

Part III Annex D

Emergency Response Plan

Version 2.0

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Yara Dallol Potash Project, Danakil Depression, Ethiopia

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LIST OF ACRONYMS

Abbreviation	Full Definition
ANRS	Afar National Regional State
APELL	Awareness and Preparedness for Emergencies at Local Level
ERP	Emergency Response Plan
ES-MS	Environmental and Social Management System
ESIA	Environmental and Social Impact Assessment
IFC	International Finance Corporation
KPIs	Key Performance Indicators
PS	Performance Standard
SPCCP	Spill Prevention, Control and Containment Plan
UNEP	United Nations Environment Programme

DEFINITIONS

The following definitions are of relevance within this report:

- **Accident** – an unintended incident which results in injury to persons and/or damage to property, the environment, third party or which leads to production loss.
- **Emergency** – a serious, unexpected and often dangerous situation which poses an immediate threat to, personals, processes, assets, environment and communities and requiring an immediate action.
- **Employees** – full time and part time employees of Yara Dallol BV (i.e. – salaries paid directly to individuals by Yara Dallol BV).
- **First Aid Injury** – injury at work requiring first aid treatment only, before the injured person resumes normal work.
- **Lost-time Injury** – injury at work leading to unfitness for work and absence from the next scheduled work period.
- **Incident** – a sudden work related accident or near miss, a security breach sustained in service. An injury or near-miss injury 'in service' means when the incident occurs:
 - On company property or on property under Yara operational management.
 - During transportation under Yara operational management.
 - Within agreed working hours.
 - On approved business trips.
 - On approved training course or meeting at external location, or on work assignment at customer's location.
- **Medical Treatment Case** – injury at work (other than a lost-time injury and restricted work case) requiring treatment by a doctor, or nurse in consultation with a doctor, before the injured person's resumes normal work.
- **Near Miss** – an unintended incident not leading to injury or damages, but which under different circumstances could have become an accident.
- **Restricted Work Case** – injury at work that does not lead to absence from the next scheduled work period, because of alternative job assignment.
- **Security Breach** – incidents which are illegal acts, intended to harm Yara Dallol BV's personnel, property, operations, transport or other interest.

- **Site** – refers to the area in which the Yara Dallol Potash Project operates, including processing plant, evaporation ponds, tailings management area, solution mining area, staff living quarters and the section of the Port of Tadjoura under control of Yara Dallol BV.
- **Yara Synergi Database** - a Yara Dallol BV database for registration of all incidents with injury of people, environmental incidents, incidents with property damage or loss of production and security breaches. Incidents are reported according to definitions and classification given in Yara TOPS 0-01 *“Reporting of Accidents, Near-miss Incidents, Sickleave, Environmental Incidents and Security Breaches”*
- **Contractors** – persons working for external companies (or employed by an employment agency) that are under contract to carryout for the unit, but not being part of the unit’s workforce.
- **TOPS 0-01** – an existing Yara Dallol BV procedure titled *“TOPS 0-01 Reporting of Accidents, Near-miss Incidents, Sick Leave, Environmental Incidents and Security Breaches”*
- **TOP 0-02** – an existing Yara Dallol BV procedure titled *“ Investigation and Follow-up of Accidents and Near-miss Incidents”*

Yara International is a leading global fertilizer company with sales of fertilizer to about 150 countries globally. As part of Yara International's overall upstream strategy, the company is exploring for suitable raw sources that can be developed and used as a source to Yara International's global fertilizer production and directly as finished product in its product portfolio. To complement these upstream processes, Yara International has recently started a subsidiary company, Yara Dallol BV, which is involved in the exploration and mining development of potash concessions in Ethiopia. These concessions are located in the Danakil Depression, Afar National Regional State (ANRS), Ethiopia. Yara International, through its subsidiary, proposes to develop a potash mine - the Yara Dallol Potash Project (hereafter referred to as the proposed Project) within these concession areas.

As part of the environmental approval process for the Project a suite of environmental and social management plans is needed to address the issues identified in the Environmental and Social Impact Assessment (ESIA). Several management plans have been developed to address impacts identified in the ESIA and are implemented as part of an environmental management system for the proposed Yara Dallol Potash Project.

