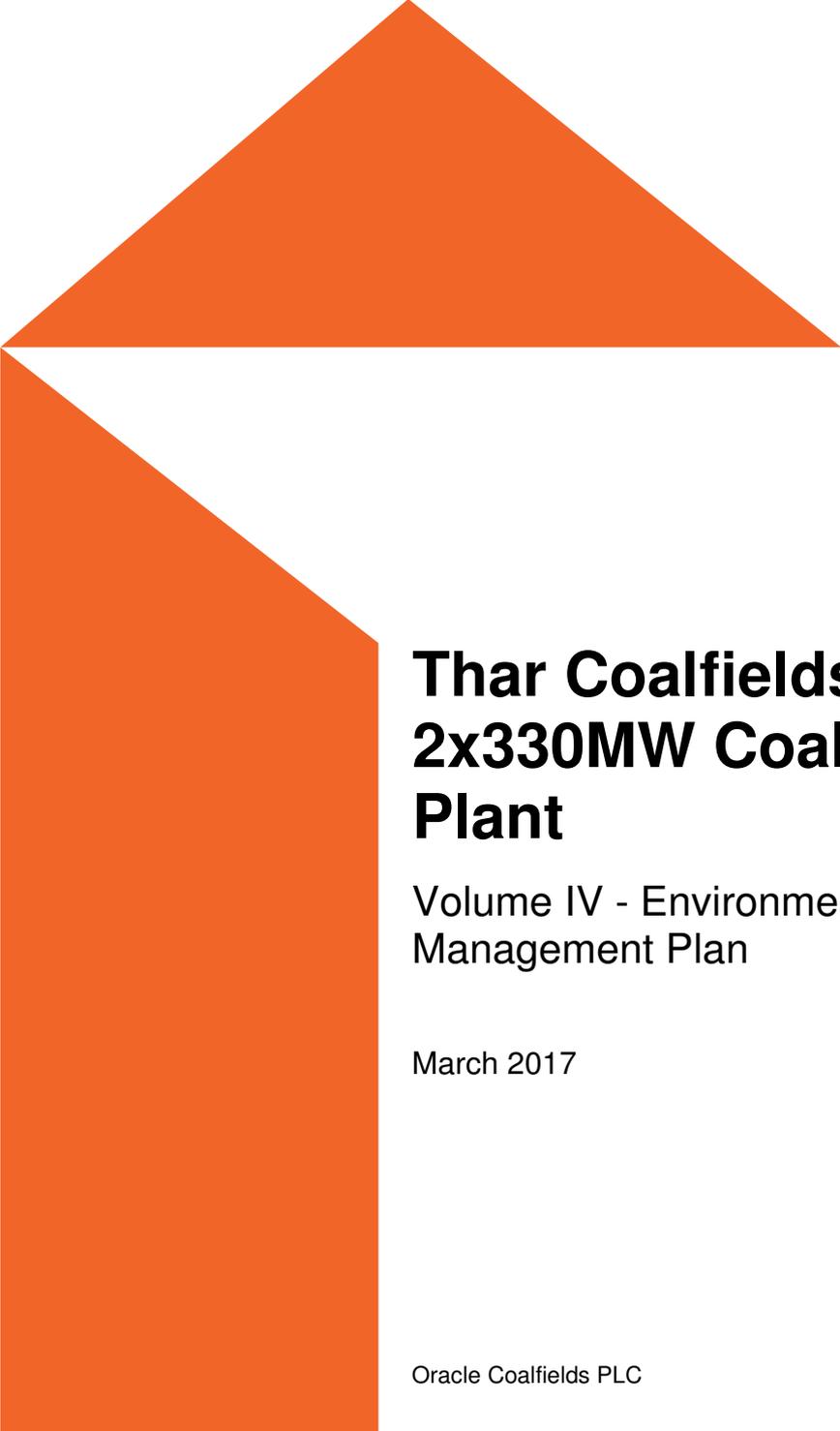


Oracle Coalfields PLC



Thar Coalfields Block VI 2x330MW Coal-Fired Power Plant

Volume IV - Environmental and Social
Management Plan

March 2017

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Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	3/10/2016	A Halcrow	L Stone	G. Clamp	Draft
B	01/03/17	J. Yassenko	I. Scott	I Scott	Final

Information class: Standard

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1 Introduction

1.1 Overview

The primary objective of an environmental and social management (and monitoring) plan (ESMP) is to safeguard the environment, site staff and the local population from site activity which may cause harm or nuisance. This ESMP is intended to provide a framework to ensure transparent and effective monitoring, prevention, minimisation, mitigation, compensation and off-setting measures to address the environmental and social impacts associated with the Thar Coalfield Power Plant Block VI Project. The mitigation measures described within this ESMP will be applied to the project and its associated infrastructure, hereafter referred to as the project.

This document will need to form the basis of the environmental and social protection measures implemented by Oracle Coalfields (the Developer) and the supporting construction contractors that will be employed. The implementation of the ESMP ensures that environmental, health and safety (EHS) and social performance is in accordance with national legislation, standards and guidelines and, where relevant, good international industry practice¹. The ESMP will reflect the requirements of the ESIA report and any conditions applied to the environmental permit by the Sindh Environmental Protection Agency.

This document constitutes volume III of the environmental and social impact assessment (ESIA) process which has been undertaken by Mott MacDonald. The ESIA report comprises three volumes, including this volume, organised as follows:

- Volume I: Non-technical summary
- Volume II: ESIA
- Volume III: Technical appendices
- **Volume IV: Environmental and social management (and monitoring) plan (this volume)**

Where relevant this volume consolidates and builds on the mitigation and monitoring requirements identified in the ESIA (Volume II) and establishes a framework under which the engineering procurement and construction (EPC) contractor (Shandong Electric Power Construction Company; SEPCO) should develop their mitigation and management plans. The Developer and EPC contractor will be required to develop standalone mitigation and monitoring plans, implementing the requirements contained within this document as a minimum.

1.2 Development of the ESMP

This document is an overarching framework for environmental and social management. The EPC contractor will be required to transpose the measures and principles of this framework document in to a Construction Environmental and Social Management Plan (CESMP) prior to any site preparation / construction activities taking place. The CESMP details environmental control steps necessary to reduce environmental and social impacts through the entire construction phase of the project, identifying as a minimum:

¹ This ESMP has been produced with consideration of "Guidelines for the Preparation and Review of Environmental Reports", Government of Pakistan, 1997 and Coutinho, Miguel and Butt, Hamza K. 2014. Environmental Impact Assessment Guidance for Coal Fired Power Plants in Pakistan. Islamabad: IUCN Pakistan..

- Description of the works
- Regulatory requirements
- Site organisation and management
- Roles and responsibilities
- Review, reporting and auditing procedures
- Environmental and social risks and impacts
- Mitigation and protection measures
- Monitoring requirements
- Training requirements
- Emergency response plans
- Method statements (where applicable)

The development of the CESMP will be prepared prior to site preparation and construction works and will be supported by the following:

- **Policies** – overarching system of principles to guide the project's environmental and social performance.
- **Plans** – additional, more detailed plans prepared by contractors related to specific aspects and areas which are impacted by their scope of works (i.e. waste management plan).
- **Procedures** – more specific work instructions developed by the Developer, in collaboration with construction contractors, to support the implementation of the plans.

The Developer will be responsible for oversight of the EPC contractor during the construction phase. The Developer will be responsible for ensuring the project complies with mitigation measures outlined within this document for the operational phase.

1.3 Structure of the ESMP

Section 2 outlines the institutional arrangements through which the ESMP will be implemented and the relationship and responsibilities between the Developer and the EPC contractor. Where relevant, a number of capacity building measures have been identified to ensure that the institutional arrangements are appropriate and qualified for the allocated tasks.

Section 3 provides an outline on the various site-specific EHS management and monitoring plans to be implemented as part of the ESMP by the Developer and its EPC contractor. The sub-plans are intended to ensure that the various mitigation measures / activities identified through the ESIA process are incorporated by the project in a structured way. Mitigation measures are presented for each sub-plan, together with monitoring measures and key performance indicators (KPIs) where applicable.

Section 4 of the ESMP provides an overview of monitoring and reporting requirements associated with the activities and commitments contained within the ESMP documentation. The monitoring and reporting requirements include an adaptive management capacity to the ESMP reflecting that it is intended to be a live document subject to regular review and update as the project evolves.

2 Implementation and institutional arrangements

2.1 Overview

Responsibilities for implementation of identified mitigation or management actions are outlined in the ESMP and fall to the Developer and/or the EPC contractor. It will be the responsibility of the Developer and their owners engineer (OE) to oversee and monitor the implementation of relevant ESMP elements by the EPC contractor and sub-contractors that may be employed. The Developer through the OE will monitor, audit and assess compliance of the EPC contractor's implementation of the relevant aspects of this ESMP during the construction phase and ensure that corrective actions are taken when necessary to maintain EHS performance in line with national legislation, standards and guidelines and, where relevant, good international industry practice.

The EPC contractor will be required to transpose the measures and principles of this framework document into a construction ESMP (CESMP), while the Developer will be required to transpose the measures and principles of this framework document into an operational ESMP (OESMP).

2.2 Roles and responsibilities

2.2.1 The Developer's role

The Developer will have the overall responsibility for compliance of the project during the construction and operational phases with the mitigation measures outlined within this ESMP. The contractors (including the EPC contractor) will be required to meet the specific requirements outlined within this ESMP for the construction phase; this is to be implemented through the agreements between the Developer and the contractors, for example, by adding specific provisions to such agreements or annexing this ESMP to such agreements. Whichever route is chosen, the contractor agreements should ensure compliance with this ESMP and appropriate international requirements.

The Developer is to monitor its performance and that of all contractors on a regular basis and will undertake the following throughout the duration of the construction period:

- Review contractor documents (for example, associated sub-management plans, procedures and mechanisms for reporting, record keeping and auditing) against the requirements of this ESMP
- Undertake regular audits
- Continuously check records
- Set up a contractor reporting structure
- Conduct regular meetings where EHS is an agenda item

During the construction phase, the Developer should closely monitor all reports received from the contractors to monitor compliance. Mitigation measures described for the operational phase will be implemented by the Developer using the proposed system described in this document.

2.2.2 The EPC contractor

It will be the responsibility of the EPC contractor to implement the construction phase mitigation measures outlined within this document through a dedicated CESMP and to ensure compliance of any construction contractors in meeting the requirements within it. The EPC contractor or

EPCM contractor will be required to undertake regular monitoring and inspections of the construction contractors and the project site and will be required to keep up to date records as prescribed in this ESMP and report regularly to the Developer.

2.2.3 Owners Engineer

The role of the OE is to supervise construction, including acting as the representative of the Developer, managing all environmental and social aspects of the project.

