct)		

Comments/findings	**Action required/ Responsibility**	**Date completed**

Name of Person in charge of the drill		**Date**	
Signature			

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Hazard and Risk Assessment

Location/Project/Office	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**		
Details of what is being assessed **(activity, functional area)**			
Document prepared by **(name & signature)**		**Reviewed and approved by** **(name & signature)**	
Date		**Date**	

Revision	Date	Author	Description of main changes

Follow the guidance given in the Health and Safety handbook under the title “Hazards and their control” in order get a full understanding of the hazard identification and risk assessment process.

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Consequence \ Likelihood	Unlikely	Slightly likely	Likely	Very likely
Negligible	1	2	3	4
Minor	2	4	6	8
Moderate	3	6	9	12
Major	4	8	12	16

Step-by-Step Guidance:

Stage One: Using the matrix above to carry out an initial assessment to determine the risk rating of each hazard(s) of the activity. To calculate the risk rating of a hazard, multiply the value of its consequence with the value for likelihood (note: here the hazard should be assessed without any control measures). Make sure relevant stakeholders (e.g. local UNDSS focal points) are consulted and involved in the risk assessment.

Stage Two: Use the results from the assessment in Stage One to prioritize control activities. As a general rule, if the risk is High, then the hazard must be eliminated and/or work activity prohibited or mitigation measures put in place to reduce the risk. If the risk is Medium, then additional safety controls are required to eliminate/isolate/minimise the risk. If the risk is Low, then the work can proceed with the current standard site controls in place.

The hierarchy of controls (elimination, substitution, engineering controls, administrative controls, personal protective equipment) should be applied when choosing controls, with more effective ones to be applied first. See the H&S handbook for more guidance.

Stage Three: Using the matrix to review again the hazards, this time with the safety controls proposed. If the risk rating remains Medium or High, then provide alternative or additional safety controls until the risk is assessed as Low.

Stage Four: Review the risk assessment periodically in order to take account of changes in the environment. In each revision, make sure new and modified content is easily identifiable (by text highlighting, use of a different font, use of a different font colour, and similar techniques).

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When identifying hazards, consider among other things the following:

Routine and non-routine activities	Any planned changes	All people involved	Human factors	Design of work processes or work areas that may generate a hazard	Legal obligations

The frequency of the task and the number of people that could be potentially affected should be considered.

For the identification of hazards to be effective, a variety of sources should be investigated, as for example:

Observations	Benchmarking	Safety tours, inspections	Incident reviews	Monitoring	Workflow and process analysis

Note that more detailed assessments might be necessary for the risk assessment to evaluate the harm from exposure to chemical, biological and physical agents.

Identification and ranking of natural hazards may be done by using the country specific information found on http://www.thinkhazard.org/.

Note on Safety and Security: *Threats directly resulting from or related to terrorism, civil unrest, armed conflicts and crime falls under the responsibility of the UN Security Management System. An assessment of these should not be included in this document.*
Fire, aviation safety and road transport safety are also the responsibility of the UN Security Management System; those should not be included in the risk assessment for UNOPS office facilities.

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Item	Task/Activity	Potential Hazards/Risks for each task	Risk Rating (1-16)	Hazard Control Method	Control Risk Rating (1-16)	Person to implement and monitor implementation

Space for comments

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Appendix: The following is a list of possible hazards.

Physical hazards	Chemical hazards	Biological hazards	Psychosocial hazards	Generalenvironment hazards
○ slippery or uneven ground, ○ working at height, ○ objects falling from height, ○ inadequate space to work, ○ poor ergonomics (e.g. workplace design that does not take account of human factors), ○ manual handling, ○ repetitive work, ○ trappings, entanglement, burns and other hazards arising from equipment, ○ transport hazards, either on the road or on premises/sites, while travelling or as a pedestrian (linked to the speed and external features of vehicles and the road environment), ○ fire and explosion (linked to the amount and nature of flammable material), ○ harmful energy sources such as electricity, radiation, noise or vibration (linked to the amount of energy involved), ○ stored energy, which can be released quickly and cause physical harm to the body (linked to the amount of energy), ○ frequently repeated tasks, which can lead to upper limb disorders (linked to the duration of the tasks), ○ unsuitable thermal environment, which can lead to hypothermia or heat stress, ○ violence to staff, leading to physical harm (linked to the nature of the perpetrators), ○ ionizing radiation (from x- or gamma-ray machines or radioactive substances), ○ non-ionizing radiation (e.g. light, magnetic, radio-waves)	Substances hazardous to health or safety due to: ○ inhalation of vapours, gases, or particles, ○ contact with, or being absorbed through, the body, ○ ingestion, ○ the storage, incompatibility, or degradation of materials.	Biological agents, allergens, or pathogens (such as bacteria or viruses), that might be: ○ inhaled, ○ transmitted via contact, including by bodily fluids (e.g. needle-stick injuries), insect bites, etc. ○ ingested (e.g. via contaminated food products)	Situations that can lead to negative psychosocial (including psychological) conditions, such as stress (including post-traumatic stress), anxiety, fatigue, depression, from e.g.: ○ excessive workload, ○ lack of communication or management control, ○ workplace physical environment, ○ physical violence, ○ bullying or intimidation.	○ Environmental risks ○ Endemic diseases ○ Disease Outbreaks ○ Pandemics ○ Quality and availability of health care ○ Natural Disasters ○ Nuclear Disaster ○ Security conditions, Crime, Social Unrest, Political violence fall under the responsibility of the UN Security Management System

Source: OHSAS 18002:2008

In order to manage and control change, this template should be reviewed each time a change happens in the organization (e.g. in the structure, personnel, management system). The results of the risk assessment should be communicated with the staff as appropriate.

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SITE INDUCTION REGISTER

Project Title	Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar

Induction No.	Employee Name	Employee Signature	Employer	Date Inducted	Inducted By

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VISITORSINDUCTION REGISTER

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**

Date	Visitor Name	Organisation	Time In	Time Out	Briefing By/ Supervising Visit (UNOPS staff)

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HAZARD/RISK ASSESSMENTBRIEFING REGISTER

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**
Risk Assessment number & revision	
Date of briefing	
Briefed by **(name & signature)**	

Employee Name	Employer	Employee Signature

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UNOPS WORK PERMIT: CONFINED SPACE ENTRY

Project Title: **Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**	Permit Number:
Location of Confined Space:	Date Submitted:
Details of Work:	Date Approved:
Name of Contractor/Workers:	Validity Period:

Atmospheric (gas) Testing	**Results** (Tests to be carried out prior to any entry by lowering detection equipment into the confined space.)
Oxygen	
Carbon Monoxide	
Hydrogen Sulphide	
Other?	
EXPLOSIVENESS	

Ensure that the Confined Space is free from

	Yes	No
Noxious Sludge and Material Matter		
Gas and Fumes		
Isolated from all sources of Gas and Fumes		

The following precautions must be taken as a condition of this permit approval

	Yes	No
Gas monitoring throughout operation		
Is forced ventilation system required for operation?		
Breathing apparatus required to be worn?		

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Specific protective clothing to be used (list)		
Support person in attendance		
Lifeline system (harness, winch and tripod) to be used		
Non spark tools and flameproof electronics and equipment to be used		
Emergency rescue equipment/facilities required		
Specific workers training to be undertaken		
Other precautions? (detail)		

Approval: (Before the works are undertaken the recipient understands and is competent with the safe systems of work in confined spaces.)
Signature of Approving Authority: **Date:**
Signature of Recipient: **Date:**

Completion: (Confirmation that all persons and equipment has been withdrawn from the space and the area has been left safe.)
Signature of Recipient handing back: Date:
Signature of Approving Authority: Date:

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UNOPS WORK PERMIT: HOT WORKS

Project Title: **Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**	Permit Number:
Location of Proposed Works:	Date submitted:
Details of Work:	
Name of Contractor/Workers:	
Hot Work Fuel Source:	

The following precautions are to be undertaken by the Contractor

Within a 10 metre radius of the work ☐ Removal of combustible Material and Liquids ☐ Covering/protection of fixed combustibles ☐ Clean floor areas of combustibles ☐ Wetting down of combustibles ☐ Covers to collect sparks ☐ Cover all floor and wall openings
General ☐ All cutting and welding equipment is in good repair ☐ All equipment operated by competent people ☐ Does the area require additional ventilation ☐ Ensure suitable PPE is in use ☐ If smoke alarms are required to be disconnected to perfume the hot work then continuous fire watch must take place.
Extinguishers ☐ Hose Reel ☐ CO2 ☐ Dry Powder ☐ Water

Authorisation

Signature of Approving Authority**:**	Time/Date of permit validity:
Signature of Receiver:	Date:

Completion

The work areas have been inspected one hour after the completion of the works and is all clear Permit Receiver:	Date/Time:
Approving Authority: (Permit returned and expired)	Date/Time:

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MAJOR INCIDENT REPORT		
Incident Classification	☐ Fatal ☐ Lost time injury ☐ High Potential near miss ☐ Property Damage ☐ Minor injury	
Date and Time of Incident		
Nature of Injury or Damage		
Operational centre or hub		
Where incident occurred (specify)		
Name of Involved Person(s)		
Name of Employer / Contractor		
Position		
Years in Current Position		
Potential Severity Classification	☐ High	Fatal, potential fatal or definite loss of quality of life.
	☐ Medium	No threat to life but possible loss of quality of life.
	☐ Low	Insignificant incident
Repeat Incident	☐ Has happened before ☐ Similar to another incident ☐ No record of it happening before	
DESCRIPTION OF INCIDENT		