The following Emergency Response Plan (ERP) presents a framework outlining procedures essential for effectively responding to process upset, accidental, and emergency situations for operations and activities during construction, operation and decommissioning and closure phases of the Project. The procedures will include plans for addressing training, resources, responsibilities, communication and all other aspects required to effectively respond to emergencies associated with their respective hazards (flooding, fire, political unrests, etc.) .

This ERP provides an outline to ensure that systems are in place so as to react and appropriately manage unwanted outcomes. This ERP has been developed to address the general requirements associated with efficient response to these unwanted outcomes.

Yara Dallol BV will use this framework ERP to develop an operational plan based on identified hazards.

1.1.1

Policy Statement

The development of this ERP has been guided by the Yara Dallol BV Health, Environment, Safety, Quality and Product Stewardship Policy, as set out in *Box 1.1*. This Policy is a high-level corporate statement of intent and establishes the principles to be followed in the management of environmental and health & safety issues.

COMPANY COMMITMENT

Yara Dallol BV's aim is to establish sustainable growth and the creation of shareholder and societal value. Yara Dallol BV affirms to their stakeholders, including employees, customers and the public, it's commitment to continuously improve and reach standards of excellence in Health Environment, Safety, Quality and Product Stewardship through their operations.

ENVIRONMENTAL POLICY

Yara Dallol BV will manage their business in a life cycle perspective. In its operations Yara Dallol BV will contribute to eco-efficiency by continuously improving energy consumption and reducing waste, emissions and discharges. Waste that is generated will be handled and disposed of safely and responsibly.

Yara Dallol BV will design their products and develop product applications to have the minimum adverse effect on the environment throughout their lifecycle.

HEALTH AND SAFETY

Injuries and occupational illnesses, as well as safety and environmental incidents, are preventable, and Yara Dallol BV's goal for each of these is zero. Yara Dallol BV will encourage their employees to adopt a healthy, safe life-style for themselves and their families.

Yara Dallol BV will be prepared for emergencies and cooperate with local authorities to establish and improve their emergency preparedness.

1.1.2**Objectives**

Yara Dallol BV has existing procedures/plans that deal with response management to incidents and/or risks associated with aggressive (armed) attack; kidnapping; detainment; hijacking; bombs / explosive remnants of war; and medical emergencies. In addition to response management, Yara Dallol BV has procedures that set out the actions required for incident reporting, investigation and follow-up (these are described in further detail in *Section 1.3*). These existing procedures/plans will be documented within the overall ES-MS, and will be updated to include detailed response management to the following emergencies -

- Fire
- Flash Flooding
- Chemical/Fuel Spills.

This ERP has the following objectives:

1. Protect the Yara Dallol BV employees, contractors, production process, assets communities and the environment through the development of emergency response strategies and capabilities.

2. Set out the framework for hazard identification in order to define procedures for response to the situations including the development of contingency measures.
3. Structure a process for rapid and efficient response to and manage emergency situations during the construction, operational and decommissioning and closure phases of the Project.
4. Assign responsibilities for responding to emergency situations.

1.2 *PURPOSE AND SCOPE*

Activities undertaken during the construction, operation and decommissioning phases of the Project have the potential to result in unwanted outcomes and/or emergency situations. The ERP is aimed at defining the response process and responsibilities for managing these situations, thus reducing likelihood and severity of inadequate management.

This ERP is considered to be a “live” document and will need to be amended periodically in light of operational changes, learnings experienced during its implementation and other activities that can affect the risk profiles.

1.3 *LINKAGE TO OTHER ENVIRONMENTAL AND SOCIAL PLANS*

This ERP should be read in the context of the Environmental and Social Management System (ES-MS) (discussed in *Chapter 13 of Part I of the ESIA*), which has been structured to provide a vehicle for the integrated management of the suite of management plans described in *Part III*. These plans have been designed to address a broad range of social and environmental risks.

It is recognised that the ES-MS and associated plans are living tools that will be constantly updated to accommodate changing circumstances.