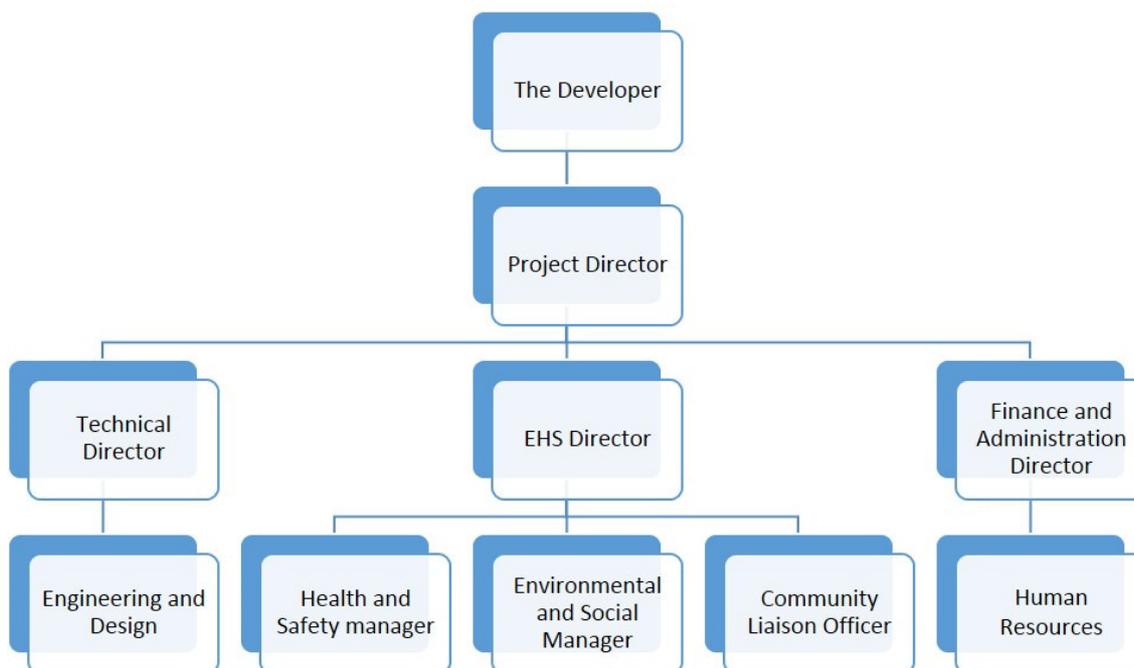
2.3 Construction EHS management

2.3.1 The Developer environmental, health and safety (EHS) management

The Developer has not yet finalised its formal EHS and social policies² and systems along with many of the other management systems that will need to be in place for the commencement of construction and into operation. It is the Developer's intention to develop a comprehensive EHS department to oversee and manage all EHS issues during the construction and operational phases.

A preliminary staffing structure of the EHS department is under development but consists of the key roles as set out in Figure 1 and Table 1. The Developer's personnel key roles and responsibilities will be set out in procedures created as part of the EHS management system, including organisational and individual working procedures.

Figure 1: Preliminary EHS organogram



² The Developer has produced a working draft health, safety and environment policy (July 2013) provided in Appendix A.

Table 1: The Developer's EHS department - key roles and responsibilities

Role	Number	Responsibility	Location	Construction	Operation
EHS Director	1	Policy, overall responsibility, government liaison	Head Office with regular visits to site	✓	✓
Environment and Social Manager	1	Compliance reporting on environmental and social issues to the Deputy Director	Head Office with regular visits to site	✓	✓
Health and Safety Manager	1	Compliance reporting on Health and Safety issues to the Deputy Director	Head Office with regular visits to site	✓	✓
Community Liaison Officer	1	Management and monitoring of social issues and performance	Head Office with regular visits to site	✓	✓
Support staff	to be defined	Community liaison, environmental reporting and monitoring	On site	✓	✓

It should be noted that there will also be a number of support staff, including environmental officers and engineers and technicians, social specialists and administrative staff. Whilst some evolution of the department structure, staff numbers and responsibilities will change as the project moves through construction into operation the overall structure and roles and responsibilities will be defined during its inception and modifications implemented as required.

2.3.2 Contractor EHS management

The EPC contractor or EPCM contractor will be required to adhere to the principles of ISO 14001:2004³ and OHSAS 18001:2007⁴ or equivalent if not already accredited. These standards place strong emphasis on the need for continuous improvement of the EHS management systems and resultant EHS management performance.

The appointed EPC contractor will be required to agree (see under paragraph 2.2.2 hereof) to the following actions:

- Develop a project specific CESMP (refer to Section 3.2).
- Elaborate other parallel sub plans (refer to Chapter 3).
- Implement the requirements of the mitigation activities in the CESMP via the above plans.
- Provide a construction site layout plan that identifies key activity areas in line with the relevant requirements and exhibits to the EPC contract.
- Produce detailed method statements relating to key activities that include specific reference to requirements of the plans contained herein during the project progression.
- Provide all training necessary to oversee and implement ESMP requirements prior to and throughout construction as appropriate.
- Be responsible for producing comprehensive suite of EHS management and coordination procedures
- Identify a full time person on site with dedicated EHS responsibilities to oversee works on site.

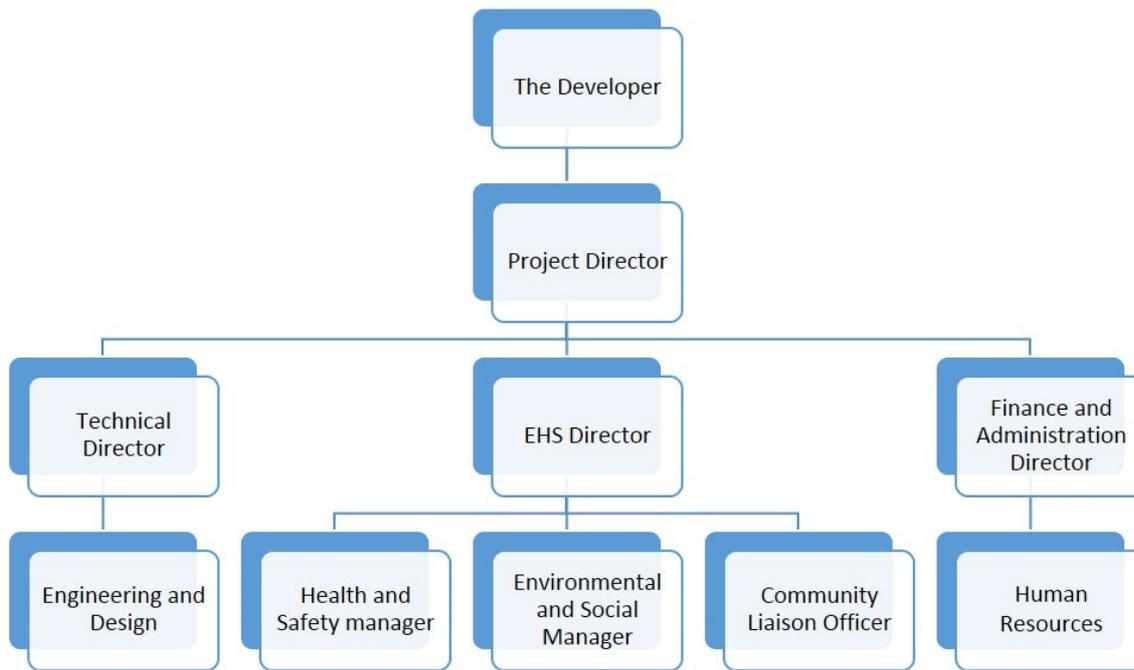
The EPC contractor will be required to be responsible for sub-contractor(s)' performance, including adherence to the requirements of the CESMP. All sub-contractor(s) will be required to have dedicated environmental and social staff to implement the CESMP and to monitor and manage this on an on-going basis. The sub-contractor(s) staff will be required to liaise closely with the EPC contractor EHS staff including the provision of monthly reports and participation in

³ ISO 14001:2004 <http://www.iso.org/iso/home/standards/management-standards/iso14000.htm>

⁴ OHSAS 18001:2007 <http://www.bsigroup.com/en-GB/ohsas-18001-occupational-health-and-safety/>

weekly construction review meetings, for example. A typical construction contractor EHS staffing structure that could be expected for this project is set out in Figure 2 and Table 2.

Figure 2: Typical EPC structure



Source: Mott MacDonald

Table 2: Typical contractor EHS staffing

Role	Number	Responsibility	Comment
Project director	1	Overall responsibility for EHS performance of project contracted works, including sub-contractor(s).	-
Construction site manager	1	Responsible for practical implementation of EHS requirements at site and for onsite EHS performance.	-
EHS managers	1	Monitoring and reporting of project EHS performance. EHS regulatory interface.	-
Contractor E&S officer	1*	Management and monitoring of CESMP plans implementation and environmental issues and performance	*Number of officers may vary depending on level of construction activity
H&S officer	1	Management and monitoring of CESMP plans implementation and report-health and safety issues to the EHS Manager	

2.3.2.1 Environmental/social officer

The EPC contractor will be required to nominate a person to take primary responsibility for day-to-day implementation of the CESMP and parallel management plans. The formal job description would be generally in accordance with the elements provided below.

The nominated person will carry out the following responsibilities:

- Take prime responsibility for practical implementation of the environmental management
- Oversee and ensure the implementation of the CESMP and parallel management plans (with support from the EPC contractor construction site manager, detailed below) and ensure all sub-contractor(s) are in compliance with the CESMP requirements
- Review and report performance to the EPC contractor construction site manager and the Developer
- Review sub-contractor(s) environmental protection/mitigation measures to ensure compliance with the CESMP
- Report on a daily basis any CESMP non-compliances to the EPC contractor construction manager
- Carry out regular environmental awareness sessions and assist personnel in applying environmental standards on site
- Conduct regular audits/inspections to check that committed impact mitigation measures are being implemented
- Act as the first point of contact on environmental matters for the EPC contractor, for the government authorities, other external bodies and the general public.

There are certain criteria that the EPC contractor or EPCM contractor environmental officer will be required to have knowledge and experience in, including:

- An understanding of the international standard techniques of environmental management
- Familiarity with local environmental legislation and the likely developments in this field
- Practical operation of environmental monitoring techniques
- Ability to summarise environmental data in order to produce concise and conclusive reports
- Hold the confidence to enforce strict, but pragmatic, environmental control procedures and to motivate the construction staff to a high level of environmental awareness
- Minimum of five years' practical experience on construction sites.

2.3.2.2 EPC contractor construction site manager

The EPC contractor construction site manager will need to work to co-ordinate efforts based on inputs from the environment officer(s) and assist in the allocation of staff with the skills for applying the CESMP on site. It is envisaged that the construction manager will:

- Ensure that the environment officer is adequately qualified to understand and implement the CESMP
- Nominate personnel to assist the environment officer as required
- Be responsible for communications with the Developer with regards to environmental issues and non-compliances.

2.4 Operational EHS management

The proposed organisational structure for the operational phase will be largely similar to that proposed for the construction phase as shown in Section 2.3.1; as the project nears operation it is possible that this structure may be adapted to best meet the requirements of the project.

3 Policies, plans and procedures

3.1 Overview

Table 3 summarises the key policies, plans and procedures required for the project for both the construction and operational phases, which were determined through the ESIA process, and identifies the impacts they are designed to address. Table 3 also provides an implementation schedule detailing the timings in which policies, plans or procedures should be implemented.

Sections 3.2 to 3.23 elaborate on all the relevant plans or procedures identified in Table 3, which must be adhered to during construction and operation of the project. The plans and procedures identified are framework documents only and will need to be developed further by the Developer and/or EPC contractor prior to construction/operation. These framework mitigation measures have been developed in line with national legislation, standards, and guidelines and, where relevant, good international industry practice.

