

Environmental and Social Monitoring Report

Third Quarterly Monitoring Report
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Bangladesh: Bibiyana II Gas Power Project

Prepared by ERM India Private Limited for the Summit Bibiyana II Power Company Limited and Asian Development Bank

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Third Independent Environmental,
Health, Safety & Social (EHS&S)
Compliance Assessment during
Construction Phase of Bibiyana II
Power Project: *Habiganj, Bangladesh*

**Summit Bibiyana II Power
Company Limited (SBIIPCL)**

Final Report

19 November 2015


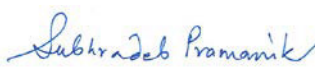
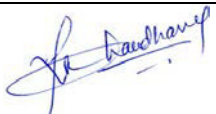


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Summit Bibiyana II Power Company Limited (SBIIPCL)

Third Independent
Environmental, Health, Safety &
Social (EHS&S) Compliance
Assessment during Construction
Phase of Bibiyana II Power
Project, Habiganj, Bangladesh

19 November 2015

Reference # I10515 /0265459

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ABBREVIATIONS

ADB	Asian Development Bank
BATS	Bangladesh Air Traffic Services
BCAS	Bangladesh Centre for Advance Studies
BIWTA	Bangladesh Inland Water Transport Authority
BPDB	Bangladesh Power Development Board
BRTA	Bangladesh Road Transport Authority
CAP	Corrective Action Plan
CCPP	Combined Cycle Power Plant
CDO	Community Development Officer
CDP	Community Development Plan
CIB	Chief Inspector of Boilers
CMT	Construction Management Team
CO	Carbon Monoxide
COD	Commercial Operations Date
DGM	Deputy General Manager
DOE	Department of Environment
DOEXP	Department of Explosives
EHS	Environment, Health and Safety
EHS&S	Environmental, Health, Safety and Social
EPC	Engineering, Procurement and Construction
ERM	Environmental Resources Management
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESMMP	Environmental and Social Management and Monitoring Plan
FNTP	Full Notice to Proceed
GIIP	Good International Industry Practices
GLC	Ground Level Concentration
GOB	Government of Bangladesh
GRM	Grievance Redress Mechanism
GSA	Gas Supply Agreement
GT	Gas Turbine
HIRA	Hazard Identification and Risk Assessment
HIRAC	Hazard and Risk Assessment and Control
HR	Human Resources
HRSG	Heat Recovery Steam Generator
HSD	High Speed Diesel
IA	Implementation Agreement
IDEA	Institute of Development Enterprises
IFC	International Finance Corporation
IsDB	Islamic Development Bank
ISO	International Organisation for Standardisation
JCCR	Joint Committee for Community Relation
JGTDSL	Jalalabad Gas Transmission and Distribution System Limited
JHA	Job Hazard Analysis
L&FS	Life and Fire Safety
LLA	Land Lease Agreement
LPG	Liquid Petroleum Gas
LRP	Livelihood Restoration Plan
MoM	Minutes of Meeting

MSDS	Material Safety Data Sheet
NEPC	First Northeast Electrical Power Engineering Co
NEPC-S	Northeast Electric Power Engineering & Services Company
NGO	Non-Governmental Organisation
NOx	Oxides of Nitrogen
OHSAS	Occupational Health and Safety Management System
OJT	On-Job Training
PAF	Project Affected Family
PGCB	Power Grid Company of Bangladesh
PM	Particulate Matter
PAH	Project Affected Household
PAP	Project Affected Person
PPA	Power Purchase Agreement
PPE	Personal Protective Equipment
RAP	Resettlement Action Plan
RFP	Request for Proposal
RMP	Rural Medical Practitioner
SBIIPCL	Summit Bibiyana II Power Company Limited
SIA	Social Impact Assessment
SIMCPL	Summit Industrial and Mercantile Corporation (Pvt.) Ltd
SO ₂	Sulphur Dioxide
SOP	Standard Operating Procedure
ST	Steam Turbine
TBT	Tool Box Talk
TK	Bangladeshi Taka
TNA	Training Need Assessment
WB	World Bank
WHO	World Health Organisation

EXECUTIVE SUMMARY

ERM India Pvt. Ltd. (ERM) has been involved by Summit Bibiyana II Power Company Limited (SBIIPCL) in performing Environmental, Health, Safety and Social (EHSS) Compliance Assessment of its 341MW natural gas fired combined cycle power plant (CCPP) located at Parkul Village in Aushkandi Union under Nabiganj Upazilla of Habiganj District, Bangladesh. The compliance assessment framework includes guidelines prescribed by IFC & ADB including applicable national and local EHSS regulations. This report presents the findings of the quarterly audit during the construction phase of the Project, which has targeted to review the compliance against agreed ESAP, project ESMMP, labour and social audits and LRP. The present audit report is the third of such quarterly monitoring while the project is in transit from construction to operation in parts. The current assessment covers for the period July-September 2015 with site visit undertaken by the ERM team during 8th - 10th September 2015.

With respect to project physical progress SBIIPCL has already completed more than 95% of work. Construction work for starting single cycle operation has been completed with the first firing conducted successfully on 27th April 2015. Single cycle operation has commenced from 6th June 2015. As communicated by the project management the Commercial Operations Date (COD) for the combined cycle operations is expected to be declared in December 2015. However, necessary construction activities will continue till commencement of the combined cycle operation.

With respect to EHSS regulatory permitting, the project is found to be in compliance with valid permits available for both construction and operations. Regarding construction phase commitments, efforts have been made by both SBIIPCL and the project contractor – NEPC to ensure effective implementation of the ESMMP, project EHS Plan and labour law provisions.

Compliance was noted in terms of organizing periodic training programs on:

- EHS aspects;
- hiring of skilled manpower resources viz. EHSS personnel, LRP consultant, Life & Fire Safety Expert and Ecological Expert ;
- proper living conditions at labour camps;
- availability of work permits;
- mechanism for grievance redressal;
- undertaking air quality dispersion modelling based on revised design specs etc.

However deficiencies/ gaps were identified with respect to the following:

- payment of minimum wages;
- overtime rates;
- updation of the SEP and HR policy;
- documentation related to periodic EHS inspections;
- proper coverage and analysis of job hazards;

- implementation of pre-use inspection checklists for critical work;
- pending aquatic floral and faunal study;
- third party validation of river water quality monitoring results;
- green belt planning for project site;
- organizing mock drills;
- maintaining vehicle inventory and valid fitness certificate etc.; and
- delay in implementation of LRP.

With constructions phase likely to get over by December 2015 on commencement of combined cycle operations, assessment with respect to the effective implementation of the EHS Monitoring Plan, ETP & STP overall design and performance, adequacy of operations stage procedures viz. Waste Management, Chemical Handling, Emergency Response etc. will be covered during the next audit visit to be undertaken by ERM.

As the project is planned to achieve combined cycle COD in December 2015, it is recommended that the last construction phase internal audit by SBIIPCL/BCAS should be conducted by 1st week of November 2015. Furthermore, ERM will conduct next compliance monitoring for construction phase by end of November 2015 or early December 2015 in order to check the compliance against all the action items as well as additional recommendations given in this audit report.

1.1

BACKGROUND

Environmental Resources Management (ERM) was commissioned by Summit Bibiyana II Power Company Limited (SBIIPCL) on 17th September 2014 for independent Environmental, Health, Safety and Social (EHS&S) Compliance Audit as an internal audit requirement. The audit by ERM was conducted in the last week of September 2014 and final report of audit was submitted on 3rd November 2014.

After the first EHS&S compliance audit, based on the discussions with prospective lenders of the Project, which include Asian Development Bank (ADB), International Finance Corporation (IFC) and Islamic Development Bank (IsDB) (the “Lenders”), SBIIPCL has engaged Bangladesh Centre for Advance Studies (BCAS) as Borrower’s monitoring auditor/consultant for the compliance monitoring, considering that the same agency was involved during the Environmental and Social Impact Assessment (ESIA) of the Project.

In order to conduct independent monitoring/auditing on behalf of the lenders, it was agreed by the Lenders and Borrower to engage ERM in the role of **Financiers' Environmental and Social Adviser** for the purpose of the Borrower’s *Compliance with Lenders’ Environmental and Social Requirements*, and to respond to environmental and social concerns that the Lenders may have from time to time.

The Project is a 341MW natural gas fired combined cycle power plant (CCPP) having one Gas Turbine (GT), one Heat Recovery Steam Generator (HRSG) and one Steam Turbine (ST). The Project is located at Parkul Village in Aushkandi Union under Nabiganj Upazilla of Habiganj District, Bangladesh. The audit was to primarily assess the compliance status of the project with respect to the *EHS&S Corrective Action Plan (CAP)* developed as part of the Independent EHS&S Compliance Audit reporting submitted by ERM on 3rd November 2014, IFC’s *Environmental & Social Action Plan (ESAP)* as well as to verify the internal EHS&S, Labour and Social audit findings being conducted by BCAS during June to August 2015.

1.2

OBJECTIVES AND SCOPE OF WORK

The primary objective of this assignment was to assess the compliance status of the Project and its various components with respect to the agreed CAP, ESAP, Construction Phase Environmental & Social Management & Monitoring Plan (ESMMP), action plan resulting from labour and social audit by BCAS, applicable legal requirements and to identify any key EHS&S’s issues (if any) for the Project:

The scope of the compliance assessment was as follows:

- a) To assess the Project's compliance with the environment, health, safety and social (EHS&S) requirements of the audit framework (described subsequently);
- b) To review the effectiveness of implementation of mitigation measures and monitoring programmes at site developed as part of the ESIA study;
- c) To review the status of environment management, health and safety, protection of labour force, during construction and operation phases of the Project;
- d) To review the status of environmental and social action plan (ESAP) compliance, which came out from the first compliance monitoring during the construction stage conducted by ERM and social impact assessment (SIA) conducted by BCAS;
- e) To review the status of ESAP as formulated by IFC and agreed by SBIIPCL;
- f) To review the implementation of the livelihood restoration plan (LRP) developed for the Project;
- g) To review the company's existing management system, standard operating procedures (SOPs) and training in relation to EHS&S and identification of areas for improvement/ enhancement;
- h) To review the health and safety records of site and compliance with respect to the site specific safety management system adopted by the EPC contractor and by the company; and
- i) To provide objective reports to the international lenders confirming compliance and if not, recommending additional corrective actions, as appropriate to the Project during construction and operation stages.

It was understood that new issues could have possibly emerged with commencement of single cycle operations since June 2015 including those issues which are likely to be significant during combined cycle operations as expected by December 2015. The scope includes identifying those issues and assessing how the project is managing them. The present assignment has tried to capture these issues, so that their performance could be suitably monitored during the next scheduled compliance assessment.

1.3

COMPLIANCE ASSESSMENT FRAMEWORK AND EVALUATION CRITERIA

The EHS&S compliance assessment was carried out and evaluated against the following criteria:

- Applicable Local and National environment, occupational safety, health and social legislations;
- IFC Performance Standards on Social and Environmental Sustainability (2012);
- ADB Safeguard Policy Statement (2009);
- IFC/WB Environment, Health and Safety Guidelines – General and for Thermal Power Plants;
- Good International Industry Practices (GIIP) including elements of ISO 14001, OHSAS 18001 Occupational Health and Safety Management System;

- EHS&S CAP integral to the Independent EHS&S Compliance Audit Report of ERM dated 3rd Nov 2014;
- All requirements specified in the Labour Audit report prepared by BCAS dated 25 June 2015;
- All requirement specified in the Environmental & Social Monitoring Report and Social Audit report prepared by BCAS dated August 2015;
- All requirements and mitigating or monitoring measures specified in the ESMMP of the ESIA report prepared by BCAS dated July 2014;
- All requirements and mitigating or monitoring measures specified in the ESIA; and
- *Socio-Economic Impact Assessment, Resettlement Action Plan and Livelihood Restoration Framework' and Livelihood restoration plan prepared for IFC.*

1.4

SITE VISIT

A three member ERM team had conducted the site visit and consultations between 8th - 10th September 2015. The composition of the ERM team was as follows:

- **Naval Chaudhary (Environmental Specialist):** Naval is working as Principal Consultant with ERM India in the Impact Assessment and Planning (IAP) division. He has master degree in environmental science and engineering from Indian Institute of Technology, Bombay and more than 9 years of experience in the field of environmental and social impact assessment (ESIA), environmental and social due diligence, environmental auditing, environmental permitting, air quality dispersion modelling, noise prediction and shadow flicker assessment. His work experience covers environmental assessment studies for a variety of sectors including Industry Sector (thermal power plant, fertilisers, pharmaceuticals, automobiles, oil and gas, hydropower, mining, steel, engineering, etc.); renewable energy (wind and solar power); Infrastructure Sector (Multi-Product SEZs, Sector Specific SEZs, Industrial Areas and Estates, and river bank erosion management); Submarine Cables; & Linear Projects (Highways, Railways). He has worked in varied geographies, which gives him a wide international perspective on issues. In last five years he has worked in Bangladesh, United Arab Emirates, Liberia, Nigeria and Pakistan (desk-based).
- **Subhradeb Pramanik (Health & Safety Specialist):** Subhradeb Pramanik holds a Master Degree in Environmental Science and is presently working as a Senior Consultant at ERM India in Kolkata office. He has about 9 years of experience in field of EHS audits, due-diligence, site assessment and environmental impact assessments (EIAs) studies. Over the years he has played a key role in managing numerous projects in oil & gas, roads, mining, chemical, manufacturing, power and transmission sector. His primary focus and experience lies in the development and implementation of management systems, compliance monitoring, regulator reviews and EHSS performance audits. Apart from this he has also worked as a key EHS auditor for both Inogen Group and ARCADIS SENES India to support the implementation of their Due Diligence and Phase I & 2

programs for nearly 50 projects for key multinational clients in textile, metallurgical, chemicals and building sector.

- **Tufail Khan (Social Specialist):** Tufail Khan is a Consultant with the Impact Assessment & Planning Practice Team at ERM India Pvt Limited. Over his 10 years of experience, Tufail have worked with SENES Consultants India Pvt (A Canadian Environment Consultancy firm), THDC India Ltd (A Mini Ratna PSU in Hydro power generation projects) and currently with ERM India Pvt Ltd at Gurgaon. Carrying out studies related to Social Impact Assessment and Resettlement & Rehabilitation have been his core functional areas throughout his total experience. Construction projects, Hydro power project, Thermal power projects, Wind power projects, solar power projects, mining projects etc. are the sectors wherein he has been actively involved and worked. Tufail has also long experience of implementing Resettlement & Rehabilitation action plan and working with communities at very grass root level.

1.5

APPROACH TO THE COMPLIANCE ASSESSMENT

The following approach and methodology was adopted for the current assignment.

Kick-Off Meeting

The site visit began with a kick off meeting with the Project Management & site EHS&S personnel at Sylhet. The kick off meeting helped in developing understanding on the current status of the Project implementation and developments at the site. The ERM team also explained the purpose of the assignment as well as shared the approach and key activities that were planned in the course of the audit.

Site Visits and Physical Verification

The ERM team accompanied by the representatives of the Project team undertook site visits of the key Project components to assess the status and compliance with respect to EHS and social/labour issues and legal obligations. During the site visit the team made physical and visual inspection/verification of the construction phase activities and on site management of EHS and labour issues. This was followed by visits to the labour camps and the consultations with the project affected communities. The different activities undertaken during the course of site visits included:

1. **Discussions and Interviews:** The team conducted detailed discussions and interviews with the site personnel, contractor representatives, representatives of BCAS – the project EHS&S consultant and the construction workers to understand the on-site management of EHS issues, compliance to labour laws, working conditions and facilities available at site to these workers and satisfaction levels (of the workers and contractors) or any issues/concerns at the site. Discussions were also undertaken with the relevant personnel of the EPC contractor (First Northeast Electrical Power Engineering Co or NEPC) and sub-contractors

employed to understand and assess the environmental, health and safety and labour compliance and its management at the site.

2. **Documents Review:** The relevant Project documents pertaining to the EHS and social compliances were reviewed at the site. This was aimed at understanding the ongoing implementation, record maintenance, internal monitoring and reporting and mandatory regulatory compliances required for the project. Key documents reviewed include:
- a. ESIA Report of the Project (July 2014 – 7th Draft);
 - b. Environment and Social Monitoring Report prepared by BCAS (August 2015);
 - c. Environmental, Health, Safety & Social Monitoring Plan (SBIIPCL-EHS-007) prepared by SBIIPCL;
 - d. CAP Status and Comments spreadsheet;
 - e. SBIIPCL Project Legal Register;
 - f. SBIIPCL EHS and Social Policies;;
 - g. Records of ambient air and noise monitoring, surface, ground water & effluent sampling and analysis;
 - h. Environmental & Social Management & Monitoring (ESSMP) Compliance Status for Constructions as prepared by BCAS (August 2015);
 - i. Air Quality Dispersion Modelling Report;
 - j. Monthly Environmental Performance Report as submitted by SBIIPCL to Department of Environment (DoE), Bangladesh for July 2015;
 - k. Terrestrial & Aquatic Organisms Monitoring Report prepared by Dr. Monirul Islam, Department of Fisheries, University of Dhaka (August 2015)
 - l. Copies of EHSS Procedure for Project Operations;
 - m. Job Hazard Analysis Report for Constructions;
 - n. Accident & Incident Register;
 - o. Chemical Inventory Sheet maintained by NEPC;
 - p. Incident Investigation & Reporting Procedure (SBIIPCL-EHS-013);
 - q. Sample inspection checklists of lifting machines/equipment;
 - r. Sample copies of Safety Corrective Action Request (SCAR);
 - s. Sample set of Work Permits;
 - t. Sample set of Safety Training Records;
 - u. Sample set of Weekly EHS Inspections;
 - v. Annual EHS Training Calendar;
 - w. Sample copies of HSE meetings
 - x. Social Monitoring Report by BCAS (August 2015)
 - y. Stakeholder Engagement Plan;
 - z. Socio-Economic Impact Assessment, Resettlement Action Plan and Livelihood Restoration Framework Document, prepared for BCAS for IFC;
 - aa. First Resettlement Monitoring Report prepared by Community Development Officer of SBPIICL (May 2015);
 - bb. Livelihood Restoration Plan- prepared by AKM Shahjahan, August, 2015
 - cc. Labour Audit Report prepared by BCAS (June 2015);
 - dd. Sample Bangladesh Staff Employment agreement of the EPC contractor;
 - ee. Sample subcontractor agreement between the EPC contractor and M/s Shotota Enterprise – the subcontractor;
 - ff. Legal Register, Human Resources (HR) Policy and Procedures of Summit Group;
 - gg. Hazard Identification and Risk Assessment (HIRA) analysis
 - hh. Internal Resettlement Monitoring Report;
 - ii. Human Resource Policy of SBIIPCL and EPC Contractor;
 - jj. Trade licence of labour supply contractor;

kk. Monthly attendance sheet, salary sheet and overtime payment sheet for the workers;

ll. Grievance Management Process and Records

3. **Detailed Discussion with the communities and Community Development Officer (CDO) of SBIIPCL:** The ERM team had discussions with the Communities, team engaged in the process of community development works. The discussions included the following:

Table 1.1 *Detail on local community consulted during site visit*

Stakeholder	Venue	Key points discussed
Women Group (6 women)	Parkul Village	<ul style="list-style-type: none"> 6 women belonging to PAHs affected by power plant; are being provided sewing training. Training is going on in a rented building in Parkul village; Discussed about their perception on the tailoring training and importance of this training for their livelihood activity; Discussed on engagement level of Community Development Officer with the training group
Project Affected People (5 to 6 PAPs participated in the interaction session)	CDO Office in Parkul Village (located just across the Plant)	<ul style="list-style-type: none"> Discussed on engagement level of CDO with the community and discussed on preferred way of sharing issues/grievances with SBIIPCL; Villagers prefer sharing their concern directly with CDO either by dialling his mobile number or through meeting with him individually Perception of the locals over development activities being carried out by the project Perception on household survey conducted for LRP. Outcome of LRP survey is not shared yet. Though the villagers are informed about proposed training program. Villagers are keen to know about specific timeline of the proposed training programmes under LRP; In this context, it was informed by the client subsequent to ERM site visit that NGO for LRP implementation is already finalised and has started work w.e.f. 1st Nov 2015. Ground levelling work for another power plant (located adjoining to the SBIIPCL) is started. In view of this, local market is expanding as numbers of grocery shops have been opened.
Medical Centre	Adjoining to CDO office in Parkul Village	<ul style="list-style-type: none"> Medical centre is providing free of cost medical check-up. Medicines are not provided at the clinic. Earlier this medical centre was located within the Parkul village. Current location has improved accessibility to the centre for villager as it is close to the power plant location and accessible by

- Perception of the project affected families (PAFs) on the compensation package, rehabilitation measures and other welfare initiatives and issues surrounding them, if any;
- Any legacy issues or open issues surrounding land acquisition, resettlement etc.