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PICTURE

Learning Points from Incident
Corrective Action
Assurance
We, the undersigned, hereby confirm that the abovementioned incident has been properly investigated; the root cause(s) identified are correct, accountability for the corrective action has been assigned and that these corrective actions will be implemented / scheduled for implementation. _____ Project Manager DATE _____ Operational centre/ hub Director DATE **Assurance required for major incidents.**
Disclaimer
The information contained in this document is for the consideration and use of the parties who receive it. It is not prescriptive and shall not be interpreted to impose any legal duties on or to attach any liability to such parties. No responsibility is accepted by UNOPS for any loss or damage of whatsoever nature arising out of the use of, or adherence to or the lack thereof

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of any part of this information.
For further information contact: HSE Manager on email:ItaiM@unops.org

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UNOPS WORK PERMIT: EXCAVATION

Project Title: **Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**			Permit Number:
Location of Proposed Works:			Date submitted:
Details of Excavation: *(including max depth)*			
Person in charge of Excavation: *(name and title)*			
Estimated Time Required:		Proposed commencement of excavation:	

Underground and Overhead Services Checklist

	'As built' existing services drawings	**Services locations confirmed on site and marked**	**Control zone confirmed, excavation within?**	**Services require isolation?**	**Area to be scanned?**	**Specific method, controls, techniques and protection required?**
Electrical (in ground)						
Electrical (overhead)						
Water main						
Gas main						
Sewer system						
Storm water system						
Data and telecoms						
Other?						

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General Considerations

	Yes	No
Is area required for stockpiling sufficient and secure?		
Are temporary barriers available to protect excavation?		
Has risk assessment been carried out for the works?		

Note: All archaeological items uncovered during excavation shall be immediately reported to the UNOPS site representative. Work shall be stopped and waiting for further instruction from UNOPS site representative.

Authorisation

Signature of Approving Authority**:**	Time/Date of permit validity:
Signature of Receiver:	Date:

Completion

The work area is complete and has been left in a safe condition.	Date/Time:
The work has not been completed and the following remains outstanding:	
Permit Receiver:	
Approving Authority:(permit returned and expired)	Date/Time:

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UNOPS WORK PERMIT: LIFTING (CRANE)

Project Title: **Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**	Permit Number:
Location of Proposed Lift:	Date submitted:
Proposed Date of Lift:	
Appointed person to control lift:	
Banksman/Slingers:	

Details and Description of Lift	
Type of Crane:	
Safe Working Load of the Crane	
Details of the item to be lifted	
Weight to be lifted	
Maximum radius of the lift	
Confirmation of lift and radius suitability	
Lifting Gear minimum capacity:	
Crane operator licensed/Experienced:	
Banksman/Slinger licence/Experienced:	
Crane and equipment weekly/monthly/yearly inspections detailed?	

Pre Lift Checklist

☐ Ground conditions suitable for access and lifting?	☐ Visual inspection of lifting gear	☐ Crane level and wheels clear of ground?
☐ Outrigger spreaders required and in place?	☐ Health and Safety Hazard and Risk assessment undertaken?	☐ Risk controls in place relating to access, vehicles, workers, lifting area etc
☐ Crane operator has all	☐Any workers under	☐ Have all workers involved been

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round vision?	suspended loads?	thoroughly briefed on proceedings?
☐ Any additional requirements?		

Approval

Signature of Approving Authority**:**	Time/Date of permit validity:
Signature of Receiver:	Date:

Review and Completion

Lift undertaken as planned? Improvements for next lift?	
The lift has/has not been completed Permit Receiver:	Date/Time:
Approving Authority: (permit returned and expired)	Date/Time:

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1 UNOPSWork Permit: Working at heights permit

Project Title: **Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**	Permit Number:
Contractor:	Building / location:
Roof or area:	
Project Manager:	Date:
Description of task:	

Task Analysis		Y	N
1	Is there an alternative to working at height? Is it possible to bring the job to ground level?	☐	☐
2	Is there a Work Instruction addressing the task to be conducted which addresses work at height risks (where there is possibility of falling greater than 2 metres)?	☐	☐
	If 'No', has a detailed risk assessment been conducted for the work at height task?	☐	☐
3	Is the work on or near an unprotected roof edge (i.e. within 3 metres from the edge)?	☐	☐
4	Is the work being conducted in an area with permanent edge protection?	☐	☐
	If 'No', can temporary edge protection and fall prevention platforms be installed?	☐	☐
5	Are there other energy sources in the vicinity of the work (e.g. overhead power lines)?	☐	☐
	If 'Yes', can these be isolated or locked out?	☐	☐
6	Does the work at height area have fragile or brittle areas or skylights?	☐	☐
7	Is the work at height to be carried out by only one person, or continue for only one shift?	☐	☐
8	Is the person working at height trained and competent in the use of the equipment?	☐	☐
9	Is there no potential for objects to fall from height that can injure others or damage equipment?	☐	☐
10	Will this work require elevated work platforms?	☐	☐
11	Will this work require scaffolding?	☐	☐
	If 'Yes', are people correctly licensed and it is current and the scaffold is tagged?	☐	☐
12	Will fall restraint or fall arrest systems be required?	☐	☐
	If 'Yes', is a rescue plan available and approved attachment points accessible?	☐	☐
13	If ladders are to be used, are they compliant with Australian Standards and will they be secured?	☐	☐
14	Is the work on a roof near fume stacks or vents?	☐	☐

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Task Analysis		Y	N
15	Is the work on a roof near radio communication equipment or EMF field?	☐	☐
16	Is the work on or near rooftop cooling tower or evaporative condenser equipment?	☐	☐

Controls

Isolations required: ☐ Electrical ☐ Mechanical ☐ Pipeline ☐ Fire Systems

A rescue plan completed and a spotter required: ☐ Yes ☐ No

A Safe Work Method Statement prepared and satisfactory ☐ Yes ☐ No

Harness requirements

Harness visually inspected for damage and has current inspection tags. ☐ Yes ☐ No ☐ NA
Inspection records for attachment points have been reviewed and are current.
Access can be gained to attachment point without being exposed to falls.
Harness and lanyards will function correctly with nothing to compromise integrity.
Comply with AS/NZS1891 Industrial fall-arrest systems and devices.

Equipment Requirements

All the equipment to be used is to be in good working order and tagged if necessary
☐ Signage ☐ Barricades ☐ Ladders ☐ Platforms ☐ Two way radio ☐ Scaffold ☐ Edge protection
☐ P1 or P2 particulate respiratory protection mask ☐ Other (detail):

Additional entry or access instructions (particularly for roofs).

Work at Height Permit Authorisation		
Person in charge of work:		
Name:	Position Title:	Date:
Signature:		

Permit Issuing Officer(s) Authorisation

Work at height approval: The work described on this permit is considered safe to commence using precautions listed above and all persons are trained to perform this work.

Period of permit:	Time:	Date:	to	Time:	Date:

Name:	Signature:	Date:

Roof access approval: The work described on this permit is considered safe to commence using precautions listed above and all persons are trained to perform this work.

Period of permit:	Time:	Date:	to	Time:	Date:

Name:	Signature:	Date:

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ACCIDENT / INCIDENT INVESTIGATION REPORT

Project Title:	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**		
Report date:		Report No.:	
Reported By:		Occupation/Role of reporting person	

Template version	Date	Compiled By
V 1.0	13.12.2012	Marta Chudzio
V 2.0	07.06.2016	ItaiMukuvari

DETAILS OF THE ACCIDENT/INCIDENT

Accident/Incident type:	☐High Potential Near Miss (Incident could have resulted in fatality or major environmental damage) ☐Minor Harm Incident (First Aid treatment with no lost time, minor illness condition, environmental harm that can be easily corrected) ☐Significant Harm (Off site medical treatment andlost time, significant damage with impact beyond the immediate premises and not easily corrected) ☐Fatality (death as a result of accident)		
Accident/Incident Date		Accident/Incident Time	
Where it happened:			
Description/What Happened: (Record all facts prior to and including the accident/incident, was it a planned activity?, describe/list material, ecosystem and property damaged, etc).			
Photos attached	☐ Yes ☐ No		
Witness (if any) name and contact details			
Witness Statement attached	☐ Yes ☐ No		

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DETAILS OF HARMED PERSON (for Health & Safety Incidents)

Name		Age	
Address/Contact Details:			
Occupation:		Employer:	
Status:	☐ Contractor Employee ☐ Subcontractor ☐ UNOPS Employee ☐ Visitor ☐ Public ☐ Other		

Date Injury Reported:		To Whom Reported:	
Did person returned to work the same day?	☐ Yes ☐ No		
Treatment of Injury:	☐ Nil ☐ On Site First Aid only ☐ Doctor ☐ Hospitalised		
Details of Treatment:			
Were any Emergency Services in Attendance?	☐ Yes ☐ No		
Details of Emergency Services if in Attendance:			
Injury Details (**Injury type**: cuts/abrasions, bruising, sprain/strain, fracture, dislocation, foreign body, unconsciousness, other) (**Body part**: ankle/foot, legs, arm, wrist/hand, fingers, toes, torso, back, head, eye, ear, multiple, other)			
Date of return to work			