Table 3: Commitments of policies, plans and procedures

Policy, plan, procedure	Objective / content	Impacts	Applicable phase of project (construction / operation)	Implementation
Environmental				
CESMP	To implement mitigation activities relevant to the construction phase of the project and to avoid, mitigate and minimise EHS impacts during the construction phase. EPC contractor will be required to adopt a CESMP which will strictly follow and comply with the general World Bank (WB)/International Finance Corporation (IFC) Environmental, Health and Safety (EHS) Guidelines during construction activities at all sites as well as incorporate specific mitigation as identified through the ESIA process. It is recommended that subcontractors are issued with the full CESMP prepared by the EPC contractor prior to site preparation and construction activities commencing.	Construction related impacts mitigated by the management plans detailed below	Construction	Prior to any site preparation and construction works
OESMP	Intended to guide the development of the programmes by which the Developer's project company will ensure operational activities are carried out in a way that meets the goals of the Developer's environmental & social principles/policies.	Operation related impacts mitigated by the management plans detailed below	Operation	Prior to operation commencing
Traffic management plan (TMP)	To define the requirements that should be implemented to mitigate any potential negative risks to the environment, workers or the community resulting from construction traffic. The TMP will advise and inform site contractors and external suppliers of equipment and materials of access and entry points along with other key information such as tipping areas and wash-out areas. Intended to complement and work alongside relevant CESMP. The TMP	Increase in general traffic (cars and trucks) volumes and abnormal load vehicles Nuisance (dust, noise and vibration) arising as a result of traffic Driver delay, pedestrian delay, severance, pedestrian amenity/ fear and intimidation Community road safety Improve transport infrastructure to handle the project traffic movements and loads	Construction / Operation	Prior to any site preparation and construction works

Policy, plan, procedure	Objective / content	Impacts	Applicable phase of project (construction / operation)	Implementation
		will be classed as "live" and therefore be subjected to updates as required.		
Site waste management plan (SWMP)	Identify measures for minimisation of waste and safe disposal of construction wastes	Non-hazardous waste generated as a result of general construction activities, including concrete offcuts, scrap ferrous and non-ferrous metals, packaging materials (plastics, cardboard, pallets) Hazardous waste generated from general construction activities including fluorescent tubes, batteries, solvents and medical waste from camps. Contaminated material generated from fuel spills and leaks.	Construction / Operation	Prior to any site preparation and construction works Prior to operation
Ash management plan (AMP)	To guide the means by which the EPC contractor and the Developer will reuse or dispose of ash generated during operation. Also outlines control measures regarding storage, transport and monitoring.	Fly ash is classified as hazardous and bottom ash can be hazardous or non-hazardous. Both these waste streams are produced during coal burning. Non-hazardous ash must be handled, used, stored and disposed of according to the SWMP. Contamination of the ground and/or water environment	Operation	Prior to operation
Noise and vibration control plan (NVCP)	To guide the means by which the EPC contractor will control noise and vibration caused by construction, traffic, operations, and other activities to ensure noise does not exceed applicable standards at the site boundary and beyond. Single or separate plans shall be developed for the construction and operational phases.	Noise impacts as a result of site preparation excavation and foundations, construction. Noise impacts (nuisance) as a result of site traffic movements to and from site, including abnormal loads. Significant effects are likely at the peak of the construction period	Construction Operation	Prior to any site preparation and construction works
Air quality management plan (AQMP)	To manage dust and other pollutants during construction and operational phase of the project by using appropriate monitoring and mitigation measures. The AQMP will apply for the duration of both project construction and operational phases.	Deterioration of air quality as a result of: Site preparation; land clearing; quarrying; road construction; spoil deposition; general construction activities; operation Traffic and vehicle movements on site roads Transportation of spoil to disposal sites Construction traffic and machinery	Construction Operation	Prior to any site preparation and construction works Prior to operation

Policy, plan, procedure	Objective / content	Impacts	Applicable phase of project (construction / operation)	Implementation
Water quality management plan (WQMP)	To guide the means by which the Developer (during operation) will ensure that the project and its activities do not cause unacceptable contamination or impacts to water resources and that process and potable water meet applicable standards.	Pollution caused by the discharge of industrial process water (effluent) to a water resource Pollution caused by the discharge of sewage to a water resource Sedimentation as a result of excavation, spoil disposal, vegetation clearance Deterioration of groundwater quality due to spillages	Construction Operation	Prior to any site preparation and construction works Prior to operation
Spill prevention and response plan (SPRP)	To define the requirements and procedures to be followed by EPC contractor (construction) and Developer (operation) as well as the prevention and response to land-based spills.	Pollution caused by improper materials storage Contaminated material generated from fuel spills and leaks	Construction Operation	Prior to any site preparation and construction works Prior to operation
(Hazardous) Materials handling and storage plan (MHSP)	To define the requirements and procedures to be followed by EPC contractor (construction) and Developer (operation) during the handling and storage of chemicals, lubricants, solvents, oil and fuel throughout the project.	Pollution caused by improper materials storage Contaminated material generated from fuel spills and leaks	Construction Operation	Prior to any site preparation and construction works Prior to operation
Spoil management plan (SMP)	To define the requirements that should be implemented by EPC contractor during construction to manage monitor any potential negative risk and impacts to the environment, workers or the community resulting from the excavation, handling, transportation and disposal of spoil at the project site and at the borrow pit location.	Dust as a result of excavation and transportation of earthen materials	Construction	Prior to the disposal of spoil material
Chance finds procedure	Project-specific procedure that outlines what will happen if previously unknown cultural heritage resources, particularly archaeological resources, are encountered during project construction or operation.	Damage to unrecorded archaeological and cultural heritage features	Construction Operation	Prior to any site preparation and construction works
Health and safety				
Occupational health and safety (OHS) plan	Plan to implement a safe working environment, procedures and culture during the construction phase. Further	OHS risks, including: Exposure to physical hazards from use of heavy equipment Trip and fall hazards	Construction Operation	Prior to construction Prior to operation

Policy, plan, procedure	Objective / content	Impacts	Applicable phase of project (construction / operation)	Implementation
	<p>policies / procedures to be developed if need identified through site audits.</p> <p>A separate OHS plan to be developed separately for project operation.</p>	<p>Exposure to dust, noise and vibrations</p> <p>Falling objects</p> <p>Exposure to hazardous materials; and exposure to electrical hazards from the use of tools and machinery</p> <p>Working at height, with live power equipment and lines</p>		
Site security management plan (SSMP)	To ensure that the project protects the health, safety and security of people and communities within the area of influence from any negative impacts related to the project	<p>The plant as a security target</p> <p>Influx of workers and interaction with communities</p>	<p>Construction</p> <p>Operation</p>	Prior to any site preparation and construction works and maintain throughout operational phase
Emergency preparedness and response plan (EPRP)	Preparation of the EPRP is a requirement of IFC PS1 to cover potential emergencies during the construction, operation and decommissioning of the project. The EPRP will form part of the wider suite of plans to be implemented by the EPC contractor (construction) and the Developer's EHS department (operation).	<p>Accidental and emergency situations during construction</p> <p>Accidental and emergency situations during operation</p>	<p>Construction</p> <p>Operation</p>	<p>Prior to any site preparation and construction works</p> <p>Prior to operation</p>
Community and labour				
Consultation strategy	<p>Describes the means by which the project will ensure continuous engagement with affected people and other interested parties.</p> <p>Updated when there are significant changes to the project, such as change in phase or identification of new stakeholders.</p>	<p>Broad community support</p> <p>project awareness in the community</p> <p>Information disclosure</p>	<p>Construction</p> <p>Operation</p>	Prior to construction and maintain throughout the operational phase
Community grievance mechanism	Formalised process by which grievances can be raised by the local community and staff during construction and operation and to allow structured investigation by the Developer to review the validity, responsibility and response / action. The community grievance mechanism will be outlined in the project consultation strategy.	<p>Ensure community welfare</p> <p>Broad community support</p>	<p>Construction</p> <p>Operation</p>	Prior to construction and maintain throughout the operational phase

Policy, plan, procedure	Objective / content	Impacts	Applicable phase of project (construction / operation)	Implementation
Local content strategy	<p>Overarching objective of sharing the project's socioeconomic benefits with the locally affected workers and businesses. It will consider the needs of men and women and where appropriate suggest differentiated measures to help women take up employment opportunities with the project. The strategy will consist of three strands containing policies and actions to promote and maximise opportunities for:</p> <p>Local recruitment policy: to create more employment opportunities for local people.</p> <p>Skills development: to facilitate livelihood restoration/diversification of displaced people and the improve employability of local people after construction.</p> <p>Local procurement: to provide business opportunities for local small, medium sized enterprises and to stimulate local economic growth.</p>	<p>Employment generation</p> <p>Procurement of good and services</p> <p>Physical and economic displacement of local people, resulting in livelihood impacts</p> <p>Population influx</p>	<p>Construction</p> <p>Operation</p>	Strategy to be developed prior to and during construction with certain requirements passed down to EPC; Developer to assume longer term ownership in operations.
Gender strategy	<ul style="list-style-type: none"> • The gender strategy will aim to: <ul style="list-style-type: none"> – Raise gender awareness of the different roles and responsibilities within the community and the local economy – Implement gender mainstreaming component in all project related plans and programmes – Suggest practical and measurable gender actions and targets to be achieved as a result of the project and related programmes 	<p>Employment generation</p> <p>Broad community support</p>	<p>Construction</p> <p>Operation</p>	Prior to construction and maintain throughout the operational phase
Community investment plan	To help mitigate the potential adverse impacts of project-induced in-migration and to share project benefits more fully with local communities. The CIP must be implemented in partnership with local and regional government authorities, local leaders, NGOs and civil society	<p>Broad community support</p> <p>project-induced in-migration</p>	<p>Construction</p> <p>Operation</p>	Within six months of construction commencing and maintain throughout the operational phase

Policy, plan, procedure	Objective / content	Impacts	Applicable phase of project (construction / operation)	Implementation
	bodies which have local ties with communities.			
Influx management strategy	Avoid and mitigate the effects of project-induced migration in partnership with civil society. Linked closely to CIP	Project-induced in-migration	Construction Operation	Prior to construction and maintain throughout the operational phase
Human resources policy	Equity in local employment benefits / minimise social conflict. Prohibit the use of child and forced labour / promote non-discrimination and equal opportunities. Special measures to promote equal employment opportunities across ethnicities and women.	Improve employment benefits and rights in line with GIIP	Construction Operation	Prior to construction and maintain throughout the operational phase
Worker grievance mechanism	Formalised process by which grievances can be raised by the workforce during construction and operation and to allow structured investigation by the Developer to review the validity, responsibility and response / action.	Improvement of workers' rights and welfare	Construction Operation	Prior to construction and maintain throughout the operational phase
Workers' code of conduct	To provide a minimum standard of conduct that is expected from all workers.	Ensure worker and community welfare	Construction Operation	Prior to construction
Worker accommodation plan (WAP)	To ensure that all project accommodation areas are designed, constructed and maintained as healthy, clean and pleasant locations for workers to live in.	Hygiene, safety and security risks Cultural conflict risks between the host community and the migrant labour force	Construction Operation	Prior to construction of the worker accommodation. Maintained throughout the project lifecycle

Source: Mott MacDonald

3.2 Construction and operational environmental and social management plans

An overarching CESMP will be prepared in accordance with the requirements of Sindh Environmental Protection Act (2014) and the Sindh Environmental Quality Standards (2014). It will provide guidance on EHS management approach to be adopted by the EPC contractor and sub-contractors for all activities undertaken throughout the construction phase of the project (which shall be overseen by the Developer).