- c) Community engagement activities by the CDO and perception of the locals on these engagement interventions;
- d) Progress on livelihood restoration related intervention carried out by the project and CDO for the project affected families;
- e) Understanding vulnerability of the project affected persons;

ERM undertook discussion with the PAFs and PAHs at the resettlement site; however the consultation was limited to the families covered under LRP. No other project affected villages were covered as part of the present monitoring. Some of the PAFs were consulted along the pipeline, who were found to be undertaking cultivation, though this was done in the areas nearby to the project site and not the complete pipeline

4. Consultation with other stakeholder group

Table 1.2 *Detail on consultation with other stakeholders*

Stakeholder	Key points discussed
Community Development Officer (CDO) along with BCAS representatives	<ul style="list-style-type: none"> • Discussed on findings on BCAS monitoring Report • Discussed on LRP implementation status • Discussed on community engagement and overall progress of the activities being carried out by CDO
HR Department, NEPC (EPC contractor for construction phase)	<ul style="list-style-type: none"> • Discussion on labour compliances issues • Discussion over the updated HR policy of NEPC and its implementation status • Checked current status of NEPC's HR Department w.r.t payment of minimum wage rate and over time payment rate; • Reviewed grievance management system of the company ;
Workers at Labour colony	<ul style="list-style-type: none"> • Observation on facilities & amenities being provided at labour colony and sought feedback of the workers staying therein
Few workers at plant	Gauge perception of the workers over the general working condition and their satisfaction level with way of voicing their concern with management (in case they have any)
EHS officer and other site Management team of SBIIPCL	ERM had discussion with SBIIPCL Site Management team, specifically with EHS officer to track progress on EMP.

Close Out Meeting

A close out meeting was held on 13th September 2015 with the Senior Management Team at SBIIPCL Corporate office in Dhaka. ERM briefed the Senior Management with the key observations and findings based on the site visit, discussions with the site personnel and contractors and review of the relevant documents and sought their responses to the observations/findings.

The CAP and ESAP compliance status and identified gaps and actions required to close the gaps identified were also discussed during this meeting with the Senior Management. Some of the newly identified issues, at the present stage of the project implementation were also briefed during the closing meeting, which have been further discussed in with action plan and timelines in Section 7 of this report.

Reporting

Information from various sources and direct observations made by ERM have been collated and compared against the reference framework components along with status of the compliance with respect to CAP, IFC ESAP, labour audit, social audit and legal requirements.

1.6

LIMITATION

The report is based on information provided to the consultants during the site visit and prior to it including extra information shared by SBIIPCL post the site visit. The findings and observations made herein are based on application of professional judgement. The findings should be viewed in the context of the applicable scope and objectives of the study and the limitation on time and resources made available to the consultants for the successful completion of the study. The Compliance Assessment was based on readily available information/ documentation, visual reconnaissance, and management interviews in course of site visit. Kindly also note that the scope of work did not include any sampling, analysis of environmental media, collection of primary data, engineering design or development of technical specifications or cost estimates among others.

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1.7

LAYOUT OF THIS REPORT

The report has been prepared in the following layout:

Section 1: (*this section*) provides a background of the assignment, objectives and scope of work, approach and methodology along with limitation of the review and report.

<i>Section 2:</i>	Project Appreciation and Current Status of the Project
<i>Section 3:</i>	Summary of Key Observations
<i>Section 4:</i>	Compliance Status of the CAP & ESMMP and IFC ESAP
<i>Section 5:</i>	EHS&S Regulatory Compliance Assessment
<i>Section 6:</i>	Social Audit Compliance Status
<i>Annex A</i>	<i>Photo Documentation</i>

2.1 THE PROJECT

The proposed Project is the new 341 MW gas-fired Combined Cycle Power Station, which is being developed by Summit Bibiyana II Power Company Limited (SBIIPCL) by installing one Gas Turbine (GT), one Heat Recovery Steam Generator (HRSG) and one Steam Turbine (ST). Gas supply for the Project will be from Bibiyana Gas Field and will be supplied by the Gas Supplier (i.e. JGTDSL). Power generated by the Project will be evacuated through an existing 230 kV transmission line of the PGCB.

A Request for Proposal (RFP) was issued by Power Cell (the Power Division of the GoB Ministry of Power, Energy and Mineral Resources) on 3rd May 2010 (and subsequently amended on 2nd September 2010) for a sponsor to develop a 330-450 MW Combined Cycle Gas Technology (CCGT) power station at Bibiyana on a 'build, own and operate' basis. The RFP was signed by SBIIPCL on 6th September 2010 and in May 2011 SBIIPCL signed: Implementation Agreements (IAs) with the GoB and the Power Grid Company of Bangladesh (PGCB); Power Purchase Agreements (PPAs) with the BPDB; Land Lease Agreements (LLAs) with the BPDB; and Gas Supply Agreements (GSAs) with the Jalalabad Gas Transmission and Distribution System Limited (JGTDSL).

In addition, an Engineering, Procurement and Construction (EPC) contract was signed with a joint venture comprising the First Northeast Electrical Power Engineering Co. and Northeast China International Electric Power Corporation (herein referred to as 'the EPC Contractor') on 14th November 2012 and full notice to proceed (FNTP) was given on 25th January 2013.

2.1.1 Project Developer

The project developer for the Bibiyana II Gas Power Project is Summit Bibiyana II Power Company Limited (SBIIPCL), which was incorporated in Bangladesh on 21st December 2010, as a joint venture of Summit Industrial and Mercantile Corporation (Pvt.) Ltd. (SIMCPL) (80%) and GE Energy LLC, a wholly owned subsidiary of General Electric Company (20%). SIMCPL is part of the Summit Group, an established financial entity and is experienced in the efficient management, operation and maintenance of similar facilities in Bangladesh. Summit Group is one of the largest Bangladeshi conglomerates and the industries under this conglomerate include communication, trading, energy, power and shipping.

2.1.2 Current Project Status

SBIIPCL has already completed more than 95% construction work (physical progress). Construction work for starting single cycle operation has been completed with the first firing conducted successfully on 27 April 2015. Single cycle operation has commenced from 6 June 2015. As communicated by the

project management the Commercial Operations Date (COD) for the combined cycle operations is expected to be declared in December 2015. However, necessary construction activities will continue till commencement of the combined cycle operation. *Table 2.1* below depicts important dates and timelines for SBIIPCL Project with respect to the ongoing construction phase:

Table 2.1: Key Timelines – Project Construction Phase

S. No.	Particular	Date
1	Date of signing Implementation Agreement (IA)	12 th May 2011
2	Date of signing Power Purchase Agreement (PPA)	12 th May 2011
3	Date of signing Gas Supply Agreement (GSA)	12 th May 2011
4	Date of Signing Land Lease Agreement (LLA)	12 th May 2011
5	Contract effective date	12 th May 2011
6	Implementation period as per contract	31 Mar 2013 - 31 Dec 2015
7	Required Simple Cycle Operation Date (RSCOD)	31 Dec 2014
8	Simple Cycle Operation Date	06 June 2015
9	Date of Financial Closure	08 July 2015
10	Required Commercial Operation Date	31 Dec 2015
11	Expected COD	December 2015

Source: SBIIPCL and BCAS

The physical progress of the civil, mechanical and instrumentation work as on October 2015 has been provided in the Table 2.2 below.

Table 2.2 Physical Progress for month ending October 2015

S. No.	Activity	Progress as on Oct 2015 (%)
A	Civil	
1	MPM (Main PH Building)	95
2	DM Plant Building	97
3	Multi Use Pump House	97
4	Chemical Dozing Building	97
5	Cooling Water Treatment Plant Building	98
6	Cooling Water Pump House	97
7	Cooling Tower	98
8	Raw Water Pump House	98
9	River Intake	100
10	H2 Generation Plant	95
11	HRSG Aux Pump House	93
12	Dormitory & Canteen	90
13	Workshop & Store	90
14	RMS Control Room & Equip Foundation	98
15	Sludge Dewatering House	98
16	Transformer Yard	100
17	HRSG & Stack	100
18	Cable Trenches	100
19	Equipment's Foundation (PH Area)	100
20	Pipe Rack	100
21	Storage Tanks (RCC)	95

S. No.	Activity	Progress as on Oct 2015 (%)
22	Roads, Drains, Boundary Wall	85
23	Plant Out Fall	100
24	Waste Water Treat Plant	100
B Mechanical		
1	Gas Turbine (GT)	98
2	GT Generator	100
3	Gt Aux Compartment	100
4	Inlet Air Filter House & Plenum	100
5	GT Piping	100
6	GT CO2 System	100
7	Bypass Stack	100
8	Diverter Damper	100
9	Exhaust Hood & Duct	100
10	RMS & GT Gas Front Module	100
11	Plant Water Pre-treatment System	95
12	CCCW (Closed Cycle)	100
13	ACW Pumps, Pipes, Heat Exchanger	100
14	DM Water Plant	98
15	Pipe Racks	100
16	Plant FF System	95
17	Raw Water Pumps & Pipes	98
C Instrumentation & Control (I&C)		
1	GT& GTG Field Instruments	95
2	GT Control	95
3	Cabling Impulse Pipes	98
4	Seal Oil , APU (Air Processing Unit) , Gas Dryer & H2 Panel, Gas Chromatography & GT Accessory Module (Instrumentation)	100
5	STG Instrumentation & Control	80
6	HRSG Instrumentation & Control	80
7	I & C For Gas Fuel System	95
8	I& C For Water System	90
9	I& C For Hydrogen System	100
10	I & C For Compressed Air System	95
11	CEMS For Main & Bypass Stack	30
12	GT& GTG Field Instruments	95

Source: SBIIPCL

Regarding work progress on the project associated facilities (not being constructed or financed by SBIIPCL) viz. gas pipeline, switchyard, access road, transmission line etc. an update has been provided in **Table 2.3** for reference. However, as clearly specified by the Borrower, these components were not part of the compliance audit, considering the responsibility of construction as well as operation rests with other parties (i.e. government entities). However, as part of the Supplemental Environmental and Social Action Plan (ESAP) dated 23 January 2015, the project needs to develop and implement livelihood restoration plan, which includes people affected due to the Project associated facilities. Therefore, the scope of audit for associated facilities is currently limited to livelihood restoration plan implementation covering affected people due to these associated facilities.

Table 2.3 **Project Associated Facilities – Status**

S. No	Facility*	Area (acre)	Responsibility	Status (Work Completed)
1	Switchyard	26.0	PGCB	07 March 2015
2	Site Access Road	2.0	BPDB	29 November 2014
3	Gas Pipeline	8.5	JGTDSL	12 April 2015
4	Construction Laydown Area	14.0	BPDB/SBIIPCL	August 2013
5	Transmission Line	70 meters to switchyard	PGCB	28 February 2015

**Components not under financing by lenders*

Source: SBIIPCL and BCAS

The section below summarises the key observations made by the team during the course of the EHS&S compliance assessment of the project construction phase.

3.1 ENVIRONMENTAL, HEALTH & SAFETY

The observations made by the ERM audit team with respect to the project environmental, health and safety aspects as outlined in the CAP, ESMMP, ESAP and applicable local and national regulations have been tabulated under the following sub-sections.

3.1.1 Legal Register

The Environmental, Health, Safety and Social Compliance Audit Report prepared by ERM dated November 2014 suggested for development of a legal register for both construction and operations phases. SBIIPCL has prepared a legal register for ensuring timely approval or renewal of all legal compliances of the project with respect to both construction and operations. *Table 3.1* below provides status of the various permits/licenses as applicable for construction and operational phase of SBIIPCL. The legal register does provide the applicability and validity of the permits in place along with a trigger for renewal in advance. However, in the next step, the permit conditions and actions required for compliance with roles and responsibilities should also be part of the legal register to ensure proper implementation and tracking of compliance conditions.

Table 3.1 ***EHS License/Permit Compliance Status for Construction & Operations Phase***

S. No.	Permit/License	Issuing Authority	Issue date	Valid until	Status
1	Trade License	Aushkandi Union Parishad	1 st July'15	30 th June'16	In compliance
2	License for use of river water/ foreshore/jetty	Bangladesh Inland Water Transport Authority (BIWTA)	7 th Oct'15	28 th Aug'16	In compliance
3	Site Clearance Certificate	Department of Environment (DOE)	25 th Jun'14	28 th May'15	No renewal required as the project has already obtained Environmental Clearance (EC) certificate from Department of Environment (DoE), Bangladesh.
4	Environment Clearance Certificate	Department of Environment (DOE)	17 th June'15	16 th June'16	In compliance
5	Permission for acid and alkali storage	Department of Explosives (DOEXP)	9 th June'15	30 th Jun'16	In Compliance
6	Fire Permit	Fire Service and Civil Defence	8 th June'15	30 th June'16	In compliance.
7	License for storage of Carbon Dioxide	Department of Explosives (DOEXP)	18 th June'15	31 st Dec'15	In compliance
8	License for Diesel Storage	Department of Explosives (DOEXP)	18 th June'15	31 st Dec'15	In compliance
9	License for generation of Hydrogen and storage of Hydrogen inside plant	Department of Explosives (DOEXP)	18 th June'15	31 st Dec'15	In compliance
10	License for installation of High pressure Gas pipeline inside power plant	Department of Explosives (DOEXP)	13 th May'15	Entire project life cycle	In compliance
11	License of Boiler (IP, HP & LP Drum & Auxiliary Boiler)	Office of the Chief Inspector of Boilers (CIB)	14 th June'15	13 th June'16	In compliance.
12	Permission for Stack Erection	Bangladesh Air Traffic Services (BATS)	16 th Jun'14	Entire project life cycle	In compliance.

S. No.	Permit/License	Issuing Authority	Issue date	Valid until	Status
13	License for Power Generation	Bangladesh Energy Regulatory Commission (BERC)	29 th June'15	28 th June'16	Provisional license obtained for generation of 349 MW power (gross) [GT 228 MW & ST 121 MW] in combined cycle mode. In compliance.
14	Factories License	Deputy Chief Inspector of Factories	21 st July'15	31 st Dec'15	

Some of the key environmental related observations are as follows:

- Construction Management Team (CMT) comprising of an Assistant EHS Manager and Community Development Manager (CDM) continue to work towards managing the HSSE aspects of the project constructions phase which is likely to be get completed by Dec 2015 with combined cycle in operation. The Assistant EHS manager operates in coordination with the NEPC Site EHS Manager, Site Manager and Project Head for managing EHS issues for construction phase.
- SBIIPCL has developed a Livelihood Restoration Plan and Public Relation Plan for the project in consultation with external agencies/experts. Regarding the Avifauna Management Plan the same will be developed following completion of bird survey scheduled to commence during the migratory season i.e. Oct 2015.
- A legal register for the project has been prepared by SBIIPCL covering both construction and operational EHSS requirements. SBIIPCL to also update the register to include the conditions specified in the relevant permits/license and applicable regulations and track compliance to the same on a periodic basis.
- ESMMP – Construction Phase prepared as part of the ESIA study has been shared with NEPC with periodic compliance monitoring/verification of ESMMP implementation yet to be initiated by SBIIPCL. With constructions phase likely to get over by Dec 2015 on commencement of combined cycle operations, recommendation with respect to the effective implementation of the EHS Monitoring Plan will be based on assessment of the operational phase preparedness of SBIIPCL including staffing. For compliance assessment details of the ESMMP Construction Phase refer to *S. No. 3.1 of Table 4.1*.
- With respect to environmental baseline monitoring ambient air quality has been monitored at 4 locations within the project site (reportedly close to the project boundary at four corners) with results found to be in compliance to the applicable standards. Surface water quality sampling has been undertaken at 3 locations of River Kushiya (near outfall and both 20m upstream and downstream) in accordance to the ESSMP requirements and analysis performed at the in-house laboratory set up by Northeast Electric Power Engineering & Services Company (NEPC-S), the O&M contractor. Review of the results indicates compliance to the inland surface water standards specified in the Bangladesh Environmental Conservation Rules, 1997 except for the critical parameters viz. DO and total coliform. The surface waste monitoring is limited to only pH, TDS, TSS, COD, BOD, Oil & Grease, Total Residual Chlorine, Iron and Arsenic as compared to the ESMMP and Bangladesh ECR requirements.
- SBIIPCL to validate the river water quality results on a quarterly basis through third party monitoring at the three locations discussed above and encompassing the parameters outlined in the ESMMP and ECR, 1997.

Ground water monitoring results indicate high coliform values, which is to be verified based on review of baseline ground water data and an action plan prepared by November 2015.

- With single cycle in operation treated waste water generated from the ETP is minimal and currently being stored in a dedicated underground treated water storage tank. Analysis of the treated water monitoring report dated 1st July 2015 reveals compliance to the inland surface water discharge standards for pH, BOD, COD, Dissolved Oxygen, Electrical Conductivity, TDS, TSS, Turbidity, Oil Grease, Phosphate, Residual Chlorine and heavy metals (Cadmium, Chromium, Copper, Zinc and Arsenic) as specified in the ECR, 1997. Since, only simple cycle operation had started and project is still under commissioning for combined cycle, therefore, adequacy of STP and ETP along with water discharge monitoring being conducted by internal O&M team as well as third party monitoring laboratory will be reviewed during the next quarterly audit visit in November/December 2015.
- Waste management practice was found satisfactory at site with segregation of waste at source, storage within site at designated areas and disposal of waste off-site with the help of DOE approved waste collection contractor. For operations SBIIPCL to develop an action plan for selection of authorized hazardous waste management agencies in consistent with the DoE requirements.
- Currently there exists no designated storage space for hazardous waste onsite with none found to be stored onsite during the visit. Reportedly with the transition from construction to operations the generation of hazardous waste is minimal. For operations SBIIPCL has developed a *Waste Management Procedure (SBIIPCL-EHS-010)* for both hazardous and non-hazardous waste streams to be generated during operations. Review indicates the procedure to be generic in nature and lacking specific requirements with respect to storage, handling and disposal of specific waste categories/streams. Further SBIIPCL has not identified sludge generated from sewage treatment operations as a potential waste stream. However implementation of the aforesaid procedure to be assessed following the combined cycle operations during the next quarterly audit visit.
- NEPC has not maintained an inventory of vehicles being operated against which valid fitness certificate as issued by Bangladesh Road Transport Authority (BRTA) could be verified against ECR, 1997 and Motor Vehicle Ordinance, 1983.
- Air quality dispersion modelling for flue gas emissions has been undertaken by BCAS in July 2015 taking into account the revised stack height of 70m and stack diameter of 7m. Results indicate the incremental Ground Level Concentrations (GLC) for NO_x and CO to be 1.95 and 2.25 µg/m³ respectively. This is found to be slightly lower compared to modelling results for the same set of pollutants considering the earlier design stack height of 50m.