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ACCIDENT/INCIDENT INVESTIGATION DETAILS

Immediate cause (What unsafe/inappropriate acts or conditions caused the event? Note contributing factors e.g. Incorrect use of ladder, lack of PPE, absence of drip trays/containment)	
Secondary cause (What human, organisational or job factors contributed caused the event? poor housekeeping, incorrect use of tool, incorrect work method, lack of supervision/training, lack of hazard control etc.)Also review of adequacy of RAMS (Reliability, Availability, Maintainability and Safety)	
Immediate Action Taken:	
Recommended Preventative Action:	☐ Training of personnel ☐ Improve Hazard/impact Identification ☐ Improve Hazard/Impact Control ☐ Increase Supervision ☐ Improve Risk/Impact Assessment ☐ Discuss Site HSE meeting

Signature of investigator		Date	
Preventative Action to be Carried Out By: (Name and date)			
Close Out: (Agreed actions have been completed and situation is now satisfactory)	[*ensure reasonable time for effectiveness of measures taken to be seen*]		
Signature of reviewer		Date	

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WEEKLY INSPECTION OF LADDERS/TRESTLES/SCAFFOLD

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**

Ladder ID Number	Description – ladder: length or number of rungs, scaffold - location

Guidance

- Weekly inspections shall be carried out and report completed.
- The report should be kept on site until the project is complete.
- All ladders/trestle's should be individually tagged.
- Ladders/Trestle's must be in good condition and correctly stored - check for splits or cracks in the stiles and rungs. Ensure that none of the rungs are missing or loose.
- Ladders shall not be painted - paint can hide damaged parts.
- Any defected ladders / trestle's should be removed from site immediately.

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Project Title	

Date of inspection	Results of inspection										Signature person who made inspection
	Ladder/scaffold number										

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SCAFFOLD INSPECTION CHECKLIST

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**
Scaffold ID number and location	
Inspection date	

FOOTINGS		**BRACING**		**PLATFORMS**	
Soft and uneven		Façade and ledger		Bad boards	
No base plates		Some missing		Trap boards	
No sole boards		Loose		Incomplete boarding	
Undermined		Wrong fittings		Insufficient supports	
SATISFACTORY		SATISFACTORY		SATISFACTORY	
STANDARDS		**COUPLINGS**		**GUARD RAIL &TOE BOARDS**	
Not plumb		Wrong fittings		Wrong height	
Joined at same height		Loose		Some missing	
Wrong spacing		Damaged		Loose	
Damaged		No check couplers		Damaged	
SATISFACTORY		SATISFACTORY		SATISFACTORY	
LEDGERS		**TIES**		**LADDERS**	
Not level		Some missing		Insufficient length	
Joined in same bays		Loose		Not tied	
Loose		Damaged		Damaged	
Damaged		Other		Other	
SATISFACTORY		SATISFACTORY		SATISFACTORY	

Other comments	**Action required/Responsible**	**Action Completed**

Name of Person carrying inspection		**Signature**	

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WEEKLY INSPECTION OF SMALL TOOLS

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**

Tool ID Number	Description

Guidance

- Weekly inspections shall be carried out and report completed.
- The report should be kept on site until the project is complete.
- Any tool that is found to be defective shall not be used, then fixed or removed from site.

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Project Title	

Date of inspection	Results of inspection										Signature person who made inspection
	Tool number										

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WEEKLY INSPECTION OF LIFTING DEVICES

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**

ID Number	Description

Guidance

- Weekly inspections shall be carried out and report completed.
- The report should be kept on site until the project is complete.
- Any tool that is found to be defective shall not be used, then fixed or removed from site.

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Project Title	

Date of inspection	Results of inspection										Signature person who made inspection
	ID number										

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Register of Interested Parties

Office/Project	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**
Location	
Revision and date	

"Any persons or organisations that can affect, be affected by or perceive itself to be affected by UNOPS decisions and/or activities"

Step 1: List interested parties (e.g. beneficiaries, communities, suppliers, NGOs, donors, regulators, our personnel, partners, etc.)

Step 2: Describe how you will determine their requirements (i.e. their needs and expectations)

Step 3: List the requirements you have identified, and highlight those that will become compliance obligations (NOTE: make sure you include compliance obligations in the Legal Register, HSE03)

1. List of interested parties and methodology for determining requirements

Interested party	Requirement	Requirement identified by way of
1. UNOPS Myanmar	Update	Weekly and monthly progress
2. UNOPS Head Quater	Progress and delivery	Produce progress and delivery reports and dessiminate information as they desired
3. Ministry of Agricultural, Livestock and Irrigation-DRD	Progress update	Project board meeting, verbal communication
4. Contractors and suppliers	Instruction	Timely instruction and dessiminate the proper information on time
5. Donor(ADB)	Progress and delivery	Highlight report, regular communication
6. Communities	Progress and engagement	Community engagement from starting to end
7. Partners	Information sharing	Informed all partners about our project progress and sharing lesson learned
8. Ministry of Labor, Immigration, and Population, Myanmar	Consultation	Keep informed about the project locations

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9. Labor Union, Mynamar	Contact for information	Receive information about the weather changes
10.		

2. Determination of compliance obligations for UNOPS Myanmar based on a power/interest grid analysis

3. Identified compliance obligations must be reported in the Legal Register (form HSE03)

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HSE04

Legal Register for Occupational Health, Safety and Environment

Office/Project	UNOPS MMOH
Location	Myanmar

Version Control

Version	Date	Author
V 1.0	01-06-2016	Nives Costa

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Introduction

UNOPS premises are protected by the Immunities and Privileges of the United Nations. These immunities also apply to UNOPS staff. It is the intention of UNOPS to ensure that operations do not operate below the standard of local legislation (see the UNOPS Health and Safety policy and the UNOPS Environmental Policy). Contractors and construction sites have an even higher obligation to meet legal and other obligations as they are incorporated under local laws. The contractors are assumed to have control over their ability to meet local legislation at UNOPS construction sites. UNOPS has the role of enforcing legal and other requirements in line with the UNOPS policy commitment.

No.	Legislation/Requirement	Source	Requirements
1.	UN Occupational Safety and Health (OSH) Framework	CEB/2015/HLCM/7 of 31 March 2015	Implementation of the framework through six phases by December 2018
2.	A system-wide road map for United Nations climate neutrality by 2020 and of the related goals towards enhancing the environmental sustainability of United Nations operations	CEB/2015/HLCM/7 of 31 March 2015	United Nations climate neutrality by 2020 and enhancement of environmental sustainability
3.	Environmental Sustainability Management in the UN System	CEB/2013/HLCM/5 of 7-8 March 2013	Development and implementation of environmental sustainability managementsystems in each UN organization
4	A framework for advancingenvironmental and socialsustainability in the United Nations system	UN Environmental Management Group, 2012	Moving UN organizations towards strengthening environmental and socialsustainability in our activities
5.	Factories Act, 1951	Myanmar Law	Hoists, lifts, cranes and other lifting and hoisting machinery shall be in good mechanical construction, sound material and strength and be maintained Effective disposal of wastes and effluences Adequate ventilation and lighting of workplaces, no overcrowding Safe drinking water and provision of washing and first aid facilities Effective measures in place to prevent inhalation of dangerous dusts, fumes and gases
6	Social Security Act, 1954	Myanmar Law	Employment injury benefits are granted in case of occupational accidents and diseases irrespective of whether the employer has paid contributions for the injured worker or not Payable of temporary disability benefit until worker recovery or 52 weeks since date of accident Social Security grant to persons suffering permanent disability due to employment injury
7.	Prevention from Danger of Chemical and Associated Materials Law (No. 28), 2013	Myanmar Law	Ensure chemicals and associated materials produced are in compliance with standards Specify rules and regulations

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			relating to the transporting, storing, using and disposing methods of chemical and associated materials Maintain and train workers in uses of safety devices and personal protective equipment to prevent accident Prohibit importing and exporting of deterred chemicals Specify danger levels Inspection and reporting once in 6 months
8.	The Environmental Conservation Law The PyidaungsuHluttaw Law No. 9 / 2012	Myanmar Law	Environmental quality standards: water, air, solid wastes, etc. Environmental conservation. Provisions to deal with Environmental emergencies
9.			

Note* Other laws and legislation relating to Occupational Health and Safety not included in the list: The Shops and Establishments Act 1951, The Leave and Holidays Act 1951, Electricity Law 1985, Myanmar Mines Law 1994, Prevention and Control of Communicable Diseases Law 1995, Atomic Energy Law 1998, Boiler Law 2015

** The Ministry of Labour, Employment and Social Security and the Ministry of Construction have been working on drafting "Workplace Safety and Health Act" since 2012

*** The Factories and General Labour Laws Inspection Department (FGLLID) within the Ministry of Labour, Employment and Social Security and the Occupational Health Unit of the Department of Health within the Ministry of Health are responsible for the protection of occupational safety and health of the workers and improvement of working conditions, including enforcing labour laws and safety measures, provision of OSH training and advisory services, assessing environmental health risks, carrying out factory inspections periodically, etc.

