Ghana Bridge Power Project
Environmental and Social Management System

DOC 1 Manual

Early Power Limited
91 Osu Badu Street
West Airport
Accra

Version Record – Record of Reviews and Amendments

<table>
<thead>
<tr>
<th>Revision Number</th>
<th>Date of Issue</th>
<th>Planned Review Date</th>
<th>Reviewer</th>
<th>Details of Amendments</th>
<th>Approved by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>24/08/2016</td>
<td>-</td>
<td>Richard Hall,</td>
<td>First issue</td>
<td>D Cronin</td>
</tr>
<tr>
<td>2.0</td>
<td>28/10/2016</td>
<td>-</td>
<td>M McBarron</td>
<td>Update</td>
<td>JP Wale</td>
</tr>
<tr>
<td>3.0</td>
<td>12/12/2017</td>
<td>-</td>
<td>JP Wale</td>
<td>Update to reflect project change</td>
<td>J Willenbrock</td>
</tr>
</tbody>
</table>
Contents

1. Introduction .................................................................................................................................. 1-1
   1.1 Purpose of the ESMS ........................................................................................................ 1-2
   1.2 Scope of the Project .......................................................................................................... 1-2

2. Objectives of the ESMS ............................................................................................................. 2-4

3. List of Abbreviations ............................................................................................................... 3-5

4. Context of the Organization ..................................................................................................... 4-6
   4.1 Understanding the Organization and its Context ........................................................ 4-6
   4.2 Understanding the needs and expectations of Interested Parties .................................. 4-7
   4.3 Determining the Scope of the ESMS ............................................................................ 4-9

5. Leadership, Roles and Responsibility ...................................................................................... 5-10
   5.1 Leadership and Commitment .................................................................................... 5-10
   5.2 Environmental and Social Policy ............................................................................. 5-10
   5.3 Organizational Roles, Responsibilities and Authority ............................................. 5-11

6. Planning .................................................................................................................................... 6-15
   6.1 Actions to address Risks and Opportunities ............................................................ 6-15
   6.2 Environmental Objectives and Planning to Achieve Them ....................................... 6-18

7. Support ...................................................................................................................................... 7-20
   7.1 Resources .................................................................................................................. 7-20
   7.2 Competence ............................................................................................................. 7-20
   7.3 Awareness ................................................................................................................ 7-21
   7.4 Communication (Internal and External Stakeholders) ............................................... 7-22
   7.5 Documented information ......................................................................................... 7-28

8. Operation .................................................................................................................................... 8-30
   8.1 Operational Planning and Control ............................................................................ 8-30
   8.2 Emergency Preparedness and Response ................................................................. 8-30

9. Performance Evaluation ............................................................................................................ 9-32
   9.1 Monitoring, Measurement, Analysis and Evaluation ................................................ 9-32
   9.2 Internal Audit ........................................................................................................... 9-33
   9.3 Management Review ............................................................................................... 9-36

10. Improvement of Project Performance ..................................................................................... 10-37
    10.1 General .................................................................................................................. 10-37
    10.2 Nonconformity and Corrective Action .................................................................... 10-37
    10.3 Continual Improvement ......................................................................................... 10-37

Appendix A – Current Index of ESMS Documents ..................................................................... 10-38
Appendix B – Content of Labour and Working Conditions Policy ........................................ 10-39
Appendix C – Content of Labour Grievance Process ............................................................. 10-41
Appendix D – Monitoring Requirements under the Environmental Permit ............................ 10-42
Figures and Tables

Table 4-1: Stakeholders .......................................................... 4-7
Figure 5-1: EPL Organisational Chart ...................................... 5-11
Table 5-1: Roles and Responsibilities .................................... 5-12
Figure 6-1: Planning Action Process ....................................... 6-17
Table 6-1: SMART Objective Questions ................................. 6-19
Figure 7-1: Competence Process ........................................... 7-21
Figure 7-2 Communication types ........................................... 7-22
Table 7-1: Internal Communication ....................................... 7-23
Table 7-2: Communication with government bodies ................ 7-26
Figure 9-1: Audit Process ..................................................... 9-35
1. Introduction

The Ghana Bridge Power project (‘the project’ or ‘the Bridge Power project’) will enable power generation utilising Liquefied Petroleum Gas (LPG) and has been developed to deploy additional electricity to support the demand for reliable power in the area. The project is being developed and operated by Early Power Limited (EPL) in the Tema region of Southern Ghana, 50 km east of the capital Accra. The project includes two power plants, separate LPG storage facilities and the development of a new pipeline infrastructure for supply of LPG and water to the plants.

The purpose of the Environmental and Social Management System (ESMS) is to provide a framework for the systematic assessment, mitigation and management of environmental and social risks in accordance with in-country requirements as well as international good practice. The system provides a mechanism for EPL to identify and comply with relevant legislation, permitting and authorisation obligations, as well as enabling international good practice standards to be implemented within a considered management approach.

The ESMS is intended to be a live process, subject to review at planned intervals or in the event of significant project or contextual changes. This will enable the continuous improvement in environmental and social risk management to be effective and aligned to changing project plans, personnel, environmental conditions, social circumstances, stakeholder considerations and legal requirements.

This Environmental and Social Management System (ESMS) Manual has been prepared in compliance with the International Finance Corporation (IFC) Performance Standards for Environmental and Social Sustainability, the IFC EHS Guidelines and ISO 14001:2015.

The ESMS Manual is the key document for the project’s ESMS. It acts as an overview or ‘signpost’ for the supporting documents and procedures that provide the detailed information on how the project will manage environmental, social, health and safety risks. A list of these procedures and supporting documents is detailed in the Index (Appendix A).

The following IFC standards apply and are adhered to in this document:

- Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts
- Performance Standard 2: Labour and Working Conditions
- Performance Standard 3: Resource Efficiency and Pollution Prevention
- Performance Standard 4: Community Health, Safety and Security
- Performance Standard 5: Land Acquisition and Involuntary Resettlement

The ESIA has confirmed following IFC standards do not apply to this project and are excluded from the scope of this ESMS:

- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- Performance Standard 7: Indigenous Peoples
- Performance Standard 8: Cultural Heritage

Management of occupational health and safety, including the relevant parts of IFC Performance Standard 2, shall be based on OHSAS18001 (ISO45001 as of 2017) for Occupational Safety and Health Management Systems (OHSMS). The scope of this document or the ESMS does not cover the OHSMS although certain documents are referenced where relevant.
1.1 Purpose of the ESMS

The purpose of the ESMS is to set out how EPL intends to meet the requirements of the IFC Performance Standards for Environmental and Social Sustainability, the IFC EHS Guidelines and in compliance with ISO 14001:2015 and to provide a systematic approach to environmental management. The ESMS builds on the Environmental and Social Impact Assessment (ESIA) and the Environmental and Social Management Plan (ESMP). The ESMS provides the framework for meeting the requirements of these standards through measures and procedures aimed at protecting the environment and mitigating adverse effects.

The framework assists the project in meeting its legal requirements with the Ghana Environmental Protection Agency (EPA), fulfilling compliance obligations and enhancing environmental performance. The framework will support the life cycle of the project through each stage from construction through to decommissioning and shall provide a key reference for communicating environmental information to workers and interested stakeholders.

Where applicable, relevant standards are referenced directly for ease of identifying which standard, or which clause of the standard, is being met. In the case of this Manual, the clauses of this document have been set out so as to mirror the requirements of ISO 14001:2015. In September 2015 the new ISO14001 standard was published. This standard introduced the new simplistic structure which is designed to improve alignment with other management systems standards and be applicable to all new ISO standards and any revisions of standards.

The ESMS shall be reviewed as the project and life of the project changes and the documents including this Manual may therefore be subject to change and revision. These changes may reflect the stage of the project, changes to legislation, impacts and inputs from stakeholders, or simply changes in process and operations which take place on the project. A change and document control process (Section 7.5 Documentation) exists within this ESMS Manual which shall track amendments as these take place.

1.2 Scope of the Project

The project includes the development of power plant facilities to provide commercially available power in four phases to provide a net total generation capacity of 424 MW at site design conditions. Throughout the development phases, LPG will be used as fuel. It is envisaged that within five years of operation of Phase 4 the plant will switch to operation using natural gas if this is made available by the Government of Ghana.

The main project components include:

- **Power Plants:**
  - Power Plant Site 1 (PPS1) – PPS1 will be developed in two stages with the operation of five General Electric (GE) TM2500 (‘TM units’) in open cycle gas turbine (OCGT) mode (Stage 1a) and combined cycle gas turbine (CCGT) generating mode (Stage 1b).
  - Power Plant Site 2 (PPS2) – PPS2 includes for 4 LM6000 PC Sprint variant units (‘LM units’) operating in CCGT mode. It is not expected that Stage 2 would operate in open cycle mode; however, the design includes bypass stacks to allow open cycle operation, if required.

- **LPG Pipeline** – A pipeline will transport LPG from the existing Tema Oil Refinery (TOR) jetty to the TOR plant site, through to the new project tank farm and then to the PPS1 and PPS2.

- **Tank Farm** – A new tank farm for storage of LPG prior to use by PPS1 and PPS2.
Diesel fuel oil (DFO) pipelines – required to transport DFO stored at the nearby Quantum Terminals Limited fuel storage site to PPS1 and PPS2. The pipelines will follow a new Right of Way (RoW) along with the LPG pipeline between the tank farm and power sites.