- A terrestrial floral and faunal study was undertaken for the project by an external expert in August 2015. The study was carried out in August 2015 encompassing the villages of *Parkul*, *Char Tajpur*, *Lama Tajpur*, *Padullah*, *Brahmangaon*, *Monumukh* and *Jamargaon* surrounding the project area. As per the report no potential change in species diversity and habitat has been noted in the study area with respect to the SBIIPCL project. The survey of aquatic species will be conducted by the aforesaid external expert after monsoon season i.e. in October 2015.
- Online stack monitoring of bypass stack is currently being done by using Continuous Emission Monitoring System (CEMS) and records are being maintained. The system is having monitoring sensors for SO₂, NO, NO_x, CO and O₂ along with temperature and humidity of flue gas. CO₂ monitoring system is still under commissioning. The recent results of CEMS monitoring indicate NO_x and CO concentrations from the bypass stack as well within the WB/IFC as well as national standards. The CEMS data also indicate presence of SO₂ (though in less quantity), which further need to be checked during the upcoming audit, as the fuel analysis report doesn't indicate presence of sulphur in natural gas.
- SBIIPCL has implemented green belt development activities outside the project area i.e. along the project access road, *Parkul* and *Bongaon* villages including the resettlement site. Nearly 2800 saplings of neem, mango, mahogany, shegun, lemon etc. has already been planted as part of this program. Similarly SBIIPCL to develop a green belt development plan for the project site and track the survival rate of tree species being planted.

3.1.3

Health & Safety Linked Observations

- As part of the EHS Plan NEPC has developed a work permit system and pre-use inspection checklists for critical work activities except for hot work, confined space entry, material lifting and work at height. Additionally NEPC has also developed and implemented a work permit for non-routine work.
- SBIIPCL has updated the annual training calendar with training being delivered to both NEPC personnel and workers on various EHS aspects such as hazardous material handling; usage of PPEs; waste management; environmental quality monitoring; grievance redressal and traffic management. Further SBIIPCL has formulated a "*Work Place Safety Training Module*" with training on the same being imparted to NEPC personnel as part of the weekly HSE meetings. However based on the training documentation review it is recommended that environmental quality monitoring and grievance redressal related trainings are also covered in the annual training calendar.
- Job Hazard Analysis (JHA) sheet has been updated to include the activities related to electrical work, excavation and ergonomics. Comprehensive hazard analysis also needs to be undertaken for other

critical works like hot work, confined space entry and material lifting taking into account the current site operations.

- With combined cycle operations expected to be declared in Dec 2015 SBIIPCL has engaged Mr. Dai Qiang (a Certified Safety Engineer) as HSE Manager to undertake Life and Fire Safety (L&FS) review of the facility prior to commencement of combined cycle operation.
- For assessing the potential hazards associated with project operations NEPC has developed a Hazard & Risk Assessment & Control (HIRAC) document which covers the following activities such as height work; material lifting; welding and radiography. This document is required to be updated to include the hazards related to fuel/chemical storage and handling, electrical work and confined space entry. Reportedly periodic trainings and HSE inspections of the aforesaid areas are being undertaken in coordination with NEPC with SBIIPCL found to be in compliance to this aspect.
- NEPC has a PPE matrix in place with an inspection checklist required to be developed and implemented to thoroughly evaluate the usable condition and effectiveness of all PPEs in use by the workers.
- Emergency mock drill is limited to in house training provided by SBIIPCL to the workforce to apprise them on the emergency response plan (ERP) requirements. SBIIPCL to organize a mock drill along with NEPC to exercise implementation and assess the effectiveness of ERP on ground.
- In order to monitor health and safety performance onsite NEPC has developed a weekly EHS inspection checklist as part of the project EHS Plan. Currently such inspections have been limited for the month of June 2015 with no inspections conducted and documented for the period Jul-August 2015. NEPC to conduct weekly HSE inspections along with SBIIPCL for discussion of key HSE issues/concerns and the document the same for future review/action.
- Incident investigation procedure to be updated to through defining of specific roles and responsibilities of personnel involved in incident investigation process along with work flow chart. Accident/injury data available to be analysed to identify the potential risk zones and an action plan prepared for such areas.

3.2 SOCIAL OBSERVATION

3.2.1 Manpower engagement

Present strength of workforce employed in SBIIPCL power plant could be classified under three types which include:

- SBIIPCL's own staff deployed at site;
- Employees and contractual workers engaged by M/s. NEPC – Contractor hired for construction phase; and

- Employees and contractual workers engaged by M/s. NEPCS – Operation & Maintenance Contractor

SBIIPCL Staff

Presently six staffs of SBIIPCL are posted at site that includes Project Head (General Manager), Community Development Manager (CDM), Assistant Manager (EHS), Operation Manager, Maintenance Manager and a Site Officer.

Workforce engaged by M/s. NEPC (EPC contractor for construction phase)

Workforce size of M/s. NEPC as on 10th Sept 2015 was reported to be less than 350. This includes all categories of the employees and workers engaged by M/s. NEPC.

Table 3.2 Breakup of manpower engaged in Plant by M/s. NEPC

S. No	Worker category	Number recorded in ERM's 2 nd EHS&S Compliance Audit (April 2015)	Number in ERM's 3 rd EHS&S Compliance Audit (Sept 2105)
1	Chinese staff of NEPC	350	146
2	NEPC contracted staff	9	7
3	NEPC contracted workers	128	20
4	Labour supplied by M/s. Nation Trade (sub-contractor)	429	76
5	Labour supplied by M/s. Shotota Enterprise (sub-contractor)	198	34
6	Labour supplied by M/s. Jui Enterprise (sub-contractor)	309	32
7	Labour supplied by M/s. ISS (security sub-contractor)	26	18
	Total manpower	1449	333

Source: NEPC and SBIIPCL site officials

Workforce size engaged by NEPC in SBIIPCL plant has significantly reduced with the near completion stage of the construction phase of the Plant. As reported in **Section 2.1.2** of this report, almost 95% of the construction phase work is completed as of now. NEPC will be at site till COD is obtained which is expected by December 2015. Workforce size of NEPC at site is expected to further reduce as it reaches towards COD.

Workforce engaged by M/s. NEPCS (Operation & Maintenance Contractor)

Single cycle operation of the plant is already commenced. SBIIPCL has hired a Chinese company called as M/s. NEPCS for operation & maintenance phase of the plant.

It is to be noted that NEPC and NEPCS are separate entities legally. This was an observation made at the end of the audit period, and needs to be further assessed during the next compliance audit.

Current strength of M/s. NEPCS as on 10th Sept 2015 was reported to be 84. *Table 3.3* provides break-up of the present workforce.

Table 3.3 *Manpower break-up of the O&M Contractors M/s. NEPCS*

S. No.	Worker Category	Personnel (as on 10 th Sept 2105)
1	Engineers	49
2	Admin & Account	18
3	Security	7
4	Kitchen Staff	6
5	Drivers	2
6	Fire fighter	2
	Total	84

Source: SBIIPCL site officials

3.2.2 *Updated HR policy*

HR Policy of SBIIPCL

ERM was shared an updated HR Policy document of SBIIPCL in the 2nd EHS&S compliance audit visit (April 2015) which was reportedly under the internal approval process then. The said policy had included the additional provisions such as provision of non-tolerance of child labour & forced labour, non-discrimination policy, anti-sexual harassment policy etc. as recommended in the initial EHSS Compliance Audit Report submitted by ERM in November 2014.

- However in the present visit, ERM was apprised that the updated HR policy document as shared in the 2nd EHS&S compliance audit, has been declared redundant by SBIIPCL management and it has adopted the HR policy of its parent company i.e. Summit Industrial Mercantile Corporation (Pvt) Ltd. (SIMCPL) dated 11 June 2015.
- Refer *PS-2 Labour and Working conditions* section under **Table 4.1** for ERM's comment on the existing HR policy of SBIIPCL. This matter was discussed during the closing meeting on 13th September 2015 with the Senior Management of SBIIPCL and ERM received an email confirmation from the CEO of SBIIPCL on 28th September 2015 that the policy document will be updated within 2 weeks with inclusion of all the above mentioned observations of ERM.

HR Policy of NEPC

M/s. NEPC as reported, was directed by SBIIPCL to align their HR policy with the applicable requirements of labour law of Bangladesh and with the principles of SBIIPCL's HR policy.

- Thereafter NEPC prepared a project specific HR policy by updating its existing HR policy; however this updated policy is not approved by NEPC Management and is not valid effectively;
- The updated HR policy of NEPC specifies clearly about terms & conditions of employment, grievance redressal mechanism, prohibition of

child labour & forced labour, payment of minimum wage and overtime payment as per labour law of Bangladesh etc. However, the implementation especially on the aspect of minimum wages and overtime was found lacking.

Hence, without the availability of a signed HR policy, its compliance to IFC PS can be considered as inadequate. Further regulatory non-compliance on minimum wages and overtime suggests gap against IFC PS.

3.2.3 *R&R implementation status*

The project required land for establishing power plant and associated facilities (which included construction laydown area, 2 km long access road, switchyard area and an 8.8 km long gas pipe line).

As per the SIA study, total number of Project Affected Households (PAH) is 376 and total number of Project Affected Persons (PAP) is 2598.

The PAHs were identified and grouped into six categories as mentioned below:

Table 3.4 *PAH types and number of Agriculture Labour*

PAH Category	Project Component (Number of PAH)				Total
	Project Site	Access Road	Switch Yard	Gas Pipeline	
Resettled - fully	0	0	15	0	15
Resettled – partially (Lost partial homesteads, pond stair, trees and other assets) and compensated	1	1	7	3	12
Land owners (land acquisitioned for power plant, construction laydown area, access road and switch yard)	21	30	23	35	109
Land owners (land acquisitioned and requisitioned for the gas pipeline)	0	0	0	133	133
Khas land cultivators (informal occupiers/users)	0	1	53	0	54
Share-croppers	6	4	6	37	53
Total	28	36	104	208	376

Source: 'Socio Economic Impact Assessment, Resettlement Action Plan and Livelihood Restoration Framework' Document

R&R implementation under ADB's financed Project Component

ADB's finance is limited to the Power Plant area. There are 31 Project Affected Households (PAHs) for the 11 acre land acquired for the power plant establishment as per Project Site Social Compliance Report submitted by BCAS for ADB's consumption. There were total 14 land owners on 11 acre private land acquired for the power plant establishment. Besides this, ESIA

study for this project had identified 6 sharecroppers and 11 agriculture labourers whose primary source of livelihood were dependent upon the piece of land acquired for this project.

Land compensation to 14 landowners has been paid by the concerned government department. In view of income loss of sharecroppers and agriculture labourers as land was required to establish the power plant, a one-time compensation of Tk 7,500 to each sharecropper PAH and Tk 8,000 to each agriculture labour was provided by SBIIPCL to them to compensate for income loss and this is in compliance with ADB SPS 2009 on IR. To date all of the sharecroppers and agriculture labourers have been paid.

It was also provisioned to give Tk 2 lacs in addition to the land compensation amount paid by government, to one of the PAH who became landless after land acquisition for power plant. This amount was disbursed in two instalments and it was observed that the affected household invested the additional compensation amount in opening a new grocery shop and was observed to be successfully running the shop at present.

R&R implementation under IFC's Financed Project Component

PAHs of the entire project components (including associated facilities) are considered for Livelihood Restoration Programme as per Livelihood Restoration Framework (LRF) of IFC. SBIIPCL has got Livelihood Restoration Plan (LRP) prepared through an external consultant and it was shared with IFC for their comments. LRP is revised now after addressing IFC's comment on the report. The details of LRP are mentioned in the next section.

3.2.4 *Livelihood Restoration Plan (LRP) prepared as a requirement for IFC*

SBIIPCL has got a LRP study done by third party LRP Consultant. It is important to mention that the LRP also takes cognisance of the following:

- The various entitlement agreed for the PAPs and PAHs as per the SIA informed the LRF preparation;
- It also covers the vulnerable PAPs (widowed and old age), who are supposed to be provided pension facilities ⁽¹⁾;
- All the PAPs were supposed to be covered falling between age group of 18-50 years;
- Individual surveys were undertaken, in case the PAPs were available to identify the LR options as well as the training needs

The LRP document provides detail on the following:

(1) Project component wise classification of these vulnerable PAPs (widow and old age PAPs) is neither provided in SIA report nor in LRP report. however this could be further investigated in next audit

- process of identifying & finalising various trades suitable for skill enhancement training for the PAPs (Project Affected Person);
- listing of the choice of 376 PAPs (including associated facilities suggested by IFC) for different training program;
- listing of 14 PAHs & 58 agriculture labourers , who could not be traced during the survey process;
- listing of potential NGOs for LRP implementation;
- key steps & strategies that are to be followed while implementing LRP;
- key milestones of LRP implementation along with proposed timeline etc.

As per the SIA, the total PAHs were 376 plus 138 agri laborers. With respect to these PAHs, the following key conclusions were made in the report:

- 138 were not considered as PAPs as they are seasonal workers employed for a short time during planting and harvesting periods only. For the rest of the year they work in other income-generating activities. The livelihood of these laborers is not considered to be affected to any important extent; however, SBIIPCL has agreed that they are eligible for inclusion in the LRF, as beneficiaries of vocational training, to ensure that their livelihoods are not adversely affected.
- Out of 376, 168 land owners and 37 share croppers were impacted by the gas pipeline. The SIA report concluded that landowners in the gas pipeline area are likely to experience temporary loss of income and livelihood. All requisitioned land will be returned to the landowners once gas pipeline construction is over. For acquisitioned land, while the land ownership will be transferred to PGCB, the general practice in Bangladesh is for the original landowners to resume cultivation, subject to restrictions on construction of temporary or permanent structures over the pipeline, after the completion of gas pipeline construction. Hence, loss of income for landowners along the gas pipeline route is expected to be temporary and negligible. As per the SIA, the company was to verify this and confirm. These PAHs were to be covered by the LRF if the cultivation over gas pipeline land was not allowed. During the present ESAP monitoring, this could not be confirmed for the complete gas pipeline; however in the nearby areas, cultivation was observed to be undertaken over the gas pipeline area.
- Remaining, 171 PAHs (including 15 physically displaced families) are eligible under LRF and the budget included in the SIA covered only these PAHs.

Review of LRP reports and discussion with CDO indicates some other limitations:

- As per LRP 21 PAHs didn't opt for any livelihood training programme, because they are economically well off and refused being part of the LRP;
- Presently, the LRP does not mention the details of the village or facility impacted for the PAHs and PAPs which could not be covered as part of survey;

- Out of the total PAHs and PAPs, 14 landowners PAHs and 58 agriculture labour PAHs could not be traced during the household survey process of LRP.
- Total 396 project affected persons (PAPs) were identified for LRP. Analysis of number of PAPs eligible for LRP (18 to 50 years age group) suggest that 273 PAPs belonged to 142 PAHs (Land owners) while the rest belonged to 83 agriculture labours PAHs.
- Listing of surveyed PAHs in LRP report doesn't clearly mention about number of eligible PAPs against each PAH as captured in SIA and number of surveyed PAPs against each PAHs.
- Unlike the 6 sharecroppers affected by land acquisition for power plant, these 37 Gas pipeline sharecroppers PAHs have not been paid any one time financial assistance.
 - The 37 sharecroppers PAHs (affected by pipeline) are eligible only for vocational training program as per 'Compensation and LRF Entitlement matrix' of the SIA. That too in the scenario that, if they are not allowed to cultivate the land after laying of pipeline;
 - The sharecroppers are cultivating or not on the land is not clear; present occupation status of these 37 sharecroppers is not documented.
 - It is also difficult to assume that all these 37 sharecroppers will enjoy same arrangement with their respective land owners as it was before land acquisition phase of gas pipeline.
 - Considering these scenario, 37 sharecroppers should be integrated into LRP, even though some of them or all of them manage to resume cultivation into affected land parcels. This step will at least justify their loss of livelihood opportunity due to restriction on cultivation during construction phase of Gas pipeline. It may be useful for the LRP implementation agency to verify first and then include those who are not able to cultivate land because of the gas pipeline.

Community perception and observation on LRP

Discussion with some local community including women group indicates that beneficiaries are waiting for implementation of the LRP programme. Specific time line about LRP implementation is not communicated. It was also observed that outcome of household survey conducted for preparing LRP, is not disclosed yet with the community

Current status of LRP implementation

It has been reported by SBIIPCL that an NGO (Institute of Development Enterprises (IDEA)) for implementation of LRP has already been engaged in October 2015 for implementation of LRP.

- As reported by site management, work on the LRP implementation has been started from 1st November 2015 and it will be completed within time duration of 2 years.
- Furthermore, site management reported that old age and vulnerable group pension distribution will be started from December 2015.

- As per the ESAP agreed between, IFC and SBIIPCL, the LRP implementation was to start April 2015 and subsequently in September, whereas the actual implementation has started in November 2015. To accelerate the LRP implementation process, LRP training for one adult member and disbursement of seed capital for each PAH (excluding PAHs of gas pipeline) by December'15 and monthly status report on completed training (no. of person covered and name of village) and disbursement status should be submitted to IFC.

3.2.5 *Stakeholder Engagement*

Project has put in place different mechanism to engage project affected and general community and provided them the opportunity to register their concern. Project has a dedicated Community Development Officer (CDO) who was observed to be in regular touch with the neighbouring community.

Project has formed a Joint Committee for Community Relation (JCCR) which is active and regular meeting of JCCR members is organised by CDO. A formal grievance redress mechanism (GRM) for the community is also in place. A copy of SEP and GRM in local language is shared with sizeable number of PAHs. CDO also keeps local stakeholder including PAHs informed about the process of raising grievances, if any.

The compliance status based on the site visit and review of documents as on September 2015 has been presented in *Table 4.1* and *Table 4.2*. In order to define the status of various action items, colour coding has been used for easy referencing, which is as follows:

	Action Item Closed/ Complied		Satisfactory Progress
	Partially Complied		Not Complied/ Delay
	To be assessed during Operations/Decommissioning		

Table 4.1 CAP & ESMMP Compliance Status

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
1	PS 1: Assessment and Management of Environmental and Social Risks and Impacts							
1.1	Form a Construction Management Team (CMT) to oversee EHS compliance of the Project during construction phase	High	SBIIPCL	CMT Formation	Within 1 month of 'date of deal closure' ¹ or November 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
1.2	Appoint a trained EHS Personnel for day to day monitoring of the EHS Plan and ESMMP implementation	High	SBIIPCL	EHS Officer for the Project	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
1.3	<ul style="list-style-type: none"> Ensure that all the records should also be made available in local language/ English by the EPC contractor Review of all the records being maintained as part of EHS Plan by the EPC contractor; 	High	SBIIPCL and EPC Contractor	Records Review and Corrective Actions	Within 2 months of date of deal closure or December 2014, whichever is earlier	Complied. Records related to injury/illness are maintained by NEPC and shared with SBIIPCL. Permits related to electrical and height works are issued following the EHS Plan. However, due to language barrier, EPC failed to show the permits to ERM during last audit. Currently, there are no more activities with overhead cranes and gantry cranes.		<p>As recommended in the ERM Audit report dated 17 May 2015 pre-use inspection checklists and work permits related to height work and electrical work has been developed and implemented by NEPC. However documentation review indicates that requirement related to PPE and Lock Out Tag Out (LOTO) has not been covered in the electrical permits being issued by NEPC. It is recommended that <i>electrical permit is updated to include the use of appropriate PPE, energy isolation and LOTO as checklist items.</i></p> <p>Inspection of lifting machines (hydraulic lift) and fall protection equipment (safety harness, lanyard etc.) were not found to be undertaken by NEPC in accordance to the frequency and format specified in the EHS Plan. Further information on occupational illness and total man-hours worked was observed to be lacking in the injury/illness record sheet being maintained by NEPC as per the EHS plan.</p> <p><i>NEPC to perform periodic inspection of lifting machines and fall protection equipment with records maintained in accordance to the EHS plan. Injury/illness log sheet in the EHS Plan to be updated through incorporation of occupational illness and man-hours worked data.</i></p>
1.4	Display and communicate environment and health and safety policies of the company	High	SBIIPCL	Disclosure of company policies	Within 1 month of date of deal closure or December 2014, whichever is earlier	Complied. EHS Policy in Bengali has been displayed at 2 suitable locations -- at gate no. 3 and in front of SBIIPCL Conference Room.		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
1.5	Develop a social policy of the Project with defined	Medium	SBIIPCL	Social Policy	Within 3 months of date of	Complied. Social Policy in		Assessed to be in compliance by ERM during EHSS

¹Date of deal closure has been assumed the date on which the lender/s give/s assurance to SBIIPCL for providing project finance.