The ERP links with the Spill Prevention, Control and Containment Plan, SPCCP (*Annex F in Part III*). The SPCCP has reference with respect to the development of emergency response processes that are associated with spills and associated management within the Project and associated activities. Moreover, this ERP links with the following existing Yara Dallol BV plans/procedures -

PLEASE NOTE

Yara Dallol BV has an existing Medical Evacuation Response Plan (MERP) for first and second phase evacuation that has been developed and is managed by International SOS, and entails the movement of the patient from the patient handover point to the nearest level of upgraded care or the definitive medical facility. The MERP addresses medical emergencies only. It does not cover other types of emergency planning, such as fires disaster response, environmental issues, etc. Planning for second phase medical emergency evacuation links directly with this ERP and must be considered as a follow on process to the Evacuation Procedure discussed in *Section 4.6*.

PLEASE NOTE

Yara Dallol BV has an existing Emergency Evacuation Pocket Guide (V1.0), which explains preparation and reactive procedures that need to be taken in the event of an emergency evacuation (such as civil unrest, terrorism, etc.). These evacuation procedures are associated with getting personnel out of the Project Area and (if necessary) out of Ethiopia. Planning for first and second phase emergency evacuation links directly with this ERP and must be considered as a follow on process to the Evacuation Procedure discussed in *Section 4.6*.

PLEASE NOTE

Yara Dallol BV has an existing procedure (TOPS 0-01) that describes Yara Dallol BV procedures for registration and reporting of accidents and near misses, security breaches, environmental emissions and permit breaches and employee absence due to illness.

Moreover, Yara Dallol BV has set out a procedure (Yara TOPS 0-02) that describes the requirements for investigation and follow-up of accidents and near miss incidents.

This ERP has been developed so as to compliment and makes reference to the requirements set out in these two procedures.

A summary of the legal requirements and standards relevant to the ERP are presented below.

2.1 NATIONAL LEGISLATION AND POLICY

The following Ethiopian regulation informed the development of this ERP:

2.1.1 *Prevention of Industrial Pollution Council of Ministries Regulation (159/2008)*

This regulation is directed to industry and in particular “factories”. The regulation does not provide a clear definition of “factories”; however, certain sections of the regulation can be deemed applicable to the proposed Yara Dallol Potash Project. These sections include the need for emergency response systems and the need for monitoring of environmental safety.

2.2 INTERNATIONAL FINANCE CORPORATION (IFC) PERFORMANCE STANDARDS

The following IFC Performance Standards are applicable to this ERP:

2.2.1 *Performance Standard 3 (Resource Efficiency and Pollution Prevention)*

IFC Performance Standard (PS) 3 aims to avoid or minimise adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. Furthermore, the standard promotes more sustainable use of resources, including energy and water and aims to reduce project-related greenhouse gas emissions.

2.2.2 *Performance Standard 4 (Community Health, Safety and Security)*

IFC PS 4 aims to avoid adverse impacts on the health and safety of affected community during the project life from both routine and non-routine circumstances. Furthermore, the standard ensures that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimises risks to the affected communities.

The United Nations Environment Programme (UNEP) and Awareness and Preparedness for Emergencies at Local Level (APELL) requires that all projects will have an Emergency Preparedness and Response Plan that is commensurate with the potential risks of the facility and that includes the following basic elements:

- Administration (policy, purpose, distribution, definitions, etc.).

- General Facility information including location, primary and alternate emergency response coordinator, physical description of facilities, surrounding and underlying geology and groundwater, description of operations and processes, wastewater systems, facility outfalls, protection of surface waters and personnel responsible for the development of the contingency plan for the facility.
- Organization of emergency areas (command centers, medical stations, etc.).
- Roles and responsibilities.
- Communication systems (such as a notification flow chart).
- Emergency response procedures to be used as guidelines to follow when a spill, fire, explosion, or other catastrophic event causes a release of oil or other hazardous materials to the environment.
- Emergency response procedures to be used as guidelines to follow when there are spills in diked or containment areas, spills in un-diked areas, spills to on-site ponds/trenches, spills on soil, spills to receiving riverbeds, unplanned releases of compressed gases, and releases from oil-filled electrical equipment.
- The identification and location of emergency response equipment, and emergency response contractors, as well as descriptions of the appropriate containment equipment to prevent spills from reaching water bodies.
- Emergency resources.
- Facility Evacuation Plan and diagrams.
- Training and updating requirements for facility operational and emergency response personnel.
- Checklists (role and action list and equipment checklist including an inventory of hazardous substances, wastes, oils, and industrial gases that have a potential for spills or accidental releases into the environment).