When researching for applicable national legal HSE requirements, it is recommended that existing legislation in the following areas is explored:

Access/ Egress

Fire/Emergency Prevention and Response

Ergonomics

Occupational Health Stressors

Pressurised equipment

Electrical equipment

Hazardous substances

Preparation of food

Structures

Transportation

Working at heights

Excavation

Small tools

Work over waterWork interactions (e.g. stress, psychosocial)

Use of Lifting Machinery

PPE

Other general H&S requirements

Water quality and management

Air quality

Waste

Resources conservation

Pollution control

Other general environmental requirements

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References:

1. Convention Immunities and Privileges of the United Nations. http://www.un.org/en/ethics/pdf/convention.pdf (Dec. 2014)

2. http://www.un.org/en/ecosoc/docs/2010/res%202010-23.pdf

3. ILO: Safety and Health in Construction Convention no. 167 (Dec. 2014) http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312312

4. ECOLEX, the gateway to environmental law, operated jointly by FAO, IUCN and UNEPhttp://www.ecolex.org/start.php

5. NATLEX, the ILO database of national labour, social security and related human rights legislation http://www.ilo.org/dyn/natlex/natlex4.home?p_lang=en

6. LEGOSH, the ILO global database on occupational safety and health legislation http://www.ilo.org/dyn/legosh/en/f?p=LEGPOL:1000

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HSE04

HSE - Check for Legal Compliance

Title	UNOPS MMOH
Location	Myanmar
Date Prepared	5th May 2017

Version Control

Version	Date	Author
V 1.0	10-02-15	Raquel Taveras
V 2.0	01-06-16	Nives Costa

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2 1. IMMUNITIES AND PRIVILEGES OF THE UNITED NATIONS

The founding Charter of the United Nations provides for the privileges and immunities “necessary for the fulfilment of its purposes.” (Article 105, UN Charter). The Convention on Immunities and Privileges adopted by the General Assembly of the UN on 13 February 1946 details the specifics of these legal exemptions.

This means that while UNOPSas a separate entity of the United Nations is exempt from compliance with local laws, it does interact with local governmental agencies for the provision of services and should meet the minimum standards for the operation of these services if not exceed them according to international standards.

3 2. UN REQUIREMENTS AND UNOPS HSE MINIMUM STANDARDS

The regulations and requirements put forth in the UN system should be applied to UN facilities. Therefore, UNOPS shall meet the requirements of the UN Occupational Safety and Health (OSH) Framework (CEB/2015/HLCM/7 of 31 March 2015); of the UN Climate Neutrality Strategy and the Strategic Plan for Environmental Sustainability Management (CEB/2013/HLCM/2); and the UN Roadmap towards Climate Neutrality by 2020 (CEB/2015/HLCM/7 of 31 March 2015); and of other relevant UN initiatives and frameworks.

UNOPS minimum standards for Health, Safety and Environment apply in all its projects and operations, also in cases where they go beyond and above local legislative requirements.

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4 3. LEGAL REGISTER/ CHECK FOR COMPLIANCE

Item[1]	Legislative instrument (law, regulation, decree, etc.)	Area of concern/hazard regulated	Year	Regulatory Body	Legal Requirements	Compliance (Y/N)	Evidence of Compliance/ Corrective Actions
1	UN Occupational Safety and Health (OSH) Framework (CEB/2015/HLCM/7/Rev.2 of 31 March 2015) (Myanmar has not ratified: ILO: C167 - Safety and Health in Construction Convention, 1988 (No. 167) Article 13)	Hazards leading to slips and falls and hazards from adjacent works	2015	UN	1. Safe means of access to and egress from all workplaces shall be provided and maintained, and indicated where appropriate. 2. All appropriate precautions shall be taken to protect persons present at or in the vicinity of a construction site from all risks which may arise from such site.	Y Y	Risk assessments, inspections,
2	UN Occupational Safety and Health (OSH) Framework (CEB/2015/HLCM/7/Rev.2 of 31 March 2015). UN Common system Environmental and Social safeguards system UNOPS Organizational Directives 42	Occupational exposures at the workplace, lack of participation,	2015 2012	UN	Duty of care, making the work place safe, preventing injuries and illnesses,	Y	Risk assessments, internal audits, HSE committee meetings, HSE communications

[1]Ensure numbering of legislative instruments is aligned and can be cross-referenced with those included in the Legal register.

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Item[1]	Legislative instrument (law, regulation, decree, etc.)	Area of concern/hazard regulated	Year	Regulatory Body	Legal Requirements	Compliance (Y/N)	Evidence of Compliance/ Corrective Actions
			2013, 2014				
3	The Environmental Conservation Law The PyidaungsuHluttaw Law No. 9 / 2012 UNOPS Organizational Directives 40	poor management of waste, wastage of natural resources, pollution, environmental degradation	2015 2012 2013	UN	Duty of care, making the work place safe, preventing injuries and illnesses, protecting the environment, avoiding pollution, managing waste, climate change mitigation	Y	Environmental management plan, inspections, internal reviews, training, monitoring
4.	UN Occupational Safety and Health (OSH) Framework (CEB/2015/HLCM/7/Rev.2 of 31 March 2015). UN Common system Environmental and Social safeguards system UNOPS Organizational Directives 40 and 42	First Aid& Fire, Environmental emergency	2015 2013, 2014	UN	The employer shall be responsible for ensuring arrangements for first aid and fire, including trained personnel and equipment. Respond to environmental emergencies such has major spills	Y	Procedure in place, First Aid training, inspection of equipment, emergency, fire drills, inspection of fire equipment and raising awareness

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Item[1]	Legislative instrument (law, regulation, decree, etc.)	Area of concern/hazard regulated	Year	Regulatory Body	Legal Requirements	Compliance (Y/N)	Evidence of Compliance/ Corrective Actions
5	AI/EO/2010/04 Road and Driving Safety	Vehicle condition and driver/ operator condition	2010	UNOPS	General safety in use of vehicles, use of safety belts, maintenance of vehicles, etc.	Y	Official travel in designated UN vehicles, seat belts mandatory, vehicles on planned maintenance for UNOPS personnel.
6a	OD28: Work-life Harmonization	Overworked, stressed	2009	UNOPS	Allows for flexible working, telecommuting, compressed work schedules part time work, and job share arrangements	Y	OneUNOPS for tracking and approving requests
6b	OD 8: Discrimination, Harassment, inc. Sexual Harassment, and Abuse of Authority	Psychosocial	2010	UNOPS	Defines discrimination, harassment and abuse of authority, outlines rights and responsibilities of UNOPS personnel as well as prevention, investigation, and corrective procedures.	Y	Ethics Advice and Guidance services
6	Factories Act	Unsafe use of Lifting Appliances and Gear	1951	Myanmar	1. Every lifting appliance and item of lifting gear, including their constituent elements,	Y	Inspections on lifting equipment on work involving use of lifting equipment.

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Item[1]	Legislative instrument (law, regulation, decree, etc.)	Area of concern/hazard regulated	Year	Regulatory Body	Legal Requirements	Compliance (Y/N)	Evidence of Compliance/ Corrective Actions
					attachments, anchorages and supports, shall- (a) be of good design and construction, sound material and adequate strength; (b) be properly installed and used; (c) be maintained in good working order; 2. No person shall be raised, lowered or carried by a lifting appliance unless it is constructed, installed and used for that purpose in accordance with national laws and regulations, except in an emergency situation in which serious personal injury or fatality may occur, and for which the lifting appliance can be safely used.	Y	No use of hoists for people. No elevators at the offices
7.	UN Occupational Safety and Health (OSH) Framework (CEB/2015/HLCM/7/Rev.2 of 31 March 2015.	Multiple workplace hazards	2015	UN	1. Suitable personal protective equipment and protective clothing, as a last	Y	Ergonomically designed desk and chairs

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Item[1]	Legislative instrument (law, regulation, decree, etc.)	Area of concern/hazard regulated	Year	Regulatory Body	Legal Requirements	Compliance (Y/N)	Evidence of Compliance/ Corrective Actions
	UNOPS Organizational Directives 42		2014		resort to control hazards,without cost to the workers. 2. Adequate provision of information about importance of protective equipment and training of proper use.		

