



# Environment and Social Compliance Audit Report

---

Independent Environmental, Health, Safety & Social (EHS&S) Compliance Audit Report  
Project Number: 44951-014  
March 2020

## BAN: Bibiyana II Gas Power Project

Prepared by ERM India Private Limited a member of Environmental Resources Management Group of companies on behalf of (Summit Bibiyana II Power Company Limited) for Asian Development Bank

This environment and social compliance audit report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

Asian Development Bank



# Twelfth Independent Environmental, Health, Safety & Social (EHS&S) Compliance Assessment of Bibiyana II Power Project: Habiganj, Bangladesh

Final Report

26 February 2020

Project No.: 0494105

[www.erm.com](http://www.erm.com)

<b>Document details</b>	
Document title	Twelfth Independent Environmental, Health, Safety & Social (EHS&S) Compliance Assessment of Bibiyana II Power Project: <i>Habiganj, Bangladesh</i>
Document subtitle	Final Report
Project No.	0494105
Date	26 February 2020
Version	1.0
Author	Subhradeb Pramanik, Tufail Khan, Debabrata Ghosh
Client Name	Summit Bibiyana Power Company Limited (SBPCL)

#### Document history

Version	Revision	Author	Reviewed by	ERM approval to issue		Comments
				Name	Date	
1.0	0	Subhradeb Pramanik, Tufail Khan, Debabrata Ghosh	Neena Singh	Neena Singh		

---

## Signature Page

26 February 2020

# Twelfth Independent Environmental, Health, Safety & Social (EHS&S) Compliance Assessment of Bibiyana II Power Project: Habiganj, Bangladesh

## Final Report

---

Neena Singh  
Managing Partner

Subhradeb Pramanik  
Principal Consultant

---

Debabrata Ghosh  
Senior Consultant

Tufail Khan  
Senior Consultant

---

### ERM India Private Limited

Building 10A, 4<sup>th</sup> Floor  
DLF Cyber City, Gurgaon  
NCR – 122002  
INDIA

© Copyright 2020 by ERM Worldwide Group Ltd and / or its affiliates ("ERM").  
All rights reserved. No part of this work may be reproduced or transmitted in any form,  
or by any means, without the prior written permission of ERM

## CONTENTS

<b>1. EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>2. INTRODUCTION .....</b>	<b>4</b>
2.1 Background.....	4
2.2 Objectives and Scope of Work.....	4
2.3 Compliance Assessment Framework .....	5
2.4 ERM Team for Site Visit.....	5
2.5 Approach to the Compliance Assessment .....	6
2.5.1 Kick-Off Meeting .....	6
2.5.2 Documents Review .....	6
2.5.3 Site Visits and Physical Verification .....	7
2.5.4 Close Out Meeting .....	8
2.5.5 Reporting .....	8
2.6 Limitation .....	8
2.7 Layout of this Report.....	8
<b>3. PROJECT APPRECIATION AND CURRENT STATUS OF THE PROJECT .....</b>	<b>10</b>
3.1 The Project .....	10
3.2 Project Developer .....	10
3.3 Current Project Status .....	10
3.4 Associated Project Facilities .....	11
3.5 Project Operational Status and EHS Performance .....	11
<b>4. SUMMARY OF KEY OBSERVATIONS .....</b>	<b>13</b>
4.1 Environment, Health and Safety .....	13
4.1.1 Legal Register.....	13
4.1.2 Environment Linked Observations .....	16
4.1.3 Health & Safety Linked Observations .....	17
4.1.4 EHS Regulatory Compliance Status .....	18
4.2 Social Observations.....	19
4.2.1 Manpower engagement .....	19
4.2.3 Payment of minimum wage and overtime by EPC contractor .....	25
<b>5. COMPLIANCE STATUS OF CAP &amp; ESMMP AND IFC ESAP .....</b>	<b>39</b>
<b>6. EHS&amp;S REGULATORY COMPLIANCE ASSESSMENT .....</b>	<b>86</b>
<b>7. CORRECTIVE ACTION ITEMS .....</b>	<b>104</b>
<b>8. CONCLUSIONS .....</b>	<b>107</b>

## APPENDIX A PHOTO-DOCUMENTATION

### List of Tables

Table 3.1 Key Timelines – SBPCL Project .....	10
Table 3.2 Project Associated Facilities – Status.....	11
Table 3.3 Operational Performance – January to June 2019 .....	11
Table 3.4 EHS Performance – January to June 2019 .....	12
Table 4.1 EHS License/Permit Compliance Status for Operations Phase .....	14
Table 4.2 Manpower engaged at power plant by SBPCL.....	19
Table 4.3 NEPC-S engaged manpower in Power Plant during 12 <sup>th</sup> EHSS Assessment.....	20
Table 4.4 SBPCL corrective action against gaps identified in HR Management Practices .....	22
Table 4.5 Community consultation by ERM in 12 <sup>th</sup> EHSS visit.....	31