Power evacuation - Evacuation of the power for Stage 1a will be via underground connection to the existing New Tema GridCo sub station adjacent to the Electricity Company of Ghana (ECG) Station H substation, at 161kV. Stage 1b evacuation will initially be via a new 161kV spur into a new double circuit 161kV overhead line to be constructed by GRIDCO by early 2019, which will run adjacent to the existing overhead lines that run east-west along the northern boundary of the Stage 2 site (PPS2). Stage 2 evacuation will be via a new substation into the new GRIDCO 161kV power lines. The Stage 1b evacuation spur will be transferred to the Stage 2 substation as that switch yard is completed. Details of the proposed power evacuation are provided in Section 2.2.2.

Water Pipelines – A new pipeline will run from a Ghana Water Company (GWC) municipal supply network connection, approximately 900m south of the LPG tank farm. This pipeline will connect the municipal supply network to water storage facilities to be constructed within the LPG tank farm for fire protection purposes. Water pipeline spurs from the pipeline connecting to the municipal supply will supply water storage facilities located within the Stage 2 site to serve the water needs of both the Stage 1 and Stage 2 power facilities.
2. Objectives of the ESMS

The objectives of the ESMS Manual are as follows:

- To set out and detail the Environmental and Social Policy for the project;
- To set out and detail the scope of the project including the stages of the project life cycle to which this ESMS applies;
- To identify and address the risks and opportunities applicable to the project in order to control and, where possible, enhance the project’s environmental performance;
- To establish the resources required to implement, maintain and continually improve the ESMS;
- To establish the roles and responsibilities applicable to the ESMS;
- To establish a mechanism and process to provide awareness and communication to employees and to all stakeholders and interested parties;
- To provide a method and process for documentation and documenting information including for the provision of updates and control. The ESMS shall also establish what information should be required and documented for each area of the project and the ESMS;
- To establish a process to meet operational planning and control throughout the life cycle of the project;
- To establish a process for emergency preparedness and response;
- To establish a process for any requirements for monitoring, measurement, analysis and evaluation throughout the life cycle of the project;
- To establish a process for internal audit and review;
- To establish a process of effective and regular management review of the ESMS; and,
- To establish a process for identifying relevant nonconformity and corrective actions.
3. List of Abbreviations

BAT  Best Available Techniques
DFO  Diesel Fuel Oil
ECG  Electricity Company of Ghana
EPA  (Ghana) Environmental Protection Agency
EPL  Early Power Limited
ESAP  Environmental and Social Action Plan
ESIA  Environmental and Social Impact Assessment
ESMP  Environmental and Social Management Plan
ESMS  Environmental Social Management System
GE   General Electric
HR   Human resources
IFC  International Finance Corporation
KPI  Key Performance Indicators
KTPP (VRA) Kpone Thermal Power Plant
LPG  Liquefied Petroleum Gas
OHSMS Occupational Health and Safety Management System
SEP  Stakeholder Engagement Plan
SMART Specific, measurable, attainable, relevant and time bound
TCPD Town and Country Planning Development
TDC  Tema Development Corporation
TFC  Tema Fuel Company
TTPC  Tema Thermal Power Plant Complex
TMA  Tema Metropolitan Assembly
VRA  Volta River Authority
4. Context of the Organization

The Bridge Power Project was created to address the need for a short-term solution to Ghana’s power challenges. EPL is the Ghanaian entity owned by Bridge Power Project Sponsors: Endeavor Energy, General Electric (GE), and Sage Petroleum.

The company has been established for this project and was set up to address the power requirements of Ghana through this project (and others) covered by this ESMS.

4.1 Understanding the Organization and its Context

The Bridge Power Project will be subject to external and internal issues that could impact on the effectiveness of the ESMS, issues as diverse as a change in government, workforce literacy and climate change. The context within which EPL and the Bridge Power Project will be constructed, operated and decommissioned needs to be understood in order for the ESMS to be suitable for achieving its objectives.

The determination of external and internal issues that provide the context for the ESMS is undertaken using the PESTLE and SWOT analysis techniques, applied during a facilitated meeting of company representatives (management, ESMS team, workforce, major contractors).

The PESTLE analysis considers the external factors that could impact on the ESMS effectiveness and includes:

- Political
- Economic
- Social
- Technological
- Legal
- Environmental

Although specific economic, social and environmental impacts have been analysed through the ESIA process and legal compliance requirements are documented in a legal register (ESMS DOC 3), the PESTLE analysis is a broader consideration of the status and trends in external factors in regards to their contextual influences on the ESMS functioning.

The results of the PESTLE analysis are then fed into a SWOT analysis, which considers:

- Strengths  }  \textit{Internal factors that will affect the ESMS effectiveness}
- Weaknesses  }  \textit{External factors that will affect the ESMS effectiveness (results of the PESTLE analysis)}
- Opportunities  }  \textit{External factors that will affect the ESMS effectiveness (results of the PESTLE analysis)}
- Threats  }

The outcome of the PESTLE and SWOT analyses enable the ESMS components to be developed and implemented in the most effective manner for the context within which EPL will operate. This should include appropriate buffers to protect the ESMS functionality against significant risks.

The results from the analysis will be documented on ESMS DOC 01a Organisational Context and fed into the determination of the ESMS scope (section 4.3) and reviewed at least every 5 years.
4.2 Understanding the needs and expectations of Interested Parties

EPL has identified and engaged with a wide range of project stakeholders during the project development process. The needs and expectations of interested parties will be taken into consideration throughout the life of the project.

The following table sets out the stakeholders identified to date.

Table 4-1: Stakeholders

<table>
<thead>
<tr>
<th>Government and Community Stakeholders</th>
<th>Stakeholder Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Power</td>
<td>Ministry of Power is the national authority on production of power.</td>
</tr>
<tr>
<td>Energy Commission</td>
<td>The Energy Commission regulate and manage the development and utilization of energy resources in Ghana. They also provide the legal, regulatory and supervisory framework for providers of energy in the country, specifically by granting licences for the electricity transmission.</td>
</tr>
<tr>
<td>Ministry of Health Metropolitan Health Directorate</td>
<td>The Ministry oversees community and worker health and the various agencies for Right of Way applications. They also report on HIV and aids.</td>
</tr>
<tr>
<td>Town and Country Planning Development (TCPD)</td>
<td>TCPD is the national authority on developmental issues.</td>
</tr>
<tr>
<td>Tema Development Corporation (TDC) (Tema office)</td>
<td>TDC is a government institution set up to assist in development of Tema. It is the end owner of large areas of land in Tema, including THIA, which it leases to business or individuals including the VRA.</td>
</tr>
<tr>
<td>Tema Metropolitan Assembly (TMA)</td>
<td>TMA are the authority in charge of the Tema region.</td>
</tr>
<tr>
<td>Tema East Sub Metropolitan Assembly</td>
<td>Part of the TMA. Its jurisdiction includes the project infrastructure locations. Their key activities include provision of socio economic infrastructure and services in the area, responsibility for a clean, safe and healthy environment and promotion of socio-economic activities, especially for the vulnerable and excluded.</td>
</tr>
<tr>
<td>Ghana Environmental Protection Agency (EPA)</td>
<td>EPA gave permission to commence planning process and enforce environmental regulations, including issue of the environmental permits which contains monitoring and reporting requirements.</td>
</tr>
<tr>
<td>EPA- Accra East Region</td>
<td>EPA Accra East Region is the environmental authority responsible for the area where the project is located.</td>
</tr>
<tr>
<td>Ministry of Energy and Petroleum</td>
<td>The Ministry of Energy and Petroleum is the national authority aiming to improve the distribution of electricity across the country.</td>
</tr>
<tr>
<td>Kpone-Katamanso District Assembly (KKDA)</td>
<td>KKDA was carved from the Tema Metropolitan Assembly in 2012 and is the municipal authority for the key project power plant and tank farm sites.</td>
</tr>
<tr>
<td>Department of Urban Roads (Tema)</td>
<td>Sub-department of the Ministry for Roads and Highways, responsible for urban roads within the Tema and KKDA area.</td>
</tr>
<tr>
<td><strong>Government and Community Stakeholders</strong></td>
<td><strong>Stakeholder Profile</strong></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Local communities and interest groups</td>
<td>The project team shall undertake regular dialogue with local communities and interest groups in line with the approach detailed in the project Stakeholder Engagement Plan (SEP) to minimise the project impacts and provide benefits such as employment. Further information on this type of stakeholder is detailed in Section 7.4.3.4 External Stakeholders.</td>
</tr>
<tr>
<td>Other representative groups from Government of Ghana</td>
<td>Other departments and groups with an interest in the delivery schedule of the project and ongoing operation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Utilities and Industrial Stakeholders</strong></th>
<th><strong>Stakeholder Profile</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>GRIDCo</td>
<td>GRIDCo is the transmission company which will receive the power generated by the plant.</td>
</tr>
<tr>
<td>Electricity Company of Ghana (ECG)</td>
<td>ECG primarily buys and sells electricity as the state-owned distributor.</td>
</tr>
<tr>
<td>Ghana Water Company</td>
<td>Supplier of water to the project.</td>
</tr>
<tr>
<td>Cenpower Generation, Kpone Independent Power Plant</td>
<td>The tri-fuel 350 MW CCGT turbine plant is under development approximately 1.9km to the east, to be commissioned 2017. Aiming to switch to gas in quarter 2, 2018. The plant is relevant in regard to cumulative impacts.</td>
</tr>
<tr>
<td>Sentuo Steel Company</td>
<td>Sentuo Steel is located adjacent to the southern end of the TTPC site, approximately 600m southwest of the plant site. It is a steel scrap processing plant which produces cast steel billets and rods.</td>
</tr>
<tr>
<td>Sunon Asogli Power</td>
<td>Sunon Asogli Power is an operating gas/LCO-fired power plant located in the Kpone District in the vicinity of the site. The company is jointly owned by Shenzhen Energy Group Company Limited (60%) and China African Development Fund (40%). Phase 1 has an installed capacity of 200MW and employ approximately 150 personnel. The company plans is in the process of expand their installed capacity through a Phase 2 development.</td>
</tr>
<tr>
<td>Tema Fuel Trade Company (TFC)</td>
<td>TFC is located 600m south of the proposed plant site with a second site 1.7km northwest. TFC is privately owned.</td>
</tr>
<tr>
<td>Tema Oil Refinery (TOR)</td>
<td>TOR is located 800m west of PPS2 and comprises an oil refinery and multi-fuel tank farm with jetty facilities and delivery pipeline infrastructure. Part of EPL’s LPG pipeline will be located within TOR’s pipeline corridor between the jetty and the refinery.</td>
</tr>
<tr>
<td>Tema Steel Company</td>
<td>Tema Steel Company is a steel making company that is located close to the GridCo transmission installation, approximately 1.7km north of PPS2. Established in 1964, the company is privately owned.</td>
</tr>
<tr>
<td>Tema Special Steel</td>
<td>Steel production, reduced operation, located 1.6km northwest of PPS2.</td>
</tr>
<tr>
<td>Trojan Power</td>
<td>Power plant comprising Tema I, Tema II and Tema III (or Trojan V Power). The closest plant is 110m southwest of PPS2. Tema I</td>
</tr>
</tbody>
</table>
Utilities and Industrial Stakeholders | Stakeholder Profile
---|---
operates at limited capacity (operating on a gas / diesel mix with only around 50% of the machines operating at one time).