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5 4. REFERENCES

1. Convention Immunities and Privileges of the United Nations. http://www.un.org/en/ethics/pdf/convention.pdf (Dec. 2014)
2. http://www.un.org/en/ecosoc/docs/2010/res%202010-23.pdf

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SAFETY & ENVIRONMENTAL INSPECTION REPORT

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**		
Person carrying out inspection			
Location			
Reporting Period		**Report number**	
Number of Toolbox talks held during the reporting period		**No of Man-hours worked during reporting period**	

MARK BOX WITH number of occurrences ON ITEMS THAT HAVE BEEN INSPECTED:

(1) General and welfare (incl. housekeeping)		**(2) Emergency Arrangements & Response (fire, first aid, MOSS)**		**(3) Work at Height**	
(4) Equipment/Portable Tools/Electrical Appliances		**(5) Excavation**		**(6) Personal Protection Equipment (PPE)**	
(7) Underground and Overhead Services		**(8) Hazardous Materials**		**(9) Traffic Management**	
(10) Risk Assessment and Method Statement (RAMS)		**(11) Lifting appliances and equipment**			

(I) Waste Management and Segregation		**(II) Fuel/oil/chemical Storage**		**(III) Drainage, dewatering, spillage control**	
(IV) Ecology, Archaeology and Heritage		**(V) Dust and mud**		**(VI) Odour and Air Emissions**	
(VII) Noise and Vibration		**(VIII) Community Interface**			

*** Priority:** (A1) – Immediately (A2) – Within 24 Hrs (B3) – Within 3 Days (C) – State

Cat	Description	Priority	Date identified	Responsible	Date closed

Signature of Person carrying out Inspection:		**Date**	
Approved by Project Manager		**Date**	

Distribution: Program Manager/Site Eng Team/Project Associate/QEMS Advisor

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Guidance Notes:

(1) General & Welfare

- Site accommodation (toilets, canteen, water, dry clothing, cleanness)
- General appearance of the worksite (clean/untidy, fencing)
- Materials storage (protected, tidy, stored correctly)
- Slip, trip and fall risks (protruding bars, cable management)
- Security, site boundaries (clearly marked/defined, safety signage displayed, security arrangements)
- Lighting

(2) Emergency Arrangements and Response

- Fire (evacuation plan, muster point marked, extinguishers, fire alarm)
- First Aid (first aiders, first aid kit – location availability)
- Spill kits (availability, location)
- Information display (emergency plan, contacts, site rules, policies)

(3) Work at Height

- Scaffolding (foundation, bracings, access, handrails, toe boards, tagging)
- Mobile platforms, ladders (locking, securing, tagging)
- Fall protection (edge protection in place, fall arrest systems, openings fenced off or covered)

(4) Equipment/Portable Tools/Electrical Appliances

- Lifting equipment and management of lifting operations (cranes, hoists, davits, slings, chains, permit)
- Tools and equipment (condition, regular checking, maintenance, storage, guards in place)
- Transformers & Power Supply (security, connection, labelling, inspections)

(5) Excavations

- Excavation, trench protection (shoring, sheet piles, placement of excavated material, fencing, railing)
- Confined space (gas monitor, evacuation procedure – tripod, topmanetc)
- Dewatering arrangements

(6) Personal Protection Equipment (PPE)

- Use, suitability for the task (i.e. dust masks or hearing protection), condition, storage
- Manual Handling

(7) Underground and Overhead Services

- Identification, marking and protection

(8) Hazardous Materials

- Clear identification, labelling, storage, no smoking sign, asbestos
- Gas Cutting/welding (welding screens, flashback arresters, condition of the gas bottles and hoses, permit)

(9) Traffic Management

- Planning, Routing, Turning areas, Delivery Management, Unloading area, Pedestrian Segregation, Access, Signage, plan display, banksman

(10) Risk Assessment and Method Statement (RAMS)

- Work carried out according to RAMS, communication to workers

(I) Waste Management and Segregation

- Is waste segregated?

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- Are waste bins/skips/containers available on site? Are waste bins/skips/containers labelled properly? Are they secured and protected i.e. from rain, animals?
- Are waste bins/skips/containers emptied? How often? Is there any consent required?
- Is waste disposed/recycled in accordance with the waste management plan?
- Is hazardous waste identified? Is it stored separately from common waste? Is it stored properly i.e. container are sealed, not leaking, in bunded area? Is it disposed properly?

(II) Fuel/oil/chemical Storage

- Are all fuels/chemicals/oils stored correctly, in the bunded areas, secured? Are containers/drums placed on the drip trays? What is condition of the drums? What is condition of the bund?
- Is there designated refuelling area on site? Is the refuelling area located away from watercourse and is it bunded or on the hard surface to contain spillage and prevent ground pollution?
- Is gas storage in secure/lockable area?
- Is there proper labelling and signage on site?

(III) Drainage, dewatering, spillage control

- Are there any uncontrolled discharges to the watercourse or drainage system?
- Is there storm water drainage in place and where it is discharged? Is drainage on site properly maintained?
- Are dewatering or overpumping activities carried out on site? Are they controlled?
- For drainage/dewatering system are settlement tanks and/or oil separator installed prior to discharge to prevent potential sediments or oils form entering the watercourse? Are the settlement tanks and oil separators properly used and maintained i.e. top water is discharged from sedimentation tanks?
- Is there any leaking equipment on site? Are there drip trays used underneath machinery to contain potential spillage (applies to working equipment, parked machinery and equipment under maintenance)? Are the drip trays emptied?
- Is there a concrete wash out on site? Concrete washout should not be discharged directly to the ground or to any watercourse
- Is there a designated vehicles wash-down area? Is it bunded to contain potential oils spills to the ground? Is it connected to the drainage and drainage has connection to oil separator?
- How is the sewage from site/canteen/office being dealt with? Is it discharge to the drainage? is it stored and taken off site? or is rather disposed directly into the ground (should not happen!)?

(IV) Ecology, Archaeology and Heritage

- Are there any ecological, archaeological or sensitive areas identified? Are they protected from site activities?
- Are there any trees or vegetation affected i.e. cut or trimmed?

(V) Dust and mud

- Dust control measures - Are excavated material stock piles covered to minimise dust spreading? Is dust suppression system (sprinklers) in place? Is the traffic around the site controlled (speed limited)?
- Mud - Is spreading of mud on the roads prevented - wheel wash installed and used?
- Equipment - are there the dust suppression systems on the equipment used i.e. on the sthil saw?

(VI) Odour and Air Emissions

- Are there any burnings on site - note: waste burning etc is prohibited on site.
- Are there any odour emission places on site?
- Are there emissions from the equipment/machinery/vehicles? What is the condition of the equipment? Are there any checks in place?

(VII) Noise and Vibration

- Are there any 'noisy' equipment used on site? What is the condition of the equipment?
- Is there any noise monitoring in place?
- Are there any noise mitigation measures in place i.e. is the equipment fitted with mufflers, screens?

(VIII) Community Interface

- Are there any complaints from the neighbourhood? How they are being managed?
- Is liaison with the community/authorities on-going?

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Operational excellence for results that matter

Health, Safety and Environment Internal review (audit) - HSE16

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Reviewer	
Location being reviewed	
Area Representative	
Date	

Clause		Description	Requirements	Findings	Significance: Non conformance/ Recommendation/ Observation	Corrective Action Required	By Whom	By When	Relevant templates
OHSAS	14001								
	4.1	Understanding the organization and its context	Determination of external and internal issues that might affect the intended outcomes of the environmental management system						
	4.2	Understanding the needs and expectations of interested parties	Identification of interested parties, their needs and expectations and which of these become compliance obligations						HSE02
4.1	4.3, 4.4	General Requirements	Formal Health & Safety and Environmental management system in place, documented, maintained and continuously improving						
	5.1	Leadership and commitment	Specific actions that demonstrate top management leadership and commitment to the environmental management system						
4.2	5.2	Policy	Appropriate policies in place. EOD03 (Covering prevention of injuries and illnesses, prevention of pollution, meeting legal Reqs and continuous improvements. Available and communicated to all).						
	6.1.1	General	Establishment, implementation and maintenance of processes needed in 6.1.1 to 6.1.4. Determination of risks and opportunities within the scope of the environmental management system						EM03, EM04
4.3.1	6.1.2	Hazard identification, risk assessment and controls, environmental aspects	Risk assessments, risk registers in place. Assessments covering routine, Non-routine work, behaviours, contractors, neighbours, etc. Documented information of environmental aspects and impacts and criteria (environmental screening and risk register).						EM03, EM04 HS05
4.3.2	6.1.3	Legal and other requirements	Legal and other requirements identified, legal register available, identification of compliance obligations						HSE03, HSE04
	6.1.4	Planning action	Plan to address significant environmental aspects, compliance obligations and risks and opportunities. Implementation of plan and evaluation of effectiveness.						EM01, HSE01
4.3.3	6.2	Objectives, targets and programme	Objectives and targets and programme in place and updated						EM01, HSE01, HS01
4.4.1	5.3, 7.1	Resources, roles, responsibility & authority	Site Resources, roles, responsibility & authority defined and implemented (Corporate roles are defined in HS and EMS Handbooks)						
4.4.2	7.2, 7.3	Competence, Training & Awareness	Competence of persons who control potential significant impact/ safety critical processes- Records to show qualifications, skills, awareness etc.						
4.4.3	7.4	Communication	Internal and external communication related to HSE issues, complaints, information-including incidents and requirements for reporting to authorities/ stakeholders.						HSE11
4.4.4	7.5.1	Documentation	Adequate documentation of policy, procedures, guidelines and templates.						
4.4.5	7.5.2, 7.5.3	Control of documents	Approval, review and use of current versions of documents. Preventing use of obsolete documents- Version of forms same as the one on intranet.						
4.4.6	8.1	Operational control	Control to prevent deviation from policy and objectives of HSE system. Addressing significant HSE issues with operations, construction & structures including controls with suppliers and contractors. E.g. Guidelines, Permit to work system, Design review, contractor management, camp design, waste management, control of major impacts, etc.						HSE12, HSE05 HS08, HS09, HS10, HS11 EM06
4.4.7	8.2	Emergency preparedness	Emergency situations identified. Response to emergences. Testing of emergency procedures. Review and update of site emergency procedures.						HSE09
4.5.1	9.1.1	Monitoring and measurement	Monitor and measure significant issues that may affect objectives. Calibration of measurement equipment where applicable. Inspection programme in place?						HS01, EM01, HSE01
4.5.2	9.1.2	Evaluation for compliance	Checking whether there has been compliance to legal and other requirements. Legal compliance form completed?						HSE03, HSE04
4.5.3	10.2	Nonconformity, corrective action and preventive action	Identification of nonconformities, taking action, reviewing effectiveness. Correction and close out of issues from Audits and inspections.						
4.5.4	7.5.2, 7.5.3	Control of records	Maintaince of records (completed templates and other HSE data)						
4.5.5	9.2.2	Internal review (audit)	Audit plan/schedule, Assessment to cover the 14 001 & 18 001 elements. Audit done on UNOPS template & all the sections completed						HSE16
4.6.0	9.3	Management review	Review of performance, communication, previous audits, legal and other requirents. Recommendations for improvement.						HSE15
	10.1, 10.3	Continous improvement	Evidence of continous improvement of the system						