The CESMP details the control steps necessary to reduce EHS impacts through the entire construction phase of the project, identifying as a minimum:

- A description of the works
- Regulatory requirements
- Site organisation and management
- Roles and responsibilities
- Review, reporting and auditing procedures
- Mitigation and protection measures
- Monitoring requirements
- Training requirements
- Emergency response plans
- Method statements (where applicable)

The CESMP will be supplemented by various separate sub-plans and procedures (detailed in the following sections) which will be developed to address key EHS aspects identified during the ESIA process which will detail control procedures and define associated responsibilities for implementation by the contractors (which shall be overseen by the Developer).

The EPC contractor will develop the CESMP; the Developer will review and approve the document. The CESMP will also be shared with the Regulator, as required. The EPC contractor will comply with, and implement, the CESMP, although the Developer is ultimately responsible for its implementation in accordance with international requirements.

Similarly, for the operational phase, an overarching OESMP will be prepared prior to operation of the project in accordance with national legislation, standards and guidelines. The structure and objectives of the report will largely be the same as the CESMP. The Developer will be responsible for ensuring the project complies with mitigation measures outlined within this document for the operational phase.

3.3 Traffic management plan (TMP)

Due to the significant quantities of materials to be transported to and from the project site, a construction TMP (CTMP) will be required for this project. The CTMP should be prepared in line with national legislation and GIIP.

The measures outlined below are required to ensure that all relevant policies and standards are met by the project. These measures should be developed further by the contractor when developing the CTMP:

- Construction of worker accommodation on site to reduce light vehicle movements relating to travel to/ from the site
- Provision of bus/minibus services for personnel living in nearby settlements
- Repair to damaged road surfaces and other road infrastructure

- Road maintenance fund to cover damage caused by project related activities during the construction phase
- Regular inspection and maintenance of roads used by the project
- Driver training for HGV drivers and a refresher course every six months for project drivers
- Speed restrictions for project traffic travelling through communities (to be agreed with the local transport authority)
- Pedestrian awareness programme along the main site access routes
- Schedule deliveries and road movements to avoid peak periods
- Temporary signage, to include signs in each direction along main roads and haulage routes, where the road is a single carriageway, about the dangers of overtaking
- Details of abnormal load escort proposals
- Community liaison scheme to facilitate a formal communication channel between EPC contractor and community
- Schedule rail use in collaboration with network operator
- Use of rail for delivery of equipment to be utilised where possible
- Utilise low emissions vehicles for the transportation of materials (wherever practicable)
- Workers should be informed and reminded of road safety via toolbox talks and staff notice boards

The following monitoring provisions should be included as part of the CTMP:

- The Developer to review contractors CESMP and CTMP to ensure continuity with commitment in this ESMP
- Daily vehicle checks
- Reporting on monitoring and KPIs to be provided to the local transport authority, for example:
 - number of complaints relating to traffic and transport
 - reporting of accidents and statistics by contractor to the Developer
- Monthly monitoring / review meetings to be held between the Developer/ EPC contractor and local transport authority
- Six monthly road condition reports

Traffic management KPIs include:

- Speed limit of vehicles, traffic congestion on main roads near project sites
- Truck conditions and maintenance
- Vehicular accident records
- Vehicle safety signals (warning lights, reflectors), fuelling procedures, loading / off-loading procedures
- Driver training records
- Log of maintenance activities

3.4 Site waste management

3.4.1 Construction site waste management plan (SWMP)

In the absence of robust waste management practices in Sindh Province, the Developer will follow good international industry practice (GIIP) identified by the International Finance Corporation (IFC) Performance Standard (PS) for waste management and minimisation and the European Waste Catalogue (EWC) for segregation, handling and storage of hazardous wastes.

Various waste streams are anticipated during the construction phase, such as spoil, concrete, timber and domestic waste. During the construction phase, the EPC contractor will apply the following general waste management requirements to all site activities:

Material use

- Best practice waste management begins with waste prevention and minimisation, re-using materials on site wherever possible; the most significant opportunity in the construction phase is with respect to excavated spoil
- Instituting good housekeeping and operating practices, including inventory control to reduce the amount of waste resulting from materials that are out-of-date, off-specification, contaminated, damaged, or excess to plant needs
- Instituting procurement measures that recognise opportunities such as ordering the correct amount of materials to be delivered when needed, reducing the amount of packaging used by suppliers and establishing a take back system with suppliers
- Seeking ways to reduce raw material consumption through efficiency audits in the operational phase
- Substituting raw materials or inputs with less hazardous or toxic materials wherever economically and technically feasible

Segregation

- Wastes will be appropriately segregated in designated storage areas, such that hazardous and non-hazardous wastes are not mixed and to allow for recycling and reuse where appropriate
- Hazardous waste (such as oils, lubricants, batteries, chemicals and medical waste) will be segregated from other waste types to avoid cross contamination

Storage

- All wastes generated shall be correctly identified and stored pending collection/transfer for reuse, recovery, recycling or disposal in an environmentally sound manner
- The waste storage areas will be located on areas of impermeable hard standing to prevent leaching of any contaminants should spillage or leakage occur
- All skips to have a suitable cover
- Liquid wastes/oil/chemicals to be stored in tanks or drums located in bunded areas which can hold 110% of the capacity of the largest tank or drum or, for multiple drum storage, 25% of the total volume of material stored
- Install temporary sediment basins, where appropriate, to capture sediment-laden run-off from site
- Store hazardous waste in closed containers away from direct sunlight, wind and rain in designated storage areas
- Provide adequate ventilation where volatile wastes are stored

- Provide readily available information on chemical compatibility to workers including labelling each container, demarcation of the area (e.g. on a facility map/site plan)
- No underground storage tanks or underground piping of hazardous waste to be included in the project design

Handling

- Handling and storage shall be carried out by trained staff
- Spill response equipment will be made available and maintained in areas where hazardous wastes may be spilt and an appropriate number of site personnel will be trained in spill response techniques
- Prepare and implement spill response and emergency response plans to address any accidental release and leakage
- Each waste shipment will be assigned a unique waste consignment number. The EPC contractor site manager is responsible for ensuring that a register is kept at site recording all waste shipments leaving the site and their disposal destination
- A waste transfer note will accompany all waste consignments from the construction site to the disposal destination

Disposal

- Offsite waste treatment or disposal facilities used will be appropriately permitted, or if not available based on the most suitable site on consultation with Sindh Province EPA
- The EPC contractor site manager will not release the waste if there is concern about the standard of transport or destination of the waste
- Disposal of any medical waste must be undertaken at licensed facilities

Monitoring

- Monitoring and inspection related to waste management during construction activities will be conducted for the duration of the project construction phase, and as a minimum will include:
 - Records of waste volumes generated by the site and indicate the final disposal option for each waste stream
 - Records of consignment and waste transfer notes
 - Weekly site walkover inspection to monitor effectiveness of the SWMP
 - Quarterly audit of waste management practices

3.4.2 Operational SWMP

The Developer will be required to develop an operational SWMP prior to the operation of the Plant, in line with IFC PS3 and IFC General EHS Guidelines: environmental, section 1.6, waste management.

The SWMP will contain:

- The establishment of a waste management hierarchy philosophy that considers prevention, reduction, reuse, recovery, recycling, removal and finally disposal of wastes
- A map showing the location of waste storage associated with the project
- A description of each waste generated by the operation of the facility, the appropriate handling methodology, the correct approach for storage and the correct route for removal/disposal off site
- Staff training requirements with respect to waste handling procedures

- Waste generation data collection for each waste stream by volume, according to the EWC. This will include the proportion of each waste stream going for reuse, recycling or disposal; any unusual waste volumes will be investigated
- Any waste monitoring as required by the regulator
- An audit schedule which details the frequency of waste management audits and those responsible for undertaking them
- A section related to continuous improvement and corrective actions where audit findings can be recorded and incorporated into the waste management procedure; this will also highlight any new and feasible reuse or recycling opportunities which may arise over time
- A mechanism by which to routinely track waste consignments from the originating location to the final waste treatment and disposal location
- The correct procedure for reporting any environmental incidents related to waste
- The specific regulatory reporting requirements as they relate to waste

3.4.3 Monitoring

Monitoring and inspection related to waste management during construction and operation will be conducted for the duration of the project and as a minimum should include:

- Records of waste volumes generated by the site and indicate the final disposal option for each waste stream
- Weekly site walkover inspection to monitor effectiveness of the SWMP
- Quarterly audit of waste management practices

3.5 Ash management plan

The AMP will be produced prior to operations commencing and will include the following:

- Quantitative balance of ash generation
- Disposal, utilisation and reuse quantities/locations
- Cell structure and their protocol within site
- Size of ash disposal site
- Information on leachate collection and drainage
- Ash transportation arrangement (open and closed tank trucks depending on wet/dry ash) and expected number
- Access/security arrangements

Monitoring of groundwater, noise and leachate must be undertaken during operations to ensure negative effects are continuously kept to a minimum. If monitoring activities find that ash management on site is insufficient, the plan will be reviewed and amended as necessary.

3.6 Noise management plan

A Noise and Vibration Control Plan will be developed and implemented by the EPC contractor. The plan will include the following measures:

- Planning activities in consultation with local communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance
- Using noise control devices, such as temporary noise barriers and deflectors for impact activities, and exhaust muffling devices for combustion engines
- Avoiding or minimising project transportation through community areas

- Unnecessary revving of engines will be avoided and equipment will be switched off when not in use
- Internal haul routes will be kept well maintained
- Plant and vehicles will be sequentially started up rather than all together
- Use of effective exhaust silence systems or acoustic engine covers as appropriate
- Plant will always be used in accordance with manufacturers' instructions
- Care will be taken to site equipment away from noise-sensitive areas
- Where possible, loading and unloading will also be carried out away from such areas
- Regular and effective maintenance by trained personnel will be undertaken to keep plant and equipment working to manufacturers specifications
- Screening e.g. noise barriers and bunds will be used as appropriate
- Vibration barriers can provide limited attenuation and will be used as appropriate
- Procedures for handling noise and vibration complaints
- Advance notification of at least 24hrs to all sensitive receptors during critical phases of construction and during blasting events

Construction noise and vibration levels shall be monitored and assessed:

- In response to reasonable noise complaints being received
- At locations representative of sensitive receptors in the vicinity

3.7 Air quality management plan

The EPC contractor will be required to implement an Air Quality Management Plan. The Plan will include the following mitigation measures:

- Minimising dust from material handling sources, such as conveyors and bins, by using covers;
- Minimising dust from open sources, including storage piles, by using control measures such as appropriate locations, installing enclosures and covers
- Dust suppression techniques should be implemented, such as applying water or non-toxic chemicals to minimise dust from vehicle movements
- Contractors are required to use modern, well-maintained vehicles that comply with applicable emission limits
- Introduce and enforce a 'no idling' policy
- Regardless of the size or type of vehicle, fleet owners / operators should implement the manufacturer recommended engine maintenance programs
- Drivers should stick to demarcated and levelled construction routes
- Minimise speeds on site to <20kph
- Drivers should be instructed on the benefits of driving practices that reduce both the risk of accidents and fuel consumption, including measured acceleration and driving within safe speed limits
- No open burning of solid waste
- Planning land clearing, removal of topsoil and excess materials, location of haul roads, tips and stockpiles, and blasting with due consideration to meteorological factors (e.g. precipitation, temperature, wind direction, and speed) and location of sensitive receptors. For example,
 - minimise groundworks during periods of high wind (e.g. >20kph)
 - vegetating exposed surfaces of stockpiled materials
 - Ensure grievance mechanism is in place so if air issues such as dust occur, communities can report them to the Project Company

In order to minimise dust and particulate matter from the handling and storage of coal the following measures should be applied:

- Use of cleaning devices for conveyor belts to minimise the generation of fugitive dust
- Use of enclosed conveyors with well designed, robust extraction and filtration equipment on conveyor transfer points to prevent emission of dust
- Use of wind fences in open storage of coal or profiling
- Use of machinery to compact coal in the coal yard
- Frequent utilisation of (treated) waste water to suppress coal dust on coal yard

No combustion mitigation measures in addition to those already accounted for within the dispersion modelling are proposed. The following key design features have been accounted for:

- Abatement methods included to enable the project to meet the guaranteed emission limits, which are lower than the SEQS emission limits, include:
 - Low NO_x burners and staged air injection
 - Limestone injection into the combustion chamber for desulphurisation
 - Electrostatic precipitators with particulate removal efficiency not less than 99.85%
 - An exhaust stack height of 210m to ensure effective dispersion of emissions.