**VALCO**
Aluminium smelter located about 0.7km south of the project. Production capacity of 200,000 metric tons/yr. The company employs about 2000 people. Currently, they are operating at 20% production capacity because of power availability.

**VRA (TTPC)**
The VRA Tema Thermal Power Complex is located approximately 150m to the west of PPS1 and includes various power plants (Trojan Power Limited, VRA and Cenit power plants, VRA Station 3 and Mines Reserve Plants).

**VRA Kpone Thermal Power Plant (KTPP)**
VRA KTPP is a thermal power plant located approximately 7km northwest of the project site. The construction of the plant is nearing completion. No cumulative impacts with air or noise are anticipated with this company.

**Aksa Power Project**
A Heavy fuel oil (HFO) power plant located 0.8km to the north. Currently installed capacity is 200 MW, constructed in 2016-17.

**Ghana Oil Company (GOIL)**
GOIL is a government of Ghana-owned fuels supply, marketing and retail company.

**Cirrus Oil Services**
Cirrus Oil Services Limited, a subsidiary of Woodfields Energy Resources Ltd. It is a bulk fuel and oil distributor with two petroleum terminals, in Tema and Takoradi respectively.

In addition to the above stakeholders, a number of rounds of engagement has been undertaken with immediately surrounding businesses in the vicinity of the project footprint, as discussed in the consultation chapter (Section 21) of the 2017 amended ESIA.

Compliance obligations relevant to the needs are detailed in the Legal and Other Requirements Register. Requirements to communicate with these stakeholders regarding the ESMS are detailed within Section 7.4 Communication.

**4.3 Determining the Scope of the ESMS**

The scope of the ESMS is to support the life cycle of the project through each stage from construction through to decommissioning.

The physical project components this relates to are:
- The new power plants;
- A new LPG pipeline;
- A new tank farm for LPG storage; and
- A new pipeline to transport water to the power plant from the Ghana Water Company municipal supply network.

In the further development of the ESMS scope, the management team will also have regard to the organisational context and sphere of influence (section 4.1), regulatory and compliance obligations (section 4.2 and 6.1.3), company organisation (section 5.3) and company services.
5. Leadership, Roles and Responsibility

5.1 Leadership and Commitment

The EPL team have the ultimate responsibility for the ESMS and set the policy, resources and roles and responsibilities with the project. The management make the following commitments:

a) To take accountability for the effectiveness of the environmental and social management system;

b) To ensure that the environmental and social policy and environmental and social objectives are established and are compatible with the strategic direction and the context of the project;

c) To ensure the integration of the ESMS requirements into the project and business processes;

d) To ensure that the resources needed for the ESMS are available;

e) To communicate the importance of effective environmental and social management and of conforming to the ESMS requirements;

f) To ensure that the ESMS achieves its intended outcomes by directing and supporting persons to contribute to the effectiveness of the ESMS;

g) To promote continual improvement and (where practicable) environmental and social enhancement; and

h) To support the relevant ESMS roles, thus demonstrating leadership in the management of environmental and social considerations.

5.2 Environmental and Social Policy

The Ghana Bridge Power Project is committed to promoting responsible environmental stewardship and socially responsible development for the benefit of present and future generations, and improving the quality of life for the community within the Tema Metropolitan Area. For Early Power Ltd, environmental and community protection is a priority and, to this end, we will strive to maximise positive opportunities associated with our work and minimise the risks and impacts.

Specifically, for the Ghana Bridge Power Project we will:

- Comply and, where possible, exceed all our environmental and social obligations to applicable local, national and international environmental and social legislation and standards including Equator Principles III and IFC Performance Standards of Environmental and Social Sustainability;
- Work with our stakeholders to ensure due consideration of the environmental, sustainability and social issues associated with this project during design, construction, operation and decommissioning;
- Provide adequate resources to ensure that our workers are aware of environmental, sustainability and social issues through the delivery of effective communication and environmental training;
- Seek opportunities to support economic and social development in surrounding communities, thereby enhancing the social context of our project and promoting the health, safety and security of both our workers and the local community;
• Contribute positively with direct and indirect employment opportunities to the local workforce at each project stage;

• Respect human rights and implement appropriate labour rights, including providing a safe and healthy work environment. Take steps to ensure that operations do not have negative impacts on community members and workers, and attempt to mitigate and remediate any adverse impacts that may arise; Not discriminate in terms of recruitment, progression, terms and conditions of work and representation on the basis of personal characteristics unrelated to the inherent job requirements, including gender, race, colour, disability, age, religion, marital status or HIV status etc.;

• Provide fairness and transparency in land acquisition and resettlement;

• Operate in a manner compliant with national and international anti-bribery and corruption legislation, and with appropriate consideration of audit, due diligence and potential conflicts of interest;

• Deliver safe, reliable and efficient operations in a manner which contributes to our goal of no damage to the environment;

• Strive to use proven, commercially feasible state-of-the-art technology. Target high energy efficiency, reduce water consumption, and maximise waste reuse and recycling, thereby reducing the quantities of waste going to landfill; Monitor, measure and improve our environmental performance through a risk-based approach to environmental protection;

• Define and adopt a decommissioning and remediation strategy, early in the project, to consider site aftercare when operations have ended; and,

• Review our environmental and social policy and objectives annually in order to consider the need for any amendments in the light of changing circumstances.

In order to achieve the aims of this policy and continually improve our environmental performance, we will build and maintain this management system in accordance with the principles of ISO14001:2015.

The Environmental and Social Policy is signed by the EPL Managing Director and displayed at all project work sites.

5.3 Organizational Roles, Responsibilities and Authority

5.3.1 Key positions and responsibilities

The plant owner and operator will be EPL. A management organisational chart for EPL is shown in Figure 5-1. The roles, responsibility and authority of EPL and project personnel are described in Table 5-1.

Figure 5-1: EPL Organisational Chart
5.3.2 Qualifications and team make up

The competence of the ESMS coordinator, company/project personnel, consultants and contractors shall be managed by the process as set out in Section 7.2 Competence and additionally detailed within the Ghana Bridge ESMS REC 02 Training Matrix. The roles and responsibilities of specific parties are set out in the table below.