With respect to this Plan, Yara Dallol BV has the responsibility to provide emergency response services and to structure and coordinate emergency response procedures for the Project, ensure that specific emergency responsibilities allocated are organised and undertaken and ensure that employees and contractor third parties are trained and aware of all required emergency procedures.

The roles and responsibilities within Yara Dallol BV for the implementation of the ERP are presented in *Table 3.1*.

Table 3.1 *Responsible Parties and Roles and Responsibilities*

Responsible Parties	Roles and Responsibilities
Dallol General Manager	<ul style="list-style-type: none"> • Review monthly and annual spill reporting • Review emergency response drill outcomes and work with Health and Safety Manager and Environmental and Social Manager to identify necessary improvements • Appoint an Emergency Response Coordinator tasked with responding to emergencies in order to minimize disparate utilization of resources
Emergency Response Coordinator	<ul style="list-style-type: none"> • Respond to emergencies so as to minimise disparate utilization of resources
Evacuation Officer	<ul style="list-style-type: none"> • Ensure they are easily recognizable to their colleagues/visitors and the emergency services by wearing the orange high vis vest or coat during any evacuation • Responsible for all occupants' safety during evacuation and to ensure the safety for personnel to reenter the building, unless his role is passed onto the Emergency Response Coordinator • Keep an updated list of employees and visitors on site and carry the name list with them during evacuation • Ensure all occupants have evacuated the area where the incident has taken place (including people in rest rooms, meeting rooms, etc.) • To be fully trained in the provision of first aid
Health and Safety Manager	<ul style="list-style-type: none"> • Distribution of the ERP to all parties with responsibilities in implementing the plan (including contractors) • Review monthly spill report • Review quarterly report of accidents/incidents and reviews of contractor practices • Plan emergency response drills with Dallol General Manager and Contractor Managers • Develop Emergency Response Training • Lead any reviews or investigations into reported accidents/incidents • Review all contracts prior to signing and confirm these contain requirements to meet Yara Dallol BV emergency response standards • Receive all notifications of incidents/accidents and ensure proper response is being followed including reporting and review

Responsible Parties	Roles and Responsibilities
Environmental and Social Manager	<ul style="list-style-type: none"> • Support the Health and Safety Manager as required in emergency response planning and in development of training and management plans to ensure environmental concerns are addressed • Provide regular spill and accident reporting
Health & Safety Support Staff	<ul style="list-style-type: none"> • Schedule monthly inspections and audits and resolve issues identified • Schedule emergency response training sessions for relevant staff • Prepare monthly spill report
Security Manager	<ul style="list-style-type: none"> • Provide local management and coordination of security for personnel and operations in the field • Deliver security induction briefings for visitors, including international and Ethiopian employees, contractors and contractors' personnel • Provide briefings and recurring security awareness training for all personnel in security procedures, with specific focus on their job role as per the project security plan • Implement security risk mitigation measures and procedures as per the security plan in order to reduce risk to as low as reasonably practicable • Maintain local security and emergency response and other contingency plans to ensure they remain up-to-date • When requested, assist with investigations on incidents (including interviews, where necessary), writing clear reports to be provided to management. • Provide security support to Ethiopian and expatriate personnel working at remote locations (e.g. drilling teams) and provide field-level security advice and assistance with planning • Be the focal point for security issues in the field and at camp • Execute community related tasks in consultation with Dallol General Manager and ensure that good communication and harmonious relationship with external stakeholders is maintained • Maintain and develop local information network to understand concern from the local community and raise it to site manager for resolution
Project Manager	<ul style="list-style-type: none"> • Together with the Health & Safety Manager and Environmental and Social Manager is responsible for staffing, planning and day-to-day execution of the management measures described under this ERP during the construction phase of this Project. • As needed, this individual will develop and propose staff plans and contractual language to ensure that these measures are implemented by Yara Dallol BV staff and contractors throughout the construction phase of the Project.
Operations Manager	<ul style="list-style-type: none"> • Together with the Health & Safety Manager and Environmental and Social Manager is responsible for staffing, planning and day-to-day execution of the management measures described under this ERP during the operational phase of this Project. • As needed, this individual will develop and propose staff plans and contractual language to ensure that these measures are implemented by Yara Dallol BV staff and contractors throughout the operational phase of the Project.