The monitoring requirements for the plan of emissions and ambient air quality should be undertaken during the operation phase using the following methods:

- Installation of a continuous emission monitoring system (CEMS) to monitor stack emissions of PM₁₀, SO_x and NO_x
- Annual stack emissions testing of the metals regulated by the SEQS
- Ambient monitoring of pollutants consistent with the SEQS, using a minimum of two continuous ambient monitoring systems to measure concentrations at a maximum impact/sensitive receptor location and a representative background location.

3.8 Water quality management plan

The Government of Sindh has responsibility for the final discharge of waste waters from all development blocks in the Thar Coalfield. Arrangements for disposal are not yet agreed for Block VI. The Government of Sindh is proposing a 50 cusec capacity channel to take waste water from the adjacent Block II towards the south, so potentially some or all of the Block VI waste water could be disposed of via this channel. There may be additional water management measures imposed by the Government of Sindh, however these are not known at present.

In the operation phase all discharges to the environment will be regularly sampled at the outlet of the relevant waste treatment facility to confirm compliance with the NEQS. Where appropriate the monitoring should be continuous, for example for pH and conductivity. For parameters requiring laboratory analysis the sampling interval may range from daily to weekly. The monitoring results will be used to:

- Assess compliance and adherence to environmental standards and guidelines
- Provide an `early warning `system for harmful trends
- Identify additional impacts and consequent mitigation measures.

3.9 Spill prevention and response plan

A spill prevention and response plan must be prepared by the EPC contractor in accordance with national legislation, standards and guidelines and best practice, to be followed by the EPC contractor and Developer throughout construction and operation. The following spill prevention measures will be undertaken by the EPC contractor EHS Manager, with assistance as necessary from the EPC contractor environmental officer:

- Establish a complete inventory of hazardous materials (chemicals, oils and fuels) stored on-site so that in the event of a spill, information is available on volumes present
- Maintain copies of material safety data sheets (MSDS) for all hazardous materials held on-site so that in the event of a spill information is available on potential risks, both to nearby receptors and the health and safety of construction workers
- Ensure the appropriate storage and transfer requirements are in place at site
- Undertake regular inspections of equipment and facilities to check for leaks or faulty equipment. This includes checking for dents and rust

The contractor and Developer will ensure that appropriate spill response equipment is located at the following locations for the construction and operation phases, respectively:

- At all fuel and chemical storage facilities
- At re-fuelling points

As a minimum, the following spill response equipment will be held and maintained by the EPC contractor and Developer on site such that it can be deployed to the spill scene:

- Absorbent pads
- Dry granular absorbent
- Appropriate personal protective equipment (PPE)
- Chemical resistant storage drums
- Sandbags
- Shovels made or coated with polyethylene (non-sparking material)
- Corrosion resistant pump
- Hoses
- Warning tape, traffic cones or temporary barricade fencing

The type of response to be mounted in a spill event is determined by the size of the spill and an internationally recognised three tier system will be adopted.

Splashes, drips and spills

- Response to splashes, drips and spills from leaking plant, vehicles and equipment will be immediate and will be undertaken by the EPC contractor's personnel involved in the incident. All site personnel will be trained in response and clean-up procedures for splashes, drips and spills
- EPC contractor's personnel will place wastes generated as a result of the spill clean-up in clearly labelled containers for storage
- The EPC contractor's environmental officer will complete a spill incident report using a report sheet and submit this to the EPC contractor EHS expert

Large bulk fuel or liquid chemical storage tank spills

- In the event of a large bulk fuel or liquid chemical storage tanks spill, attendant personnel will immediately notify the EPC contractor EHS expert and EPC contractor's environmental officer using the site emergency notification procedures

- On the advice received from the EPC contractor EHS expert, the EPC contractor's site manager will determine the necessity or otherwise of initiating additional spill response including:
 - Enlisting spill response teams from other contractors onsite
 - Emergency services (firefighting team, ambulance, police)
- The response team will place solid and liquid wastes generated during clean-up in suitable containers
- A spill incident report sheet will be completed

Monitoring and inspection related to spill prevention and response during construction activities will be conducted for the duration of the project, including weekly walkovers and refuelling compliance checks.

3.10 Materials handling and storage plan (MHSP)

The ESIA has identified that a construction MHSP will be required for the project. The plan will be prepared by the EPC contractor in line with national legislation, standards and guidelines and GIIP.

The plan will identify storage areas to be established during the construction phase and will require these to be specifically designed giving due consideration to the following requirements:

- Located away from sensitive receptors
- Not at risk from theft or vandalism
- Protection from the elements
- Easily accessible in a safe manner
- Well ventilated
- Unlikely to be damaged
- Bunded and with spill kits provided close by

The construction and operational procedures will include reference to the control measures in order to minimise the likelihood of incidents associated with materials storage, handling and use. This will include the following:

- Identification of the necessary bunding and spill kit requirements
- Details of the correct procedure for handling and storing any hazardous materials
- A map showing the material storage locations
- Vehicle and equipment fuelling to only be undertaken in designated areas on impermeable surfaces with adequate spill protection in place
- Training requirements (as necessary) with respect to materials handling procedures, use of PPE, spill procedures and emergency response procedures
- The correct procedure for reporting any environmental incidents related to spills/leakages

Coal handling, disposal and use

The following techniques should be in place for the unloading, storage and handling of coal:

- The use of loading and unloading equipment that minimises the height of fuel drop to the stockpile, to reduce the generation of fugitive dust
- Direct transfer of lignite via belt conveyors or trains to the on-site coal storage area
- Placing transfer conveyors in safe, open areas aboveground so that damage from vehicles and other equipment can be prevented.
- The use of cleaning devices for conveyor belts to minimise the generation of fugitive dust

- Rationalising transport systems to minimise the generation and transport of dust within the site
- The use of good design and construction practices and adequate maintenance
- Coal storage must be on sealed surfaces with drainage, drain collection and water treatment for settling out
- The collection of surface run-off (rainwater) from coal storage area that washes fuel particles away and treating this collected stream (settling out) before discharge.
- Survey storage areas for coal with automatic systems, to detect fires, caused by self-ignition and to identify risk points
- Enclosed conveyors, pneumatic transfer systems and silos with well designed, robust extraction and filtration equipment on delivery and conveyor transfer points to prevent the emission of dust.

3.11 Spoil management plan

The ESIA has identified that an SMP will be required for this project. The Plan will be prepared by the EPC contractor in accordance with national legislation.

Storage

- Topsoil will be segregated from sub-soil and covered to prevent dust / wind borne emissions
- The EPC contractor will ensure that all temporary spoil waste disposal sites adjacent to excavation areas are engineered such that they allow for the sorting and grading of spoil, removal of excess waters through filtration, and are covered to prevent dust emissions
- The EPC contractor will ensure that spoil wastes will not be mixed or contaminated with any other type of waste generated on site
- Topsoil and overburden stockpiles should be located where they will not interfere with pit operations

Disposal design requirements

- Create non-engineered slope profiles which can be integrated into the natural topography
- Spoil areas to be progressively exposed as needed to avoid vegetation removal of large areas without drainage and erosion measures in place.
- The EPC contractor will develop specific method statement and risk assessment for the spoil disposal site.
- Where practicable, topsoil will be reused on site upon re-instatement and landscaping of cut / excavated areas.

The following monitoring requirements will be required during construction:

- Daily inspections by the site manager
- Routine inspections by the EPC contractor environmental officer on a weekly to fortnightly basis
- Record volumes of spoil generated for spoil production and stockpiling daily and report monthly

3.12 Chance finds procedure

A 'chance finds procedure' will be developed and implemented for all groundworks during construction. The Developer will consult with the relevant authorities to ensure that the procedure is acceptable to them and that it complies with local and national regulations.

If any unexpected finds are encountered during earthworks or excavation works the following mitigation approaches will be employed by the project:

- Work will be immediately stopped in the area
- The find(s) will be demarked and protected via fencing / blocking off and the site manager and project environmental officer will be contacted
- The cultural authority will be informed in order to seek guidance and specialist advice for management of the find(s) and how best to proceed, given its nature and extent
- All finds will be recorded

The contractor's environmental officer will submit a chance find report to the Developer's EHS officer within one day of the find. This will record as a minimum the following information:

- Date and time of the discovery
- Location of the discovery
- Description / photo of the physical cultural resource
- Estimated weight and dimensions of the find
- Temporary protection that has been implemented (if any)

The chance finds report will be submitted to any other concerned parties in accordance with national legislation.

3.13 Occupational health and safety (OHS) Plan

An OHS Plan is required for both construction and operation, to identify preventative and protective measures to protect the health and safety of workers on-site. The OHS Plan will take account of the Developer's health, safety and environmental policies (Appendix A) and will be produced in line with the following national and international requirements:

- Labour code of Pakistan
- IFC PS2 – Labour and Working Conditions
- World Bank Group / IFC EHS Guidelines
- Workers' Code of Conduct

EPC contractors and the Developer's health and safety plans should be developed separately (not part of the CESMP). The Developer will review the contractor's OHS plan and procedures to ensure compliance with the Developer's ESMS and health and safety requirements and contractual clauses (including commitment to the Developer's health, safety and environmental policies (Appendix A) and this ESMP).