Table 4.6	Status on CDP implementation .....	32
Table 5.1	CAP & ESMMP Compliance Status .....	39
Table 5.2	IFC ESAP Compliance Status .....	82
Table 6.1	EHS&S Regulatory Compliance Status .....	86
Table 7.1	Corrective Action Items List .....	104

## Acronyms and Abbreviations

Name	Description
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
DPHE	Department of Public Health Engineering
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
ETP	Effluent Treatment Plant
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

Name	Description
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
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
JSA	Job Safety 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
PAC	Provisional Acceptance Certificate
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
SBIPCL	Summit Bibiyana II Power Company Limited
SBPCL	Summit Bibiyana Power Company Limited
SIA	Social Impact Assessment

Name	Description
SIMCPL	Summit Industrial and Mercantile Corporation (Pvt.) Ltd
SO <sub>2</sub>	Sulphur Dioxide
SOP	Standard Operating Procedure
ST	Steam Turbine
TBT	Tool Box Talk
TK	Bangladeshi Taka
TNA	Training Need Assessment
TUV	TUV Austria Bureau of Inspection & Certification (Pvt.) Limited, Bangladesh
WB	World Bank
WHO	World Health Organisation



## 1. EXECUTIVE SUMMARY

ERM India Pvt. Ltd. (ERM) was commissioned by Summit Bibiyana Power Company Limited (SBPCL) in order to conduct independent environment, health, safety and social (EHSS) compliance monitoring/ auditing of its 341 MW natural gas fired combined cycle power plant (CCPP) (hereinafter referred to as “the Project”), on behalf of the project financiers, which include Asian Development Bank (ADB), International Finance Corporation (IFC) and Islamic Development Bank (IsDB), after it was agreed by the Lenders and Borrower (SBPCL) 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 current assessment covers for the period January 2019 to June 2019 with site visit undertaken by the ERM team during 20<sup>th</sup> and 21<sup>st</sup> August, 2019.

Single cycle operation of the project commenced from 6<sup>th</sup> June 2015 with COD for combined cycle operations being declared on 28<sup>th</sup> December 2015. The EPC Contractor has completed the necessary construction and commissioning works regarding operation of combined cycle power generation. The O&M Contractor - China Northeast Electric Power Engineering and Services Co. Ltd (NEPC-S) has fully taken over the plant operation from the EPC contractor after issuance of Provisional Acceptance Certificate (PAC) by the SBPCL on 28<sup>th</sup> August 2016. NEPC- the EPC contractor has completed its warranty period and is planning to be demobilized from the Site from the last week of August, 2019.

With project now fully operated by the O&M contractor (NEPC-S), the project compliance to operational EHSS requirements has been assessed to be satisfactory, with continual improvement being demonstrated by the project. NEPC-S has already developed and started implementation of the EHS management system. Key observations made during the 12<sup>th</sup> EHSS compliance audit are summarized below:

- With respect to EHSS regulatory permitting the project is found to be in compliance. SBPCL is assessed to have demonstrated satisfactory compliance to the operation phase ESAP and ESMMP commitments.
- The facility has obtained IMS Certification (ISO 9001: 2015, ISO 14001: 2015 and ISO 18001: 2007/ ELOT 1801: 2008) from M/s TUV Austria on 20 December 2017, which is found to be valid till 19 December 2020.
- The results of environmental monitoring being performed in-house as well as by third party laboratories indicated satisfactory compliance with respect to applicable standards except for ambient noise where the night-time noise levels at the nearby villages found to be higher than the night-time noise standard of 45 decibels. This is assessed to be localised and temporary in nature owing to construction work of the abutting power production units. As per the audit recommendation, NEPC-S has undertaken analysis of the additional parameters for waste water and drinking water through M/s TUV Austria with results found to be in compliance with the standards specified.
- Biomedical waste is observed to segregated and stored in dedicated bins which are adequately labelled and colour coded in accordance to the provision of the *Medical Waste Management & Processing Rules, 2008*.
- A Sludge Management Plan to be developed based on analysis of the sludge in consistent with the requirements under Bangladesh Standards and Guidelines on sludge management. The filter press of water treatment plant under preventive maintenance for last 2 months need to be made operational on a fast track basis.
- NEPC-S has deployed LIFTSOL for undertaking testing of pressure vessels however review of their certification issued in Form 30 reveals that such authorisation is valid for lifting tools, tackles and vessels (non-pressurised). Furthermore, such testing has been undertaken on 11-12 December 2018 whereas the validity of their certification has expired on 16 Nov 2018. LIFTSOL

has also been deployed for testing of lifting tools and tackles during Nov 2018 with the next test due on Nov 2019. However for passenger lifts (2) examination by third party competent agency is found to be due on May 2019 in consistent with BLR, 2015 which requires hoists and lifts to be inspected on a six monthly basis.

