



INTEGRATED MANAGEMENT SYSTEM IMPLEMENTATION PLAN

Teghout cjsc

13/02/2013

Quality Management







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Implementation Timetable and Diagrammatic Summary

Background and Introduction

Teghout cjsc is committed to effective environmental, health and safety (EHS) management. To assist this commitment, Teghout cjsc is planning to develop and implement a robust integrated environmental, health and safety management system (IMS) for the Teghout copper–molybdenum mine project, located in the Lori region of Armenia. This document provides a plan for staged implementation of the IMS and all arrangements within the system.

An Environmental and Social Due Diligence (ESDD) of the project has previously been undertaken, which reviewed existing environmental and design documentation, as well as information on related public disclosure on the consultation process, against IFC Environmental and Social requirements and applicable EU legislation. As a result an Environmental and Social Action Plan (ESAP) has been developed detailing the commitments Teghout cjsc has agreed.

It is a requirement of the ESAP that an EHS management system, including social aspects, will be developed and implemented and certifiable according to ISO 14001 and OHSAS 18001. It has been agreed between Teghout cjsc and EKF that certification will be achieved within six months of entering into the operational phase. It is anticipated that the plant will start operation by mid-2015, therefore certification will be achieved by the end of 2015. This implementation plan has been designed to achieve certification by July 2015; this will allow for slight flexibility on deadlines but ensure that certification will be achieved within six months of operation.

WSP have been commissioned by Teghout cjsc to develop an Environmental Health and Safety (EHS) Management Implementation plan for the project. This document will identify the main stages of the development of the system, provide a summary of the requirements at each stage of the development and implementation and provide a proposed timeline for the sequential implementation of the Integrated Management System (IMS) to combine the environmental standard ISO 14001 and the health and safety standard OHSAS 18001 with a view to achieve certification before the end of 2015.

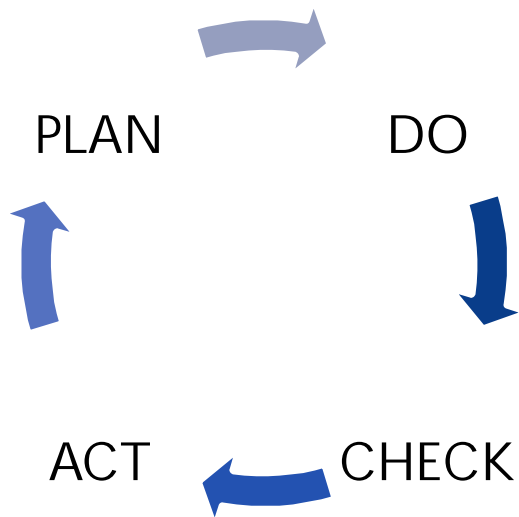
In order to structure the management of the project's EHS concerns and legal requirements, Teghout cjsc are committed to developing, implementing and maintaining an IMS, therefore closing out the associated actions in the ESAP. The IMS will integrate the project's systems and processes into one framework. This will enable Teghout cjsc to manage and monitor EHS matters as one unit. The IMS will:

- Ensure compliance with legal and other requirements;
- Manage significant EHSS risks;
- Promote internal and external stakeholder engagement;
- Improve resource efficiency.