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
	objectives, principles and performance indicators.				deal closure	Bengali has been displayed at 3 suitable locations -- gate no. 3, in front of SBIIPCL Conference Room and at CDM's office.		audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
1.6	Develop and maintain legal register for all the Project components	Medium	SBIIPCL and EPC Contractor	Legal Register for Construction	Within 4months of date of deal closure for construction phase and quarterly review	Complied. Legal register has been prepared for both construction and operation phases.		The legal register prepared identifies the applicable EHS permits/licenses (Refer Table 3.1) required during both construction and operational phases of the project along with their validity and approval status.
		Low	SBIIPCL	Legal Register for Operation Phase on Combined Cycle basis	Within 3 months prior to the operation phase and half yearly review			However as mentioned in the earlier ERM audit report SBIIPCL is yet to update the legal register to incorporate the conditions specified in the EHS licenses/permits (Refer Table 3.1) and relevant provisions of applicable regulations (Bangladesh Labour Act, Bangladesh Factories Rules etc.). This is important taking into account the already existing simple cycle operation and with COD for combined cycle operation scheduled for December 2015. It is therefore recommended that SBIIPCL updates the legal register to incorporate the conditions outlined in the applicable EHS permits and national regulations. SBIIPCL also need to monitor and document the compliance status of this legal register on a monthly basis.
1.7	Comply with the findings (not aligned) and recommendations	High	SBIIPCL and EPC Contractor	Legal compliance	Within 2 months of date of deal closure or December 2014, whichever is earlier	Complied. Legal approvals/certificates received on Union Parishad Trade License, City Corporation Trade License, BIWTA License, Boiler License, Power Generation Licenses, License for Storage of Acid & Caustic Soda, Site Clearance Certificate, EIA Approval & Environmental Clearance Certificate, Fire License, Factory License, License for Generation and Storage of Hydrogen inside Plant, Permission to Store Liquid Fuel, License for Storage of CO2 Gas Cylinder, License for Installation of High Pressure Gas Pipeline, Civil Aviation Certificate for Stake. As the quantity of propane gas cylinders and compressed gas cylinders were below threshold limit, Department of Explosive certified that no license is required.		Refer Table 5.1 on Project EHS&S Regulatory Compliance Status
1.8	Develop the management plans as identified in the ESIA report and update the ESMMP with defined action items, responsibilities, monitoring indicators and review/ audit mechanisms	High	SBIIPCL	Management Plans as per ESIA requirement	Within 2months of date of deal closure or December 2014, whichever is earlier	Partially Complied. LRP and Public Relations Plan have been prepared. Fisheries Survey and Bird Survey will be carried out		SBIIPCL has developed a Livelihood Restoration Plan and Public Relation Plan for the project in consultation with external agencies/experts. Regarding the Avifauna Management Plan as reported the same will be developed following

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
						in October, 2015.		completion of bird survey scheduled to commence during the migratory season i.e. Oct 2015. <i>SBIIPCL to engage a qualified agency/expert to conduct bird survey twice a year i.e. Nov-Dec and Mar-Apr for development of Avifauna Management Plan.</i>
1.9	Develop an organisational structure for the construction and operation phase of the Project with defined roles and responsibilities	High	SBIIPCL	Organisation Structure – Construction	Within 2months of date of deal closure or December 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. <i>Refer ERM 2nd EHSS Compliance Assessment Report.</i>
		Low						
		Low	SBIIPCL	Organisation Structure – Operation on Combined Cycle basis	3 months prior to the operation phase	Partially Complied. L&FS Expert has not yet been engaged. LR Expert has been engaged from 27 May, 2015.		SBIIPCL has engaged a Livelihood Restoration Expert in May 2015 for preparation of the Livelihood Restoration Plan (LRP). SBIIPCL has also engaged Mr. Dai Qiang (a Certified Safety Engineer) as HSE Manager to undertake Life and Fire Safety (L&FS) review of the facility prior to commencement of combined cycle operation.
1.10	Training of SBIIPCL Staff and EHS team of EPC Contractor on ESMMP	High	EPC Contractor	Training Calendar (Construction)	Within 2 months of date of deal closure or December 2014, whichever is earlier	Complied. Training calendar has been updated. SBIIPCL arranged additional training sessions as per ERM suggestions.		SBIIPCL has updated the annual EHS training calendar for both NEPC and its subcontractors to incorporate the following modules: <ul style="list-style-type: none"> • Basic First Aid • Safe Working Practice • Proper use of PPEs • Basic Safety Training • Fire Protection System • Solid Waste Management • Traffic Management • Hazardous Material Handling • Emergency Mock Drill • Permit to Work Procedure • Plant Fire Fighting Procedure Review of training records maintained by SBIIPCL for the period June-Aug 2015 reveals that training programs has been delivered to both NEPC personnel and their workers on various EHS aspects such as hazardous material handling; usage of PPEs; waste management; environmental quality monitoring; grievance redressal and traffic management. <i>It is recommended that environmental quality monitoring and grievance redressal related trainings are also covered in the annual training calendar.</i>
1.11		Low	SBIIPCL	Training Calendar (Operation)	Within 2 months of Combined Cycle Operation	Not due before combined cycle operation.		With respect to operations SBIIPCL has already developed a training calendar encompassing the following components: <ul style="list-style-type: none"> • Basic First Aid • Safe Working Practice • Proper use of PPEs • EHS Policy and Practice • Basic Electrical Safety • Hydrogen Gas Safety and Compressed

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
								<ul style="list-style-type: none"> Gas Handling Emergency Response Procedure Plant firefighting procedure Wastage Management Procedure Safe Chemical and Oil Handling Spill Control and Response Permit to Work Procedure <p>The implementation of the training calendar will be assessed following combined cycle operations as planned on Dec 2015.</p>
1.12	Mapping of training needs of SBIIPCL Staff and development of training calendar	High	SBIIPCL	Training Calendar	Within 2 months of Combined Cycle Operation	Not due before combined cycle operations		To be assessed during combined cycle operations; however with COD for combined cycle operations expected to be declared on Dec 2015 it is recommended that SBIIPCL is on track to map the training needs of operational workforce for developing job oriented training programs.
1.13	Develop an emergency response plan into a consolidated document with: <ul style="list-style-type: none"> Identification of, including risks associated with all project components; Key community and environmental sensitivities (such as village settlements, ponds, etc.) and the potential of offsite consequences along with mitigation measures; A common communication and emergency response process flow for onsite emergencies as well as their communication to authorities offsite; Disclosure to communities in the vicinity of the project on the emergency readiness of the company in case of any incidents. 	Medium	SBIIPCL	Emergency Response Plan for Operation Phase	1 month prior to the date of Combined Cycle Operation	Not due before combined cycle operations		With COD for combined cycle operations expected to be declared on Dec 2015 SBIIPCL has already developed an Emergency Response Procedure for operations; however the same will be assessed for sufficiency in the next quarterly audit.
1.14	Review the emergency preparedness and response plan and include the necessary required emergencies and implement the same at the earliest.	High	EPC Contractor	ERP for construction phase	Within 1 month of date of deal closure or December 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
1.15	Appoint a suitably qualified Emergency Coordinator for the Project	Medium	SBIIPCL	Emergency Coordinator for the Project	Within 2 months of date of deal closure or January 2015, whichever is earlier	Complied for the construction phase		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
1.16	Develop a Commitment Register as a part of stakeholder engagement process in order to document the outcomes of public consultations and respond to local community expectations, and ensure that these are communicated back to stakeholders and updates provided.	High	SBIIPCL	Commitment Register (Construction)	Within 2 months of date of deal closure	Complied. Register book is maintained.		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015
				Commitment Register (Operation)	Within 2 months of date of Combined Cycle Operation	Not due before combined cycle operation.		
1.17	Consider preparing a detailed SEP with stakeholder profiling, key concerns, expectations, impact and influence, and risk rating of various stakeholder groups. It should include details on engagement strategy, disclosure, monitoring, reporting etc. The SEP should be subsequently updated with engagement records.	High	SBIIPCL	Updated SEP for the Project	Within 3 months of date of deal closure	Complied. SEP has been prepared, and activities are ongoing.		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. SEP document is prepared and disclosed with stakeholders. However it requires certain modification. Refer S. No: 5.4 of this table for detail.
2. PS 2: Labour and Working Conditions								
2.1	SBIIPCL while finalising its HR policy may consider the following aspects for inclusion: <ul style="list-style-type: none"> Roles and responsibilities associated with various positions need to be mentioned; Non-discrimination policy should be mentioned; HIV/ AIDS non- discrimination should also be spelt out; 	High	SBIIPCL	HR Policy and Procedures	Within 3 months of date of deal closure	HR policy of EPC Contractor has been updated complying with the provisions of SBIIPCL HR Policy.		<p>SBIIPCL has adopted the HR policy and Procedure of its parent company i.e. SIMCL on 11th June 2015. ERM had reviewed the SIMCL HR policy during the first EHSS audit in November 2014 and recommended for inclusion of following mentioned aspects;</p> <ul style="list-style-type: none"> Roles and responsibilities associated with

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
	<ul style="list-style-type: none"> Working with Suppliers and contractors and non-employee workers may also be referred to; Non-tolerance of child labour and forced labour not only for employee, but for the non-employee workers if any Anti- Sexual Harassment Policy may be explicitly captured; <p>All contractors and sub-contractors within the consortium should be required to apply the principles of the SBIIPCL HR Policy document and also ensure that their internal procedures follow local and international standards.</p>							<ul style="list-style-type: none"> various positions need to be mentioned; Non-discrimination policy should be mentioned; HIV/ AIDS non-discrimination should also be spelt out; Working with Suppliers and contractors and nonemployee workers should also be referred to; Non-tolerance of child labour and forced labour not only for employee, but for the non-employee workers, if any Anti- Sexual Harassment Policy should be explicitly captured; <p>ERM again reviewed the SIMCL HR policy which has been adopted by SBIIPCL and observed that above mentioned recommended aspects have not been integrated in the HR policy. <u>This matter was discussed during the closing meeting on 13th September 2015 with the Senior Management of SBIIPCL and ERM received an email confirmation from the CEO of SBIIPCL on 28th September 2015 that the policy document will be updated within 2 weeks with inclusion of all the above mentioned observations of ERM. ERM will review the updated HR policy document during the next compliance audit.</u></p> <p>The Operation & Maintenance (O&M) Contractor M/s. NEPCS is also on board now with the start of single cycle operation of the plant. It is recommended that HR policy of this O&M contractor should be aligned with the principles of SBIIPCL's HR policy and the applicable labour law requirement of the country.</p>
2.2	<ul style="list-style-type: none"> HR Policy of the EPC contractor should comply with the provisions of SBIIPCL HR Policy. EPC contractor's local staffs' terms and conditions of employment to be put in compliance with SBIIPCL HR policy. The EPC contractor to provide contracts or clear terms and conditions highlighting the terms of employment. Or the same could be possibly hired through sub-contractors. Workers to be provided clear terms and conditions of employment. 	High	EPC Contractor	HR Policy and Procedures of EPC Contractor	Within 2 months of date of deal closure or December 2014, whichever is earlier	<p>Complied.</p> <p>The Process is ongoing to re-write the terms of conditions for all employments in Bengali, and copies of the same to be provided to the labours. However, the issues of payment above minimum wage rate and double payment for OT have not yet been ensured.</p>		<p>EPC contractor has prepared a separate HR policy for this project that is observed to be in line with provisions of HR policy of SBIIPCL. However the policy was not signed by management of EPC contractor.</p> <p>BCAS's observation on paying minimum wage and paying overtime hours at twice of the ordinary wage is still intact. Current wage rate of the workers is less than minimum wage rate and payment of overtime hours is still equivalent to ordinary wage rate.</p> <p><u>The Site Management of NEPC Bibiyana II Project had given a confirmation email on 17th September 2015 to SBIIPCL management that they will maintain paying daily wage workers minimum wage according to prevailing Bangladesh Labour Act; and the overtime payment will be made at the rate of twice of wage rate for over-time hours. Furthermore, same will be implemented with immediate effect. Implementation of these actions will be further reviewed during the next compliance audit.</u></p>
2.3	Improve the conditions of the migrant workers- better accommodation and clearly articulated terms and	High	EPC Contractor	Improved workers' accommodation	November 2014	Complied to the extent possible		Approx. 30 workers are reportedly staying in the labour colony as reported during site visit. Almost

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
	conditions of employment							50% of them, are security guards, and rest are construction workers, drivers etc. Basic facilities like ventilation, lighting arrangement, sanitation, water supply is being provided. Separate place for cooking with adequate ventilation, is being maintained. Overall living condition in labour colony seems to be at satisfactory level.
2.4	Clear labour construction camp guidelines to be formulated and shared with SPCBL II. The guidelines should take into consideration observations highlighted in the report.	High	EPC Contractor	Labour construction camp guidelines	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied. Regularly monitored by SBIIPCL		As reported in previous ERM's audit, NEPC has formulated labour construction camp guidelines and same was reviewed and approved by SBIIPCL. It was observed that regular inspection of labour colony by SBIIPCL is happening in order to ensure satisfactory living condition.
2.5	Ensure that the principles on non-discrimination and equal opportunity are included in the HR Policy Statement and that the EPC Contractor abides by the same while engaging local sub-contractor or contract workers.	High	SCBPL II	HR Policy of SCBPL II	Within 3 months of date of deal closure	Complied. HR policy of EPC Contractor has been updated complying with the provisions of SBIIPCL HR Policy.		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015.
2.6	The Project should establish channels for management and workers to communicate and for the workers to place their concerns as well as suggestions. The grievance process should be made accessible for construction workforce and should enable workforce to raise anonymous complaints. The grievance records should be properly documented, tracked and reviewed for redressal of the Grievances.	High	SCBPL II EPC Contractor	Grievance redressal mechanism	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Grievance redressal mechanism is prepared and disclosed to the stakeholders including workers. However it was observed that workers still prefer to register their grievances verbally to their supervisors and line managers. Workers grievances are majorly related to the request for providing PPEs which are addressed on time.
2.7	The EPC contractor's position on non-employment of child, forced or bonded labour has to be clearly stipulated more specifically to the sub-contractors and their associated workforce. There should be proper checks and verification systems in place for the workforce to ensure no cases of child labour or forced labour are not allowed within the site premises.	High	EPC Contractor	HR Policy and Procedures of EPC Contractor	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied		Project specific HR policy of the EPC contractor, does include provision around prohibition of child labour and forced labour. National ID card and age proof document is obtained from each worker at the time of recruitment. Worker below 18 years are not employed by the EPC contractor.
2.8	Develop a site specific health and safety manual including SOPs and work permits required to protect the construction manpower (including subcontractors' personnel) from injuries.	High	EPC Contractor	SOPs for EHS Plan	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer <i>ERM 2nd EHSS Compliance Assessment Report</i> .
2.9	Develop a work permit system to carry out non routine jobs at the construction site.	High	EPC Contractor	SOP for work permit system	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied. Work permits for non-routine jobs have been issued by NEPC, and it has been monitored by SBIIPCL.		Work permit has been prepared by NEPC for non-routine works viz. crane dismantling; refuelling of chemical tanks etc. and is found to be implemented based on documentation reviews.
2.10	Prepare a Job hazard analysis for all the construction activity and same should be communicated to all the workers.	High	EPC Contractor	Job hazard analysis	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied. An inventory is maintained specifying the work areas covered, no of trainings provided and workforce being trained. A comprehensive JHA has been prepared including electrical installation, material lifting, confined space work, hot work etc.		Based on ERM Audit report recommendation NEPC has updated the Job Hazard Analysis (JHA) as prepared earlier to cover the following activities: <ul style="list-style-type: none">Electrical WorkErgonomicsExcavation activity However <i>comprehensive hazard analysis related to hot work, confined space entry and material lifting are still found to be pending.</i> Reportedly verbal trainings are being provided to

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
								communicate the JHA to workers as part of the site EHS inspections being undertaken by both SBIIPCL and NEPC; however no physical records to this regard is being maintained to verify the site JHA trainings. <i>SBIIPCL/NEPC to document all JHA related trainings being imparted to the construction workforce as part of site EHS inspections.</i>
2.11	Prepare a pre-use inspection checklist (activity and equipment specific) and same should be performed and attach with every permit before starting of activity.	High	EPC Contractor	Activity and equipment specific checklist	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied		Review of work permit related documentation reveals that NEPC has not yet implemented pre-use inspection checklists for critical work activities such as hot work, confined space entry, material lifting and work at height as specified in the earlier ERM audit report.
2.12	Conduct train the trainer program to increase the knowledge of the safety department.	Medium	EPC Contractor	Training Records	Within 2 months of date of deal closure	Complied. Training has been conducted for contractor EHS personnel covering hot work, excavation, material lifting, usage of power tools, storage & handling of fuels/chemicals		Refer response to S. No. 1.10. Additionally SBIIPCL has developed a “ Work Place Safety Training ” Module to enhance worker awareness on the following EHS aspects viz. housekeeping, PPEs; work at height; hazardous material handling; electrical safety; power tool safety; Slips and Fall; Ladder Safety; Material Handling; Confined Space; Fire Prevention; Water Damage Prevention and Environmental Awareness. Keeping with the “train the trainer” requirement SBIIPCL has imparted training sessions for NEPC personnel on the said module as part the Weekly HSE meetings.
2.13	Recruit a qualified doctor to work at first aid centre	High	EPC Contractor	Qualified doctor at site clinic	Within 2 months of date of deal closure	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
2.14	Prepare an Accident & Investigation register to include the information related to the accident.	Medium	EPC Contractor	Accident & investigation register	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
2.15	Carryout hazard identification and risk assessment (HIRA) for all construction and associated activities and preparation of SOPs	High	EPC Contractor	HIRA Register and SOPs	Within 2 months of date of deal closure or December 2014, whichever is earlier	Complied. HIRAC is updated including hazards associated with fuel/chemical storage and handling, electrical work and confined space entry.		Review of the updated Hazard & Risk Assessment & Control (HIRAC) document reveals that potential hazards and risks associated with activities such as fuel/chemical storage and handling, electrical work and confined space entry has not been adequately covered by NEPC. <i>SBIIPCL to support NEPC in proper updation of the HIRAC through identification of the potential hazards and risk assessment of activities related to fuel/chemical storage & handling, electrical work and confined space entry.</i>
2.16	Carry out inspection for the potential hazards at the facility and provide the risk control as per the hierarchy of control.	High	EPC Contractor	Risk control measures	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
2.17	Provide training to workers, supervisors and employees on importance and usage of PPEs for different activities and organize PPE awareness program.	High	EPC Contractor	Training Calendar	As per Training Calendar	Complied. The annual training calendar is updated with the inclusion of additional training programs on importance and usage of PPEs to cover majority of the workforce.		As discussed in S. No. 1.10 the annual training calendar for 2015 has been updated to include a module on “Proper Usage of PPEs” with training on the same delivered to the NEPC subcontractor workforce on 27 Aug 2015.
2.18	Prepare a PPE program for the facility and program should cover the following essential elements: • Workplace Survey;	High	EPC Contractor	PPE Implementation Program	Within 1 month of date of deal closure or November 2014, whichever is earlier	Complied. PPE matrix is updated according to ERM recommendation. Furthermore, workers been		In line with the earlier ERM audit recommendation the PPE matrix has been updated to include electrical work PPE requirements. Further training on proper usage of PPEs has been arranged and