Mitigation measures will include control of the following:

- Exposure to physical hazards from use of heavy equipment
- Trip and fall hazards
- Exposure to dust, noise and vibrations
- Falling objects
- Exposure to hazardous materials; and exposure to electrical hazards from the use of tools and machinery
- Working at height
- Exposure to electro-magnetic fields (EMFs)
- Working in confined spaces
- Proper use of personal protective equipment (PPE) by all workers
- Contractor to have an appropriately equipped first aid room and staff to address workers' and communities' health needs
- Site safety awareness training

- Monitoring and reporting of accidents, injuries, lost-time incidents, near misses and community interactions on health issues
- Worker accommodation monitoring
- Tool box talks on hygiene and sanitation at least every six months
- Good housekeeping on site
- Quality assurance of drinking water
- Pest and vector control activities

Monitoring of the OHS plans and procedures will be undertaken monthly and a progress report produced quarterly.

KPIs to ensure the successful implementation of the plan include:

- Monthly monitoring and reporting of accidents, injuries, lost-time incidents, near misses and community interactions on health issues
- First aid room use statistics
- OHS target accident rate of zero
- Monthly summaries of toolbox talk topics and coverage

3.14 Community health and safety plan (CHSP)

There are a number of activities during the construction phase which need to be mitigated in order not to cause any risks for local communities. Therefore, a CHSP will be developed to safeguard local community members and the public. The CHSP will take account of the Developer's health safety and environmental policy and will include but not be limited to measures to address:

- Appropriate signage and fencing
- A site registry system to prevent unauthorised access to the public
- Safety exclusion zones
- Traffic management measures
- Health screening for nearby residents
- A safety awareness campaign

The traffic management measures will need to include: an awareness raising campaign for local populations, adequate signage, speed restrictions and circulation restriction of vehicles, particularly at night.

The plan will cross reference with other relevant management plans such as the OHS. Local health care and emergency services will be consulted in the development of the plan.

3.15 Site security management plan (SSMP)

A SSMP will be developed to safeguard worker and community security, in line with the following requirements:

- IFC PS4 – Community Health, Safety and Security
- IFC EHS General Guidelines on Community Health and Safety (CHS)
- United Nation's Code of Conduct for Law Enforcement Officials, and the United Nation's Basic Principles on the Use of Force and Firearms by Law Enforcement Officials

Provisions in the SSMP will be made to ensure:

- Key construction areas and project elements will be fenced off/enclosed

- Chemicals will be isolated and protected
- Location of signage around site perimeter is identified through risk assessment process.
- Clear site access procedures
- Site induction is undertaken by every member of staff
- Training and vetting of security personnel
- Emergency preparedness and response plan (EPRP) will be implemented
- Involvement of health and emergency service providers in developing and drills for EPRP

KPIs and monitoring requirements include:

- Description / photographs of fencing / signage around site perimeter
- Security company licences
- Documentation to show vetting and training of security personnel
- Site registry identification system
- Site induction procedure

The security contractor will develop and implement the plan with the EPC contractor prior to and during construction. Regular monitoring of the plan will be undertaken.

3.16 Emergency preparedness and response plan (EPRP)

An EPRP is relevant to both the construction and operational phases of the project. The EPRP is to provide an organisational structure so that each scheme can effectively prepare for both external and internal events that can potentially negatively affect the project. The EPRP will be prepared in accordance with IFC PS1 and GIIP.

Responsibility for developing the EPRP for the construction phase lies with the Contractor. Ultimately, in the preparation of the EPRP, the following process will need to be followed;

- Document the perceived level of risk (in a risk register) and the appropriate mitigation measures which are required to reduce risks to acceptable levels. All mitigation measures should have responsibilities and timeframes attached to them
- Inform potentially affected communities of significant hazards giving explanations to aid understanding
- Prepare the EPRP (see below for the proposed structure)
- Summarise and disclose the EPRP in a culturally appropriate manner

The EPRP will as a minimum:

- Identify and evaluate emergencies
- Determine preventative action
- Highlight trigger events and measures to implement plan

3.17 Consultation strategy

A consultation strategy will be prepared to manage stakeholder and community relations, expectation, and grievances through consultation and disclosure mechanisms. The consultation strategy will be developed in line with national legislation⁵, IFC PS1, 2 and 5, and community investment plan.

The Developer will have overall responsibility for ensuring meaningful consultation and broad community support throughout the project lifecycle; however, the EPC contractor will lead on

⁵ Pakistan Environmental Protection Act of 1997

stakeholder engagement activities during construction for project performance; the Developer during the operation.

Stakeholder engagement will be documented and recorded in a consultation log. Community grievances will be recorded and tracked in a grievance log. The strategy will be updated biannually during construction and annually during operations.

The construction strategy should be monitoring biannually. Monitoring of the consultation strategy will include reviewing the consultation and grievance logs as well as biannual reporting of community liaison and stakeholder engagement by the EPC contractor during construction, and annual sustainability reporting by the Developer during operation.

3.18 Gender strategy

A gender strategy will be developed prior to commencement of construction to ensure that women are able to access the benefits of the project. The strategy will be developed in line with IFC PS1, 2 and 5 and should:

- Raise gender awareness of the different roles and responsibilities within the community and the local economy
- Consider the needs of women and if necessary develop gender specific actions when developing all project related plans and programmes (gender mainstreaming)
- Suggest practical and measurable gender actions and targets to be achieved as a result of the project and related programmes, including:
 - Include women in employability training activities
 - Having an accommodation area for women only for international women visiting the site.

The strategy will be reviewed biannually and regular monitoring will be undertaken. Key performance indicators include:

- Labour profile to include gender disaggregated information
- Reporting on numbers of women in training sessions, and provision of women only sessions for training activities

3.19 Local content strategy

Overview

A local content strategy needs to be developed in order to enable local people to benefit from the creation of employment opportunities and thus facilitate that the high demand for local employment is met. To this end, the Developer has developed a Recruitment and Skills Development Policy which outlines the approach to be taken in recruiting workers in manner that is fair and non-discriminatory (Appendix B). The policy emphasises the need to consider local people to the extent possible and establishes that skills competencies and experience as well as qualifications will be considered when hiring. It commits the Developer and subsidiary companies to developing recruitment and skills development policies which should incorporate these principles and establish a communication and consultation procedure to inform local communities about employment opportunities. Sindh Carbon Energy Ltd (SCEL) a subsidiary company of the Developer has developed a similar recruitment and development policy which includes the establishment of an employment liaison forum (Appendix C). The forum is designed to engage local representation to assist the recruitment process and to thus facilitate that local cultural and religious traditions are taken into consideration when developing working practices and working patterns. This forum will meet on a regular basis to ensure local concerns are addressed as they arise. The existing Recruitment and Skills Development Policy will be

developed further to specifically include local recruitment, including consideration of barriers to women taking up employment opportunities with the project.

The Developer will also develop a local content strategy with the overarching objective of sharing the project's socioeconomic benefits with the locally affected workers and businesses. The strategy will consist of three strands containing measures to promote and maximise opportunities for:

- Local employment
- Skills development
- Local procurement

An outline strategy for the lifetime of the project will be developed prior to construction commencing. Responsibilities for implementation of the plan during construction are passed down to the EPC contractor. Thereafter, implementation responsibilities will be assumed by the Developer during the operational phase of the project. The three strands of the strategy are discussed below.

Local recruitment measures

In order to provide employment opportunities for local people the Developer will develop and implement a local policy and actions. This will aim to match the existing local skills base with specific roles required for the project. As a minimum, the policy will seek to provide unskilled or low skilled jobs to local jobseekers.

During the construction phase the EPC contractor's recruitment team will be required to:

- Work alongside local employment offices to develop a profile of the local skills base which includes women according to local job-seekers profiles, so that synergies with project needs and opportunities for local recruitment can be identified.
- Disclose employment opportunities to local project affected communities in a timely manner and actively seek applicants from these areas and nearby larger settlements.
- Provide preferential hiring of people who have been physically and economically displaced by the project to contribute to the livelihood restoration plans that are to be developed, including consideration of barriers for women taking up employment opportunities.
- Regularly and on an ongoing basis report the labour profile to the Developer with workers disaggregated by nationality/place of origin, skills level and gender.

The strategy should include the means by which local people hired on a short term basis during construction can obtain permanent contracts on the project during the operational phase. This should especially be the case for resettlement affected and economically displaced people.

The Developer will be required to monitor the performance of the EPC contractor and monitoring KPIs for local recruitment will include:

- A skills map of local job seekers, according to information provided by government employment offices and job applicants
- Evidence of disclosed recruitment and procurement policies, including recruitment fairs
- Percentage of local (as defined) and Pakistani employees, vis-à-vis foreign and non-local, disaggregated by different roles and level of seniority
- Statistics on number of resettlement and economically displacement affected people hired

In the event that 'non-local' people are hired for low skilled (e.g. driver, cleaner, security) or unskilled roles (e.g. labourers) – especially in cases where workers from outside of the area are employed - a clear and reasoned justification will need to be provided. Examples of such

justification may include issues related to language, with regards to health and safety management; or, the local skills supply quality not matching the project requirements.

Skills development measures

In addition to providing jobs to local people, the local content strategy should have the objective of facilitating skills development of the local workforce. The overarching aim should be to provide longer-term benefits to local people beyond the lifetime of the project, therefore enhancing their future employability. All training will be free of charge to participants.

During construction, the EPC contractor will provide on-the-job training to unskilled or low skilled local workers hired. Such workers will then be provided with certificates which they can use to evidence their upskilling and qualifications obtained to future potential employers. The key beneficiaries of this training should be the physically and economically displaced people employed by the project.

In the operations phase, when the majority of workers are expected to be local, the Developer will explore opportunities to partner with vocational education and training (VET) providers.⁶ A programme to provide a mix of classroom based and on-the-job training trade skills training. This would be longer term than the construction upskilling running over a number of years for full time employees.

Monitoring KPIs in relation to upskilling of the workforce during construction will include:

- Provided training and issued skills certifications
- Records of training for local residents (eg. name, type of training)
- Skills development reports will be required.

In the operational phase, the number of trainees starting and completing courses and training course evaluations should be used as KPIs.

Local procurement measures

The aim of this strand of the local content strategy will be to give opportunities to local small and medium enterprises (SMEs)⁷. Options that will be considered in the strategy include:

- Unbundling procurement requests into smaller work packages to facilitate access to SMEs
- Providing tender documentation in local languages and free of charge
- Providing longer deadlines to assist SME response
- Using serial contracts or framework agreements
- Requesting tenders in local currency

KPIs of the local content strategy include:

- Analysis of which products and services can best be addressed by local and national companies⁸ and development and maintenance of a database of manufacturers, consultants, companies and contractors who can provide goods and services.⁹
- Distributing a brochure that provides basic information on the project, a summary of the main local content commitments, and contact information for local SMEs and interested parties to register their capabilities or get more information on prequalification activities.

⁶ This can include technical and trade colleges that offer vocational qualifications and apprenticeships.

⁷ Guidance available at <http://www.engineersagainstopoverty.org/documentdownload.axd?documentresourceid=23>

⁸ The EPC contractor should begin local content efforts by focusing on goods and services where there is low risk and local and national companies can provide goods and services on a routine and internationally competitive basis.

⁹ At a minimum the database needs to be alphabetical by company and include the company's location, contact, main activities and category of services

- EPC contractor to have a designated staff member to liaise with local companies and implement the local content strategy.

Monitoring requirements of the local procurement strategy include:

- Six monthly reports on construction contracts with relevant data such as analysis of country of origin of company, size of contract, type of service, one off or routine.
- Annual operational reports on contracts as above.