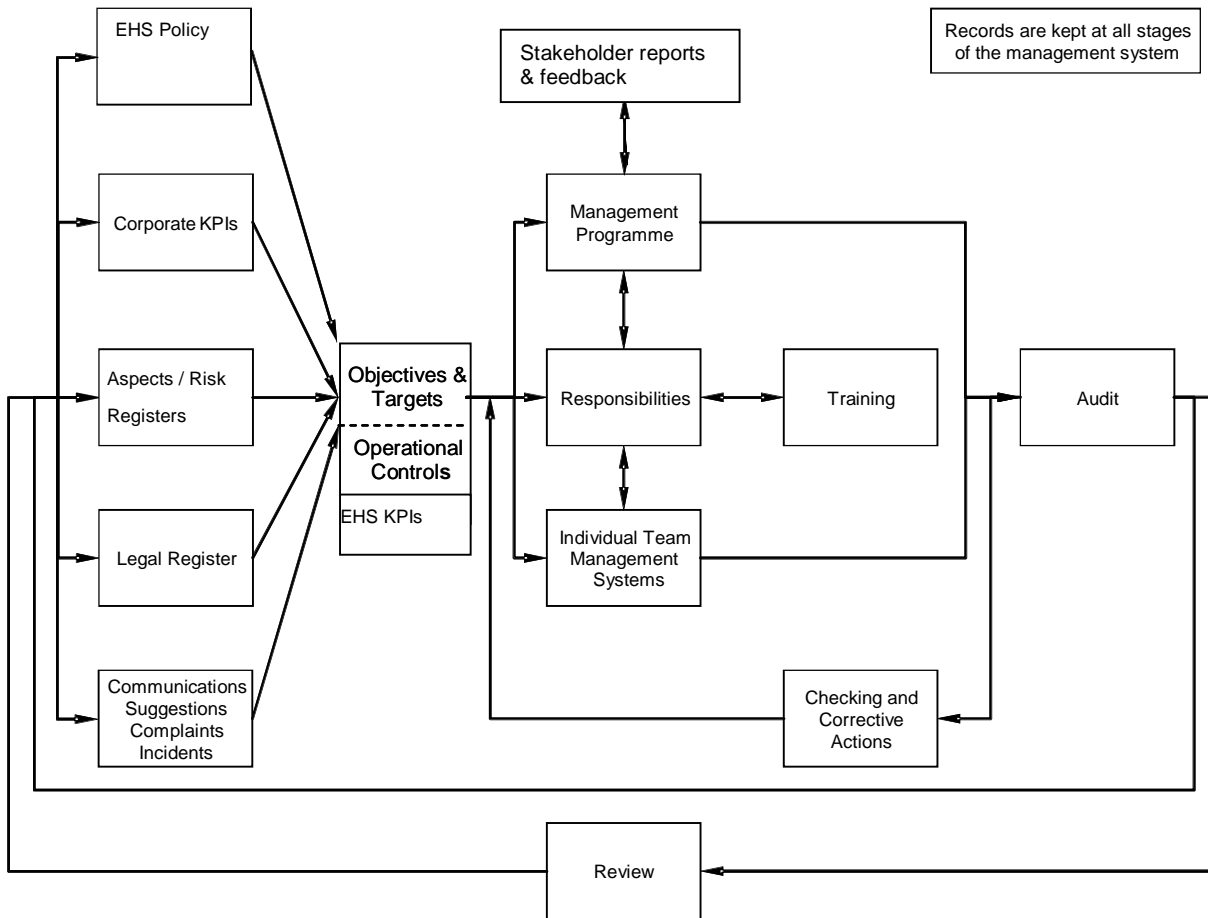
Developing and Implementing an IMS

The approach to IMS implementation set out below is based on the clauses within the ISO 14001 and OHSAS 18001 standards, which are essentially parallel in structure, although there are differences in focus.

The standards are based on a 'plan-do-check-act' methodology; this promotes continual improvement of the IMS and ensures that it is credible, robust and reliable.



The IMS will provide a framework for managing the EHS risks associated with the project. The proposed structure for development of the IMS is set out diagrammatically below:



IMS Preparation Phase

Project Commencement Phase

It is proposed that an initial project commencement conference call will be held between Teghout cjsc and the commissioned support consultants. This is an opportunity to discuss potential EHS risks, any current management practices or standards that are adopted at Group level, and whether these will be filtered down to Teghout cjsc. Detailed discussions between the consultants and Teghout cjsc will ensure that agreements are made on the proposed plans and timescales to ensure that certification is achieved before the end of 2015.

Review of existing EHSS management plans and gap analysis

An initial Baseline Review and Gap Analysis are to be undertaken to assess each of the requirements of both ISO 14001 and OHSAS 18001 clauses against any current arrangements and current compliance status.

Project Inception Meeting and Implementation Schedule Training Session

A project inception meeting is proposed. This will be facilitated by the consultants and used as an opportunity to discuss the management of the IMS, the team and employee involvement and training. To ensure commitment to the IMS and local site engagement, this should be attended by senior management and relevant site personnel.

Development of a draft EHSS Policy Statement

The development of an initial EHSS policy statement will also be undertaken during the preparation phase. The policy will detail the overall intentions and direction of the project with regards to EHSS performance. It will

provide the framework for action and for the development of EHSS objectives and targets. The Policy will be communicated to all employees and contractors as a minimum. It will be reviewed annually as part of the management review.

IMS Planning Phase

Identification of mine activities with environmental aspects and impacts and health and safety hazards and risks

The planning phase involves identifying and defining various environmental aspects and related potential impacts that can result from the project along with the associated health and safety hazards and risks that could result from the activities, services and products of the project.