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NOTES: Refer to correlation table for the relevant sections in UNOPS handbooks
Clauses in red are to be audited at HQ location only
The following should be considered when planning the internal review:
- the size of operations
- the criticalities highlighted in previous audits/reviews
- the environmental importance of the processes carried out at the location
- the health and safety risks of the processes carried out at the location
- any changes affecting the local processes

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UNOPS	Contractors NAME	Project:	
		Ref No.:	
	PROJECT NAME:Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar	Rev No.:	
		Total Pages:	

HSE TRAINING MATRIX

	Name	Job Title	Emp #	Site Specific Induction	Driving Safety	Operating Mechanical Handling Equipment	Waste Management - Staff	Work at height	PPE	Excavations	Loading/unloading	Office Safety Awareness	Electrical Safety in Construction	Basic Fire Fighting	Basic Fist Aid Awareness	Concrete Working	Manual Handling	Brick/Block Work	Common Work Related MSD	Slips, Trips & Falls	Welding & Cutting	Hazardous Material Communication	Site Safety for Supervisors	Mobile Elevated Work Platforms	Incident Reporting & Inv.	Risk Assessment			
1				02.03.17			26.05.2017																						
2					02.03.17																								
3																													
4																													
5																													
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Legend :

02.03.17	Training Attended on this date
02.03.17	Training Planned on this date
	Training Required

MONTHLY HEALTH, SAFETY AND ENVIRONMENT REPORT

Project Title	**Emergency Support for Chin State livelihoods restoration project, Chin State, Myanmar**
Location	
Project Manager	**Mohan Kumar Tuladhar**
Month of report	

Occupational Health and Safety

Categories	Month	Year-to-Date
Fatality		
Lost Time Injuries		
Minor Injuries		
Near miss incidents		
Number of employees (this month)		
6 MAN-HOURS WORKED		
HSE inspections (documented)		
H & S Non-conformances observed		
H & S Non-conformances still outstanding		
New Audit Actions observed		
Audit Actions outstanding		
Incident investigations (documented)		
Incident investigation Actions identified		
Outstanding incident investigation actions		
Risk assessments carried out		

Summary of incidents and notable occurrences for Health and Safety

Categories	Month	Year-to-Date
Environmental incidents		
Environmental Non-conformances observed		
Environmental Non-conformances still outstanding		
New Audit Actions observed		
Audit Actions outstanding		

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Incident investigations (documented)		
Incident investigation Actions identified		
Number of people briefed in HSE		

Summary of incidents and notable occurrences for Environment

Prepared By: _____ Date: _____

Signed Off: _____ Date: _____

Distribution: Programme Manager/ Project Manager/ QEMS Advisor

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LIFTING

1. General

Lifting shall be undertaken by trained and competent personnel only.

Specific site induction and safety rules (**Form HS04**) should include instruction regarding safe site working operations associated with the tower crane if applicable to site.

A specific Hazard and Risk Assessment review (**Form HS09**) should be carried out with identified hazards relating to an operational tower crane identified and control measures in place.

Lifting Plan shall be prepared for all lifting activities on site – refer to **Form HS15**.

2. Tower Crane

All tower crane erection, commissioning and maintenance should be carried out by a registered/licence (in accordance with any local authorities and laws) and experienced professional industry practitioners. Documented evidence should be obtained confirming the suitability, experience and expertise of the proposed company.

All erection, commissioning and dismantle operations should be thoroughly pre-planned with written submissions made detailing all personal involved with relevant experience and role descriptions, design and loading calculations regarding crane base and fixing supports, erection/dismantle process including lifting methods, transport, unloading etc. The plan should also outline all testing and certification processes for the crane commissioning including a comprehensive list of operating tolerances and items/equipment and operations for testing. This is a complex and thorough process which may required additional professional review, certification and support based on the available skills and expertise within the local context and the assessed risk.

Key personnel including crane supervisor, driver, banksmen and slingers (dogmen) must be nominated and be trained, competent, experienced and where required certified to carryout the required tasks.

An operational and equipment testing program should be established and executed as part of the tower crane maintenance program. Daily, weekly and six monthly inspection schedules are typical and records of such inspections and checklists should be kept.

A suitable radio communication system must be provided to allow for safe communication between the crane drive and banksman (dogman).

An evacuation/rescue plan and procedure should be developed to access personnel working in the crane cab or on the crane jib in the case of an emergency.

3. Mobile Cranes

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In addition to the points noted above for the Tower Crane, the following items are for consideration when operating a mobile crane.

- Only trained and or certified operators can operate the mobile crane
- Ensure the planned regular inspections have been carried out.
- Ensure outriggers are used and are on suitable load bearing ground.
- Confirm signals between driver and slinger/dogman.
- Check minimum of 600mm slewing clearance.
- Check for overhead cables, services and structures.
- Ensure load is correctly fixed, balanced and secure.
- Never exceed the SWL
- Slew the load gently to minimise load swing.
- Ensure the vehicle driver is out of the cab before lifting.
- All proposed tandem lifting must be fully planned with a full briefing prior to any operation.
- Never leave a load suspended
- Very few cranes can lift and travel with loads, confirm operation design and ability of machine prior to any operation to carry.

4. Excavator, forklifts and Hiabs

In some instances excavators, forklifts and Hiabs can be used on site for lifting. Following rules shall apply for such lifts:

- A machine operator is responsible for controlling each lift. If something cannot be lifted safely, then shall not be lifted at all.
- Only machinesthat are designed for lifting and has the proper lifting attachment fitted for securing and lifting the load shall be used.
- Safe Working Load (SWL) capacity of the equipment shall be never exceeded.
- The SWL should be marked in the cab or on the boom. It should also be found in the instruction handbook that is supplied with the machine in the form of lifting or load charts or tables.
- The lifting chart gives information about the lifting capacity of the machine at different distances from the cab (the lifting radius), different height or depths and whether the lift is parallel to the tracks or across the tracks.
- Machines that are permitted to lift shall be clearly marked.
- Ensure load is correctly fixed, balanced and secure.

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- Lifts can be only undertaken following communication with the slinger/signaller and on his signal.
- Weight of the load must be established/estimated prior to lifting.
- Lifting shall be only carried out in area clear of people.
- Only properly checked lifting equipment (such as chains, strops and shackles) may be used for lifting.
- Good lifting practice is to position the machine to carry out the lift most effectively. Where possible, keep the load:
    - between the tracks;
    - reasonably close to the machine (not at full stretch);
    - low to the ground.
- Keep to level ground and avoid side slopes. If lifting takes place on a slope, position the tracks should be up (or down) the slope (and not sideways).
- If lifting includes travel with a load, the load shall be positioned between the tracks, reasonably close to the cab and not too high off the ground. Travel should be slowly and carefully, ensuring the route is clear of obstructions and personnel at all times.
- The lifting operation shall be stopped at any time if events dictate (such as if someone is walking towards or into the lifting area).

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EXCAVATION

Excavation presents significant safety issues with excavation collapse, striking of underground services and machinery accidents potentially causing serious injury.

Procedures and basic operating principles for safely carrying out excavation works are listed below for consideration when identifying and controlling project specific excavation risk.

- All excavation activities on site should be controlled by the UNOPS Work Permit system – refer to **Form HS14**. Key safety issues relating to the inherent risk involved in excavation are identified in the Permit system and appropriate controls and protection measures will be required to be put in place before works are carried out.
- Excavations are required to be supported or battered back where necessary to prevent collapse. Ongoing review and inspection of supports is required to ensure unauthorised removal and alterations of supports and braces are indentified and rectified. Careful excavator operation is required in and around supports to prevent striking damage.
- Locate excavated spoil/stockpile heaps well back from the edge of the excavation works. A general rule is to keep the spoil as back from the edge of the excavation at least the distance that the excavation is deep. Don't store materials close to the edge of excavated areas.
- Excavated areas require edge protection to prevent falls. Secured ladders should be used for excavation access, do not climb on excavation supports.
- When vehicles are operating in the vicinity of the excavation, i.e. trucks tipping for backfilling, use stop blocks or create berms/kerbing to prevent vehicles driving into excavations.
- Excavations should be checked daily before entering for any change in condition which may make the excavation unsafe, i.e. after heavy rainfall, changes in support and shoring etc.
- Working in and around excavations workers should always wear the correct PPE, never jump across excavations, and never throw tools or materials down to someone into an excavated area.
- Excavation machinery should be checked regularly before use. Items to be considered include
    - Coupler assembly, free of debris and material, check for any damaged or cracked components
    - Generally check for any missing parts or components, oil leaks, distressed welds etc
    - Check safety, lynch and mounting pins, locks and nuts. Are they in good condition, not bent, or worn and functioning correctly

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- Check blocking arm and bar components and operation
- Check all the hydraulic hoses, couplings, fittings
- Check all grease points; ensure maintenance scheduling is carried out
- Check lights, flasher beacons, mirrors etc

- In operating excavation machinery the following should be considered
  - Never carry passengers
  - Keep watch for potential hazards, overhead cables, people and machines
  - If outriggers and supports are available they are to be used
  - Ensure safety pins are always fitted with quick hitch buckets
  - Always ground bucket before leaving the machine
  - Do not leave the machine unattended unless switched off, parked and fully locked

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SCAFFOLD

Falls from height account of over 50% of the deaths associated with the construction industry. The correct design, installation and use of scaffold are extremely important to ensure people working at height are as safe as possible.