3.20 Influx management strategy

An influx management plan should be produced to avoid and mitigate the effects of project-induced migration, particularly the non-local workforce that will be present on the three local construction sites (Block II – coal power plant, Block VI – open pit mine and Block VI – coal power plant). This would include consideration of the following measures to be undertaken in consultation and in partnership with regional government (key stakeholders will be spatial planners) and civil society:

- Organising project recruitment and employment to minimise potential workers going to the project site
- Ring-fencing community investment funds for spatial planning and to support local initiatives to address greater demand for social and community services and infrastructure. The company should develop a dedicated community investment plan (CIP).
- Holding influx forums every year during construction to bring together stakeholders and service providers to create awareness of influx status, share monitoring data, identify lessons learned, and disseminate good international industry practice
- Supporting financial management through providing financial management seminars to workers, and consulting with the government to promote presence of banking and micro finance services for local entrepreneurs and small and medium businesses in the IAI. NGOs working specifically with women must be able to participate in order to enable women to benefit from these allocated funds.

3.21 Community investment plan

A needs-based CIP should be developed and implemented to help mitigate the potential adverse impacts of project-induced in-migration and to share project benefits more fully with local communities. The CIP should be implemented in partnership with local and regional Government authorities, local leaders, NGOs and civil society bodies which have local ties with communities. Local peoples will be trained and hired as cadres to implement programmes. Funds will need to be ring-fenced with annual disbursement budgets disaggregated between programmes.

The following interventions could contribute to local development:

- Agriculture – to support agricultural production, for instance through rural extension support and training in farming techniques as well as value chain benefits such as storage, access to markets, and inputs; livestock activities could be supported with veterinary services, animal feed, animal housing, and services for animal health and production.
- Livelihood diversification – technical training could be provided in alternative livelihoods such as sewing, equipment repair, and hospitality; this could be accompanied with capacity building in financial management and accountancy and access to micro-credit or savings and loans facilities or cooperatives.

- Education and health – Education services could include support to schools in terms of infrastructural improvements and materials such as books, uniforms, and computers; education infrastructure could be improved, for instance the provision of toilet facilities at existing schools, and the building of schools for girls; capacity building could be provided for local teachers; health infrastructure could be improved, for instance provision of clinics and services. The education and health measures should be undertaken in partnership with the Government and local civil society organisations to ensure sustainability and maintenance.
- Community infrastructure – including community solar lighting, clean water wells, road maintenance.

The consultation strategy and the influx management plan should align with the CIP. The CIP will need to include monitoring against clear key performance indicators. Annual revisions made to the CIP should use monitoring results to feed into the budget allocation process each year.

3.22 Workers' code of conduct

The code of conduct will be designed to govern the behaviour of workers employed by the Developer and all its contractors and subcontractors during the construction of the project. It should include a signed declaration form.

The code of conduct includes general onsite requirements and requirements driving to and from the site:

General responsibilities (including but not limited to):

- All workers must work towards maintaining good relations with each other and with the communities near to the project
- Workers will respect the cultural norms of the local community
- All workers are forbidden to possess or consume alcohol during working hours
- The use of drugs or medicines must be authorized by the physician on site
- Workers must use the designated access routes between the site and accommodation
- All workers are forbidden to smoke except in specified areas
- All workers must comply with the occupational health and safety plan at all times
- All workers must wear personal protective equipment appropriate to the task they are undertaking

Driving to, from and on and the construction site (including):

- Vehicles must always be driven in accordance with the TMP
- Vehicles must not use routes other than those designated in the TMP
- Project drivers are not authorised to carry passengers other than project workers
- The project's designated speed limits must not be exceeded
- Drivers will adhere to dust suppression measures outlined in the project's CESMP.

The code of conduct will be reviewed annually, taking into consideration any relevant complaints by communities or by workers against other workers.

3.23 Workers accommodation plan (WAP)

The WAP should describe the minimum national legislative requirements plus the applicable international and project requirements relevant to the facility standards and management of labour accommodation. It is recommended that the WAP should follow the EBRD/IFC guidance note on Worker's Accommodation: Processes and Standards (2009) as GIIP.

Prior to the construction works, the Developer, the EPC contractor and any other appointed contractors responsible for providing worker's accommodation will commit to measures at a minimum including the following:

- Practice for charging for accommodation
- Provision of minimum amounts of space for each worker
- Provision of sanitary, laundry and cooking facilities and potable water
- Location of accommodation in relation to the workplace
- Any health, fire, safety or other hazards or disturbances and local facilities
- Provision of first aid and medical facilities
- Heating and ventilation
- Workers freedom of movement to and from the employer-provided accommodation will not be unduly restricted
- Sharing and implementing the workers' code of conduct.

The WAP should ensure there is a management team responsible for the hygiene, safety and security of accommodation. The plans need to consider ways of safeguarding workers' valuables, perhaps through the provision of individual safe boxes that can be stored safely and accessed as required. Workers will not be charged for accommodation and related services. If there are charges, these will be identified in the WAP and when workers sign their contracts. House rules and regulations that are reasonable and non-discriminatory will need to be included in the WAPs once workers' representatives are consulted about them.

Monitoring of accommodation conditions will need to be addressed in the WAP and undertaken using the checklist in the IFC guidance note. Monitoring will be undertaken on a quarterly basis until at least two reporting periods have identified no corrective actions, after which monitoring can be six monthly.

4 Reporting requirements

4.1 Introduction

Effective reporting is essential for rendering an ESMP of practical value. Routine independent auditing provides the necessary impetus for continual improvement. Without these two fundamental elements, such systems simply become data collecting exercises. Performance monitoring, reporting and auditing should be carried out to ensure compliance with the requirements of this ESIA and ESMP. The following provides an outline approach which is aligned to the requirements of ISO 14001. The final scope and format of all reports proposed herein will be agreed with the lender prior to them being required and produced.

4.2 Adaptive management

The ESMP and plans contained herein will adopt an adaptive management approach throughout the life cycle of the project. The creation of the plans at the outset is a fluid process with the management objectives and performance indicators tailored to the current design and objectives of the project. The ESMP utilises to the extent possible existing project knowledge to fully address the actual environmental and social impacts of the project at the time and allow flexibility in environmental and social management decisions made on the project.

To ensure adaptive management of the ESMP the following actions will need to be implemented:

- The ESMP will be reviewed and amended in accordance with the project as it evolves. The EPC contractor system should allow for a process of review and revision of relevant plans (in accordance with the requirements of ISO14001). Key information about any changes to project description will be regularly reviewed (monthly) and site visits undertaken by Developer staff to identify the true impacts of the project.
- Evaluation of the effectiveness of measures included in the ESMP need to be undertaken on a regular basis as the project evolves through construction, operation and decommissioning. Evaluation will be undertaken through on-going communication with the contractors, construction sub-contractors, stakeholders and lenders supplemented by site audits and monitoring data review to identify weaknesses and / or gaps in the management plans. The ESMP will be changed and / or updated accordingly to ensure appropriate, robust and effective environmental and social management commensurate to the scale of the project through its lifetime.

4.3 Monitoring and reporting

4.3.1 EPC contractor monthly internal reports

It is recommended that the EPC contractor undertakes, on a daily basis, compliance monitoring of the construction sub-contractors environmental and social activities as per the approved EPC contractor CESMP and sub plans.

The EPC contractor environment officer will be required to prepare a monthly report for issue to the Developer's EHS director. These reports should normally be no more than one or two pages in length, to summarise the following:

- Progress in implementing their CESMP and parallel management plans

- Findings of the monitoring programmes, with emphasis on any breaches of the control standards, action levels or standards of general site management
- Outstanding non-compliance reports (NCRs)
- Summary of any complaints by external bodies and actions taken/to be taken
- Relevant changes or possible changes in legislation, regulations and international practices.

Any breaches of the acceptable standards specified by law/construction permits and/or this ESIA should be reported to the Developer, using a NCR Form. The EPC contractor will promptly address and/or correct any NCRs, in consultation with the Developer.

4.3.2 The Developer's monitoring of construction activities

The Developer should undertake on a weekly basis compliance monitoring of the EPC contractor environmental and social activities and the approved EPC contractor CESMP and sub plans. Internal audits will be undertaken within two months of commencement of construction and thereafter every three months focussing on the performance of the implementation of the EPC contractor or EPCM contractor CESMP. The Developer will also audit the workers' accommodation camps on a three monthly basis.

Any breaches of the acceptable standards specified by law/construction permits and/or this ESMP identified through the Developer monitoring of the EPC contractor will be reported using a NCR Form.

A copy of each completed NCR (whether prepared by the EPC contractor or the Developer) should be held on file by the Developer's EHS department, to be replaced by the reply copy when it is received. A record of corrective actions should also be made and tracked to their completion.

4.3.3 The Developer's monitoring of operational activities

The environmental and social impacts that will occur during the operation phase have been assessed through the ESIA. Impacts will be managed and monitored through the commitments outlined in this ESMP.

Adherence to the OHS plan and procedures will be taken seriously and audited frequently. A warning system for violations and non-compliance will be established and implemented for the monitoring system to be effective.

Regular monitoring of the project performance grievance mechanism and stakeholder engagement will take place.

4.3.4 The Developer's external reporting for regulatory compliance

A register of all necessary external stakeholder reporting requirements under Pakistani legislation and for regulatory compliance purposes should be developed where appropriate. The frequency of reporting, the required reporting format and the person(s) responsible for producing the report (along with any necessary specialist service providers/constructors required to assist for data collection or interpretation purposes) is to be noted in the register.

The Developer will ensure that all the necessary reports are produced and submitted in a timely fashion in order to achieve on-going regulatory compliance throughout the life of the project. Meeting regulatory reporting requirements is to also form part of the scope for any internal audits and management reviews.

A. Oracle Coalfields Plc Health Safety and Environmental Policies

Oracle Coalfields Plc Health Safety and Environmental Policies

Safety Health & Environmental Requirements for Contractors

The Contractor will adhere to the legal requirements for Health and Safety at Work, Environmental Protection and all relevant Acts, Regulations, and Codes of Practice of Pakistan and the Government of Sindh, and the Safety, Health and Environmental Policies of Oracle Coalfields Plc and its subsidiaries.

Any reference to Contractors will also include any sub-contractors of whatever nature engaged by the Contractor in the performance of the contract.

Without prejudice to the foregoing condition the Contractor shall provide full details of all of the following:

1) Organisation and Arrangements

- a) The name, qualifications and contact details of the person/organisation providing safety, health and environmental advice to the Contractor.
- b) Confirmation that the above named will be undertaking a risk based programme of inspection of works covered by the Contract.
- c) The name and contact details of their Director/Manager directly responsible for safety, health and environmental matters covered by the Contract.
- d) The name of their Manager/Supervisor on site responsible for safety, health and environment.
- e) A copy of the Contractor's Safety, Health and Environmental Policy or Policies

2) Risk Assessments, Method Statements and Safe Systems of Work

- a) Identify the hazards/aspects associated with their work, assess the risks/impacts arising from these hazards/aspects and advise how those risks/impacts are to be controlled. This includes any actual or potential environmental impact.
- b) Establish safe systems of work and document them as appropriate as identified by the Contractor, the Principal Contractor or the Company. The means of addressing an environmental impact can be part of the safe system of work produced by the Contractor for a specific activity.
- c) Where temporary works, both below or above ground form part of the Contract, provide the Company with a copy of the temporary works proposals and design calculations where necessary.