Activities will be assigned to each stage of the mining projects. Primary activities will include, but are not limited to:

- Land clearance and logging
- Development of roads
- Overburden removal
- Landscaping
- Water channel diversion
- Construction of the mining process plant
- Development of the tailings dam and pollution control
- Mining ore excavation and removal
- Ore processing plant operation
- Mining product / concentration handling, packing, storage and removal
- General transport
- General maintenance
- Office and administration activities
- Activities with an offsite interface

The purpose of the procedure is to ensure that all EHS aspects and hazards are identified and that the significance of their impacts and risks are assessed to permit improvement objectives and employ necessary control measures. The procedure will address normal and abnormal activities such as the management of contractors and reasonably foreseeable emergency situations. A level of significance will be assigned to each aspect and hazards with the intention to reduce impacts as low as practicable.

A review of the commitments in the ESAP will also be undertaken; this will ensure that all aspects, which are considered to be significant for the project, are included within the IMS development.

Aspects and Impacts register and hazard and risk register development

The output of this procedure will be an environmental and social aspects and impacts register and a hazard and risk register. This will need to be maintained and reviewed if operations change and on a regular basis.

Identification of applicable EHS legislation and other requirements and the development of legal register

Another key part of the planning phase is the identification of applicable EHS legislation and other requirements (i.e. IFC performance standards and guidelines) to which Toghout cjsc subscribes. A procedure for the development of the register of EHS legislation and requirements will be developed to ensure all applicable legislation and requirements have been identified and this is regularly reviewed and updated.

Development of Objectives and Targets

Objectives and targets of the IMS will be set at this stage. These will be specific, measurable, attainable, relevant and timely (SMART). When these are developed, it is important to consider legal and other requirements, significant aspects and hazards, business requirements and any stakeholder interest. A series

of relevant objectives and targets will be developed under a number of activities with associated EHSS aspects, for example:

- Accident and incident monitoring, inclusive of contractors
- Delivery of training and communication plans
- Resource efficiency, including energy consumption
- Reporting of compliance with permit conditions and other requirements
- Habitat condition and habitat compensation progressions
- Positive safety management e.g. safety culture / behavioural aspects

These should be consistent with the EHS policy.

Full review of the EHSS Policy Statement

This will be undertaken to ensure it is aligned with aspects, risks and objectives and targets.

IMS Implementation Phase

The implementation phase of the IMS is an imperative stage of the process. It is in the implementation that the true efficacy of EHSS management lies.

Defining roles and responsibilities

Responsibility and authority for implementing and maintaining specific aspects of the IMS will be defined. A review of the existing EHS structure will be undertaken and any recommendations to Teghout cjsc will be made. EHS management system roles, responsibilities and authorities will be defined at relevant functions and levels within the organisation through system manuals, procedures and work instructions.

Assessment of training needs

An identification of training needs for each job role will be undertaken. This will identify personnel whose work may create a significant impact upon the environment or the health and safety of the workplace and where training will be required in order to mitigate or minimise this risk.

A training needs analysis will allow the development of a training procedure to train employees at each relevant function and level, ensuring awareness of the operating procedures, significant environmental aspects and workplace hazards, their roles and responsibilities in the management of these and achieving conformance with the policy and compliance with Armenian legislation and IFC performance standards.

A documented training plan

The training needs analysis will define the training required for each job role / employee, this will then allow for the development of a documented training schedule. The schedule will be used as a plan for the delivery of training and also highlight any 'refresher' training that is required periodically, for example first aid training.

Training development and delivery (through the remaining stages and on-going)

Training is a key component of the implementation phase. It is envisaged that a review of existing training will be undertaken and expanded. It is important to ensure that all staff are aware of the IMS operations and how their roles interact with the system and other requirements. Training records will be maintained by Human Resources. Appropriate records will be monitored and reviewed on a scheduled basis.

Management training examples:

- IMS Systems awareness for managers
- IMS awareness for all mine employees

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- IMS induction for all new employees
 - EHS induction for all contractors
 - Internal auditor training
 - Emergency response training for all employees

Operational control training examples:

- First aid
- Safety risk specific training (Manual handling, electrical safety, use of work equipment, work at height training, mining excavation safety training etc)
- Waste management training
- Environmental monitoring training
- Driver training

Communication procedure

A Stakeholder Engagement Plan (SEP) which includes a grievance mechanism has already been developed by Teghout cjsc. This will need to be incorporated into the IMS and ensured that it is applied for all internal and external communications regarding EHS information. The procedure also includes grievances regarding contractors' activities and communications received by contractors. Integration of the SEP into the IMS will require the development of a procedure for the communication of information to identified external stakeholders in accordance with IFC performance standard 1.