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
	<ul style="list-style-type: none"> Selecting appropriate controls; Training; Maintenance; Audit of the program. 					trained on how to use appropriate PPE on particular job i.e. electrical work, grinding etc.		<p>delivered to NEPC personnel in accordance to the training calendar.</p> <p>Documentation review however indicates that no inspection/ monitoring checklist has been developed and implemented under this PPE matrix/EHS Plan to assess and evaluate the condition of all the PPEs in use.</p> <p><i>NEPC to develop and implement a PPE inspection checklist to thoroughly evaluate the usable condition and effectiveness of all PPEs in use by the workers.</i></p>
2.19	Prepare training modules for job specific trainings and identify workers required to undergo job specific trainings.	High	EPC Contractor	Training modules	Within 2 months of date of deal closure or December 2014, whichever is earlier	Complied. Training selection is now based on workers experience; workers work type and most importantly according to the accident happen by evaluating the root cause of accident.		<p>As discussed in S. No. 2.13 SBIIPCL has in place a “Work Place Safety Training” Module covering various EHS aspects of the construction phase. Further a “Site Safety Training Module” in local language has been prepared by NEPC on critical work items such as work at height, confined space, electrical work and material safety. As reported training on the aforesaid modules are being delivered to the onsite workers during the daily and weekly site EHS inspections being undertaken jointly by both SBIIPCL and NEPC. However no physical records to this regard is being maintained to verify the site JHA trainings.</p> <p>However as recommended in the earlier ERM audit NEPC is yet to maintain a register of workers based on their skill set and job profile. NEPC is also to periodically arrange for training of this target group on specific EHS aspects of work.</p>
2.20	Conduct the first aid training with the help of qualified first aider and make sure that first aiders are available at all times at facility.	High	EPC Contractor	First aid trainings	Within 2 months of date of deal closure or December 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
2.21	Develop a standard operating procedure on incident investigation with roles and responsibilities.	High	EPC Contractor	Incident investigation SOP	Within 2 months of date of deal closure	Complied. EPC contractor is now following the SBIIPCL accident/incident investigation procedure which includes the particular roles and responsibilities pf personnel involved in incident investigation process.		SBIIPCL has developed an Incident Investigation & Reporting Procedure and the same has been communicated to NEPC for implementation. However as specified in the earlier audit recommendation the procedure is yet to be updated to include reporting process flow in the event of an incident.
2.22	Start preparing the accident/ incident statistics for each and every area and start identifying the area of concerns and prepare an action plan to address the issues by mean of alternate work procedure, trainings, special attention to the high risk jobs, increase in number of supervisor for high risk jobs.	Medium	EPC Contractor	Statistical analysis of accident/ incident data and corrective action	Within 2 months of date of deal closure and monthly update of the same	Complied. Accident investigation statistics in now being maintained by SBIIPCL EHS Manager.		The identification of “Areas of Concerns” (AOCs) within the site is based on the interpretation of first aid/injury log data as being shared by NEPC to SBIIPCL on a monthly basis. Based on the aforesaid analysis SBIIPCL has identified the cooling tower, boiler area and central control building as the AOCs; however preparation and implementation of a safety action plan for the aforesaid AOCs is still pending
2.23	<p>SBIIPCL will need to put in place a formal contractor management system to audit its contractors as well as those of the EPC contractor. The management system should include:</p> <ul style="list-style-type: none"> Compliance checklist against the Applicable Standards; Criterion on contractor selection to minimize HSE or labour related risks and issues at the time of 	High	SBIIPCL	Contractor Management System	Within 2months of date of deal closure or December 2014, whichever is earlier	Complied. Insurance is not applicable as the workers are employed on temporary basis.		<p>HSE In-charge of SBIIPCL deployed at site is accountable for ensuring compliances w.r.t the contractors and sub-contractors engaged at plant.</p> <p>Considering the nature & size of contract workers engaged at plant, provision of extending insurance is not applicable as per labour law of Bangladesh.</p>

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	<p>engagement;</p> <ul style="list-style-type: none"> Monitoring and audit procedures; and <p>Further the EPC contractor and the sub-contractor should be made responsible for the insurance of the workers mobilised at the site.</p>							
3	PS 3: Resource Efficiency and Pollution Prevention							
3.1	Ensure that all the ESMMP implementation requirements during construction phase are being clearly provided to the EPC contractor and implementation of mitigation measures along with records should be reviewed by EHS Officer of the SBIIPCL.	High	SBIIPCL and EPC Contractor	ESMMP implementation	As defined in ESMMP during construction phase	<p>Partially Complied. Bird survey is yet to be undertaken for preparation of avifauna management plan to manage the impacts resulting from the proposed T-line. Fisheries survey is also due. Speed limit signage has already been provided in access road.</p> <p>As per ESMMP 3 samples has taken from river to check river water quality (Upstream, near project and downstream).</p> <p>Records are now available to monitor erosion of Kushiya river.</p> <p>Mock drill on earthquake has been conducted in the site on 06 August, 2015.</p>		<p>Reportedly ESMMP has been shared by SBIIPCL to NEPC however no verification checks/ monitoring has been undertaken by SBIICL to check compliance status on a periodic basis. SBIIPCL to perform monthly assessment of the ESMMP implementation for construction phase through development and implementation of specific checklists and compliance report to be shared with NEPC for reference and necessary action for closure.</p> <p>Further efforts has been made by ERM team to assess the compliance status of the EHS commitments made by SBIIPCL in the construction phase ESMMP of the ESIA study report prepared by BCAS. A summary of the observations and recommendations made to this regard has been tabulated below:</p> <ul style="list-style-type: none"> Reportedly daily water sprinkling is being undertaken by NEPC throughout the workplace through deployment of a dedicated water tanker bearing vehicle. However the activity has been discontinued for monsoon season due to heavy rainfall in the region. Review of the Occupational Health Safety (OHS) monitoring report reveal a total of 44 first aid cases and 22 near misses recorded for the period June-Aug 2015. It is recommended <i>OHS report be updated to include safe man-hours worked, medical treatment cases and fire incidents as safety performance indicators.</i> SBIIPCL has engaged <i>Adroit Environment Consultants Ltd.</i> to perform AAQ monitoring at 4 locations within the plant along the boundary on a quarterly basis. Review of the ambient air quality monitoring report dated 7 Sep 2015 reveals compliance to the ambient air quality standards specified in the <i>Bangladesh Environment Conservation Rules (ECR) 1997.</i> Solid waste disposal comprising of food waste and oily waste generated from constructions continues to be disposed at the open dumping site at Lalmatia, Sylhet. Review of waste disposal area visit report prepared by SBIIPCL reveals the disposal site to be not being managed scientifically

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								<p>without any provision for liner and leachate collection system. Further open burning of waste is reportedly being practiced in this area. With respect to operations SBIIPCL need to coordinate with DoE, Bangladesh to identify a proper waste disposal facility/ vendor to ensure effective and sound management of solid waste generated during operations.</p> <ul style="list-style-type: none"> • Periodic inspection of forklifts undertaken by NEPC and such records maintained as per the format specified in the EHS Plan. <i>Periodic inspections to be performed and records to be maintained for other vehicular equipment viz. concrete pump truck, concrete tankers, loader, trucks etc. as per the format specified in the EHS Plan.</i> • With decommissioning of the HSD storage yard set up for constructions and provision of covered storage and dedicated treatment system for acid, alkali and fuel storage areas the generation of any contaminated run-off is likely to be minimal. Hence provision of oil water separator and sedimentation tanks at storm water discharge location is not found to be applicable. • With respect to monitoring of surface water quality a total of 3 samples have been collected from Kushiara River and analysed in June 2015 at the in house laboratory of NEPC-S – the O&M contractor. Review of the results indicate that analysis is limited to only pH, TDS, TSS, COD, BOD, Oil & Grease, Total Residual Chlorine, Iron and Arsenic as compared to the ESMMP and Bangladesh ECR requirements Further the results for COD, TDS and Iron were found to be grossly in deviation with the baseline water quality as specified in the ESIA report. It is therefore recommended that <i>river water quality results are validated through third party monitoring encompassing the parameters outlined in the ESMMP and ECR, 1997.</i> • Visual checks of erosion monitoring along the banks of the Kushiara River is being done by SBIICPL on a monthly basis however it is limited to the project side of the river bed. Currently the activity is being affected due to the rise in river water levels due to heavy rainfall experienced in the region. It is recommended that <i>visual checks for erosion monitoring is documented in the form of a monthly report providing a comparative time-series analysis.</i>

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								<ul style="list-style-type: none"> Ground water sample has been analysed by Centre for Research, Testing and Consultancy Department of Civil and Environmental Engineering Shah Jalal University of, Science and Technology, Sylhet. Review of analysis results dated 30 Aug 2015 indicates lack of coverage of heavy metal parameters (except for iron and arsenic) with the total and faecal coliform values found to be higher as compared to the ECR, 1997 standards for drinking water quality. Further no information is available in the report regarding details of ground water sampling viz. location, date, time etc. It is therefore recommended that <i>heavy metal parameters are covered in the ground water analysis results as specified in the ESSMP and ECR, 1997. The coliforms results need to be verified based on review of the baseline ground water data and action plan prepared as found to be necessary. All such monitoring reports to bear the details of ground water sampling.</i> Reportedly a bird survey will be undertaken taking into account the migratory season starting October 2015. In this regard quotation has been received from an external qualified consultant and is currently being evaluated by SBIIPCL. Traffic and transportation plan is available and is being implemented. Review of records reveals that no training has been organized for vehicle drivers on driving related safety since Apr 2015 as required under the above plan. Regarding display of signage along access road NEPC has set up “sharp curve ahead” “crossing ahead” signs however <i>posting of signage on “safe speed limit” and “no honking” yet to be undertaken.</i> Emergency mock drill is currently limited to in-house training provided on 6 Aug 2015 by SBIICPL to the workforce to apprise them on the emergency response plan (ERP) and actions in case of an emergency. However <i>SBIIPCL is yet to organize a mock drill along with NEPC to exercise implementation and asses the effectiveness of ERP on ground.</i> Records of EHS inspections are only available for the month of June 2015. Per the approved EHS Plan NEPC to <i>conduct weekly HSE inspections along with SBIIPCL for discussion of key HSE issues/concerns and the document the same for future review/action.</i>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
3.2	Undertake regular monitoring of air emissions, water consumption, wastewater discharge, solid and hazardous waste disposal, noise levels, in line with the ESMMP	Low	SBIIPCL	ESMMP implementation	As defined in ESMMP during operation phase	Complied		<p>With the COD for combined cycle expected to be declared in Dec 2015 it is recommended the SBIIPCL is on track to comply with this requirement through development and implementation of Environmental Monitoring Program as per the operations ESMMP.</p> <p>With single cycle in operation treated waste water generated from the ETP is minimal and currently being stored in a dedicated underground treated water storage tank. Analysis of the treated water monitoring report dated 1 July 2015 reveals compliance to the inland surface water discharge standards for pH, BOD, COD, Dissolved Oxygen, Electrical Conductivity, TDS, TSS. Turbidity, Oil Grease, Phosphate, Residual Chlorine and heavy metals (Cadmium, Chromium, Copper, Zinc and Arsenic) as specified in the ECR, 1997. However this will be further assessed in details when the project is fully operational in December 2015 following combined cycle operations and as part of the next quarterly audit visit.</p> <p>Review of Storm Water Management Plan and drainage drawings reveals provision of storm water collection system for the power RMS, Turbine Building, CCB, Dormitory and DM plant including a series of drainage line running along the perimeter of the project. The run-off by gravity flows via drainage pipes into rainwater collection wells from where it finally discharges into Kushiyara. As per the management plan the system has been designed taking into account a 100 year flood history of the area. However the drainage drawing provided does not reveal the presence of oil-water separators at the outfall point.</p> <p>For stack emission monitoring SBIIPCL has installed an online emission monitoring system however the emission results to be assessed and validated against WB/IFC EHS guidelines when the project is fully operational following commencement of the combined cycle operations in December 2015.</p> <p><i>Review and update the Storm Water Management Plan and drainage drawings to include provision of oil-water separator at the outfall point.</i></p>
3.3	Ensure that impacts associated with the decommissioning phase are assessed and addressed prior to eventual decommissioning.	Low	SBIIPCL	ESMMP for decommissioning phase.	1 to 2 years prior to eventual decommissioning.	Not due		To be assessed during combined cycle operations
3.4	Complete an annual GHG emissions estimation based on the actual operations of the Project during the operational phase.	Low	SBIIPCL	GHG estimation and reporting.	Annually, after one year of COD	Not due		To be assessed during combined cycle operations
3.5	Develop the climate adaptation policy and procedures in line with the requirements specified in the ESMMP.	Low	SBIIPCL	Climate Change Adaptation Policy	Within 12 months of COD (Plant Operations)	Not due		To be assessed during combined cycle operations
3.6	Provide organisational arrangements, capacity development and training measures and performance indicators for effective implementation of the ESMMP already developed for the Project.	High	SBIIPCL	Capacity building and setting up of performance indicators	1 month prior to COD	Not due		SBIIPCL organizational structure for operations has been presented in the Environmental & Social Monitoring Report of BCAS for Aug 2015. However with COD expected to be declared on Dec 2015, SBIIPCL need to be on track through the

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
								development of organizational capacity building programs and appropriate performance indicators to ensure effective implementation of the ESMMP for operations.
3.7	Develop a Waste Management Plan for operation phase.	Low	SBIIPCL	Waste inventory and disposal options.	3months prior to start of Combined Cycle Operation	Not due		<p>Currently there exists no designated storage space for hazardous waste onsite with none found to be stored onsite during the visit. Reportedly with the transition from construction to operations the generation of hazardous waste is minimal.</p> <p>For operations SBIIPCL has developed a <i>Waste Management Procedure (SBIIPCL-EHS-010)</i> for both hazardous and non-hazardous waste streams to be generated during operations. The procedure outlines the categories of wastes, PPE requirements; roles and responsibilities and activities related to waste handling and disposal.</p> <p>Review indicates the procedure to be generic in nature and lacking specific requirements with respect to storage, handling and disposal of specific waste categories/streams. Further SBIIPCL has not identified sludge generated from sewage treatment operations as a potential waste stream. However implementation of the aforesaid procedure to be assessed following the combined cycle operations during the next quarterly audit visit.</p> <p><i>SBIIPCL to review and update the Waste Management Procedure to encompass all waste streams likely to be generated during operations. This should also include evaluation of potential waste storage, disposal and recycling options as may be identified in discussion with Department of Environment (DoE), Bangladesh.</i></p>
3.8	Develop a Hazardous Materials Management (HMM) Plans.	High	EPC Contractor	HMM Plan. – Construction phase	Within 2 months of date of deal closure or December 2014, whichever is earlier	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer <i>ERM 2nd EHSS Compliance Assessment Report</i> .
		Low	SBIIPCL	HMM Plan – Operation Phase	3 months prior to start of Combine Cycle Operation	Not due		<p>For operations SBIIPCL has developed a <i>Caustic & Acid Handling Procedure (SBIIPCL-EHS-003)</i> to ensure safe handling of chemicals outlining the measures to be adopted related to storage, handling, first aid and accidental releases. Reportedly the aforesaid procedure is to serve for management of hazardous material during operations.</p> <p>However the review of relevant documentation reveals that the procedure is limited to only caustic soda and hydrochloric acid and is not extended to cover other hazardous materials such as hydrazine, sulphuric acid, ammonia etc. Further Material Safety Data Sheets (MSDS) for the aforesaid chemicals has not been referred and/or annexed to this procedure.</p>

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								In this regard it is recommended that SBIIPCL update the Caustic & Acid Handling Procedure based on the review of chemical usage requirements for operations. The updated procedure to bear MSDS of chemicals to be stored and used for operations.
3.9	<ul style="list-style-type: none"> Ensure that spillage kit is available at the HSD storage area. Provide drainage system to the HSD storage shed to collect the rain water and waste water generated after floor cleaning. Prepare a procedure for the HSD loading & unloading and spill control and trained workers for the same. Prepare a list of the authorised person and same should be pasted outside the storage shed area and access control system to be implemented. 	High	EPC Contractor	Spillage management plan	Within 1 month of date of deal closure or December 2014, whichever is earlier	Complied		With construction activities likely to end by Dec 2015 no HSD is currently being stored at the site. Further the covered yard designated for such storage (refer ERM 2 nd EHSS Compliance Assessment Report) was found to have been decommissioned. Hence the requirement related to provision of spill kits and implementation of HSD loading and unloading procedures is not assessed to be applicable at this stage.
3.10	Develop a Standard Operating Procedure for Pest Management for the Project.	Medium	SBIIPCL	Standard Operating Procedure for Pest Management.	Within 3 months of COD	Not due		To be assessed during combined cycle operations
3.11	Develop a Standard Operating Procedure on the use of Ozone Depleting Substances (ODS), with the focus being on no new systems or equipment use ODS.	Medium	SBIIPCL	Standard Operating Procedure on the use of Ozone Depleting Substances.	Within 3 months of COD	Not due		To be assessed during combined cycle operations
3.12	Ensure that emissions from on-road and off-road vehicles should comply with Schedule 6 (Standards for emissions from motor vehicles) of the <i>Environmental Conservation Rules, 1997 of GoB</i> .	Medium	SBIIPCL and EPC Contractor	Compliance checks of on-road and off-road vehicles.	Within 2months of date of deal closure or December 2014, whichever is earlier (with quarterly monitoring)	Complied. NEPC is now maintaining an inventory of vehicles in operation for the project, and fitness certificates of vehicles are obtained.		<p>Considering the potential challenges of performing vehicular emission monitoring in Bangladesh, SBIIPCL in line with ERM audit recommendation has maintained valid certificates of fitness for its vehicles operated for transportation of project personnel. However for its ambulance the validity of fitness certificate have expired on May 2015 and is currently pending renewal.</p> <p>With respect to NEPC there exists no inventory of vehicles being operated against which valid fitness certificate as issued by Bangladesh Road Transport Authority (BRTA) could be made available for review and verification.</p> <p>SBIIPCL to apply to BRTA for renewal of certificate of fitness for the ambulance. NEPC to maintain inventory of all operating vehicles and valid certificate of fitness against the same to be made available to check conformance with Bangladesh Environmental Conservation Rules, 1997 and Motor Vehicle Ordinance, 1983.</p>
3.13	Ensure no use of asbestos containing material is specified in the design of the Project.	High	SBIIPCL	Written confirmation that no asbestos will be used in the Project development from newly purchased materials.	Within 1 month of date of deal closure	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer ERM 2 nd EHSS Compliance Assessment Report.
3.14	Conduct air quality dispersion modelling study with updated stack characteristics in the design	Medium	SBIIPCL	Updated air quality dispersion modelling	Within March 2015	Complied		Air quality dispersion modelling for flue gas emissions has been undertaken by BCAS in July 2015 taking into account the revised stack height of 70m and stack diameter of 7m. The air dispersion modelling was conducted by using AERMOD model of USEPA, which is widely used as