Responsible Parties	Roles and Responsibilities
Contractors (Construction and Operations)	<ul style="list-style-type: none"> Responsible for following the procedures and requirements indicated in construction and operational sections of this ERP.
All persons	<ul style="list-style-type: none"> All persons employed by Yara Dallol BV or under service contract for Yara Dallol BV (e.g. contractor, transporter etc.), who discover or cause an incident are responsible for immediate reporting of the incident to his/her supervisor.

4 *EMERGENCY RESPONSE MANAGEMENT DURING THE CONSTRUCTION, OPERATION AND DECOMMISSIONING/CLOSURE PHASES*

4.1 *HAZARD IDENTIFICATION RISK ASSESSMENT PROGRAMME*

Following completion of detailed design for the Project and prior to updating the ES-MS system, Yara Dallol BV will develop a hazard identification risk assessment programme, which will involve a baseline risk assessment of the Project, from construction through to decommissioning/closure. This risk assessment will aid in thorough risk identification. This risk assessment programme will be repeated to take into account non-routine tasks, new Project activities and changes made to the existing process.

Furthermore, Yara Dallol BV will co-ordinate the Project emergency response process and will engage communities and local government to inform them of the emergency response planning and processes, and integrate as appropriate with available services.

4.2 *EMERGENCY COMMUNICATIONS AND COORDINATION PLAN*

In any emergency situation where there is an **immediate threat** to communities, personnel or the environment, the Dallol General Manager shall be notified immediately. The Dallol General Manager will dispatch the Emergency Response Coordinator who will determine the appropriate plan of action depending on the severity of the emergency, the people affected, and the need to evacuate.

If there is a **developing emergency** or unusual situation, where an emergency is not imminent, but could occur if no action is taken, the Dallol General Manager (or if the Dallol General Manager is absent the Health and Safety Manager or Environmental and Social Manager) is to be informed immediately. Once the emergency or unusual situation has been managed, the correct incident/near miss must be reported on to the Dallol General Manager.

If an emergency situation poses a **direct threat** to communities in the area, the Health & Safety Manager and Environmental and Social Manager will advise persons in the vicinity of the emergency to evacuate due to the potential risk. The appropriate authorities will immediately be notified of such an emergency evacuation. The Emergency Response Coordinator will be tasked with responding to the potential risk. Should the emergency situation be such that it can be managed by Yara Dallol BV, equipment and personnel will be deployed to the maximum extent necessary, so as to prevent/minimise potential risks.

Moreover, as per Yara Dallol BV's existing procedure (TOPS 0-01), the following incidents (as set out in *Table 4.1*) must be reported without delay by the Dallol General Manager to the Yara International Head Office –

- All incidents and security breaches in severity class 1, 2 and 3; and
- All incidents with a potential for severity class 1 and 2.

4.3

RESPONSE TO INCIDENTS

An **incident** is any occurrence that has caused, or has the potential to cause, a negative impact on people, the environment, property or production (or a combination thereof). It also includes any significant departure from standard operating procedures. The reporting and investigation of all potential and actual incidents that could have a detrimental impact on human health, the natural environment or property is required so that remedial and preventive steps can be taken to reduce the potential or actual impacts as a result of all such incidents.

The Yara Dallol BV procedure relating to the reporting of incidents (TOPS 0-01) provides a classification of incidents into 5 categories of severity for the following types of incidents (*Table 4.1*):

- Environmental incidents;
- Incident with injury of people;
- Incident with property damage or loss of production; and
- Security breach.

All incidents will be registered by using Yara's Synergi database. Details of this process are provided in the TOPS 0-01 procedure. Moreover, all incidents will be investigated for identification of causes and preventative actions. All investigations must be organised and carried out in accordance with Yara Dallol BV's procedure on investigation and follow-up of accidents and near miss incidents (as detailed in TOPS 0-02).

The actions resulting from any formal or informal investigations will be used to update this ERP.