Table 5-1: Roles and Responsibilities

<table>
<thead>
<tr>
<th>Party</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Power Limited</td>
<td>Adopting the ESMS. This document shall be used as a guide in the development of subsequent ESMS plans for all project phases. This ESMS must be adopted and international IFC standards met for the duration the project. EPL shall appoint an Owner’s Engineer whose responsibilities shall include review and oversight of the EPC Contractor’s environmental, health and safety plans and systems conformance with the preliminary ESMP and the ESMS.</td>
</tr>
<tr>
<td>EPL Management and Leadership</td>
<td>The Senior Management of EPL shall have ultimate responsibility for the ESMS and shall demonstrate leadership and commitment with respect to the environmental and social management system as set out in Section 5.1. The management team shall demonstrate leadership by setting the ESMS policy, roles, responsibility and authority as well as appointing a suitably qualified individual to lead the ESMS team and ensuring that adequate resources are made available for the ESMS operation. The management team shall lead and undertake the management review at least on an annual basis. They also hold responsibility for approval of ESMS plans and procedures prepared by the EPC contractor(s).</td>
</tr>
<tr>
<td>ESMS Coordinator</td>
<td>The ESMS coordinator shall be responsible for the ESMS implementation and further development, including liaison with the Senior Management Team of EPL. This person must be suitably qualified (as per Section 7.2) and will also lead the ESMS team(s).</td>
</tr>
<tr>
<td>EPC contractor(s)</td>
<td>The contractors’ role at each stage of the project shall adhere to the ESMS policy, ESMS objectives, compliance obligations and any other requirements set out in this ESMS or in their contract. The contractor will appoint an ESMS team to develop and implement detailed Environmental, Health and Social Management Plans for specific management aspects of the construction phase of the project. These will be approved by EPL.</td>
</tr>
<tr>
<td>ESMS team for the construction phase</td>
<td>The ESMS team for the construction phase shall be made up of representatives of EPL reflective of the company’s early stages of development, as well representatives of the main EPC contractor which reflect a wide range of job functions including operatives. The construction phase ESMS team will be responsible for:</td>
</tr>
<tr>
<td>Party</td>
<td>Responsibilities</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>• Drafting the detailed ESMPs for specific aspects of the construction phase, which will include all of the aspects covered in this ESMS and preliminary ESMP;</td>
</tr>
<tr>
<td></td>
<td>• The implementation and enforcement of actions required by the detailed management plans, including any monitoring requirements and reporting;</td>
</tr>
<tr>
<td></td>
<td>• The training of workers in the performance of tasks required by the detailed management plans;</td>
</tr>
<tr>
<td></td>
<td>• The provision of all required materials and resources, including safety equipment and emergency response equipment required by the management plans;</td>
</tr>
<tr>
<td></td>
<td>• Management of waste contractors and other external contractors and consultants used in the construction / decommissioning phases of the project; and</td>
</tr>
<tr>
<td></td>
<td>• Updating the management plans with any required changes as the project progresses.</td>
</tr>
<tr>
<td>Construction Manager</td>
<td>The Construction Manager will lead regular project meetings during the construction phase and shall include Environmental and Social (as well as Health and Safety) Management as a standing item on the agenda.</td>
</tr>
<tr>
<td>Waste Contractors</td>
<td>The waste contractor shall be responsible for the collection and disposal of wastes to appropriate disposal facilities. The contractors must abide by the standards specified within this ESMS and within the detailed management plans.</td>
</tr>
<tr>
<td>Plant Owner / Operator</td>
<td>The owner shall appoint an EMS team to develop and implement Environmental, Health and Social Management Plans for the operational phase.</td>
</tr>
<tr>
<td>Plant Manager</td>
<td>The Plant Manager will lead regular meetings during the operational phase and shall include Environmental and Social (as well as Health and Safety) Management as a standing item on the agenda.</td>
</tr>
<tr>
<td>ESMS team for the Operational phase.</td>
<td>The ESMS team shall be made up of representatives of EPL from a wide range of job functions including operatives.</td>
</tr>
<tr>
<td></td>
<td>The ESMS team will be responsible for:</td>
</tr>
<tr>
<td></td>
<td>• Drafting the detailed ESMS or equivalent documents, which shall include all of the operational aspects required in the ESMS;</td>
</tr>
<tr>
<td></td>
<td>• The implementation and enforcement of actions required by the detailed management plans, including any monitoring requirements and reporting as set out in Section 9.1 Monitoring and Measurement within this document;</td>
</tr>
<tr>
<td>Party</td>
<td>Responsibilities</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>ESMS Audit Team</strong></td>
<td>The ESMS Audit team shall be made up of representatives of EPL who are independent of the ESMS team and may include external consultants.</td>
</tr>
<tr>
<td></td>
<td>The ESMS Audit team shall provide independence for auditing purposes. They are required to establish and maintain an audit plan and enact this plan at the required intervals. The audit team shall also arrange and organise the inputs into the management review. This team shall be responsible for communicating the results of audits to the project.</td>
</tr>
<tr>
<td><strong>External Consultants</strong></td>
<td>External Consultants shall be used to undertake monitoring works and reporting in both the construction and operational phase. The consultants must abide by the standards specified within this ESMS and within the detailed management plans drafted by the relevant ESMS teams and be competent in line with the requirements set out in Section 7.2 Competence. External consultants may also be required to undertake audits.</td>
</tr>
<tr>
<td><strong>EPA / Regulating Bodies</strong></td>
<td>Ensure that monitoring and reporting requirements (as required by the EMSP and detailed management plans in accordance with EPA standards and guidelines) are fully discharged.</td>
</tr>
<tr>
<td></td>
<td>Enforce any actions that shall be required to ensure environmental quality standards are not breached and permit requirements are maintained.</td>
</tr>
<tr>
<td><strong>International Financing Institution</strong></td>
<td>The International Finance Institution shall develop its own Environmental and Social Action Plan (ESAP) that will include conditions to be met. The ESAP shall include the requirement to comply with, among other plans, the ESMS.</td>
</tr>
</tbody>
</table>
6. Planning

The ESMS has been designed to ensure the project achieves its intended outcomes including mitigation of risks and continual improvement. The following sections set out how the ESMS has assessed the risks and opportunities and put in place measures to mitigate risks and enhance benefits.

6.1 Actions to address Risks and Opportunities

6.1.1 General

Risks and opportunities associated with this project are assessed within this ESMS against significant environmental and social aspects, the environmental and social policy for the ESMS and the compliance obligations set out in this document. The aim of this assessment is to prevent unintended effects and provide continual or enhanced environmental and social benefits.

Emergency response applicable to these significant environmental and social aspects is detailed in Section 8.2.

6.1.2 Environmental Aspects

Environmental aspects have been developed for the ESMS (see Ghana Bridge ESMS DOC 2 Aspects Register) for the activities associated with all three stages of the project with the objective of controlling those aspects over which the project and ESMS can exert influence. The three phases are:

- Construction;
- Operation; and,
- Decommissioning.

The Environmental Aspects procedure detailed in ESMS DOC 2 is designed to identify the most significant environmental and social aspects enabling them to be controlled and where possible mitigated. Significant environmental and social aspects can result in threats such as environmental impacts; and opportunities such as enhanced or beneficial environmental and social performance.

For the purpose of categorizing risk, a scoring matrix has been developed in accordance with industry standards, which enables analysis of the severity and likelihood of each impact. Scores are allocated based on the mitigated risk, following the application of both engineered mitigation and management controls which are already included in the design or are outlined within the ESIA. The relevant mitigation measures are detailed within Section 2 of the Aspect Register.

In the event that adequate mitigation measures are not yet in place to reduce risk to an acceptable level (e.g. where they are yet to be designed in detail), or where the design is not sufficiently mature to enable confirmation of mitigation, a conservative appraisal of risk has been applied.

6.1.3 Compliance Obligations

Compliance obligations may result in risks and opportunities to the project and to the ESMS. A Legal and Other Requirements Register (Ghana Bridge ESMS DOC 3) has been produced which provides a list of the compliance obligations relevant to the project. These compliance obligations are relevant to the environmental and social aspects (particularly significant environmental and social aspects) and the legislation affecting these environmental and social aspects and the project. The Legal and Other Requirements Register sets out these compliance obligations to determine:

- Their relevance to the environmental and social aspects;
• Compliance obligations that apply to the project;
• That these obligations are taken into consideration in:
  o the planning, operation, maintenance and continual improvement of the environmental and social management system; and,
  o the planning, construction, operation and decommissioning stage of the project.
• How the project complies or shall comply with the obligations;
• Training requirements for the obligations; and,
• Monitoring regimes (detailed further in Section 9.1 Monitoring, measurement, analysis and evaluation).

Where compliance obligations are not directly relevant to the aspects or to legislation these are detailed in the section of the legal register - “other requirements”.

Setting the compliance obligations shall constitute one or more of the following:
  a) Requirements from governmental entities or other relevant authorities;
  b) International, national and local laws and regulations;
  c) Requirements specified in permits, licenses or other forms of authorization;
  d) Orders, rules or guidance from regulatory agencies; and,
  e) Judgements of courts or administrative tribunals.

Compliance obligations also include requirements of other stakeholders. The following should be taken into consideration when setting these obligations:
• Agreements with community groups or non-governmental organizations;
• Agreements with public authorities or customers;
• Project or company requirements;
• Voluntary principles or codes of practice;
• Obligations arising under contractual arrangements; and,
• Relevant industry standards.

The compliance obligations as set out in the Legal and Other Requirements Register (Ghana Bridge ESMS DOC 3) shall be reviewed on a 6 monthly basis through the use of a regulatory access or information portal (online journal or similar) or through the appointment of a legal service provider or external consultants.

Communication of changes to compliance obligations

Changes in legislation and other compliance obligations shall be communicated to the project team, contractors or other interested parties on an ad-hoc basis or at 6 monthly intervals when the Legal and Other Requirements Register (Ghana Bridge ESMS DOC 3) is updated.

6.1.4 Planning Action

All actions taken through the life of the project shall consider the environmental and social aspects associated with the project. Each process undertaken at the planning, construction, operational and
decommissioning phase, shall be required to integrate and consider this thinking into the operations of the ESMS.

Figure 6-1 below sets out the process to be undertaken for planning action.

**Figure 6-1: Planning Action Process**

- New Activity / Change to Existing Activity
- In-line with project/ESMS Objectives?
  - Yes? Continue
  - No? Review and start process again
  - Consider Positive and Negative
  - Potential Env/ Social Impact?
    - Consider controls? - Mitigation - Training reqs - Process reqs - Objectives and targets Are they acceptable?
      - Yes? Continue
      - No? Consider an alternative process
- Environmental and Social Considerations are detailed in the Aspects and Impacts Register
- Carry out process
- Consider process 7.2.1 Competence process
- Implement controls and feed into ESMS
6.2 Environmental Objectives and Planning to Achieve Them

6.2.1 Environmental and Social Objectives

The project has developed environmental and social objectives (Ghana Bridge ESMS REC 01 Environmental and Social Objectives & Targets) that have taken into consideration the significant environmental aspects and associated compliance obligations whilst also considering any risks and opportunities that have been identified. Programmes and processes are required to enact these objectives throughout the construction, operation and decommissioning phase of the project.

Objectives and targets shall be SMART (specific, measurable, attainable, relevant and time bound) in order to achieve maximum success. Clear ownership shall be assigned for each objective and target, with adequate resources made available for their achievement.

The objectives shall be consistent with the ESMS and with the environment and social policy, and shall be measurable, monitored and communicated. The objectives shall also be updated at least annually (and more frequently where required) to ensure they are relevant and not outdated.