Another area for consideration will be the change in the management process; therefore an internal communication procedure will be developed. This will define and detail the people responsible for overseeing the IMS implementation and also responsible for dealing with queries or questions from internal stakeholders.

Core systems documentation

This will include the formal issue of the procedure for the development of the legal register, aspects and impacts register, hazard and risk register. This will also include procedures for other core systems elements as required in the ISO and OHSAS standards, such as 'assessment of new and modified activities' or 'EHSS records maintenance'.

During the preparation and planning phase we will review any existing procedures regarding, management, reporting, and document control. The review will enable the current procedures to be aligned and integrated into the IMS and will avoid creating a parallel system.

Development and Implementation of the Control of documents procedure

A procedure to manage the control of all documents relating to the EHS management system will be developed and implemented. It will describe where documents are located and specify dates for review. It will ensure that the current versions of all documents are available and obsolete documents easily identifiable or are removed.

As mentioned above, a review of existing procedures will be carried out before the development of new procedures.

Development and Implementation of a Contractor Management Procedure

Teghout cjsc will be responsible for the management of EHS matters for all contractors working on their behalf. The procedure will be developed and implemented to ensure all contractor operations and activities, likely to have an EHS impact, are managed appropriately. It will detail a pre work assessment of contractors', EHS management systems and performance. Also to be included in the management procedure are:

- Teghout cjsc's EHS requirements
- Pre-work EHS inductions
- References to safe work procedures
- A defined responsible person
- Details for reporting and EHS accidents, incidents or near misses
- References to emergency procedures

As mentioned above, a review of existing procedures will be carried out before the development of new procedures

Development and Implementation of Operational Control Procedures

Operations and activities associated with significant EHS aspects and hazards have been identified previously in the development of the IMS. Teghout cjsc's top management need to ensure that there are sufficient controls in place through engineering design or work procedures and practices to control these EHS issues. The operational control procedures will be developed for each significant environmental aspect and health and safety hazard to minimise EHS risk and ensure the system is maintained in accordance with the policy, the objectives and targets, Armenian legislation and IFC PS.

Operational control procedures for Teghout cjsc will include, but are not limited to:

- Storage of the overburden
- Acid leachate generation and leakage
- Raw material storage
- Management of the tailings and the tailings dam
- Occupational noise assessment
- Noise control and monitoring
- Engagement and communication with NGOs
- Environmental monitoring instruction for each monitoring aspect
- Mine waste segregation, storage and management procedures
- Surface water management procedures
- Liquid effluent discharge management
- Effluent treatment systems management (including maintenance)
- Storage and handling of hazardous and polluting materials
- Control of dust
- Safety hazard procedures; entry of confined spaces, use of work equipment, use of excavators, management of working at height, control of lifting processes and lifting equipment
- Dam safety management and inspections

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- Logging and landscaping management
 - Management and assessment of stockpiles and slope stability.

As mentioned above, a review of existing procedures will be carried out before the development of new procedures.

Development of Emergency Procedures

Identification of potential accidents and emergency situations will be carried out for the development of emergency procedures to mitigate EHS impacts associated with them. Emergency procedures will be developed, tested and reviewed. Emergency procedures will include, but are not limited to:

- Response to emission limit value breaches
- Fire response
- Spill and response procedures
- Major incident plan, including public interface and evacuation

As mentioned above, a review of existing procedures will be carried out before the development of new procedures.

Monitoring of the IMS

Establishment of the Monitoring and Measuring Programme

The monitoring and measuring programme will be developed to measure the key characteristics of the EHS management system and Teghout cjsc's operations and activities. The programme will include details of calibration and maintenance requirements and will ensure that records are retained. A monitoring plan has been developed for the project; the procedures will therefore be developed in line with this plan. Procedures will include the monitoring of EHS performance in line with the KPIs the ESAP and EHS objectives and targets. A regulatory compliance procedure will also be developed to manage EHS compliance. Detailed within the procedures will be reporting requirements to top management.

Legal and Other Requirements Compliance Assessment

A procedure for legal and other compliance assessments will be developed and records will be maintained to document the results of the evaluation. This will be reported to top management.