The people involved in the design, installation and inspection of the scaffolding system for the project must be competent in the type and complexity of the scaffold system to be used.

Any scaffold system should be officially inspected at least once a week to ensure it remains in safe condition. Each scaffolding and ladder shall be marked with the appropriate scaff tag, indicating inspection dates and whether scaffolding/ladder is safe for use. It is suggested that scaffolds that are not completed or not safe to be used shall have a red tag with clear 'No Entry' sign.

Key issues for consideration at design, installation and ongoing use stages are outlined on the below:

Foundations/Base

- Scaffolding must be on suitable foundations and stable against subsidence (level, compacted, cable of all loads)
- Each supporting standard should be supported by a base plate and then a sole board (guide on sizing, base plate 15 x 15 x 0.6 cm, sole boards 50 x 200 x 3.8 cm)
- Ensure each supporting standard is centred on the base plate and sole board.

Geometry

- All standards shall be vertical
- All ledgers and guardrails shall be horizontal
- All transoms shall be horizontal
- All standards, ledgers and guardrails shall be staggered

Bracing

- Braces start from ground and extend to top platform at 45 degrees

Platforms/decking

- All platforms shall have an appropriate width (70 cm minimal)
- All platforms shall be secured against uplift or horizontal movement
- Platforms shall have toe/kick boards, at a minimum height of 15 cm, fixed to thescaffold
- All lap planks shall be tied/cleated
- Gaps in the platforms shall not be more than 5 cm

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- The platforms should be no more than 30cm away from the work face. If so an internal guardrail is required

Access to Platforms

- Appropriate access shall be provided to every working platform
- Ladders shall be secured top and bottom
- Ladders shall be positioned at a 4 to 1 ratio
- Ladders above the second lift shall be located within the scaffold frame

Ties

- Ties shall be placed every 4 to 5 m horizontal and vertically
- Ties shall be staggered every second floor lift

Guardrails

- Guardrails are required on all platforms
- Height of guard rails shall be between 90 – 110 cm
- Platforms shall have a mid-rail
- Internal guard rail required if platform is further than 30 cm away from work face

Raking Members

- Raking members shall be connected to the standards
- Raking members shall have a horizontal tube connected back to the scaffolding

Erection and Dismantling

- Working procedure for scaffolders working at height shall be prepared, Risk Assessment shall be completed
- Scaffolders shall install guard rails, decking and ties as soon as possible when erecting
- PPE must be worn by scaffolders

General

- Screening may be required to protect the surrounding areas
- Screening material shall be suitable for the conditions and fixed correctly (will not become a “sail” in windy conditions)
- Scaffold shall be adequately protected against vehicle collision
- Scaffolding shall not be overloaded - material loads shall be distributed around the support standard bearing members
- Walking space shall be allowed on platform where materials are also stacked

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WORKING AT HEIGHTS

Falls from height are the largest single cause of serious injuries and deaths in infrastructure/construction. Working at height must be treated as a high risk activity for those at height and those working below

Planning is vital before you begin working at height. Anywhere you are at risk from a fall then a hazard and risk identification should be carried out

General issues for consideration when working at heights:

- Ensure safe access and egress to work face
- Installation of guardrails to perimeters and penetrations
- Use of setting up fall protection barriers (safety mesh and edge protection)
- Consider the risks involved from objects falling from above
- Review and implement suitable means to prevent fall
- Walking and working surfaces are strong enough to support workers
- Do some areas require isolation and barricading

Safe Ladder Use:

- Extended use of ladders in lieu of working platforms is prohibited.
- Check equipment before use, no splits or cracks in stiles and rungs, none missing or loose
- Remove defective ladders from site
- Do not position ladder in the place where it can be struck by passing vehicle or where it can be knocked by a door or window,
- Ladders should only be used when other platforms have been explored but not able to be used. Work on ladders should only be used in short durations
- Ladders need to be set on a firm base and leaning at the correct angle. One (out) to Four (up) ratio acceptable
- Ladders should be tied at the top and extend a safe distance (1 m or 3 rungs) above the landing height
- The base of the ladder should be staked to prevent slipping
- Clean footwear from excessive mud/soil before climbing the ladder
- Always face the ladder when climbing; always have three points of contact on the ladder at all times

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- Do not over reach from the ladder; always move the ladder to the new work face
- As much as possible avoid carrying out loads up ladders – hoist it up.
- For step ladders: all four feet must be in contact with the ground, rungs shall be facing the work activity, never work higher than three steps down from the top of the ladder

Use of Harnesses Safely:

- Harnesses should only be considered as a last option after platforms, mobile towers, scaffolding, and where no other fall restraint is available
- Harness equipment must be fully inspected before use. Include wedding, leather, checking for cuts, cracks, tears, tears, abrasions and damage. Check hooks and karabiners and all stitching
- Wet equipment and harnesses should be hung to dry naturally
- Confirm a firm and secure anchorage points and lines (best above head height). All anchorages should be installed by a competent person, design by an Engineer and checked
- Do not tie, loop or place the harness lanyard near small or sharp items during use, this could mean the lanyard fails in the event of a fall situation
- Users should be trained in harness use by a competent person
- Never work alone while using a harness, if you fall you may need assistance to be rescued
- Have established rescue/emergency procedures in place

Mechanical Elevated Work Platforms (scissor hoists, cherry pickers, crane baskets):

- Checked the machine is the correct type for the task intended
- Trained operators are required for the machinery in use
- Do not use the machine as a crane or have it overloaded
- The machine requires regular inspection and testing, check before use
- Ensure the machine is set up on firm ground with all support legs fully extended where applicable
- Operate well away from overhead services
- Workers on platforms are to wear harnesses
- Ensure the lanyard is just long enough to provide free movement within the confines of the platform

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- Do not allow material waste and rubbish to build up on platform
- Ensure tools are secured to the working platform

General

- All ladders/trestle's should be individually tagged.
- Ladders/Trestle's must be stored correctly.
- Ladders must not be painted - paint can hide damaged parts.
- Any defected Ladders / Trestle's should be removed from site immediately.
- Ladders/trestles shall be weekly inspected and record of the inspections shall be kept on site.

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SIGNIFICANT ACCIDENT OR INCIDENT RESPONSE

A Significant Accident or Incident is an event with serious or extreme consequences. Such events would include multiple major injuries, a fatality, a major environmental incident or an extreme failure of a product, structure, element or service.

This guide does not replace relevant UNOPS Organizational Directives (OD's) and Administration Instructions (AI's) relating to communications, reporting lines and responsibility with regard to safety, security, risk and continuity planning. The aim of this document is to assist in the site team's immediate response to a significant event on a construction project with the aim to attend to immediate physical needs of any injured parties and contain and control the overall situation to minimise further loss, injury or damage.

Immediate Action

UNOPS most senior member of the site team at the scene of the Accident/Incident should seek to respond in the following way.

- Immediately take control of the situation and implement the relevant steps outlined below.
- Contact relevant emergency services (local, government, UN, if available)
- Ensure that injured persons are attended to by first aiders and secondly that appropriate steps are taken to facilitate further critical medical treatment (i.e. stabilise and wait for ambulance/emergency services, or facilitate emergency transport of injured to nearest clinic/doctor/hospital facility)
- Make the site and surrounding area safe, this may require emergency barriers and cordons depending on the nature of the incident. The evacuation of the site and neighbouring properties may also be necessary.
- Notify your UNOPS line manager of the situation
- Leave to accident location as undisturbed as possible. However it may be required to disturb the location to affect a rescue or stabilise an area to make it safer where a dangerous situation still exists.
- Endeavour to ensure that injured workers or employee's next of kin receive the earliest notification of the accident (this may be in association with the local police and UNOPS senior management where appropriate).

Secondary Actions

Once the situation has stabilised with injured persons off the site and receiving treatment and/or the dangerous incident is controlled, situation stable with little or no risk of further injury or damage, then the following actions can be considered.

- Begin to gather evidence regarding the Accident/Incident. Take photos, video and sketches as required. Identify witnesses to the event and record statements.

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- Begin to fill out the Accident/Incident report for significant events – **Form HS16**.
- UNOPS senior management should meet as soon as possible to plan and establish roles and responsibilities for managing the incident.