Table 4.1 Incident Categories (as per existing Yara Dallon BV procedures [TOPS 0-01])

Major Severity 1	Major Severity 2	Medium Severity 3	Medium Severity 4	Minor Severity 5
ENVIRONMENTAL INCIDENT				
Accidental release of hazardous material, liquid or gas to air, water or ground with serious long terms environmental impacts.	Release with serious short term environmental impacts	Release with the potential for short term local impact.	Release with no apparent environmental impact.	Minor release without environmental impacts or negative publicity.
International Media Coverage	National media coverage	Local media coverage.	Permit breach without legal charges.	
Clean-up cost or legal penalty of more than 10 million Euros (or more than 15 million USD).	Clean-up cost or legal penalty in the range of 1 to 10 million Euros (or 1.5 to 15 million USD).	Permit breach with the potential for legal charges.		
INCIDENT WITH INJURY OF PEOPLE				
Fatality	Lost Time Injury with a serious injury consequence (resulting in permanent or long term disability)	Lost Time Injury without serious injury consequence.	Restricted work case. Medical treatment case.	First aid injury
INCIDENT WITH PROPERTY DAMAGE OR LOSS OF PRODUCTION				
Economic loss in excess of 10 million Euro.	Economic loss in the range of 1 to 10 million Euros (1.5 to 15 million USD).	Economic loss in the range of 0.1 to 1 million Euros (or 0.15 to 1.5 million USD).	Economic loss in the range of 0.01 to 0.1 million Euros (or 0.015 to 0.15 million USD).	Economic loss less than 0.01 million Euros (or less than 0.015 million USD).
International media coverage.	National media coverage.			
SECURITY BREACH				
Serious consequences for Yara Dallon BV with the equivalence environmental incident, incident with injury of people, incident with property damage or loss of production Major Severity 1.	Serious consequences for Yara Dallon BV with the equivalence environmental incident, incident with injury of people, incident with property damage or loss of production Major Severity 4	Serious consequences for Yara Dallon BV with the equivalence environmental incident, incident with injury of people, incident with property damage or loss of production Major Severity 3	Serious consequences for Yara Dallon BV with the equivalence environmental incident, incident with injury of people, incident with property damage or loss of production Major Severity 4	Negligible consequences.

Source: TOPS 0-01 Reporting of Accidents, Near-miss Incidents, Sick Leave, Environmental Incidents and Security Breaches

4.4 COSTS FOR EMERGENCY RESPONSE

Costs for emergency response and associated management will be included in the capital expenditure budget for the Project. This will include provision for emergency situations during the construction, operational decommissioning/closure phases of the Project.

4.5 ENVIRONMENTAL EMERGENCY PROCEDURES

As is detailed in *Section 1.3 on Page 1-3*, Yara Dallol BV has existing procedures/plans that deal with response management to incidents and/or risks associated with aggressive (armed) attack; kidnapping; detainment; hijacking; bombs / explosive remnants of war; and medical. These existing procedures/plans will be documented within the overall ES-MS, and will be updated to include detailed response management to the following additional emergency events –

- Fire
- Flash Flooding
- Chemical/Fuel Spills.

These three additional emergency event categories can be defined as follows:

- **Fire** – an event where an object or objects are ignited by a source and burn with a flame or where smoke is visible.
- **Flash Flooding** – flash flooding is common in the area of the Project and is an event where non-perennial rivers (*viz.* the Musley River) flood during high rainfall flash flood events in the western highlands.
- **Chemical/Fuel Spills** – when any chemical or fuel is accidentally released into the natural environment.

The purpose of these procedures is not to detail exact measures for every scenario as this is known to be impractical. Response personnel must be able to develop *in situ* the specific response strategies for individual scenarios, whilst relying on the generic guidelines and support measures described in this Plan.

4.5.1 Fire

The following emergency procedures must be implemented when fire occurrence (or evidence thereof) is noted in the immediate vicinity of the Project Area during the construction, operational and decommissioning/closure phases:

- The Emergency Response Coordinator must be notified.

- Personnel in the immediate vicinity of the fire, including the designated Evacuation personnel must be immediately notified.
- All persons located in the area in which the fire is located must be evacuated. Evacuation must be carried out as per the Evacuation Procedure (*Section 4.6*).
- All doors and windows of buildings and vehicles that are in the immediate vicinity of the fire must be closed.
- The fire must be contained with the **correct** extinguisher **ONLY** by those trained to do so.
- Those requiring assistance must be assisted and first aid must be rendered **ONLY** by those trained to do so.
- Those confined to an area where there is smoke, must move under the level of the smoke and cover their nose/mouth.