Interim Reporting

IMS progress reporting to top management will be done. This will also be done in conjunction with the annual report submitted to EKF on the progress of the ESAP items.

Development of Emergency Response Monitoring and Testing

Procedures will be developed and implemented for the testing of preparedness for emergency situations.

Establishment of Audit Programme

In order to ensure that the IMS conforms with the planned arrangements for EHS management and the requirements of ISO 14001 and OHSAS 18001 audits will be undertaken. Nomination and training of internal auditors will be undertaken. A schedule of audits will then be developed for both internal and external audits.

Corrective and Preventive Actions

A procedure will be developed for handling and investigating EHS accidents and incidents. Roles and responsibilities will be defined and instructions for the completion of necessary paperwork for reporting and

recording the events. Where non-conformances have been identified, a procedure for assigning responsibility, handling, investigating them, taking actions to mitigate them and for initiating and completing corrective and preventative actions will be developed. Any changes in procedures implemented as a result from corrective and preventative actions implemented will be recorded on the procedure.

Establishment of Contractor Assessment Programme

The development of the programme will schedule assessments of contractors' EHS performance.

Records

The procedure will be implemented for the identification, maintenance and disposal of records. Records will include training records and results of audits and assessments.

Review and Certification

Management review

The management team will periodically review the IMS to ensure its continuing effectiveness, suitability and adequacy. The review will enable improvement and ensure the objectives and targets are aligned with the policy. It will include, but is not limited to:

- Review of results from audits
- Review of the status of legal compliance
- Review of incidents
- Communication with external stakeholders

Identify a certification body

The certification body will be identified and it will be ensured that this is internationally credible and approved under Armenian accreditation system.

Certification audit – systems readiness

A pre-certification audit will be undertaken; this will be a review of all the IMS documentation and a full tour of the mine and facilities.

Certification audit – final implementation audit

The management systems certification process will then commence. An extensive review of documents and records, along with interviews and site auditing, will be undertaken by an external certification company.

This will be completed in two stages; the first stage will be a systems readiness audit and a review of all the IMS documentation. It will involve a full tour of the mine and facilities. The second stage will be a full system implementation audit.

Implement Audit Corrective Actions

Once the certification audit has been undertaken any corrective actions that have been proposed will be closed out. Certification of the EMS arrangements to ISO14001 and the H&SMS to OHSAS 18001 should then be awarded.

Certification

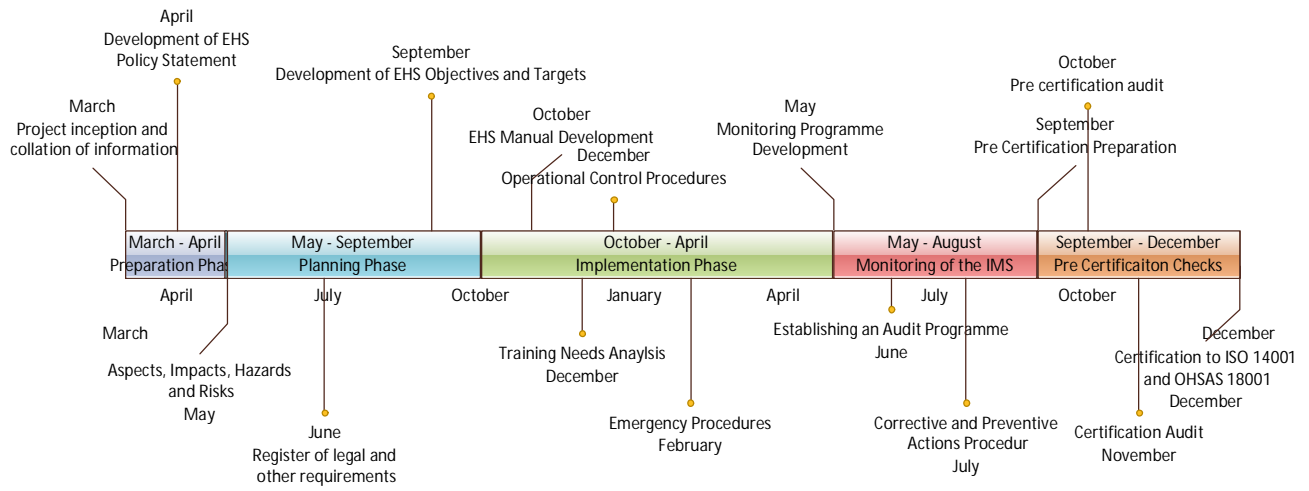
Project Plan

A detailed project has been developed outlining the steps of the IMS development and implementation with the aim of gaining certification within six months of commencing operation.