  Tasks which may be required include

  - Establishing ongoing contact, support and relationship with injury parties and their families
  - Establish a project/site recovery plan to allow resumption of works
  - Establish an appropriate internal communications plan for communicating with the donor, donor community, and beneficiary, local media/press, police and general public
  - Insurance and or legal considerations to be reviewed
  - Possibility of external investigation? Plan to manage and co-operate with investigators if applicable
  - Consider the need to establish a UNOPS Accident/Incident investigation team
- Maintain all records of evidence and any materials or documents relating specially to the incident.
- The aim of any report or investigation has to be to understand the causes of the incident in order to prevent recurrence. Ensure clear actions and tasks are identified and undertaken to eliminate the causes of the incident before operations on the project/site resume.

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CONFINED SPACE

5. Introduction

Confined spaces can include unventilated rooms and spaces, cellars, tunnels, shafts, risers, ducts, tanks, sewers, excavations, manholes, pipelines and boreholes.

Any work carried out in a confined space is recommended to be controlled by the project work permit system and procedures, please refer to **Form HS12.**

Any work carried out in a confined space should be subject to a Hazard and Risk Assessment review as detailed in **Form HS09**.

All Personnel working in a confined space are required to be specifically trained to work in this environment.

6. Potential Hazards

Oxygen depleted or enriched spaces, possible toxic and or flammable atmosphere i.e. gas fumes, biological hazards including disease and noxious substances and sludge, concentrated gas and vapour produced from the work task itself.

7. Safety/Planning Considerations

- Trained, experienced and competent workforce and supervision to carryout the works
- Is the required safety equipment available, expertise and experience in to operation, e.g. Gas detection equipment, safety harness, lifeline, support and winch, breathing apparatus, specific PPE etc.
- Requirement for mechanical ventilation
- Emergency planning, communication methods and rescue plan
- Temporary safe lighting
- Non spark tools and equipment
- The entrance/opening to the space requires fall protection/barriers/fencing

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SITE ESTABLISHMENT

Preparation works

Prior to work commencement on site, a survey of the site and site surroundings incl. condition of the existing access roads shall be carried out. The survey should be documented with the photography records.

It is recommended that, before work starts, any parties who will be affected by the works are notified of intention to commence work.

Particular attention shall be given to the landowners, where work has a potential to interface with the livestock. Appropriate measures shall be put in place to separate livestock from construction site and site facilities.

Protection to existing structures, materials and items

Any structures which cannot be removed for the duration of the works and which may be affected by the works i.e. buildings, trees, overhead cables must be protected to avoid accidental damage.

Any items or materials which may be re-used on the site, or which may be contaminated or damaged as a consequence of the works, should be removed and stored in a safe area, so that it may be replaced upon completion of the works.

Site boundaries

The site boundaries shall be established. They shall be clearly marked and preferably fenced off to prevent unauthorised access and minimise potential for theft and vandalism.

Fencing with lockable gates shall be provided if possible. Additionally, provision of the security guards can be considered.

Site boundary and fence shall be properly maintained and regularly checked throughout duration of the project. Any damage to the fence shall be fixed as soon as possible.

Information board

Access to site shall be clearly marked and information board shall be displayed at the site entry. The board should contain information regarding project and safety rules on site. The sign shall be made of a durable material and maintained in good condition throughout project life. Any damage to the sign that makes the information posted on it unreadable shall be promptly repaired.

The information board shall be a minimum of 1.2mx1.5m or size that allows for easy reading of the posted information. It should be securely fastened and prevented from fall.

All descriptions shall be made in two languages: English and local language.

Depending on the local conditions and regulatory requirements, additional information may be required to be displayed on the notice board. Required information should be therefore incorporated for compliance purpose.

Following format is recommenced to be used:

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Project Name:					
Project Duration:					
Funded by: [name and logo of the Donor if available]		Partner: [name and logo of the Beneficiary, if available]		Implemented by: UNOPS Operational excellence for results that matter	
WARNING Construction Site	**No unauthorised access**	**Safety helmet must be worn**	**High visibility clothing must be worn**	**Protective footwear must be worn**	**All visitors must report to the office**
[in local language]	[in local language]	[in local language]	[in local language]	[in local language]	[in local language]

Site clearance

The site clearance shall prepare site for the construction activities. Depending on the scope of work defined in the contract, it may involve:

- demolition of the existing structures,
- removal of waste and vegetation,
- stripping the surface layer of soil (topsoil).

Any areas identified as areas of environmental, archaeological or cultural protection shall be fenced of or protected in accordance with the recommendations of the Environmental Management Plan.

Trees removal (only if necessary) shall be undertaken in accordance with the agreements with the relevant authorities, and loss of vegetation must be compensated by final landscaping design i.e. trees' planting.

If topsoil or other excavated material are stored on site, it should be stored in way that minimises the dust nuisance (stockpiles covered or sprinkled with water) and prevents washing out of stored material and siltation of the adjacent area (particularly roads and water bodies).

As much as possible, site clearance shall be limited to the area needed for construction and site facilities, to minimise ground erosion. If that is not possible, erosion control measures

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shall be implemented – refer to **Guideline GEM 01** – Generic Register of Environmental Impacts.

Site planning

Following elements should be considered and included in the site planning:

- Office accommodation
- Welfare facilities – refer to **Guideline HS13** for details
- First aid – provision of the first aid facilities in accordance with the national laws and regulations, as a minimum first aid kits and boxes should contain individually wrapped sterile plasters (assorted sizes), sterile eye pads; triangular bandages, preferably sterile; safety pins; large and medium sterile, un-medicated wound dressings; disposable gloves, eye wash.
- Fire prevention measures - refer to **Guideline HS05** for details
- Appropriate access and traffic routes that as much as possible segregate vehicles and pedestrian traffic, preferably traffic management plan should be developed that will show traffic routes, pedestrian routes, loading and unloading areas, turning points, carparks, refuelling point. Appropriate warning signage should be provided for the site and maintained throughout project duration.
- Storage for materials, tools, plant, waste etc. incl.
- Where possible and reasonably practicable connection to the services such as water, sewer, electricity shall be made, if not temporary supplies can be provided utilising generators, bowsers, mobile phones etc. Connection to the relevant services shall be agreed with relevant authorities, so that it does not have detrimental impact on the adjacent community.

  Any connections shall be clearly marked for ease of identification and access.

Site accommodation (office, welfare facilities) shall be regularly cleaned and maintained throughout project duration.

Storage

Appropriate storage shall be provided for all materials, tools and plant.

All materials delivered to site shall be stored in secure location and prevented from damage. The materials shall not be stored in areas prone to flooding.

Any hazardous materials (incl. fuel, oil and chemical) shall be kept in the location that will prevent unnecessary exposure to staff and public (as much as possible away from neighbourhood houses) and minimise risk of contamination i.e. in one place, if possible away from watercourses, drainage, on impermeable surface, in bunded area or on trays. It is recommended that distance from the houses and human houses should be 50m.

It is recommended to store small amount of the materials that may contaminate ground or water.

Positioning of the equipment and equipment parking should consider potential nuisance: dust, noise, to the staff and neighbourhood.

Servicing of the plant, equipment and vehicles shall, whenever possible, be carried out at a designated area, which is constructed in a way to allow for containment any spillages.

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Generator

If generators are used on site to produce energy, where possible they should be set up on an impermeable surface (hard standing, drip tray) away from drains and watercourse. If the generator has built-in bund, ensure that the bund does not contain holes drilled in.

Where generator is supplied from external fuel tank, hoses and couplings shall be protected from damage. The generator and connections shall be regularly checked and properly maintained. It will make generator to operate more efficiently and can reduce level of the noise and emissions.

It is recommended to use generators that pull fuel in from the external tank rather than fuel is being pumped into the generator. This will stop the flow of fuel if the generator breaks down.

Site notice board

It is important that the critical information related to the site operation and health and safety is visible. Each site shall display as a minimum the following information:

- Site plan, including emergency arrangements,
- Emergency contacts,
- Site rules,
- H&S and environmental alerts,
- Notes of the safety and environmental Task Force meetings,
- Permits applicable to the work undertaken.

Following layout may be used:

<table>
<tr><td colspan="4">Project Name:</td></tr>
<tr><td>Information about Donor/ Beneficiary Contractor Key personnel</td><td rowspan="2">Site Plan incl. emergency arrangements, traffic routes etc.</td><td colspan="2">Emergency Contacts</td></tr>
<tr><td>Site Rules</td><td colspan="2"></td></tr>
<tr><td>H&S, Env alerts</td><td>Notes of the Task Force meetings</td><td>Permits for the day</td><td></td></tr>
</table>

Depending on the local regulations and other requirements, additional information such as insurance certificates, relevant policies may be required to be displayed. Such information should be also included in the information notice board.

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Site Reinstatement

Unless the contract specification states otherwise, the site should be reinstated to its original condition. The area should be left in a condition that will facilitate vegetation growth and provide for a proper surface drainage and prevent erosion.

Site accommodation (offices, welfare facilities) shall be dismantled and removed from site.

Any damage arisen as a consequence of the works shall be repaired.

If ground has been contaminated, it shall be removed from site into the authorised disposal facility if possible. Removed material shall be replaced with uncontaminated materials.

Any services connected to site shall be disconnected, relevant authorities shall be notified.

A temporary fencing shall be removed and properly disposed, provided that is not required to be left in place by the contract. All post holes must be filled in. All warning and information signs shall be also removed from site.

Prior to leaving the site adjacent roads and footpaths that may have been affected by the construction shall be checked for cleanliness and fitness for use. If possible, photos shall be taken to document their condition.

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