6.2.2 Planning actions to achieve Environmental Objectives

The following process sets out how the objectives shall be set and achieved for the ESMS:

- Objectives and targets shall be considered and set as a minimum at each stage of the project (construction/operation/decommission);
- Objectives shall be reviewed at regular intervals as per the requirements of the individual objectives. This review period shall be set against the objective though this shall be no less than 6 monthly;
- Where Key Performance Indicators (KPIs) are required to monitor progress these shall be monitored as per the process in Section 9.1 Monitoring and Measurement;
- Objectives and targets shall be set taking consideration of the project aspects including those deemed significant, as well as other risks associated with the project. This may include a project risk register which highlights existing processes or requirements for the project;
- When considering environmental and social objectives the priority should be for objectives which reduce the impact of significant environmental and social aspects (risks) and where possible enhance the environment (opportunities). Additionally, environmental and social aspects or other risks associated with the risk register, as well as those directly relevant to legislation, should be a priority;
- Where possible best available techniques (BAT) should be adopted to enhance these opportunities and negate the risks;
- Interested parties and stakeholders as well as other requirements in the ESMS or the project should be considered in the setting of objectives;
- Programmes or plans shall be developed to detail the requirements that shall enable the objectives and targets to be achieved. The programmes shall designate the responsibility for achieving objectives and targets at each function and level of the project, together with the means and time frame by which they are to be achieved; and,
- The SMART objective questions presented in Table 6-1 shall be considered in the setting of objectives.
Table 6-1: SMART Objective Questions

<table>
<thead>
<tr>
<th>Term</th>
<th>Questions to consider</th>
</tr>
</thead>
</table>
| S Specific | What is the goal of the objective?  
            | What can or will be achieved?  
            | Which areas of the project does the objective apply to?  
            | Where the objective is identified in one of construction, operation or decommissioning phases, does this apply to a further stage of the project |
| M Measurable | How can the objective be quantified or measured?  
                | What is the best way to measure (total amount, ratios, intensity metrics)?  
                | How is performance against an objective (including close out) be measured?  
                | Is the current baseline known to compare progress? |
| A Achievable | Can this be objective realistically be achieved?  
                | Who shall do the work to achieve the objective?  
                | Who shall it be assigned to?  
                | Are there adequate resources and support available (or can they be acquired)?  
                | Are targets realistic and likely to be achieved? |
| R Relevant | Is this important to the project, interested parties and other stakeholders?  
                  | Is it relevant to the project and the project goals?  
                  | Why are we doing this?  
                  | Is this the right time?  
                  | Is this the correct priority? |
| T Time bound | When must this be achieved by?  
                     | When must we start?  
                     | When shall we review? |

The Objective and Targets are documented in Ghana Bridge ESMS REC 01 Environmental and Social Objectives & Targets. Progress against the achievement of objectives shall be detailed against each objective in this register at the relevant timeframe. A review of the objectives and targets shall take place at least 6 monthly.
7. Support

7.1 Resources

The project has developed the resources needed for the establishment, implementation, maintenance and continual improvement of the ESMS. The details for competence, awareness and communication are set out in the relevant sections below.

7.2 Competence

The project shall assess, stipulate and control the competence of all employees and contractors working on behalf of the project according to their appropriate education, training or experience. Each role shall have specific requirements and a level of competence that employees and contractors must meet. Training needs shall be determined through the use of the process below (7.2.2 Competence Process) including how to measure and evaluate the effectiveness of this training. Training is required for a number of purposes but shall fall under two distinct categories:

- Category 1 shall be for the requirements under the operation of the ESMS; and,
- Category 2 shall be directly relevant to the stages and operation of the project from construction to decommissioning.

The Category 1 ESMS training is to ensure that the ESMS functions effectively, whilst the Category 2 training for the construction and operational workforce is required to ensure they can safely and effectively carry out their role within the project. In both instances training shall follow the process detailed in Section 7.2.2 below.

7.2.1 Workforce Development Strategy

The Workforce Development Strategy (Ghana Bridge ESMS DOC 5 Workforce Development Strategy) has been developed for this project and ESMS. Developed to provide a good and competent workforce and to maximise employment and skills opportunities for local people, the plan shall help the project meet the requirements set in this ESMS and deliver a successful project through each stage. The plan sets out to provide a keen, skilled workforce utilising local people where possible.

7.2.2 Competence process

The following process should be adhered to in order to assess competence and training needs. This process may follow the Planning Action Process detailed in Section 6.1.4 when a new activity is identified.
Figure 7-1: Competence Process

- New role or task identified with a training reqt
- Assess training needs of all staff and contractors
- Record information – Training Matrix
- Develop training programme and training material
- Set programme schedule (Weekly, monthly, quarterly, 6 monthly, annually)
- Implement training programme
- Implement the policy, control the environmental and social aspects or compliance obligations, adhere to processes, meet targets, enhance improvement
- Training records including attendance records
- Evaluate training effectiveness
- Regular review
- Management review

Related documents include:
- Ghana Bridge ESMS Rec 02 Training Matrix
- Ghana Bridge ESMS Rec 03 Training Programme
- Ghana Bridge ESMS Rec04 Training Attendance Template
- Ghana Bridge ESMS Rec05 Training Attendance Records & Certificates

7.3 Awareness

The project shall ensure that all staff undertaking work on behalf of the project are aware of:

- The environmental and social policy associated with the project and the ESMS;
- The significant environmental and social aspects and impacts associated with their work;
- How their contribution affects the ESMS including the benefits of enhanced environmental performance; and,
- How actions could result in a non-conformance under the ESMS including nonfulfillment of compliance obligations.
The above requirements shall be delivered through the most appropriate induction (and refresher) training. Training requirements shall be assessed within the Training Matrix (Ghana Bridge ESMS Rec 02). Induction training shall consist of three parts:

- Induction Training Material for Staff;
- Induction Training Material for Contractors; and,
- Induction Training Material for Visitors.

The above requirements are determined within the Training Matrix.

7.4 Communication (Internal and External Stakeholders)

7.4.1 General

A process has been established within the ESMS which enables the user to establish the following principles: what is to be communicated, when to communicate and how to communicate with internal and external stakeholders. Figure 7-2 below sets out the types of communication that are to be undertaken.

Figure 7-2: Communication types
7.4.2 Internal Communication

Detailed below are the various types of internal communication that shall take place within the ESMS through the various stages of the project. Ghana Bridge ESMS REC 07 Internal Communication Template should be used to communicate internally.

Table 7-1: Internal Communication

<table>
<thead>
<tr>
<th>Communication</th>
<th>To whom</th>
<th>How often</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance Obligations</td>
<td>To include the EPL Senior Management, relevant employees, contractors (where applicable)</td>
<td>6 monthly or ad-hoc as and when changes take place</td>
<td>6 monthly or ad-hoc as and when changes take place. Six-monthly reviews are suggested to take place in April and Oct</td>
</tr>
<tr>
<td>Updates to processes or other requirements in this ESMS</td>
<td>Relevant employees and contractors (where applicable)</td>
<td>As and when required</td>
<td>As and when required</td>
</tr>
<tr>
<td></td>
<td>ESMS team</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ESMS Audit team and others to be determined by audit results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit findings</td>
<td>Relevant employees and contractors (where applicable)</td>
<td>As and when required following each audit but annually as a minimum</td>
<td>As and when required following each audit but annually as a minimum</td>
</tr>
<tr>
<td></td>
<td>ESMS team</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ESMS Audit team and others to be determined by audit results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonconformities (when required)</td>
<td>Relevant employees and contractors (where applicable)</td>
<td>As and when required following each audit but annually as a minimum</td>
<td>As and when required following each audit but annually as a minimum</td>
</tr>
<tr>
<td></td>
<td>ESMS team</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ESMS Audit team and others to be determined by audit results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management review outcomes</td>
<td>To be determined by audit results</td>
<td>As and when required following each management review</td>
<td>As and when required following each management review</td>
</tr>
<tr>
<td>Progress against objectives and targets</td>
<td>Relevant employees and contractors (where applicable)</td>
<td>As and when required following each audit but annually as a minimum</td>
<td>As and when required following each audit but annually as a minimum</td>
</tr>
<tr>
<td></td>
<td>ESMS team</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ESMS Audit team and others to be determined by audit results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency situations or occurrences</td>
<td>Potentially all employees and contractors. Determined by event</td>
<td>As and when required – ad-hoc, with annual summary</td>
<td>As and when required – ad-hoc, with annual summary</td>
</tr>
</tbody>
</table>
7.4.2.1 Project Meetings: Construction Phase

Project meetings shall be planned to take place at regular intervals (e.g. weekly or monthly) during the construction phase and shall include Environmental and Social (as well as Health and Safety) Management as a standing item on the agenda.

The meeting shall be led by the Construction Manager in conjunction with a member of the ESMS team who shall provide feedback and raise issues to be addressed, including the following:

1. Environmental, Social, Health and Safety performance (based on monitoring results) – including both positive and negative and those controlling or affecting the environmental and social aspects of the project;
2. Legal contraventions;
3. ESMS Non-conformances resulting from:
   a. Audits;
   b. Complaints; and/or,
   c. Incidents.
4. Stakeholder engagement including complaints;
5. Inspections by authorities;
6. Internal and external audits results; and,
7. Training requirements including tool box talks which shall be delivered as part of the meetings, if required.

7.4.2.2 Project Meetings – Operational Phase

Project meetings shall be planned to take place at regular intervals (e.g. weekly or monthly) during the operational phase and shall include Environmental and Social (as well as Health and Safety) Management as a standing item on the agenda.

The meetings shall be led by the Project/Plant Manager and involve the Environmental and Social Personnel (list teams and roles here), operational personnel, and (if relevant) contractors working on site.