4.5.2

Flash Flooding

Proactive Management Measures

The following proactive actions must be carried out to understand the risks of flash flooding for the Project:

- Develop an understanding of the potential flash flood events to which the site of the Project is exposed – i.e. flood events associated with the non-perennial Musley River and surrounds.
- The weather forecast in the surrounding highlands must be constantly monitored, especially during the wet season.
- All key equipment must be raised above (or away) expected flash flood levels.
- Construction of bund and water channels to divert flood water to safe areas.

Yara Dallol BV will ensure that Proactive measures to prevent flooding will not be in contravention to the requirements as set out in the ESIA and associated water, biodiversity and social management plans.

Emergency Procedures

In the event of a flash flood onsite, the following emergency procedures will be implemented:

- The Emergency Response Coordinator must be notified.

- All personnel onsite, including the designated Evacuation personnel must be immediately notified.
- All equipment must be safely shutdown and all electrical equipment must be isolated.

4.5.3 *Chemical/Fuel Spills*

A standalone Spill Prevention, Control and Containment Plan (SPCCP) has been developed (refer to *Annex F in Part III*). This plan will be used to address the general requirements for management of unplanned spills of dangerous or hazardous materials has been generated.

4.6 *EVACUATION PROCEDURE*

All staff must be aware of the possible escape routes prior to the emergency situation. Always assure safety of the assembly point prior to evacuation. The procedure associated with an evacuation event is detailed below:

- The Emergency Response Coordinator will give instruction or the alarm will sound to evacuate a specific area.
- All staff appointed as Evacuation Officers must assist with the evacuation.
- All personnel onsite must follow the instructions of the Evacuation Officer.
- Personnel must follow the directional pointers to the nearest emergency exit.
- Evacuation must be undertaken in accordance to the emergency lay out plan.
- Mobile employees must be the first to be evacuated followed by the frail and the injured.
- Evacuation personnel must work in pairs where possible to assist one another lifting heavy injured employees.
- Mobile employees who are struggling or appear unsure must be assisted.
- Personnel must evacuate by walking briskly and must not run.
- Evacuating personnel must stay calm and must not panic. Panic can spread and cause unnecessary chaos.
- Evacuating personnel must always keep left along the evacuation routes.

- In the case where the emergency situation results in fire or smoke, evacuating personnel must consider crawling, as this may be better than walking.
- Visitors that are not familiar with the evacuation procedure must be assisted.
- A daily record of staff and visitors must be kept.
- The task of the professional Emergency Services must not be obstructed.
- If necessary, a search / check for all unaccounted personnel must be undertaken before leaving the area.
- The evacuation officer must be the last one to leave the area.
- All personnel onsite must report directly to the allocated assembly point.
- Personnel must not leave the assembly point until it has been deemed safe to do so.

4.7

VERIFICATION AND MONITORING

The Health and Safety Manager has been tasked with the responsibility for auditing the Project and implementation of emergency response procedures associated with all phases of the Project. The execution of emergency drills will be included in Yara Dallol BV's emergency response procedures. These will include the following:

- Fire Drills;
- Flash Flooding Drills;
- Aggressive (armed) Attack Drills;
- Medical Drills;
- Chemical / Fuel Spill Drills; and
- Emergency Evacuation Drills.

Reporting and monitoring requirements for the ERP will include:

- Monthly inspections and audits;
- Quarterly report of accidents/incidents;
- Reporting at the time of any environmental incidents;
- Bi-annual emergency response drills; and
- Annual reporting on training.

Emergency response drills and reporting maintained by the Health & Safety and Environmental and Social Managers will provide information regarding required revisions to training or the emergency response actions. Each incident reported will be reviewed and investigated upon occurring. Actions will be identified where possible to improve the site's overall response to emergencies.

Updates/revisions that are necessary to protect worker or community health and safety will be implemented immediately after approval by the Dallol General Manager. On a bi-annual (twice annually) basis Key Performance Indicators (KPIs) will be compared against past-performance and analyzed for trends to determine if there are areas that can be improved.