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								<p>regulatory model and had also taken into consideration 1 complete year meteorological conditions (Year 2014) for the modelling purpose. Modelling has been taken into consideration only with combined cycle operation and emission of flue gases from the main stack. The modelling study has been performed with 50 m (previously considered during ESIA study) and 70 m (amended design) tall main stack.</p> <p>Results indicate the incremental Ground Level Concentrations (GLC) for NOx and CO to be 1.95 and 2.25 µg/m³ respectively. This is found to be slightly lower compared to modelling results for the same set of pollutants considering the earlier design stack height of 50m.</p>
4	PS 4: Community Health, Safety and Security							
4.1	Conduct a detailed QRA for the Project based on actual design and formulate an emergency response plan.	Medium	SBIIPCL	Quantitative Risk Assessment and Emergency Response Plan	3 months of COD	Not due		To be assessed during combined cycle operations
4.2	Develop a traffic management and logistics plan taking into consideration community safety	High	EPC Contractor	Traffic management plan.	Within 1 month of date of deal closure or November 2014, whichever is earlier	Partially Complied. "No honking" signs have not yet been posted.		As per ERM recommendation from the earlier audit SBIIPCL in coordination with NEPC has displayed safety signage viz. "sharp curve ahead" and "road crossings" along the site access road. However signage related to safe speed limit and "no honking" is yet to be displayed along this road.
4.3	Undertake specific communication on health hazards and mitigation measures on an ongoing basis against new activities and associated health and safety risks to the local community.	Medium	SBIIPCL	Communication on health hazards and mitigation measures.	Within 3 months of COD	Not due		To be assessed during combined cycle operations
4.4	Engage a suitably qualified professional to undertake a Life and Fire Safety (L&FS) review of the facility prior to commissioning and develop a Corrective Action Plan to address any identified deficiencies / gaps between the facility and the requirements of the WBG General EHS Guidelines.	Medium	SBIIPCL	Life and Fire Safety Review and Corrective Action Plan	1 month prior to the commissioning of combined cycle	Not due		With simple cycle already in operation and COD for combined cycle expected to be declared by Dec 2015 SBIIPCL to engage Life and Fire Safety Expert by Nov 2015 to assess the site fire safety preparedness and prepare an action plan in consistent with the WBG General EHS Guidelines.
4.5	Ensure any future security arrangements shall comply with PS4 requirements. The SBIIPCL Grievance Mechanism should include security within its scope.	Low	SBIIPCL	Compliance check against PS4 requirement.	1 months of COD	Not due		To be assessed during combined cycle operations
5	PS 5: Land Acquisition and Involuntary Resettlement							
5.1	Ensure: <ul style="list-style-type: none"> Preparation of the Livelihood restoration plan; Documentation of the stakeholder engagement records; Maintaining proper records of the employment and vendor opportunity provided to the PAFs and the local community 	Medium	SBIIPCL	Livelihood restoration plan and stakeholder engagement	Within 3 months of date of deal closure (and periodic review)	Complied. LRP has been prepared as per IFC requirement.		<p>LRP has been prepared only to meet the requirements of IFC and is not applicable for ADB. SBIIPCL has got Livelihood Restoration Plan (LRP) prepared through an external consultant and it was shared with IFC for their comments. LRP is revised now after addressing IFC's comment on the report.</p> <p>Review of LRP reports and discussion with CDO indicates that 21 PAHs didn't opt for any livelihood training programme because they are economically well off. 14 landowners PAHs and 58 agriculture labour PAHs could not traced during the household survey process of LRP. Total 396 project affected persons (PAPs) were identified for LRP. (Refer</p>

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								Section 3.2.4 for detailed information on LRP). It has been reported by SBIIPCL that an NGO (Institute of Development Enterprises (IDEA)) for implementation of LRP has already been engaged in October 2015 and work on the same reportedly has been started from 1 st November 2015.
5.2	Continued engagement and resettlement monitoring by CDO.	Medium	SBIIPCL	Resettlement monitoring reports	Within 3 months of date of deal closure (and periodic review)	Complied		CDO is observed to be in regular touch with the local community including PAHs. Key progress w.r.t. R&R aspects in the reporting period of this compliance audit (16 th May 2015 to 10 th Sept 2015) includes; <ul style="list-style-type: none"> • Compensation for the remaining Agriculture labour has been provided (as per ADB Framework); • Livelihood Restoration Plan (LRP) conducted). Hiring of NGO for LRP implementation completed. • Training on sewing machine for selected females out of 31 PAHs (affected by land acquisition for power plant) has begun. Accomplishment of above mentioned activities can be seen as an indicator of continued community engagement. CDO had also prepared a first quarterly Resettlement Monitoring Report in May 2015, submitted to SBIICPL management for internal review. No update on further similar reporting on Resettlement monitoring was provided. <i>It is recommended that CDO should continue with preparing quarterly resettlement monitoring report in order to enable SBIIPCL management for tracking progress on implementation on R&R activities.</i>
5.3	Establishment of a formal GRM for the PAFs and the community;	Medium	SBIIPCL	GRM for PAFs	Within 3 months of date of deal closure (and periodic review)	Complied		Formal GRM is established. Process of registering grievances is documented in English and local language and it has been disseminated with PAHs at individual level as well by CDO. Records of grievances are maintained by CDO. Consultation with community and CDO indicates PAHs prefer sharing their grievances verbally either by calling CDO on his mobile or through meeting with CDO. Grievances are recorded by CDO in grievances register. Thus GRM is considered to be in compliance by ERM.
5.4	Consider preparing a detailed SEP with stakeholder profiling, key concerns, expectations, impact and influence, and risk rating of various stakeholder groups. It should include details on engagement strategy, disclosure, monitoring, reporting etc. The SEP should be subsequently updated with engagement records.	Medium	SBIIPCL	Updated SEP for the Project	Within 3 months of date of deal closure (and periodic review)	Complied		SEP document was prepared by CDO and reviewed by SBIIPCL management. SEP document was also translated in local language and translated copies were shared with PAHs and other stakeholders. ADB has also reviewed SEP and suggested for following recommendations; <ul style="list-style-type: none"> • SEP should provide a strategy and timetable for sharing information and consulting with each of the groups identified • SEP should describe resources and responsibilities for implementing stakeholder engagement activities • SEP should describe how stakeholder engagement activities will be incorporated

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								<p>into the company's management system</p> <ul style="list-style-type: none"> • Insert a Summary of any Previous Stakeholder Engagement Activities • Add a section on Monitoring and Reporting - describing any plans to involve project stakeholders (including affected communities) or third-party monitors in the monitoring of project impacts and mitigation programs. Describe how and when the results of stakeholder engagement activities • Will be reported back to affected stakeholders as well as broader stakeholder groups? • Insert the GRM procedure itself which describes the process by which people affected by the project (or company's operations) can bring their grievances to the company for consideration and redress. Who will receive public grievances, how and by whom will they be resolved, and how will the response be communicated back to the complainant? <p><i>ERM do suggest that above mentioned recommendation should be integrated in SEP document. In addition to this, it is recommend that copies of revised SEP, GRM, SIA etc. should be placed at CDO office, situated at community (located just across the power plant) for convenient access to wider range of stakeholders.</i></p>
5.5	SBIIPCL should ensure payment of compensation to sharecroppers in line with the resettlement action plan and records should be maintained.	Medium	SBIIPCL	Records of compensation payment	After finalisation of CAP	Complied. All payments have been made.		<p>As per the ADB framework for those impacted by the main power plant, SBIIPCL has made payment to one pending agriculture labour. Payment of compensation stands completed now.</p> <p>The site management reported that, the compensation to be paid by LAO for the losses with respect to the associated facilities has been paid. Though, there was no documentary evidence made available for the same.</p> <p>As per the IFC LRF, there is provision for training and seed capital for all PAHs. This is yet to start as there has been a delay in implementation of LRP.</p>
6	PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources							
6.1	Conduct six monthly construction phase monitoring of terrestrial and aquatic organisms	High	SBIIPCL	Terrestrial and aquatic organism monitoring	As defined in ESMMP during construction phase	Partially complied. SBIIPCL has appointed a team of consultants for carrying out the monitoring study of terrestrial and aquatic organisms. The team has already finished field work on terrestrial flora and fauna, and will submit a monitoring study report by end of August, 2015. On the other hand, fisheries		<p>A terrestrial floral and faunal study was undertaken for the project by <i>Dr. Md. Monirul Islam, Associate Professor, Department of Fisheries, University of Dhaka.</i> The study was carried out in August 2015 encompassing the villages of <i>Parkul, Char Tajpur, Lama Tajpur, Padullah, Brahmanaon, Monumukh and Jamargaon</i> surrounding the project area.</p> <p>This study used species survey, laboratory techniques and focus group discussions (FGDs) to identify and verify the species found. The study found 142 different types of plant species including 28 medicinal plants, 28 fruit trees, 23 seasonal</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS as on August 2015	Status	ERM Observations (as on 11 Sep 2015)
						survey will be carried out by the same team in October, 2015. However, SBIIPCL has not yet outsourced the task of carrying out avifauna monitoring study.		<p>vegetables, 18 flowering plants, 17 woody plants and 10 aquatic plants throughout the seven sample locations around the SBIIPCL project area in the upstream and downstream of the project location at Parkul. Other than 142 plant species, 22 rice varieties are cultivated in these locations in different season. This study also found several faunal species: 52 species of birds, 18 species of reptiles, 7 species of wild animals and 7 species of domestic animals. This study found a rich biodiversity around the project area and no considerable impact of SBIIPCL project was found on the local biodiversity. A similar kind of study was conducted in the same area in 2014 which identified the flora and fauna in the SBIIPCL project area. Comparing the results of that study with the current study, no reduction of either floral or faunal species was found.</p> <p>Reportedly for the survey of aquatic species will be conducted by the aforesaid external expert during post-monsoon season i.e. from Oct'15 onwards.</p>
6.2	Develop greenbelt within the project boundary.	Low	SBIIPCL	Greenbelt Development	After completion of construction activities.	Not due before COD. Most of the areas along the boundary walls of the power plant have been paved. So, provision has to be made to ensure plantation around the project boundary for green belting.		<p>SBIIPCL has engaged M/s Zara Enterprise vide contract dated 8 Aug 2015 to implement green belt development activities outside the project boundary viz. along the access road of project, <i>Parkul</i> and <i>Bongaon</i> villages including the resettlement site. As reported by SBIIPCL the plantation work has already been completed with nearly 2800 saplings being planted in the aforesaid areas and the same confirmed during the site visits. Presently the involvement of contractor is limited to the proper upkeep and maintenance of the planted tree species. It is recommended that <i>SBIIPCL track the plantation and survival rate of tree species outside the project site.</i></p> <p>Regarding green belt development within the site it is understood based on discussion with SBIIPCL that no plan has been developed till date for the same. With COD for combined cycle operations expected by Dec 2015 <i>SBIIPCL to develop and implement a Green Belt Development Plan for the project site.</i></p>
6.3	Include an invasive alien species management plan in the ESMMP for the construction and operational phases	Medium	SBIIPCL and EPC Contractor	Invasive alien species management plan.	Within 2 months of date of deal closure	Complied		Assessed to be in compliance by ERM during EHSS audit undertaken in May 2015. Refer <i>ERM 2nd EHSS Compliance Assessment Report.</i>

Table 4.2 IFC ESAP Compliance Status

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (as on 11 Sep 2015)
1	Upgrade the existing EHS Policy, EHS Management Procedures and EHSS Plan in accordance with the provision of IFC PSs, the ESMMP and findings of the EHSS Audit, and implement the EHS Management Procedure.	EHS Policy and EHSS Plan	31 Mar 2015		EHS Policy, EHS Management Procedures and EHSS Plan for the construction phase taking into consideration the provisions of IFC PSs, the ESMMP are in place. Furthermore EHSS audit findings are also being included in the EHSS implementation at site by SBIIPCL. Specific observations on the management plans prepared and adopted by SBIIPCL are given in S. No. 1.3, 1.8, 1.9, 1.14, 2.8, 2.22, 3.1, 3.7, 3.8, 3.9, 4.2, 5.1, 5.5, 6.2 and 6.3 of Table 4.1 .
2	Obtain an Environmental, Occupational, Health and Safety (EHS) Management System (EHSMS) certified to ISO 18001 standards with IFC Performance Standards appropriately incorporated.	ISO 14001 and OHSAS 18001 certification	Within 2 years of COD		To be assessed during combined cycle operations.
3	Development and implementation of SBIIPCL Human Resource Policy, Environmental Policy, Social Responsibility Policy and Health & Safety Policy/or Statement.	SBIIPCL Policies in place	31 Mar 2015		EHS, Social, and HR policies are in place. Specific observations on HR policy and manual are presented in S. No. 2.1 of Table 4.1 .
4	Formation of SBIIPCL CMT and appointment of SBIIPCL's EHS Manager, CDO and Community Liaison Officer.	CMT. EHS Manager and CDO in place	15 February 2015		CMT is in place and Assistant EHS Manager and CDO are already appointed before January 2015. It has further been informed by SBIIPCL that there is no requirement of appointing CLO for the project.
5	Undertake labour audit covering own and subcontractor workers to assess compliance with national laws and IFC PS2 requirements. This will cover review of all HR Policies and Practices. Complete implementation of mitigation measures based on audit findings including those relevant to EPC contractor's management	Labour Audit Report	31 March 2015 May 2015		<ul style="list-style-type: none"> SBIIPCL's HR policy is not updated with the recommended aspects as mentioned under S. No: 2.1 of the Table 4.1; Project specific HR policy of M/s. NEPC (EPC contractor for construction phase) is reportedly not signed or approved by their management; The HR policy of the O&M contractor (M/s. NEPCS) should be aligned with the principles of the SBIIPCL's HR policy and

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (as on 11 Sep 2015)
	of labour issues				<p>with the applicable requirements of labour laws of the country;</p> <ul style="list-style-type: none"> Labour audit report is done by BCAS and it was mentioned in the report that payment of minimum wage rate and payment of overtime at twice of ordinary wage rate is not being complied by M/s. NEPC (EPC contractor for construction phase). ERM observed the same status after reviewing salary sheets and over time register. During the compliance audit, SBIIPCL reported that negotiation with M/s. NEPC is ongoing to comply with this requirement. However no specific timeline for compliance is provided by SBIIPCL. <p><i>The Site Management of NEPC Bibiyana II Project had given a confirmation email on 17th September 2015 to SBIIPCL management that they will maintain paying daily wage workers minimum wage according to prevailing Bangladesh Labour Act; and the overtime payment will be made at the rate of twice of wage rate for over-time hours. Furthermore, same will be implemented with immediate effect. Implementation of these actions will be further reviewed during the next compliance audit. It's likely that Bangladesh Labour law doesn't have legal precedent of calculating and giving back wages of the workers in order to comply with minimum wage payment and OT payment @ twice of double of ordinary wage rate. However, it depends upon the company to take these kinds of decisions.</i></p>
6	Develop, communicate and operationalise the worker's grievance mechanism	Grievance Mechanism in place and conveyed to all stakeholders	March 2015		A formal structure of grievance redressal mechanism is prepared and displayed at various locations of the plant. GRM is also shared other stakeholders like PAH, local community etc. Refer S.No:5.3 of the Table: 4.1 for further detail.

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (as on 11 Sep 2015)
7	Complete implementation of corrective actions based on first EHSS audit findings as per the audit action plan and submits an action taken report.	Action taken report	31 March 2015		Implementation of corrective actions based on first EHSS audit findings are being audited internally by SBIIPCL through BCAS and are being verified by ERM during quarterly auditing. ERM's observations on each of the action item are presented in <i>Table 4.1</i> . Overall there is satisfactory progress with respect to implementation of corrective actions; however there are certain action items, which further need to be implemented in line with the specific recommendations given in italics text in <i>Table 4.1</i> .
8	O&M stage I documentation for management of environment, health and safety performance appropriately incorporating IFC Performance Standards and Good International Industry Practices.	Completed EHSMS Manuals	1 month prior to Combined Cycle Operation		With COD for combined cycle expected to be declared by Dec 2015 SBIIPCL is required to be on track to comply with this requirement by Nov 2015. As per the information shared SBIIPCL has already drafted operational procedures with respect to spill prevention; waste management; emergency response; electrical safety; permit to work; community development; grievance redressal etc. and the same has been provided to the O&M contractor for implementation. The same will be assessed during the next quarterly audit.
9	Duty of care procedures implementation in relation to hazardous waste treatment and disposal facility.	List of the identified hazardous waste facilities	28 February 2015		SBIIPCL has developed a <i>Waste Management Procedure (SBIIPCL-EHS-010)</i> for both hazardous and non-hazardous waste streams to be generated during operations. The procedure outlines the categories of wastes, PPE requirements; roles and responsibilities and activities related to waste handling and disposal. Review indicates the procedure to be generic in nature and lacking specific requirements with respect to storage, handling and disposal of specific waste categories/streams. Further SBIIPCL has not identified sludge generated from sewage treatment operations as a

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (as on 11 Sep 2015)
					potential waste stream. <i>SBIIPCL to review and update the Waste Management Procedure to encompass all waste streams likely to be generated during operations. This should also include evaluation of potential waste disposal and recycling options as may be identified in discussion with Department of Environment (DoE), Bangladesh.</i>
10	The Company will as part of its monitoring program continue to monitor bird species within the project area of influence	Half yearly compilation	Ongoing for two years		Reportedly a bird survey will be undertaken taking into account the migratory season starting October 2015. In this regard quotation has been received from an external qualified consultant and is currently being evaluated by SBIIPCL.
11	Develop and implement Livelihood Restoration Plan	LRP in place and finalised in consultation with community and detailed PAH level LRP prepared and implementation complete	May 2015 (LRP development) August 2015 (for LRP implementation)		LRP is prepared. It has been reported by SBIIPCL that an NGO (Institute of Development Enterprises (IDEA)) for implementation of LRP has already been engaged in October 2015 and work on the same will be starting from 1 st November 2015 and it will be completed in 2 years. Refer Section 3.2.3 and S. No: 5.1 of the Table 4.1 for detail. The senior management will need to intervene in this matter and immediate corrective action should be undertaken to avoid any further delay. As per recent communication from client, the LRP implementation has been started since 1 st November 2015. The implementation has to be strictly tracked and senior management should be updated on the progress on a monthly basis. Should there be any impediments identified, immediate intervention to be undertaken by Corporate management.
12	Develop and implement comprehensive stakeholder engagement plan and a detailed Grievance Mechanism for the community.	SEP in place and communicated to all stakeholders.	August 2015		SEP is prepared and shared with stakeholders. However SEP needs to be updated with certain recommendation. Refer S. No. 5.4 of the Table 4.1 for detail.

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (as on 11 Sep 2015)
13	Completion audit of the resettlement/ livelihood restoration activities demonstrating compliance with IFC PS5 or, if necessary, identifying any remaining gaps and corresponding corrective actions	Completion audit report and action taken report, if necessary	December 2016		LRP implementation is yet to start and considering the timeframe of LRP implementation activities, the time schedule of the completion audit may need to be shifted from December 2016 to August 2017.

In addition to the CAP & ESMMP compliance assessment the ERM team has performed an EHS&S compliance audit of the project for construction phase. The audit has been conducted to assess project compliance with respect to applicable local and national regulations including key permit/license conditions and has been based on site visits, site personnel interviews and document reviews with the findings/observations being presented in *Table 5.1* for reference. In order to establish the compliance status, a risk rating with appropriate colour coding has been used for easy referencing, which is as follows:

High	Significant deviation/departure from EHS&S regulations/permit conditions leading to legal prosecution, imposition of hefty fines/penalties and or both requiring senior management intervention
Medium	Substantial deviation from EHS&S regulations/permit conditions resulting in limited legal liability managed through interventions at site management level
Low	Minor deviation from EHS&S regulations/permit conditions managed through intervention of project EHS manager/personnel
Information to be provided	Pending information to be shared for assessing compliance status

Table 5.1 EHS&S Regulatory Compliance Status

S. No	Regulatory Requirement	Finding/Observation	Risk Rating	Recommendation
1	Conditions of Environmental Clearance Letter dated 17 June 2015			
1.1	In case of any emergency, the following information shall immediately be reported to the Sylhet Divisional Office and Headquarters of the Department of Environment (DOE) simultaneously : a. Nature of incident (fire, accident, collision, etc.) b. Personnel affected (injured, missing, fatalities etc.) c. Emergency support available and its location (standby transport, medical facilities etc.)	Review of the Emergency Response Procedure (ERP) for operation reveals that the same has not been updated to include the response action in case of an emergency as specified in the EC.		Update the operations ERP to include reporting to Sylhet Divisional Office and Headquarters of the Department of Environment (DOE) regarding the nature of incident; details of personnel affected and local emergency support.