The agenda of the meeting shall include the following:

1. Environmental and Social performance (based on monitoring results) – including both positive and negative results and those controlling or affecting the environmental and social aspects of the project;
2. Legal contraventions;
3. ESMS Non-conformances;
4. Stakeholder engagement including complaints;
5. Inspections by authorities;
6. Incidents;
7. Internal and external audits; and,
8. Training requirements.

7.4.2.3 Reporting for specific or significant events

The following types of events shall be reported to the Project/Plant Manager by the ESMS coordinator, ESMS team and the Senior Management Team of EPL immediately:
1. Incidents with significant risks or potential of significant risk to people or the environment (this shall be handled in accordance with the Emergency Preparedness and Response Plan – see Section 8.2);

2. Notification of audits or inspections by authorities; and,

3. Notification of contravention of the environmental permit or other regulatory infringements.

**Process**

The reporting and notification process shall be developed before the project commences in line with the health and safety requirements of the project and the OHSMS.

### 7.4.2.4 Labour and Working Conditions Policy

The project will develop a Labour and Working Conditions Policy which demonstrates EPL’s commitment to comply with the laws of Ghana and the requirements of IFC Performance Standard 2. This will have objectives to promote equal opportunities and fair treatment of workers. An overview of the essential contents of the policy is provided in Appendix B. The policy shall remain in place throughout the life of the project.

As appropriate, policies and procedures for management of specific aspects of labour and working conditions will be adopted and implemented.

One of these will be a grievance resolution mechanism for employees, known as the “Labour Grievance Process” (LGP). The process will be used to ensure that any problem, complaint or cause for dissatisfaction arising between the employee and another employee or the Company is resolved as quickly as possible. Further details of the minimum requirements of this process are outlined in Appendix C.

It is noted that the LGP is for internal work-related grievances and is separate to the external grievance mechanism process described in the following section.

In addition to the LGP, the development of the Labour and Working Conditions Policy will include preparation of a Code of Behaviour Policy.

### 7.4.3 External Communication

#### 7.4.3.1 Communication with Stakeholders

A SEP (Ghana Bridge ESMS DOC 6 Stakeholder Engagement Plan) has been developed, defining the requirements for communication with statutory bodies, the community and other external stakeholders. Ghana Bridge ESMS REC 08 External Communication Template should be used for external communication.

The SEP sets out and defines a framework of standardised measures to be undertaken for proactively engaging and communicating with external project stakeholders and to guide the strategies to engage with them according to their respective needs and interests. It is designed to demonstrate that EPL will undertake consultation and participation that is meaningful, consistent, comprehensive, coordinated and culturally appropriate in line with all the relevant legal and regulatory commitments including international good practice, national standards and the requirements of this ESMS.

For the purpose of this ESMS, stakeholders are split out into the following two groups:

- **Statutory or Interested (party) Stakeholder:** Statutory or Interested Stakeholders may constitute public and government bodies, companies (medium or large or multinationals) or
other interested parties that the project may have an impact on or that may have a material or non-material interest in the project; and,

- Community Stakeholder: A community stakeholder can be a member of the public or member of a local organisation or other interested party that the project is having an impact upon (positive or negative); including small companies or ‘one man bands’. Local communities and workers would fall within this category of stakeholder.

7.4.3.2 Communication with government bodies

Detailed below are the various types of communication with government bodies that shall take place within the ESMS through the various stages of the project.

Table 7-2: Communication with Government Bodies

<table>
<thead>
<tr>
<th>Communication</th>
<th>To whom</th>
<th>How often</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Environmental Report</td>
<td>EPA</td>
<td>Annually</td>
<td>Anniversary of start of operations</td>
</tr>
<tr>
<td>Environmental Certificate</td>
<td>EPA</td>
<td>Once</td>
<td>Submit within 18 months of start of operations</td>
</tr>
<tr>
<td>Decommissioning and site closure plan</td>
<td>EPA</td>
<td>Once</td>
<td>6 months prior to decommissioning the project</td>
</tr>
<tr>
<td>Permit renewal</td>
<td>EPA</td>
<td>Every 18 months</td>
<td>18 months post- the final date included on latest permit at time of COD.</td>
</tr>
<tr>
<td>Other</td>
<td>Government bodies and inspectors</td>
<td>Ad-hoc / as required</td>
<td>Upon request</td>
</tr>
</tbody>
</table>

Only personnel with the authority to do so within their role are able to communicate with government bodies. This shall be limited to the EPL Management Team and the ESMS coordinator unless as part of an inspection or audit. All communication with government bodies will be undertaken based on the following principles:

- Honesty and Integrity;
- Ethical Conduct;
- Fair Presentation;
- Due Professional Care; and,
- Evidence based.

All records regarding correspondence with authorities, including emails, shall be retained.

7.4.3.3 Communication with contractors

The requirements of the ESMS shall be communicated to all contractors, where relevant. This may include:
1. Training, including induction, general environmental management, environmental and social controls (all to adhere to the ESMS policy, environment and social aspects and objectives) (see Section 7.2 Competence);

2. Issuing (and sign off) of ESMS processes (see Section 7.5 Documentation) relevant to their contracted scope of work;

3. Monitoring requirements related to environmental, social, health and safety (Section 9.1 Monitoring, Measurement and Analysis);

4. Information required from contractors to fulfil their requirements, including competency (Section 7.2) and Legal and Other Requirements (ESMS DOC 3);

5. Regular environmental and social project meetings (see Section 7.4 Communication); and

6. Grievance Mechanisms detailed under the grievance process (Section 7.4.3.5).

All contractors whose activities may have the potential to create a significant impact (determined by the ESMS DOC 2 Aspects Register) to the environment or community shall be required to provide an environmental and social plan in accordance with the Ghana Bridge ESMS REC 06 Environmental and Social Plan (incorporating health and safety) Template, which shall be reviewed and approved by the ESMS Team.

7.4.3.4 Abbreviated Resettlement Action Plan

An Abbreviated Resettlement Action Plan (ARAP) has been developed for Stage 1 of the project (Ghana Bridge ESMS DOC 4 Abbreviated Resettlement Action Plan) to provide those affected by the project with the means to secure compensation and relocation prior to the project commencing.

An ARAP will be produced for Stage 2 of the project.

7.4.3.5 External grievance process

EPL has produced a grievance mechanism for the project that enables stakeholders to make a complaint or a suggestion about the way a project is being implemented. This is included in the project SEP.

Grievances may take the form of specific complaints for damages/injury, concerns about routine project activities, perceived incidents or impacts and/or suggestions or positive feedback about a part of the project.

The identification and response to grievances supports the development of positive relationships between the project and the communities and other stakeholders they may affect. The grievance mechanism enables affected parties to lodge complaints, concerns or positive feedback regarding the project, without cost, and with the assurance of a timely and satisfactory resolution of the issue, complaint or feedback. The grievance mechanism shall not replace existing legal processes. However, based on consensus, the process shall seek to resolve issues promptly, without resorting to expensive and time-consuming legal actions.

The grievance mechanism is designed to ensure that all grievances that are received are acknowledged and logged, and that the complainant knows what to expect in terms of a response and when.

The grievance mechanism sets out the full process and responsibilities for managing the grievance process.
7.5 Documented information

7.5.1 General

Documented information shall be produced relevant to the operation of the project and this ESMS. This information shall be required as per the requirements of the International Standard ISO 14001:2015, the IFC standards, and other information relevant to the project and operation of the management system, including legal compliance. An index of the ESMS documents is provided in Appendix A.

The Environmental and Social Management System, policies, plans, programmes, work instructions and records are controlled according to process below in 7.5.3.

7.5.2 Creating and updating

Records shall be created, updated and maintained to keep track of the Ghana Bridge ESMS in line with the IFC standards and ISO 14001:2015. Records shall track the environmental and social performance of the project to demonstrate conformity to the requirements of the ESMS, including legal compliance.

The responsible person shall maintain and update a Ghana Bridge ESMS REC 09 Master List of Records, which specifies the type / name of records, the form number (if applicable), the party responsible for keeping the record, and the retention time.

The requirements for record creation, issue and updating are outlined below. All processes must use the same Template as per Ghana Bridge ESMS REC 10 Template.

- All records shall be legible;
- All records shall have an owner;
- All records shall have a number record;
- To indicate the status of each document, and to prevent the use of obsolete or outdated documents, the following information shall be stated for procedures and management plans:
  - Title (subject);
  - Document number;
  - Revision number; and,
  - Date;
- All records should provide details of the changes which have taken place upon re-issue;
- All records should be reviewed and approved by the owner prior to re-issue;
- No records should be issued without the agreement and approval of the document owner.

7.5.3 Control of documented information

Records shall be appropriately stored [Insert electronic/paper storage location] to preserve document accessibility and to provide security from loss of confidentiality, improper use, or loss of integrity. In addition to access control (described further under 7.5.3), other requirements are designed to preserve the document accessibility and integrity.

Records generated as output from the implementation of the ESMS Manual and its supporting plans and procedures shall also be filed here under the direction and management of the ESMS coordinator.

Only current issues of documents should be live and held on hard or soft copies (apart from in archive folders). Old issues should be placed in archive folders with an ‘archived’ watermark displayed across
the document. Documents of external origin which are held by the project should be identified as such and their distribution controlled.

Records shall be kept in appropriate storage for the following minimum retention periods (whichever is the greatest):

1. As required by law;
2. As specified in this Manual or associated procedures and records;
3. As specified in the Master List of Records; and,
4. Otherwise, three years.