Changes as a result of the trend analysis and identified areas for improvement will be implemented following the Project's change management system as required.

4.8 *TRAINING*

All employees and contractors will be trained in emergency response procedures within one month of their start-date. The Health and Safety Manager shall distribute the ERP (together with the associated Emergency Evacuation Plan) to all parties in charge of ensuring the plans implementation. All relevant information in the ERP (and associated Emergency Evacuation Plan) shall be communicated to employees and contractors. This information shall include information on potential emergency risks/threats, appropriate first person response to incidents/emergencies and notification procedures.

All site personnel, including contractors, are to be trained in the appropriate responses for emergencies. The training is mandatory and is to be conducted on a regular basis. The frequency and timing of training is at the discretion of the Dallol General Manager, Health and Safety Manager and Environmental and Social Manager, but is to take place at least once a month.

Training is to include, but not limited to the following:

- Firefighting;
- First Aid;
- Emergency Evacuation; and
- Medical and Environmental Emergencies.

4.9 *REPORTING AND DOCUMENTATION*

Monitoring reports against the Plan will be reported by the Yara Dallol BV Health and Safety Manager and Environmental and Social Manager. These reports must within five working days of month end be registered on Yara

Dallol BV's Synergi database. The registering of incidents must be carried out in conformance with TOPS 0-01.

4.10 *INVESTIGATION AND FOLLOW-UP PROCEDURES*

In addition to the above mentioned reporting and documentation requirements, Yara Dallol BV will implement the investigation and follow-up requirements set out in the TOPS 0-02 procedure.

4.11 *KEY PERFORMANCE INDICATORS*

The following KPIs will be measured and used to evaluate the Project's performance with respect to its stated objectives and commitments:

- Number of identified non-compliances with emergency prevention and preparedness measures identified in this Plan;
- Number of incidents that have triggered the emergency response procedure; and
- Specific KPIs in relation to compliance with emergency prevention measures.

Table 5.1 Complete Project Lifecycle

Impact	Objective	Mitigation/Management Measures	Monitoring Plan	Responsibility
Potential negative impacts to the environment, workforce and community from emergencies	Updating and implementation of a suitable ERP	Review of the ERP to confirm specific procedures are in place to address, natural disasters, security breaches, kidnapping, aggressive armed attack, detainment, hijacking, bombing, medical emergencies, fires, traffic incidents, and spills/releases of fuels and hazardous substances.	<ul style="list-style-type: none"> Annual review 	<ul style="list-style-type: none"> Dallol General Manager Health and Safety Manager Security Manager
	Update the ERP	Review of the ERP in the event of a change in process within the mining or support operations	<ul style="list-style-type: none"> Review of the ERP in the event of a change in process within the mining or support operations 	<ul style="list-style-type: none"> Health and Safety Manager
	Manage the ERP processes	Maintenance of emergency contact information, emergency / evacuation instructions, location of response equipment	<ul style="list-style-type: none"> Annual review of processes 	<ul style="list-style-type: none"> Environmental and Social Manager Health and Safety Manager
	Manage the ERP processes	Maintenance of emergency response equipment	<ul style="list-style-type: none"> Annual inspection of equipment 	<ul style="list-style-type: none"> Health and Safety Manager
	Provide emergency response and evacuation training	Provide emergency response and evacuation training to all employees and contractors, including first aid training	<ul style="list-style-type: none"> Response reporting training Annual review of candidates 	<ul style="list-style-type: none"> Health and Safety Manager

Impact	Objective	Mitigation/Management Measures	Monitoring Plan	Responsibility
	Provide emergency response and evacuation training	Provide all personnel involved in the Project appropriate training on how to recognise and respond to situations which can result in a risk to them, communities or the environment	<ul style="list-style-type: none"> • Response reporting training • Annual review of candidates 	<ul style="list-style-type: none"> • Health and Safety Manager
	Provide ERP relevant training	Emergency Response Drills	<ul style="list-style-type: none"> • Implementation of monthly emergency response drills for relevant personnel 	<ul style="list-style-type: none"> • Health and Safety Manager
	Report on emergencies	Carryout the appropriate internal and external reporting	<ul style="list-style-type: none"> • Review of all incidents / accidents reports 	<ul style="list-style-type: none"> • Health and Safety Manager