S. No	Regulatory Requirement	Finding/Observation	Risk Rating	Recommendation
1.2	All parameters of effluent, gaseous emission, noise, solid waste, hazardous waste, etc. shall be within the limits in the Environment Conservation Rules (ECR) 1997. In case of non-coverage of ECR 1997 the World Bank Environment, Health and Safety Guideline shall be adhered to.	Refer to S. No. 3.1 of Table 4.1. Monitoring of river water quality and ambient noise quality has been undertaken in-house and has not been validated through third party monitoring. Further monitoring results of the other environmental components reveals that non-coverage of parameters specified in the ECR, 1997.		Refer to S. No. 3.1 of Table 4.1. In addition monitoring results of river water quality and ambient noise quality to be validated through third party monitoring. SBIIPCL to ensure the parameters specified in the ECR, 1997 for environmental components are covered as part of periodic monitoring.
1.3	Comprehensive Environmental Performance report shall be submitted on a monthly basis to both the DOE offices.	Environmental Performance Report (EPR) has been prepared and submitted to DoE on 30 Aug 2015. However review of the report indicates that the same does not bear the compliance status to the EC conditions. Further the monitoring data shared as part of the EPR has been sourced from the ESIA report.		Update the EPR to include the compliance status of the EC conditions including data monitored for environmental components for the reporting period.
1.4	There shall be specific format for Environment Monitoring. Environmental Monitoring Reports shall be made available simultaneously to DOE Head Quarter in Dhaka and Sylhet Divisional Office on a monthly basis during the construction & operation stage of the power plant.	Documentation review indicates that no specific format has been developed to record environmental monitoring information. Reportedly no environmental monitoring data has been shared on a monthly basis to the DOE Head Quarter in Dhaka and Sylhet Divisional Office as per this EC requirement.		Develop template for Environmental Monitoring report in discussion with DoE. Ensure monthly submission of all environmental monitoring data to DOE Head Quarter in Dhaka and Sylhet Divisional Office for both construction and operations stage.
1.5	The noise level of the Power Plant area shall not exceed the standard for industrial area mentioned in ECR, 1997.	In house noise monitoring results (instantaneous) as undertaken during operations by NEPC since August 2015 reveals high day time noise levels at some areas within the plant area as compared to the ECR standards of 75 dBA. Also the time of monitoring, distance from noise source has not been covered in the NEPC conducted in house monitoring report.		Continuous noise monitoring (both day and night time) need to be undertaken within the plant by third party to check compliance with ECR standards.
2 Conditions of Boiler Registration				
2.1	Boiler to be operated by certified boiler operator	Compliance status to be assessed based on availability and review of the certification copy of the personnel involved in boiler operations at the plant.		Share certification copy of the personnel involved in operating the boilers at the plant to assess compliance to this requirement.
3 Conditions of Factories License				
3.1	First Aid Boxes to bear photographs of first aid responders	The photographs of certified first aid responders were not found to be displayed near the first aid		Display photographs of certified first aid responders near all first aid box locations.

S. No	Regulatory Requirement	Finding/Observation	Risk Rating	Recommendation
3.2	The occupier of the factory is required to set up a "Worker Participation Fund" and "Worker Welfare Fund" in accordance to the provisions of the Bangladesh Labour Law 2006.	<p>boxes as required under this condition.</p> <p>SBIIPCL has not established a Worker Participation Fund and a Workers Welfare Fund in accordance with provision of Bangladesh Labour Law and condition specified in the Factories License.</p> <p>It has further been clarified by SBIIPCL that:</p> <ul style="list-style-type: none"> The personnel employed in SBIIPCL falls under the management category and therefore are not entitled to participate in the Workers' Profit Participation Fund ("WPPF"). There being no recipient for the fund, it does not required to be created for the Project Company. The Labour Act, 2006 of Bangladesh, which contemplates the benefits of the workers' participation fund to be available for "beneficiaries" as defined under section 233 of the Act. The term "beneficiary" excludes from it, owners, partners and directors. The term "owners" has been defined in section 233 to include management authority. In other words, any person who is part of the management authority or entrusted with the responsibility of management of any work or affair of the company does not qualify as beneficiary under the Labour Act 2006, and therefore, is not entitled to the workers' participation fund. With regard to operation phase, operation and maintenance (O & M) contractor staff who are running and operating the plant are working at the Project Site; they are recruited by the O&M operator and thus, under the purview of the O&M operator's employment, not SBIIPCL's. Hence, they are not relevant to this issue. <p>Considering the above facts and clarification provided by the Legal Counsel of SBIIPCL, it is understood that this regulatory requirement will not</p>		

S. No	Regulatory Requirement	Finding/Observation be applicable to SBIIPCL.	Risk Rating	Recommendation
4	Conditions of HSD Storage License			
4.1	The tank or tanks shall be supported on an approved foundation and shall be surrounded by a wall or embankment of substantial construction, or shall be partially sunk in an excavation. The enclosure thus formed shall contain only one of the following classes of petroleum, shall be of dimension sufficient to contain the quantity of petroleum specified under the class to be stored and shall be so constructed and maintained as to prevent the escape therefrom of any petroleum in the form of liquid, whether under the action of fire or otherwise.	As observed HSD is being stored in two tanks of capacity 2KL each at the ground floor of the covered diesel generator yard. However there exists no embankment or containment at the said storage to contain any accidental release of fuel as specified in the license condition.		Ensure provision of proper embankment for the HSD storage tanks in accordance to the condition specified in the license condition.
4.2	All tanks shall be fitted with a vent pipe leading into the open air, the open end being covered with fine copper or other non-corroding metal wire gauze of mesh not less than 11 to the linear centimetre and fitted with a hood or the tank shall be fitted with an approved relief valve or other approved means for preventing dangerous internal or external pressures being produced.	Visual observation did not reveal the presence of any vent pipe or approved relief valves for the HSD storage tanks to prevent any generation of pressure from accumulation of dangerous vapour/fumes. However this needs to be confirmed based on review of the design document of the tanks.		Share design document of HSD tanks to assess the compliance status related to provision of vent pipes/approved relief valves.
4.3	For petroleum storage tanks with capacity not exceeding 5000 litres a safe distance of 4m need to be maintained between any protected works	The HSD storage tanks with a total capacity of 4000 litres were found to be located at a distance of less than 4m from the CO ₂ storage installation. However this needs to further confirmed based on review of Department of Explosives (DOE) approved layout of the HSD and CO ₂ storage installations.		Share Department of Explosives (DOE) approved layout of the HSD and CO ₂ storage installations to assess compliance to this license condition.
4.4	The licensee to keep records and accounts of all petroleum in stock and issues and shall exhibit his stocks and records to the Inspector or a Sampling Officer	The chemical inventory sheet being maintained by SBIIPCL does not bear information of HSD storage and supplies.		Update chemical inventory sheet to include storage and supply details of HSD
5	Gas Cylinder Rules, 1991			
5.1	Labelling of Cylinders	No labelling depicting the name of the gas, filler details including warning statement was observed on 8 nitrogen cylinders (as reported) being placed near the material laydown and storage yard being maintained by NEPC.		Perform periodic inspection of compressed cylinder storage areas to check for proper labelling and availability of warning statement on cylinders in conformance to the Gas Cylinder Rules.
	Rule 11(01) of Gas Cylinder Rules, 1991: Every cylinder shall be labelled with the name of the gas and the name and address of the person by whom			

S. No	Regulatory Requirement	Finding/Observation	Risk Rating	Recommendation
	the cylinder was filled with gas. Rule 11(02) of Gas Cylinder Rules,1991: A warning statement shall be attached to every cylinder containing permanent or liquefiable gas			The label on each cylinder to bear the name of the gas and address of the person by whom the gas was filled along with following warning information viz.; (a) Do not change the colour of this cylinder; (b) No flammable material should be stored in the close vicinity of this cylinder or in the same room in which it is kept; (c) No oil or similar lubricant should be used on the valves or other fittings of this cylinder; (d) If hydraulic testing or next due date for hydraulic testing is not over, then the cylinder cannot be handed over or transferred.
6	Bangladesh Labour Law 2006 (as amended 2013)			
6.1	58. Drinking water : (1) In every establishment effective arrangement shall be made to provide and maintain at a suitable point conveniently situated for all workers employed therein, a sufficient supply of wholesome drinking water. (2) All such points where water is supplied shall be legibly marked 'Drinking water' in Bangla. (3) In every establishment wherein two hundred fifty or more workers are ordinarily employed, provision shall be made for cooling the drinking water during the hot weather by effective means and for distribution thereof.	The drinking water centre located near the control building plant was not provided with covered storage. Further no drinking water pots/pitchers were found to be available at such designated water centres.		Ensure provision of covered storage for all drinking water centres located within the site. Perform periodic checks/inspection for availability of sufficient drinking water at these centres.
6.2	68. Cranes and other lifting machinery : The following provisions shall apply in- (a) every part thereof, including the working gear, whether fixed or movable, ropes and chains and anchoring and fixing appliances shall be- (i) of good construction, sound material and adequate strength, (ii) properly maintained,	Periodic inspection has not been undertaken by NEPC for lifting equipment (hydraulic lift, lifting tackles etc.) including fall protection equipment (safety harness, lanyard etc.) with no records for the same could be made available for review.		Ensure the hydraulic lift; lifting tools and fall protection equipment are inspected in accordance to requirement of the project EHS plan and Bangladesh Labour Law, 2006 with records of all such examination being maintained.

S. No	Regulatory Requirement	Finding/Observation	Risk Rating	Recommendation
	<p>(iii) thoroughly examined by a competent person at least once in every period of twelve months and a register shall be kept containing the prescribed particulars of every such examination;</p> <p>(b) no such machinery shall be loaded beyond the safe working load which shall be plainly marked thereon; and</p> <p>(c) while any person is employed or working on or near the wheel-tract of a traveling crane in any place, where he would be liable to be struck by the crane, effective measures shall be taken to ensure that crane does not approach within six meter of that place.</p>			
6.3	<p>72. Precaution against dangerous fumes: (3) No person in any establishment shall enter or be permitted to enter any such confined space until all practicable means have been taken to remove any fumes which may be present and to prevent any ingress of fume and unless either-</p> <p>(a) a certificate in writing has been given by a competent person, based on a test carried out by himself, that the space is from dangerous fumes and fit for persons to enter, or</p> <p>(b) the worker is wearing suitable breathing apparatus and a belt securely attached to a rope, the free end of which is held by a person standing outside the confined space.</p>	<p>Identification and labelling of confined spaces onsite has not been undertaken. Also the confined space permit being implemented by the contractor does not cover the key aspects of testing of confined space by competent person for dangerous fumes and use of breathing apparatus by workers during such entry.</p>		<p>Prepare a confined space inventory and mark/label all such areas onsite based on the inventory.</p>
6.4	<p>89. First-aid appliances : (1) there shall, in every establishment be provided and maintained, so as to be readily accessible during all working hours first-aid boxes or cupboards equipped with the contents prescribed by rules.</p> <p>(3) Every first-aid box or cupboard shall be kept in charge of a responsible person who is trained in first-aid treatment and who shall always be available during the working hours of the</p>	<p>The first aid box provided at CCB and Turbine building was not found to bear the prescribed contents with no checklist made available to verify the same. Further the name and contact details of the first aid responder in charge of the first aid box have not been affixed at a conspicuous location at the CCB area.</p>		<p>Equip the first aid box at the CCB and turbine building with content prescribed under this regulation. Perform periodic inspection of the first aid boxes onsite for presence of such prescribed contents. Affix notice at CCB stating the name of certified person in charge of the first aid box provided with respect of that area.</p>

S. No	Regulatory Requirement	Finding/Observation	Risk Rating	Recommendation
6.5	<p>establishment.</p> <p>79. Dangerous operations : (d) providing for the protection of all persons employed in the operation or in the vicinity of the places where it is carried on and the use of any specified materials or processes in connection with the operation; and</p> <p>(e) notice specifying use and precautions regarding use of any corrosive chemicals.</p>	<p>During the site walkthroughs absence of material safety data sheets (MSDS) and spill kits were observed at the following areas:</p> <ul style="list-style-type: none"> Hydrazine (~60 drums) storage area at DM Plant. Chemicals being stored and used at the laboratory of the Central Control Building (CCB). Lubricant oil (~70 drums) storage at the material laydown area. <p>Additionally no containment was observed for the lubricant oil storage.</p>		<p>Ensure display of MSDS and provision of spill kits at the onsite storages for lubricants, laboratory chemicals and hydrazine. Provide lined shed with secondary containment for storage of lubricant oil.</p>

Social compliance Report prepared by BCAS on 4th April 2015 was reviewed and assessed by ERM during Previous quarterly monitoring (QRR-II) in April 2015. The previous compliance Report was focused on monitoring R&R implementation progress for the project component financed by ADB i.e. Power Plant. Thus this compliance report only highlighted R&R implementation progress only w.r.t 31 PAHs affected by land acquisition for Power Plant. ERM's observations in the previous (carried out in May 2015) as well as in this audit (carried out in Sep 2015) against the open items of Corrective Action Plan (CAP) of the Social Monitoring Report of BCAS are provided in *Table 6.1*

Table 6.1 *Observation on Social Monitoring Status on Corrective Action Plan*

No	Corrective Actions	Responsibilities	Deliverable Actions Taken	Time Line	SBIIPCL Status as per BCAS social compliance monitoring report (April 2015)	BCAS Comments (April 2015)	ERM's observation in 3 rd EHS&S Compliance Audit (Sept 2015)
1	Strengthening of record keeping of grievance redress of SBIIPCL	SBIIPCL	Putting GRMP in place	Dec-14	<ul style="list-style-type: none"> Both GRC-Corporate Committee and GRC-Plant Committee have been formed. Activities are on-going; documentation has been done since September, 2014 through direct communication with CDO of SBIIPCL. Till date 19 grievances have been lodged from community people. Among them 12 grievances have been resolved, 2 have been rejected and the rest 5 are in the process of resolution. All the unresolved issues have been forwarded to GRC-Corporate Committee. Plant GRM Process: hand bills distributed, verbal communication done, registry book (at CDO Office) maintained, complain box installed outside gate no. 1 & 3, 	Complied.	GRM is prepared and disclosed with stakeholders

No	Corrective Actions	Responsibilities	Deliverable Actions Taken	Time Line	SBIIPCL Status as per BCAS social compliance monitoring report (April 2015)	BCAS Comments (April 2015)	ERM's observation in 3 rd EHS&S Compliance Audit (Sept 2015)
2	Strengthening of record keeping of grievance redress of EPC Contractor	EPC Contractor	Make present GRMP more efficient through more access to employees	Dec-14	<ul style="list-style-type: none"> over cell phone communication displayed (outside gate no. 1 & 3). GRM of EPC is closely monitored by SBIIPCL and records have kept accordingly. This has increased access of workers to the GRM process. 	Complied.	GRM is prepared and disclosed with stakeholders. Workers still prefer registering their grievances verbally with their line managers and other concerned personnel.
3	Prioritization of employment opportunity to affected persons, especially vulnerable households	SBIIPCL in coordination with EPC Contractor	Review of present status to maximize opportunities for employment of PAHs specially venerable people	Dec-14	<ul style="list-style-type: none"> Among 31 PAHs affected by Land acquisition for Power Plant, currently 8 are employed. If further vacancies arise, the vulnerable PAHs will be given preference in employment. 	Complied.	Construction phase of the power plant is near completion stage. Operational phase is expected to have limited employment opportunity. It was observed that project prefer persons from PAHs for any suitable employment opportunity.
4	Development of a skill development and livelihood Improvement plan.	SBIIPCL in coordination with independent NGO	Based on recommendation of Social Compliance Audit finalize the implementation plan	Jan-15	<ul style="list-style-type: none"> The skill development and livelihood Improvement plan preparation work is in process. An NGO (SEBA) has been engaged by SBIIPCL to implement the skill development and livelihood Improvement plan. 	In process/partially complied, but not fully complied.	LRP is prepared. It has been reported by SBIIPCL that an NGO (Institute of Development Enterprises (IDEA)) for implementation of LRP has already been engaged in October 2015 and work on the same will be starting from 1 st November 2015.
5	Income Loss of 6 Sharecroppers & 11 Agricultural Labourers	SBIIPCL in coordination with independent NGO	Priority to be given to this group for training and small enterprise development through facilitating interest free micro credit loan Tk. 40,000 for two years and direct	Jan-15	<ul style="list-style-type: none"> Payment of Taka 7,500 to each sharecropper PAH and Taka 8,000 to each agricultural labourer PAH has been made to offset their economic displacement. Preliminary Training need Assessment (TNA) has been completed for 26 PAHs out of 31. Vocational training for January 	In process/partially complied, but not fully complied.	As per ADB's guidelines additional financial assistance of Taka 7500 to each sharecropper and Taka 8000 to each Agriculture labour; affected by land acquisition for power plant site was proposed. SBIIPCL has released these pending financial assistance to affected sharecropper and

No	Corrective Actions	Responsibilities	Deliverable Actions Taken	Time Line	SBIIPCL Status as per BCAS social compliance monitoring report (April 2015)	BCAS Comments (April 2015)	ERM's observation in 3 rd EHS&S Compliance Audit (Sept 2015)
			employment		Session was missed. Next available session is in July, 2015, in which interested trainees will be enrolled. And, applications for the trainings will be made by March, 2015.		Agriculture labourers.
6	Outstanding Compensation Payment	SBIIPCL in coordination with LAO	CDO to arrange legal assistance to expedite compensation payment	Dec-14	Completed	Complied within deadline.	Complied
7	Appoint Trained Community Development Officer (CDO) to implement monitoring the Livelihood Restoration Plan as well as any other issue raised by community.	SBIIPCL	In TOR of CDO it would clearly mentioned the desired education Level (URP, Geography, Social Science Background) having Theoretical and practical experience in LRP implementation in Bangladesh	Oct-14	<ul style="list-style-type: none"> CDO has been appointed in September 15, 2014 He has been working accordingly. 	Complied within deadline.	Complied
8	Develop and maintain all legal register of the all project components & documents the Stakeholder engagement Records	SBIIPCL	CDO office will be established, where all the documents related to land Acquisition, Legal Notice, Payment Status, Stakeholder engagement and all contractual records should be maintained for future reference	Oct-14	CDO Office has been established, and the appointed CDO is working on collecting all the legal documents from LAO. Documents of serving 3 acquisition & requisition notices (by DC) are already available. Collection of actual compensation and legal documents (paid by LAO) is in process, which is expected to be finished by June, 2015.	In process/partially complied, but not fully complied.	CDO maintain the legal register and other relevant documents in his office, located within the SBIIPCL plant periphery
9	Training of SBIIPCL official for	SBIIPCL authority	Hands on Training on monitoring the	December, 2014	Awareness raising, induction and capacity building has been carried	In process but not complied.	SBIIPCL has updated the annual training calendar with

No	Corrective Actions	Responsibilities	Deliverable Actions Taken	Time Line	SBIIPCL Status as per BCAS social compliance monitoring report (April 2015)	BCAS Comments (April 2015)	ERM's observation in 3 rd EHS&S Compliance Audit (Sept 2015)
	preparation of Training calendar and Implement the LRP and CAP	through engagement of an Independent Consultant or Consulting firm	implementation of LRP, CAP		out by BCAS. Further training by an independent entity will be arranged by April, 2015.		training being delivered to both NEPC personnel and workers on various EHS aspects such as hazardous material handling; usage of PPEs; waste management; environmental quality monitoring; grievance redressal and traffic management. Further SBIIPCL has formulated a "Work Place Safety Training Module" with training on the same being imparted to NEPC personnel as part of the weekly HSE meetings.
10	Prepare Specific Training Module for Vocational Training and SED for the PAHs	SBIIPCL	Engagement of a Technical Expert (Vocational Training Expert)	December, 2014	<ul style="list-style-type: none"> SEBA (engaged NGO) has already produced Training Module for Sewing Training (hands on training on women: 3 hours per day and 5 days a week for 3 months). Besides, training modules for other vocational trainings have been collected from Youth Development Training Center, Habiganj. Vocational Training Expert has not yet been appointed (as 	In process but not complied.	<p>Training session on monitoring implementation of LRP by the LRP consultant to the CDO is proposed by end of October 2015. It has further been reported that CDO has taken initial guidance and training from the LRP consultant in October 2015.</p> <p>3 months training course on sewing machine For six women identified from 31 PAHs, is already begun. 1 sewing machine will be provided to each of the six trainees. Discussion with the trainees indicates this training will enable them to work at household level and will make additional income for the</p>