Electronic records shall be stored on a server that is backed up on a regular basis. Once the retention period has expired the responsible personnel may decide whether relevant records can be deleted. In this instance a record should be kept of who has deleted the record and when this was undertaken.
8. Operation

The project has produced a process for operational planning and control which should be adhered to through each phase of the project (construction, operational and decommissioning). The process shall control and aim to realise the risks and opportunities as detailed in Section 6.1 and the Objectives and Targets associated with these (as detailed in Section 6.2) risks and opportunities.

The project shall ensure that all operations and activities, carried out by employees or contractors are properly controlled, and that appropriate processes are communicated to personnel in line with the process set out in Section 7.4 Communication.

To achieve this aim, environmental and social, as well as health and safety processes shall be produced in addition to management plans and programmes to control the operations' significant environmental and social aspects as identified in the aspects and project risk register, the legal register, ESIA and the ESMP.

The regular updating of operational control processes shall take place as and when required within the ESMS and as a minimum when there are changes in the operation of the processes. The responsibility for updating the processes is set out in Section 5.3 Organisation Roles, Responsibility and Authority.

8.1 Operational Planning and Control

The following processes exist in the ESMS for operational planning and control.

Ghana Bridge ESMS procedure PRO 1-Establishing the environmental requirements in the design and development:

- This process is designed to ensure that the project and ESMS environmental requirements are addressed through a life cycle perspective, in the design and development of the project.

Ghana Bridge ESMS PRO 2-Procurement Environmental Requirements:

- This process is designed to ensure that the project and ESMS environmental requirements are adhered to through the procurement of the project's products and services. The environmental requirements and credentials for the suppliers on the project are detailed in this process and must be adhered to by the project team. This process also provides details of how the project's environmental requirements are communicated to external providers and suppliers as well as the significant environmental impacts associated with their provision, including but not limited to: use, transportation, disposal and end-of-life treatment. Adherence to the project and legal requirements of the service provision require a two-way communication channel between the project and the suppliers; however each supplier is required to adhere to all legislation and provide the relevant information and documents to the project specific to the regulatory regime for the service they are providing.

Processes relevant to environmental operational planning are detailed in Section 6.

Processes relevant to operational planning and control elsewhere in the ESMS and at the construction, operational and decommissioning stage are detailed in the Ghana Bridge ESMS Index.

8.2 Emergency Preparedness and Response

Emergency response planning is a requirement of this ESMS, the Environmental Permit and the Schedule of Environmental Permit (permit reference CE0049560102). EPL and their representatives should consider the requirements for emergency response for relevant environmental and social risks and opportunities posed by the project and identified within the ESMS Aspects Register.
When considering emergency response, EPL and their representatives shall consider the following step-by-step process:

a) The most appropriate methods for responding to an emergency situation;

b) Internal and external communication processes;

c) The actions required to prevent or mitigate environmental and social impacts;

d) Mitigation and response actions to be taken relevant to the type of emergency situation;

e) The need for post-emergency evaluation to determine and implement corrective actions, especially to help prevent re-occurrence;

f) The requirement for periodic testing of planned emergency response actions. Where emergency response is required, set review periods should be set up to test the response;

g) Training requirements for emergency response personnel;

h) Provision of a list of key personnel, aid agencies, emergency contacts, nearest hospitals, including contact details (for example the fire department, ambulance or spillage response unit);

i) Any provision that is required for containment and clean-up services (for example spill kits);

j) Evacuation routes and assembly points and other considerations (i.e. do these need to be different to fire evacuation);

k) The possibility of mutual assistance from neighbours and surrounding businesses; and,

l) A method of communicating all of the above to interested and (potentially) affected personnel.
9. Performance Evaluation

Monitoring and measurement is required to be undertaken within this ESMS to assess performance. This measures the effectiveness of the ESMS in achieving its environmental and social objectives throughout all phases of the project. Where additional monitoring takes place this shall adhere to the process detailed in Section 9.1.

Records shall be maintained for all monitoring in line with the document control process detailed in Section 7.5 Documentation and communicated to the relevant parties as outlined in Section 7.4 Communications.

A preliminary ESMP has been developed as part of the ESIA process for all of the requirements on the project including those set out in Section 9.1. Monitoring, Measurement, Analysis and Evaluation.

The ESMS and monitoring plans shall cover the requirements as set out in the Environmental and Social Aspects (Ghana Bridge ESMS DOC 2 Aspects Register); the ESIA/ESMP and; the Schedule of Environmental Permit (permit reference CE0049560102) (summarised in Appendix D to this document) in accordance with IFC Standard 3 Resource Efficiency and Pollution Prevention and Standard 4 Community Health, Safety, and Security.

9.1 Monitoring, Measurement, Analysis and Evaluation

The following process should be reviewed in order to determine what, how, when and for what reason monitoring, measurement and analysis evaluation should take place for the ESMS and project. A number of the monitoring and measurement requirements are derived from the ESIA and Schedule of Environmental Permit (permit reference CE0049560102);

1. What needs to be monitored and measured;
2. For accurate results, what methods for monitoring, measurement and analysis should take place;
3. The criteria for evaluating the environmental or social performance, including appropriate indicators;
4. When the monitoring and measurement shall take place;
5. When the results shall be analysed and evaluated; and,
6. Where and to whom results should be communicated in line with Section 7.4 Communication.

Results shall be adequately documented and held on the appropriate file. Where required a monitoring template shall be adopted using the approved ESMS template Ghana Bridge ESMS REC 10 Template.

9.1.1 General

The following monitoring shall take place under the ESMS;

- Monitoring of Environmental and Social key performance indicators (KPIs);
- Monitoring of legal compliance and compliance obligations, including the specific monitoring and reporting requirements stated in the Schedule to the Environmental Permit (listed in Attachment C);
- A legal evaluation of compliance audit as detailed within Section 9.1.2 Evaluation of Compliance;
• Monitoring of the progress against the objectives and targets shall take place as per the process detailed in Section 6.2 Environmental and social objectives and planning to achieve them;

• Monitoring of the requirements to provide ongoing certification in accordance with ISO14001 and the IFC standards as well as the ongoing implementation of the ESMS. This includes a regular internal auditing (see Section 9.2) to assess adherence to the requirements of the ESMS;

• Environmental, Social, Health and Safety performance (based on monitoring results) – including both positive and negative results in line with the risks and opportunities outlined in the Ghana Bridge ESMS DOC 2 Aspects Register; and,

• Monitoring of contractors, their work and any contract obligations by the relevant team.

Monitoring Plans (incorporating thresholds and limits, and monitoring required to be conducted by the legal requirements and authorisations) will be developed for the project.

Monitoring of the ESMS shall be carried out by specified personnel as set out in Section 5.3 Organisation Roles, Responsibility and Authority.

All monitoring requirements are set out in and reviewed by the ESMS team and are documented in the preliminary ESMP (though currently the ESMP does not presently capture all of the monitoring requirements and shall require updating and regular review).

9.1.2 Evaluation of Compliance

The project shall monitor and measure the environmental and social performance of its operations and activities on a regular basis to assess whether the project is complying with legal requirements (as set out in the Legal and Other Requirements Register), achieving established objectives and targets, is meeting its policy commitments, and conforming to the requirements of the ESMS and associated processes. This shall be conducted through the establishment of a monitoring programme, internal audits and a process to address non-conformances raised a result of the audits or elsewhere in the management system.

To meet the project’s compliance commitments, the project’s regulatory compliance status shall be subject to an internal audit (see Section 9.2) at least annually in accordance with the Legal and Other Requirements Register (Ghana Bridge ESMS Doc 3). The ESMS team additionally shall regularly monitor and evaluate the compliance status of the applicable environmental legal requirements and other requirements that the company subscribes to through monitoring regimes, where applicable. Additionally, the Legal and Other Requirements Register shall be reviewed 6 monthly for new legislation as set out in Section 6.1. The records of the results of the periodic evaluations shall be recorded.

9.2 Internal Audit

9.2.1 General

Audits shall be undertaken internally by the ESMS Audit team to determine that the project is being operated in accordance with the requirements of the ESMS, ISO14001:2015 and the IFC Performance Standards. Audits are set to cover each area of the ESMS including an evaluation of legal compliance against the compliance obligations and legal register. Internal audits and inspections are required throughout each project phase, on a regular basis, to ensure that the requirements of the ESMS and ESMP are being met. The audits and inspections should be undertaken to the standards of this ESMS. The frequency of inspections shall vary depending on the nature of activities. Inspection records should be maintained and kept up to date.
External audits and inspections by regulating authorities (e.g. the EPA) and project lenders shall also be undertaken throughout the lifetime of the project.

Section 9.2.2 sets out the process for undertaking audits included within the audit plan. Other audits for the effective management of the project and ESMS include but are not limited to:

- Contractor/supplier audit;
- Health and safety audits and inspections; and,
- Social audits and inspections.

### 9.2.2 Internal audit programme

All audits undertaken on behalf of the ESMS shall be undertaken according to the process shown in Figure 9-1.
The programmes of audits undertaken on the project and managed by the ESMS audit team are detailed in the Ghana Bridge ESMS REC 11 Audit Plan.

Related documents:
Ghana Bridge ESMS REC 11 Audit Plan;
Ghana Bridge ESMS REC 12 Internal Audit Summary Report; and,
Ghana Bridge ESMS REC 13 Non-Conformance Report.
9.2.3 External Audit

Where external audits of the ESMS or the project are required these shall be managed on the Ghana Bridge ESMS REC 11 Audit Plan. Certification audits shall be required for the ESMS to be certified in accordance with International Standards such as ISO14001 (environment) or other standards to which the project or ESMS subscribes.

In all instances a member of the ESMS team shall be present on the audit and accompany the external audit. It is recognised that external audits or inspections may also take place which cannot be planned. In this instance a member of the ESMS or EPL Management Team shall be made available for the audit in the event that an ESMS team member cannot be available.