TASK	2013											2014												2015						
	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	
IMS PREPARATION PHASE																														
Initial Project Commencement Conference Call																														
Teghout Collation of information																														
IMS Implementation Project Inception Meeting and Initial Training Session - Teghout Senior Leadership Team - Teghout Line Management Team - Consultants																														
Current EHS Information Gap Analysis Study and Review of Existing EHS Management Plan(s)																														
Initial EHSS Policy Statement Production																														
Identification of EHS Management Team (Including Roles & Responsibilities)																														
IMS PLANNING PHASE																														
Initial identification of mine activities with environmental aspects and impacts																														
Evaluate environmental and social aspects and impacts for significant																														
Preparation and finalisation of environmental and social aspects and impacts register																														
Identification of mine activities with health and safety hazards and risks - To include meetings and discussions with the design team																														
Evaluation of significance																														
Development of health and safety hazard and risk register																														
Independent identification and evaluation of environmental and health and safety compliance requirements with applicable Armenian legislation. - To include the identification of emission limit values based on national legislation and IFC guidance.																														
Development of environmental register of Armenian legislation and other relevant performance requirements (IFC Standards)																														
Development of health and safety register of legislation and other performance requirements																														
Development of SMART EHSS Objectives and Targets Agreement and Implementation																														
IMS IMPLEMENTATION PHASE																														
Development & Implementation of Core Management 'Systems' Procedures and Documentation																														
Development & Implementation of EHS Manual																														
Assessment of staff training needs with a training needs analysis																														

TASK	2013											2014											2015						
	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Development of a documented training plan																													
Development and delivery of training courses																													
Development of Communication procedure <ul style="list-style-type: none"> - This will include the integration of the grievance mechanism for both internal and external stakeholders. - Integrating the SEP into IMS 																													
Development and Implementation of Control of documents procedures																													
Development and Implementation of a Contractor Management Procedure																													
Identification, development & implementation of Operational Control Procedures <ul style="list-style-type: none"> - To include monitoring procedures for the EHS matters as identified in the monitoring plan e.g. waste management, air quality. 																													
Establishment and implementation of emergency preparedness and response procedures. <ul style="list-style-type: none"> - To include the identification of potential EHS incidents, accidents and potential emergency situations. 																													
MONITORING OF THE IMS																													
Establishment of Monitoring & Measuring Programme <ul style="list-style-type: none"> - This will be developed in line with the monitoring plan that has been developed for the projects. - To include the establishment of KPIs for EHSS performance monitoring and in line with the committed EHSS objectives and targets 																													
Interim Reporting (High Level Objectives & Targets and Progress Towards System Implementation) <ul style="list-style-type: none"> - This will be done in conjunction with the annual report that will be submitted to EKF on the progress of the ESAP items 																													
Legal & Other Compliance Assessment <ul style="list-style-type: none"> - A workflow will be developed for an annual review of compliance. - Records will be maintained to document the results of the evaluation. 																													
Development of Emergency Response Monitoring and Testing Systems (e.g. drills)																													
Establishment of Audit Programme <ul style="list-style-type: none"> - This will be developed to ensure that the IMS conforms with the planned arrangements for EHS and also the requirements for the standards (ISO 14001 and OHSAS 18001) - Development of an IMS internal and external audit schedule - Nomination and training of IMS internal audit team - Commencement of scheduled internal audits - The results of the audits will provide information to management and form part of the management review. 																													
Corrective and Preventive Actions Procedures <ul style="list-style-type: none"> - Where nonconformities have been identified, actions will be taken to mitigate their EHS impact. - Investigations will be undertaken to determine causes and prevent recurrence - Record to be maintained - Any necessary changes to the IMS will be documented. 																													
Establishment of Contractor Assessment Programme																													
Records Identification <ul style="list-style-type: none"> - Necessary to demonstrate conformity. 																													

TASK	2013										2014										2015							
	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Management Review (Including Review of Entire System) - This is should be undertaken annually.																												
Identification of certification body, officially nominated and Armenian accredited.																												
Certification audit - System readiness audit																												
Certification audit - Systems implementation final audit																												
Certification																												



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UNITED
BY OUR
DIFFERENCE