No	Corrective Actions	Responsibilities	Deliverable Actions Taken	Time Line	SBIIPCL Status as per BCAS social compliance monitoring report (April 2015)	BCAS Comments (April 2015)	ERM's observation in 3 rd EHS&S Compliance Audit (Sept 2015)
					<p>vocational training has not been started yet). He/she will be appointed by June, 2015 by when vocational trainings by SEBA as well as Youth Development Training Center will be initiated.</p> <ul style="list-style-type: none"> SBIIPCL is currently assessing the potential SED activities and PAHs (who will come under this program). Concurrently, SBIIPCL is negotiating with Grameen Bank, ASA and BRAC to implement the SED activities including concerned trainings. 		<p>family.</p> <p>Trainings on AC/freeze repairing, welding and agriculture & horticulture are proposed to be provided to 13 male members from 31 PAHs. The training is proposed to be conducted after Eid-ul-azha holiday.</p>
11	Formation and activate The Joint Committee for Community Relation (JCCR)	SBIIPCL, CDO will take initiatives	From each components of the Project at least 2 representatives, Local Government and SBIIPCL representatives will form the committee for discussion and resolve any kind of Grievances and compensation	November, 2014	<ul style="list-style-type: none"> JCCR has been formed, and first meeting of JCCR was held on 28 October, 2014. 5 JCCR meetings have already taken place, and minutes have been kept. 	Complied.	<p>JCCR is happening once in month. Community issues are usually discussed in the meeting. Meeting also provides a platform to share information about current update on community development works and raise common grievances associated with plant operation. Review of meeting minutes of the last three JCCR meetings highlighted following issues;</p> <ul style="list-style-type: none"> Noise generated from steam turbine; Slow progress on construction of drainage work; Request for engaging more local people in plant Question around timeline for LRP implementation

No	Corrective Actions	Responsibilities	Deliverable Actions Taken	Time Line	SBIIPCL Status as per BCAS social compliance monitoring report (April 2015)	BCAS Comments (April 2015)	ERM's observation in 3 rd EHS&S Compliance Audit (Sept 2015)
							<ul style="list-style-type: none"> Enhancement of Parkul village
12	Maintain proper Record of employment and vendor opportunity provided to the PAPs and local community & Recording the engagement of Local community in the ongoing construction project and in the associates components	SBIIPCL CDO, EPC Contractor,	List the local Vendors Daily Register of labour especially labour engaged from PAHs. Total Number of working days of each labour. Documents of each Labour contract. Record daily & Overtime payment sleep having signature and finger sprint of each labour	October, 2014	Record keeping of vendors and other details is ensured.	Complied.	A record of employment of PAPs is maintained. Those who could not be provided employment, will be covered under Livelihood Restoration Program
13	Green Belt	SBIIPCL	Plantation around the project boundary and Access Road. Suitable Species will be selected consultation with a botanist	May 2015	No implementation	Not due in current deadline.	SBIIPCL has engaged M/s Zara Enterprise vide contract dated 8 Aug 2015 to implement green belt development activities outside the project boundary viz. along the access road of project, <i>Parkul</i> and <i>Bongaon</i> villages including the resettlement site (applicable for IFC). As reported by SBIIPCL the plantation work has already been completed with nearly 2800 saplings being planted in the aforesaid areas and the same confirmed during the site visits. Presently the involvement of contractor is limited to the proper upkeep

No	Corrective Actions	Responsibilities	Deliverable Actions Taken	Time Line	SBIIPCL Status as per BCAS social compliance monitoring report (April 2015)	BCAS Comments (April 2015)	ERM's observation in 3 rd EHS&S Compliance Audit (Sept 2015)
							and maintenance of the planted tree species. It is recommended that <i>SBIIPCL track the plantation and survival rate of tree species outside the project site.</i>
							Regarding green belt development within the site it is understood based on discussion with SBIIPCL that no plan has been developed till date for the same. With COD for combined cycle operations expected by Dec 2015 <i>SBIIPCL to develop and implement a Green Belt Development Plan for the project site.</i>

The corrective action items identified based on the assessment undertaken with respect to ESSMP, CAP, IFC ESAP commitments and labour audit & social monitoring performed has been presented in *Table 7.1*. This table also outlines the tentative timelines for completion of each of the action item as specified by SBIIPCL.

Table 7.1 *Corrective Action Items List*

S. No.	Action Item	Responsibility	Completion Timeline
A CAP, ESMMP& IFC ESAP			
1	Electrical permit to be updated to include the use of appropriate PPE, energy isolation and LOTO as checklist items.	NEPC	November 2015
2	Perform periodic inspection of lifting machines and fall protection equipment with records maintained in accordance to the EHS plan. Injury/illness log sheet in the EHS Plan to be updated through incorporation of occupational illness and man-hours worked data.	NEPC	November 2015
3	Update the legal register to incorporate the conditions outlined in the applicable EHS permits and national regulations. Also monitor and document the compliance status of this legal register on a monthly basis.	SBIIPCL	December 2015
4	Engage a qualified agency/expert to conduct bird survey for development of Avifauna Management Plan	SBIIPCL	Immediate
5	Update the annual training calendar to include training on environmental quality monitoring and grievance redressal	NEPC	November 2015
6	Update the HR Policy based on the observation made by ERM during the site visit	SBIIPCL	November 2015
7	Daily wage rate and overtime rates being paid to the worker to be in conformance to the Bangladesh Labour Act and Minimum Wage Rate specified by Bangladesh Government	NEPC	Immediate
8	Perform comprehensive hazard analysis related to hot work, confined space entry and material lifting.	NEPC	November 2015
9	Maintain documentation of all JHA related trainings being imparted to the construction workforce as part of site EHS inspections.	SBIIPCL & NEPC	November 2015
10	Implement pre-use inspection checklists for critical work activities such as hot work, confined space entry, material lifting and work at height	NEPC	November 2015

S. No.	Action Item	Responsibility	Completion Timeline
11	Support NEPC in proper updation of the HIRAC through identification of the potential hazards and risk assessment of activities related to fuel/chemical storage & handling, electrical work and confined space entry.	SBIIPCL	November 2015
12	Develop and implement a PPE inspection checklist to thoroughly evaluate the usable condition and effectiveness of all PPEs in use by the workers	NEPC	November 2015
13	Maintain register of workforce based on their skill set and work profile. Also periodically arrange for training of the above target workforce on specific EHS aspects of work	NEPC	November 2015
14	Update the Incident Investigation & Reporting Procedure to including reporting process flow in the event of an incident.	NEPC/SBIIPCL	November 2015
15	Prepare Safety Action Plan for the following Areas of Concern (AOC) viz. cooling tower, boiler area and central control building	NEPC	November 2015
16	Update OHS report to include safe man-hours worked; medical treatment cases and fire incidents as safety performance indicators.	NEPC	November 2015
17	Coordinate with DoE, Bangladesh to identify a proper waste disposal facility/vendor to ensure effective and sound management of solid waste generated during operations.	SBIIPCL	December 2015
18	Periodic inspections to be performed and records to be maintained for other vehicular equipment viz. concrete pump truck, concrete tankers, loader, trucks etc. as per the format specified in the EHS Plan.	NEPC	November 2015
19	Validate the river water quality monitoring results by engaging a third party laboratory. Monitoring to cover all parameter specified in the ESMMP and ECR, 1997.	NEPC/	November 2015
20	Document the visual checks for erosion monitoring in the form of a monthly report providing a comparative time-series analysis.	SBIIPCL	November 2015 with monthly record keeping
21	Ensure coverage of heavy metal parameters in the ground water monitoring being undertaken periodically. Verify the coliforms results based on review of the baseline ground water data and action plan prepared as found to be necessary. All such monitoring reports to bear the details of ground water sampling.	NEPC	November 2015
22	Ensure display of following signage's viz. "safe speed limit" and "no honking" along the project access road	NEPC	November 2015
23	Organize mock drill to exercise implementation and asses the effectiveness of ERP on ground.	SBIIPCL & NEPC	December 2015 with minimum half yearly frequency
24	Conduct weekly HSE inspections along with SBIIPCL for discussion of key HSE issues/concerns and the document the same for future review/action.	NEPC	November 2015
25	Review and update the Storm Water Management Plan and drainage drawings for operations to include provision of oil-water separator at the outfall point.	SBIIPCL	November 2015

S. No.	Action Item	Responsibility	Completion Timeline
26	Review and update the Waste Management Procedure to encompass all waste streams likely to be generated during operations. This should also include evaluation of potential waste storage, disposal and recycling options as may be identified in discussion with Department of Environment (DoE), Bangladesh.	SBIIPCL	December 2015
27	Update the Caustic & Acid Handling Procedure based on the review of chemical usage requirements for operations. The updated procedure to bear MSDS of chemicals to be stored and used for operations.	SBIIPCL	December 2015
28	Apply to BRTA for renewal of certificate of fitness for the ambulance. NEPC to maintain inventory of all operating vehicles and valid certificate of fitness against the same to be made available to check conformance with Bangladesh Environmental Conservation Rules, 1997 and Motor Vehicle Ordinance, 1983.	NEPC	November 2015
29	Update the SEP document based on the ERM observation made during the site visit. Copies of revised SEP, GRM, SIA etc. to be placed at CDO office, situated at community for convenient access to wider range of stakeholders	SBIIPCL	November 2015
30	Track the plantation and survival rate of tree species outside the project site and maintain records. Develop and implement a Green Belt Development Plan for the project site.	SBIIPCL	December 2015
31	Conduct survey of aquatic species by external expert during post monsoon season (Oct 2015 onwards)	SBIIPCL	November 2015 and further monitoring as per ESMMP
32	LRP training for one adult member and disbursement of seed capital for each PAH (excluding PAHs of gas pipeline) by December'15 and monthly status report on completed training (no. of person covered and name of village) and disbursement status to be submitted to IFC.	SBIIPCL	December 2015 and monthly monitoring
B EHSS Legal Compliance			
1	Update the operations ERP to include reporting to Sylhet Divisional Office and Headquarters of the Department of Environment (DOE) regarding the nature of incident; details of personnel affected and local emergency support.	SBIIPCL	November 2015
2	Update the EPR to include the compliance status of the EC conditions including data monitored for environmental components for the reporting period.	SBIIPCL	November 2015
3	Develop template for Environmental Monitoring report in discussion with DoE. Ensure monthly submission of all environmental monitoring data to DOE Head Quarter in Dhaka and Sylhet Divisional Office for both construction and operations stage.	SBIIPCL	November 2015
4	Continuous noise monitoring (both day and night time) need to be undertaken within the plant by third party to check compliance with ECR standards.	NEPC/SBIIPCL	December 2015 and followed as per monitoring programme
5	Display photographs of certified first aid responders near all first aid box locations.	NEPC/SBIIPCL	November 2015

S. No.	Action Item	Responsibility	Completion Timeline
6	Ensure provision of proper embankment for the HSD storage tanks in accordance to the condition specified in the license condition.	NEPC and SBIIPCL	December 2015
7	Perform periodic inspection of compressed cylinder storage areas to check for proper labelling and availability of warning statement on cylinders in conformance to the Gas Cylinder Rules.	NEPC and SBIIPCL	November 2015
8	Ensure provision of covered storage for all drinking water centres located within the site. Perform periodic checks/inspection for availability of sufficient drinking water at these centres.	NEPC	November 2015
9	Ensure the hydraulic lift; lifting tools and fall protection equipment are inspected in accordance to requirement of the project EHS plan and Bangladesh Labour Law, 2006 with records of all such examination being maintained.	NEPC	November 2015
10	Prepare a confined space inventory and mark/label all such areas onsite based on the inventory.	NEPC	December 2015
11	Equip the first aid box at the CCB and turbine building with content prescribed under this regulation. Perform periodic inspection of the first aid boxes onsite for presence of such prescribed contents. Affix notice at CCB stating the name of certified person in charge of the first aid box provided with respect of that area.	NEPC	November - December 2015
12	Ensure display of MSDS and provision of spill kits at the onsite storages for lubricants, laboratory chemicals and hydrazine. Provide lined shed with secondary containment for storage of lubricant oil.	NEPC	November - December 2015

SBIIPCL has already completed more than 95% construction work (physical progress). Construction work for starting single cycle operation has been completed with the first firing conducted successfully on 27 April 2015. Single cycle operation has commenced from 6 June 2015. As communicated by the project management the Commercial Operations Date (COD) for the combined cycle operations is expected to be declared in December 2015. The observations on EHS&S compliance are based on site assessment, documents review related to the implementation of the on-site EHS management plans by the EPC contractor as well as adherence with already developed ESMMP from the ESIA study, legal compliances, implementation of corrective action plan, social audit, labour audit and implementation of R&R and LRP.

In this audit ERM observed satisfactory progress with respect to implementation of the aforementioned plans and corrective actions as well as regulatory compliance. However, it was also noted that there are certain gaps, which further need to be addressed on priority basis. Timelines for closure of the corrective actions has also been worked out in agreement with SBIIPCL and presented in the report for necessary implementation. A summary of key observations and recommendations are as follows:

- The legal register prepared by SBIIPCL identifies the applicable EHS permits/licenses required during both construction and operational phases of the project along with their validity and approval status. However SBIIPCL is yet to update the legal register to incorporate the conditions specified in the EHS licenses/permits and relevant provisions of applicable regulations (Bangladesh Labour Act, Bangladesh Factories Rules etc.). This is important taking into account the already existing simple cycle operation and with COD for combined cycle operation scheduled for December 2015. It is therefore recommended that SBIIPCL updates the legal register to incorporate the conditions outlined in the applicable EHS permits and national regulations. SBIIPCL also need to monitor and document the compliance status of this legal register on a monthly basis.
- All applicable licenses are in place including the license for use of river water/ foreshore/ jetty from BIWTA, which was already applied for extension of validity period.
- Inspection of lifting machines (hydraulic lift) and fall protection equipment (safety harness, lanyard etc.) were not found to be undertaken by NEPC in accordance to the frequency and format specified in the EHS Plan.
- SBIIPCL is yet to engage a qualified agency/ expert to conduct avifauna survey twice a year (as per ESMMP and IFC ESAP requirement) for development of Avifauna Management Plan.
- SBIIPCL has adopted HR Policy of the parent company SIMCL on 11th June 2015, which has certain non-compliances with respect to the IFC PS-2 requirements. This matter was discussed during the closing meeting on

with the Senior Management of SBIIPCL and ERM received an email confirmation from the CEO of SBIIPCL on 28th September 2015 that the policy document will be updated within 2 weeks with inclusion of all the above mentioned observations of ERM. ERM will review the updated HR policy document during the next compliance audit.

- Non-compliance with respect to not paying minimum daily wage rate and double the wage rate during over-time hours was also observed during the compliance audit. There have been instances in which the management has committed to pay the back wages. However in some cases, it also refers to a situation in which no wages were paid at all. Legal precedents are very limited in this case and the management usually agrees with the workers on the terms. The Site Management of NEPC Bibiyana II Project had given a confirmation email on 17th September 2015 to SBIIPCL management that they will maintain paying daily wage workers minimum wage according to prevailing Bangladesh Labour Act; and the overtime payment will be made at the rate of twice of wage rate for over-time hours. Furthermore, same will be implemented with immediate effect. Implementation of these actions will be further reviewed during the next compliance audit.
- Based on ERM Audit report recommendation NEPC has updated the Job Hazard Analysis (JHA) as prepared earlier to cover (a) electrical work, (b) ergonomics, and (c) excavation activities. However comprehensive hazard analysis related to hot work, confined space entry and material lifting are still found to be pending. Review of work permit related documentation reveals that NEPC has not yet implemented pre-use inspection checklists for critical work activities such as hot work, confined space entry, material lifting and work at height as specified in the earlier ERM audit report.
- Review of the updated Hazard & Risk Assessment & Control (HIRAC) document reveals that potential hazards and risks associated with activities such as fuel/chemical storage and handling, electrical work and confined space entry has not been adequately covered by NEPC. SBIIPCL to support NEPC in proper updation of the HIRAC through identification of the potential hazards and risk assessment of activities related to fuel/chemical storage & handling, electrical work and confined space entry.
- Records of EHS inspections were only available for the month of June 2015. As per the approved EHS Plan NEPC to conduct weekly HSE inspections along with SBIIPCL for discussion of key HSE issues/concerns and the document the same for future review/action.
- The waste and hazardous materials management plans need to be updated in line with suggested recommendations. ETP for the process water treatment was commissioned, whereas STP was under construction at the time of site visit. Only simple cycle operation had started project is still under commissioning for combined cycle, therefore, adequacy of STP and ETP along with water discharge monitoring being conducted by internal O&M team as well as third party monitoring laboratory will be reviewed during the next quarterly audit visit in November/December 2015.

- SBIIPCL need to apply to BRTA for renewal of certificate of fitness for the ambulance. NEPC to maintain inventory of all operating vehicles and valid certificate of fitness against the same to be made available to check conformance with Bangladesh Environmental Conservation Rules, 1997 and Motor Vehicle Ordinance, 1983.
- The observations and recommendations provided in SEP document need to be integrated and it is recommend that copies of revised SEP, GRM, SIA etc. should be placed at CDO office, situated at community (located just across the power plant) for convenient access to wider range of stakeholders.
- Terrestrial flora and fauna study as per ESMMP requirement has already been completed, whereas aquatic flora and fauna study has been planned to be conducted during post-monsoon season in October 2015.
- Greenbelt development outside the project boundary has already been initiated, whereas it was understood based on discussion with SBIIPCL that no plan has been developed till date for greenbelt development within the project site. With COD for combined cycle operations expected by December 2015 SBIIPCL need to develop and implement a Green Belt Development Plan for the project site. LRP training for one adult member and disbursement of seed capital for each PAH (excluding PAHs of gas pipeline) by December'15 and monthly status report on completed training (no. of person covered and name of village) and disbursement status to be submitted to IFC.

As the project is planned to achieve combined cycle COD in December 2015, it is recommended that the last construction phase internal audit by SBIIPCL/BCAS should be conducted by 2nd week of November 2015. Furthermore, ERM will conduct next compliance monitoring for construction phase by end of November 2015 or early December 2015 in order to check the compliance against all the action items as well as additional recommendations given in this audit report.

Annex A

Photo-Documentation

Photo-documentation



Photo 1: Designated Assembly Point at the Site



Photo 2: Fire Water Pump House



Photo 3: Fire Tender procured for operations



Photo 4: Licensed CO₂ storage installation



Photo 5: Access to manual call point blocked at the Steam Turbine Building



Photo 6: First Aid Box at the Steam Turbine Building lacking prescribed contents

Project: 0265459 – Third EHS&S Compliance Audit – Construction Phase (Bibiyana II)

Client: Summit Bibiyana II Power Company Limited (SBIIPCL), Bangladesh

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Photo-documentation



Photo 7: Access to fire extinguishers blocked at the Steam Turbine Building



Photo 8: Absence of insulated mats at LT panel of the DG yard



Photo 9: Diesel Storage tanks without proper labelling, containment and spill kit provision



Photo 10: Drinking water centre near ETP lacking water pots



Photo 11: Absence of MSDS and spill kits for Hydrazine storage at Control Building



Photo 12: Height work undertaken without using safety harness and proper platform

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Photo-documentation



Photo 13: Licensed Hydrogen Storage Installation



Photo 14: LOTO not implemented for electrical maintenance work at the ETP area



Photo 15: Nitrogen cylinders lacking covered storage



Photo 16: Display of Company Environmental, Health, Safety and Social Policies on site



Photo 17: Secondary containment and spill kits lacking at the lubricant storage area



Photo 18: Green Belt Development along project access road

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Photo-documentation



Photo 13: surface area of Gas Pipeline route is under cultivation now



Photo 14: surface area of Gas Pipeline route is under cultivation now



Photo 15: Green Belt Development along project access road



Photo 16: Training on Sewing Machine for select group of female PAPs



Photo 17: Waste Disposal Site at Lalmatia (Source: Summit Waste Disposal Site Report)

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