3) Competence and Training

- a) Provide evidence of the competence and training for all managers, supervisors, tradesmen and operatives under their control on the Company's site.
- c) Provide evidence of competence of any organisation/person(s) carrying out works on behalf of the Contractor ("Sub-Contractors") when seeking approval to sub-let any part of the Contract works or design.

4) Plant & Equipment

Comply with the following:

- a) All Contractor's plant/equipment (whether owned or hired) is to be thoroughly inspected before being put to work on site and the relevant certification provided.
- b) All plant/equipment will be operated, serviced and maintained in accordance with manufacturer's instructions.
- c) Engine compartment doors will be kept closed and plant switched off when not in use with key removed when unattended.
- d) All electrically operated portable tools (including leads) shall be tested every 3 months and evidence of testing made available on site.

5) Co-operation , Co-Ordination & Communication

- a) Comply with all directions given by the Company or Principal Contractor with regard to co-operation, co-ordination and communication.
- b) Inform the Company of any identified or potential adverse interface with other works.
- c) Ensure all operatives under the Contractor's control are aware of all matters likely to cause danger to themselves or others through induction and toolbox talks.
- d) Ensure everyone under the Contractor's control receives a safety, health and environmental induction before commencing work, directly relevant to the site on which they will work.
- e) Be aware of the number of personnel under their control who are on site at any time.
- f) Provide adequate and appropriate information to those under their control in respect of safety, health and environment.
- g) Ensure that all those under their control comply with all "Site Rules".
- h) Co-operate with the Company to ensure appropriate consultation with the workforce at the levels of project, work gang and the individual.
- i) Immediately inform the Company of any death, injury, ill health, dangerous occurrence or incident affecting safety, health or the environment, including any unsafe act, condition or near miss. Produce an investigation report if requested and co-operate with any investigation undertaken by the Company.
- j) Provide the Company with relevant information for inclusion in the Health and Safety File.
- k) Take the necessary disciplinary action against any employee who fails to comply with safety, health or environmental requirements. This includes removal from site if directed by the Company.
- l) Ensure that all risks associated with any design, design change or associated systems of work are communicated to the Company.

6) Health and Welfare

a) Ensure provision of adequate and suitable welfare facilities for all persons under their control. This includes, but is not limited to toilets, drying, changing, messing facilities and first aid. Where the Company is to provide these facilities, the Contractor will provide details to the Company of resource levels within 48 hours of receiving the *notice to commence on site* to ensure the Company can provide adequate facilities.

b) Accept that any person under the Contractor's control carrying out, promoting, encouraging or threatening an act of violence will be subject to immediate removal from site. This includes verbal abuse.

7) Notifications

a) Obtain permission from the Company for any work to be undertaken outside normal working hours, including weekends.

b) Obtain written permission from the Company if the Contractor intends to sublet any part of their work.

c) Provide prior notice to the Company of any individual(s) with communication difficulties that they intend to bring to the site. Prior to the Company granting a permission to proceed the Contractor will be required to provide evidence indicating they have adequately addressed all management issues regarding the health & safety of these individuals.

8) Waste Management

a) Be aware of and abide by, where appropriate, the requirements of the Site Waste Management Plan (SWMP), together with any site specific waste target(s), to reduce waste or divert waste from landfill.

b) For their work package, identify the waste streams, forecast the quantity of waste arising and propose how they intend to eliminate, reduce, re-use or recycle the waste, including packaging waste, submitting this information to the Company prior to commencing work on-site.

c) Focus on preventing the occurrence of waste through prudent ordering, careful handling, provision of adequate storage, and planning the sequencing of deliveries.

d) Report regularly on their progress to eliminate, reduce, re-use or recycle the waste produced by their activities. The success of the measures put in place to reduce waste should be regularly re-evaluated and, if necessary, changes made.

e) If responsible for the disposal, off-site, of construction, demolition or excavation waste, or any other waste provide the Company documentary evidence that the waste has been disposed of in accordance with the relevant Pakistan and Government of Sindh regulations.

f) Clear away all waste as work proceeds, ensure it is stored in a safe and secure manner and, where provision is made for the on-site segregation of waste, place it in the appropriate skip/container.

9) Pollution Prevention

a) Obtain written permission from the Company before disposing of water arising from dewatering excavations, washing down vehicles or draining down heating systems, into any ditch, stream, pond, lake, river, storm drain or foul sewer.

b) Take all appropriate steps to prevent anything which may cause pollution, including soil or washout from concrete mixers, from entering any foul sewer, storm drain or watercourse.

c) Store fuel oil in accordance with the Site Storage Rules which will be provided by the Company and refuel plant away from any foul sewer, storm drain or watercourse.

d) Report immediately to the Company any oil or chemical spill or unauthorised discharge into a foul sewer, storm drain or watercourse.

e) Be aware of, and comply with, any statutory or site restrictions regarding noise, vibration or dust.

10) Wildlife and Archaeology

Ensure they are aware of, and follow, any special method of working required to protect wildlife, natural features or archaeological remains on site.

11) Carbon Emissions

a) Take reasonable steps to help reduce carbon emissions, for example by turning off lights, plant and equipment when not in use and, where practicable, car sharing or using public transport.

b) Provide on a weekly basis details of the amount and type of fuel(s) used by plant and equipment, either belonging to or hired in by them, on the site to enable the Company to calculate the site's carbon footprint.

ORACLE COALFIELDS PLC JULY 2013

B. Oracle Coalfields Plc Recruitment and Skills Development Policies

Oracle Coalfields Plc Recruitment and Skills Development Policies

1. Oracle Coalfields Plc and its subsidiaries are committed to a policy of non-discrimination in terms of race, religion, gender and age in their implementation of Recruitment Selection and Skills Development Policies at all times and locations.
2. Oracle Coalfields Plc and its subsidiaries will abide by all local Employment and Labour Laws, and Health, Safety and Environmental Legislation applicable in the country of operation.
3. The company will seek to recruit the most suitable person for any position in a fair and non-discriminatory manner. The recruitment and selection procedures are based on objective criteria related to the needs of the job, and that such criteria are applied equally at all stages during the process to all applicants at all levels within the organisation.
4. For all roles a Job Description and Person Specification should be prepared and provided to candidates. A set of questions should be prepared in advance of interviews and all candidates asked to respond to the same questions. A record of any interview should be prepared and kept.
5. Skills, knowledge, ability and competence will be the main criteria for selection and promotion.
6. The company is committed to developing the skills of its employees and where training needs are identified at the recruitment stage or during employment then a training plan will be drawn up and implemented with agreed timescales for completion.
7. Skills and competencies will be reviewed on a regular basis and will form the basis for any training and development programme. The results of performance reviews will be agreed and formally recorded.
8. Where qualifications are a requirement they should not be the sole basis for selection. Skills competencies and experience should also be considered along with the willingness to undertake further training. The validity of any qualification will be verified prior to any appointment.
9. Following appointment an Induction Programme will be prepared which reflects the level of the appointment and will cover the company policies and procedures relating to:
 - Employment, including disciplinary, complaints and grievances procedures.
 - Health, Safety and the Environment
 - All other policies and procedures relevant to the position
 - Training requirements and provision of training
 - Any other specific requirements for the position

The Induction process should be formally recorded and agreed with the employee.

10. Subsidiary companies should develop their own Recruitment and Skills Development Policies based on the above but should also have regard to the following:

- Local Employment and Labour Laws, and all Health, Safety and Environmental Legislation applicable in the country of operation
- The cultural setting in which they operate, including tradition and religion
- The recruitment of local people who have the required skill sets or who could be trained to develop the same should always be considered and given priority where it is practical.
- A communication and consultation procedure to inform the local community of the employment opportunities and how they are to be implemented should be prepared and used to engage the local community at an early stage. This should include a formal liaison process to ensure that local concerns can be addressed at the earliest opportunity and misunderstandings avoided.
- As work requirements change over time and when operations cease a Retrenchment Procedure should be prepared and implemented to minimise the impact on the local communities and where practical provide for alternative employment including retraining where appropriate.

C. Sindh Carbon Energy Ltd Recruitment Selection and Skills Policies for Block Vi Thar Coalfield Sindh Province Pakistan

SINDH CARBON ENERGY LTD

RECRUITMENT SELECTION AND SKILLS POLICIES FOR BLOCK VI THAR COALFIELD SINDH PROVINCE PAKISTAN

1. Sindh Carbon Energy Ltd (SCEL) is a subsidiary of Oracle Coalfields Plc and is committed to a policy of non-discrimination in terms of race, religion, gender and age in their implementation of Recruitment Selection and Skills Development Policies at all times and locations.
2. SCEL will abide by all local Employment and Labour Laws, and Health, Safety and Environmental Legislation applicable in Pakistan and the Sindh Province.
3. The company will seek to recruit the most suitable person for any position in a fair and non-discriminatory manner. The recruitment and selection procedures are based on objective criteria related to the needs of the job, and that such criteria are applied equally at all stages during the process to all applicants at all levels within the organisation.
4. For all roles a Job Description and Person Specification should be prepared and provided to candidates. A set of questions should be prepared in advance of interviews and all candidates asked to respond to the same questions. A record of any interview should be prepared and kept.
5. Skills, knowledge, ability and competence will be the main criteria for selection and promotion.
6. Training is anticipated to be required at all levels and all those offered employment must be prepared to undertake training as a condition of employment. Only those who can demonstrate competence, following training and assessment, for the specified role will be employed.
7. The company is committed to developing the skills of its employees and where training needs are identified at the recruitment stage or during employment then a training plan will be drawn up and implemented with agreed timescales for completion.
8. Skills and competencies will be reviewed on a regular basis and will form the basis for any training and development programme. The results of performance reviews will be agreed and formally recorded.
9. Where qualifications are a requirement they should not be the sole basis for selection. Skills competencies and experience should also be considered along with the willingness to undertake further training. The validity of any qualification will be verified prior to any appointment.

10. Following appointment an Induction Programme will be prepared which reflects the level of the appointment and will cover the company policies and procedures relating to:

- Employment, including disciplinary, complaints and grievances procedures.
- Health, Safety and the Environment
- All other policies and procedures relevant to the position
- Training requirements and provision of training
- Any other specific requirements for the position

The Induction process should be formally recorded and agreed with the employee.

11. Notwithstanding the above SCEL will actively seek to recruit suitable persons from within Block VI for employment and will preferentially consider such persons when recruiting. If suitable persons are not identified from within the Block then preference would be given to those from the Talukas of Mithi and Chacro followed by the Tharparkar Region, the remaining Sindh Province and then the other provinces of Pakistan.

12. Residence within Block VI will not guarantee employment and the selection criteria as set out in the above policies will be used in all cases.

13. Prior to any recruitment SCEL's Community Liaison Officer (CLO) or other company representative will seek to inform the communities of the employment opportunities that will be available along with the timing and procedures that are in place and arrange to assist those interested in making formal applications at the appropriate time.

14. An employment liaison forum will be set up with local representation to assist with the process and to ensure that local cultural and religious traditions can be taken into consideration when developing working practices and working patterns. This forum will meet on a regular basis to ensure local concerns are addressed as they arise.

SINDH CARBON ENERGY LTD AUGUST 2013