9.3 Management Review

An annual management review of the ESMS shall be undertaken by the senior management of the project and EPL, with support from the ESMS team.

The management review shall include consideration of:

1. The status of actions from previous management reviews, where applicable;
2. Changes in:
   - External and internal issues that are relevant to the ESMS;
   - The needs and expectations of interested parties, including compliance obligations;
   - The Project’s significant environmental and social aspects; and,
   - Risks and opportunities.
3. The extent to which environmental and social objectives have been achieved;
4. Information on the project’s environmental and social performance, including trends in:
   - Nonconformities and corrective actions;
   - Monitoring and measurement results;
   - Fulfilment of its compliance obligations; and,
   - Audit results.
5. Adequacy of resources;
6. Relevant communication from interested parties, including complaints; and,
7. Opportunities for continual improvement.

The outputs of the management review shall include:

- Conclusions on the continuing suitability, adequacy and effectiveness of the ESMS;
- Decisions related to continual improvement opportunities;
- Decisions related to any need for changes to the ESMS, including resources;
- Actions, if needed, when environmental and social objectives have not been achieved; and,
- Opportunities to improve integration of the ESMS with other business processes, if needed.

Any implications for the direction of the project or ESMS following the management review shall be reviewed as part of the management review and communicated to relevant persons.
10. Improvement of Project Performance

10.1 General
Continual improvement is the goal of the ESMS in addition to enhanced environmental and social performance, through the implementation of the objectives and targets relevant to the significant environmental and social aspects.

10.2 Nonconformity and Corrective Action
Nonconformities shall be raised on the ESMS during an audit or otherwise where an occurrence arises which contravenes the requirements of the ESMS. In all instances the Audit Process in Section 9.2.2 will be implemented so effective nonconformity and corrective action is undertaken on the ESMS.

10.3 Continual Improvement
Continual improvement shall be assessed through a range of measures as outlined in this ESMS Manual. Audits shall assess the continued effectiveness of the ESMS in controlling and enhancing the environmental and social aspects and impacts associated with the project as well as adherence to the goals set out in the environmental and social policy. Risks and opportunities shall be assessed to determine if continual improvement of environmental performance is taking place.
Appendix A – Current Index of ESMS Documents

Policy
Ghana Bridge ESMS Policy
Labour and Working Conditions Policy
Code of Behaviour Policy

Document
Ghana Bridge ESMS DOC 1 Manual
Ghana Bridge ESMS DOC 2 Aspects Register
Ghana Bridge ESMS DOC 3 Legal and Other Requirements Register
Ghana Bridge ESMS DOC 4 Abbreviated Resettlement Action Plan

Project risk register

Process
Ghana Bridge ESMS PRO 1 - Establishing the Environmental Requirements in the Design and Development
Ghana Bridge ESMS PRO 2 - Procurement Environmental Requirements

Record
Ghana Bridge ESMS REC 01 Environmental and Social Objectives & Targets
Ghana Bridge ESMS REC 02 Training Matrix
Ghana Bridge ESMS REC 03 Training Programme
Ghana Bridge ESMS REC 04 Training Attendance Template
Ghana Bridge ESMS REC 05 Training Attendance Records & Certificates
Ghana Bridge ESMS REC 06 Environmental and Social Plan (incorporating health and safety) Template
Ghana Bridge ESMS REC 07 Internal Communication Template
Ghana Bridge ESMS REC 08 External Communication Template
Ghana Bridge ESMS REC 09 Master List of Records
Ghana Bridge ESMS REC 10 Template
Ghana Bridge ESMS REC 11 Audit Plan
Ghana Bridge ESMS REC 12 Internal Audit Summary Report
Ghana Bridge ESMS REC 13 Non-Conformance Report
Appendix B – Content of Labour and Working Conditions Policy

A Labour and Working Conditions Policy shall be developed for the project. Personnel shall be trained regarding the contents of the policy at the time of hire.

The policy will include commitments to:

- Promote the fair treatment, non-discrimination, and equal opportunity of workers as well as the behaviour of staff towards the community and local cultures (in-line with the Code of Behaviour Policy);
- Establish, maintain, and improve the worker-management relationship;
- Promote compliance with national employment and labour laws;
- Protect workers, including vulnerable categories of workers such as children migrant workers, workers engaged by third parties, and workers in the client’s supply chain;
- Promote safe and healthy working conditions, and the health of workers; and,
- Avoid the use of forced labour.

To meet the objectives, the project shall:

- Adopt and implement human resources, policies and procedures appropriate to its size and workforce that set out its approach to managing workers consistent with the requirements of this Performance Standard 2 (PS2) from the IFC standards and national law;
- Provide workers with documented information that is clear and understandable, regarding their rights under national labour and employment law;
- Identify migrant workers and ensure that they are engaged on substantially equivalent terms and conditions to non-migrant workers;
- Implement the IFC / European Bank for Reconstruction and Development temporary workers policies on the quality and management of the accommodation offered to workers, if applicable;
- Comply with national law regarding workers’ rights to join organisations for workers of their choosing and to allow workers to elect representatives;
- Make employment decisions related to inherent job characteristics and not on the basis of personal characteristics;
- Comply with national law on non-discrimination and employ requirements of PS2 without contravening national law;
- Ensure that all workers receive notice of dismissal and timely severance payments mandated by law and any outstanding back pay and social security benefits and pension contributions;
- Carry out an alternative to retrenchment prior to implementing any dismissals;
- Provide a grievance mechanism for workers to raise workplace concerns;
- Not employ children in any manner that is economically exploitative, or is likely to be hazardous or to interfere with the child’s education, or to be harmful to the child’s health or physical, mental, spiritual, moral, or social development. Identify the presence of all persons under the age of 18. Follow the applicable national laws in child labour. Ensure children under the age of 18 are not
employed in hazardous work. Undertake appropriate risk assessment and regular monitoring of health, working conditions, and hours of work for all children under the age of 18;

- Ensure there is no forced labour, this includes not withholding the passports / identification cards of migrant workers during the term of their contract;

- Provide a safe and healthy working environment taking into account inherent risks. This includes the identification of potential hazards and provision of preventative and protective measures and appropriate training for employees;

- Ensure contractors are legitimate enterprises with appropriate ESMS;

- Establish procedures for managing and monitoring the performance of such third party employers; and

- Ensure contractors have access to a grievance mechanism.

All of the above shall be adopted throughout the life of the project. Where these are not met or where a worker feels these are not met, the labour grievance process shall apply.
Appendix C – Content of Labour Grievance Process

A Labour Grievance Process shall be developed for the project. EPL will be responsible for informing every employee (including contractors) about the labour grievance process and making it easily accessible to them. Personnel shall be trained regarding the policy at the time of hire.

The Grievance Process shall incorporate the following:

1. The method in which employees may raise concerns or complaints, including:
   o Through the use of HR (all issues);
   o Through the use of managers, supervisors or similar; and,
   o Through the use of the ESMS team for Environmental, Social (and Health and Safety issues);

2. The grievance process shall protect the confidentiality of the worker;

3. The company shall commit to resolving the grievance in a manner that is acceptable to the employees affected and company;

4. The company shall commit to resolving the grievance in a fair and proper manner;

5. The policy shall have specific timeframes in which a grievance shall be resolved e.g. to be addressed within 3 working days from the initial submission by the employee. If not satisfactorily addressed within the timeframe the employee may escalate the issue to the superior of the person to whom the grievance was made, which shall be addressed within 7 working days;

6. If no resolution can be found internally between the employee and the company, the employee shall be afforded the use of an external resolution mechanism as governed by labour regulation;

7. The process shall allow for representation where a grievance involves a group of employees;

8. Feedback shall be provided to those involved; and

9. The process shall prohibit retribution for filing complaints; and the process shall be aligned to labour regulation.
Appendix D – Monitoring Requirements under the Environmental Permit

Construction, operational and decommissioning phase environmental, social and health and safety requirements are set out in the Schedule of Environmental Permit. To ensure compliance with the permit, the following requirements must be implemented and monitored;

Construction phase

- Construction barriers
- Commitment to prevention, minimisation and mitigation
- Land and water quality management
- Traffic management
- Construction/works programme
- Acquisition and Protection of Rights of Way Compensation
- Noise and sanitation
- Occupational health and safety
- Public health risks
- Solid and liquid waste management
- Construction air emissions, noise and vibration management
- Waste oil management
- Construction phase environmental monitoring:
  - Construction traffic
  - Dust
  - Noise
  - Soil erosion
  - Occupational health and safety
  - Oil waste generation and management
  - Social impacts

Operational phase

- Cleaner production options during test runs and operational phase
- Energy management
- Air emissions
- Operational phase environmental monitoring:
  - Fire preparedness
  - Ambient noise
  - Wastewater
  - Stack emissions (NOx)
• Sludge management
• Waste oil management
• Use of personal protective equipment (PPE)
• Solid waste generation and disposal
• Accidents, worker injury and health
• Spill containment systems
• Fire risk hazards
• Traffic management and vehicular accidents
• Occupational and public health and safety

• Installation of an on-line continuous monitoring system and monitoring of atmospheric emissions
• Submission of half yearly monitoring reports to the Agency for review and comments
• Environmental performance rating and public disclosure scheme
• Oil spill risk
• Waste oil management
• Fire, risk and explosion
• Volatile organic compound (VOC) emissions
• Noise levels
• Oily water treatment system and unit
• Wastewater treatment and management
• Solid waste management
• Environmental permit awareness
• Integrity checks (fuel)
• Storm water management
• Neighbouring/adjoining land uses
• Stakeholder consultations
• Emergency response plan

End of ESMS Manual