- Flow rate assessment undertaken in-house by NEPCB do not conform to Bangladesh National Building Code (BNBC) requirements. The sprinklers and heat detectors testing/inspection program to ensure coverage of kitchen dormitory, kitchen, canteen, diesel storages and hydrogen stations.
- In accordance to ESMMP for operations, fish habitat survey to be undertaken following the first year of operation. With plant in operation since early 2016, such study is yet to be undertaken and is reportedly to be carried out by September 2020.
- Ultrasonic gaging and thickness testing was conducted for 16 pressure vessels and as per the inspection agency TUV Austria. However, testing of compensation water tank, flush tank, continuous blowdown tank, periodic blowdown tank are still pending. The site has conducted testing of safety relief valves (11 out of 33 SRVs) through appointing M/S Nicco Engineering Services Limited dated 15 February 2019. Reportedly, the testing of the remaining valves will be conducted by December 2019.
- Compliance need to be demonstrated with respect to provision of overfill protection system for hydrogen storage tanks and its appropriate labelling in consistent with regulatory provisions. Furthermore, LEL detectors installed at the hydrogen yard to be subjected periodic calibration and records maintained.
- Scaffolding safety need to be improved onsite through effective implementation of the NEPCS Work at Height Procedure. Specialised PPEs like gas masks and SCBAs including emergency showers to be subjected to proper prevention maintenance and records maintained.
- As reported in ERM's previous EHS&S assessment, SBPCL was found non-complaint w.r.t the constitution of a Worker Participation Fund and a Workers Welfare Fund as required under Rule 234 of the Bangladesh Labour Act 2006 based on findings of the site visit undertaken by Labour Inspector on dated 19<sup>th</sup> Sept 2017. No action has been taken by SBPCL on this matter so far.
- SBPCL will keep being engaged with PGCB towards redressal of the flooding issues of the resettlement colony. Joint onsite visit indicated that the storm water drainage outlet from the PGCB substation contributed to the flooding during the monsoon months. With storm water drainage within substation currently under construction, the existing drainage outlet shall be blocked/removed by PGCB on a fast track basis to address the said issue.
- First CDP monitoring report is already submitted by the appointed consultant. SBPCL is required to provide a timeline to implement pending CDP items as recommended in CDP monitoring report which is still awaiting.
- NEPCS has prepared a mock drill calendar for the year 2019 with drills conducted on multiple emergencies scenarios for the period Jan to June 2019. Fire emergency mock drill was conducted on 2nd May, 2019 in presence of representatives of Bangladesh Fire Service department.

Overall, SBPCL and NEPC-S have demonstrated satisfactory progress towards compliance to the regulatory and project financiers' EHSS obligations as recommended in the earlier audit report and this is to continue to sustain with their efforts to this regard.

More focus is required to ensure improvement of specific occupational health and safety aspects and labour compliance (particularly with respect to the Bangladesh Labour Law 2006 and applicable provisions of the Bangladesh Labour Rules, 2015), and sustain with the efforts being made to stay in compliance.

The compliance status with respect to the corrective action items as outlined in the earlier sections will be verified during the next visit to be undertaken by ERM in January 2020 after internal compliance monitoring by SBPCL or any third party in December 2019.

## 2. INTRODUCTION

### 2.1 Background

ERM India Pvt. Ltd. (ERM) was commissioned by Summit Bibiyana Power Company Limited (SBPCL) in order to conduct independent environment, health, safety and social (EHSS) compliance monitoring/ auditing of its 341 MW natural gas fired combined cycle power plant (CCPP) (hereinafter referred to as “the Project”), on behalf of the project financiers, which include Asian Development Bank (ADB), International Finance Corporation (IFC) and Islamic Development Bank (IsDB). It was agreed by the Lenders and Borrower (SBPCL) 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.<sup>1</sup>

The Project is a 341MW natural gas fired 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 combined cycle operations for the project was started on 28<sup>th</sup> December 2015. The audit was to primarily assess the compliance status of the project with respect to the following:

- EHS&S Corrective Action Plan (CAP) developed as part of the 1<sup>st</sup> Independent EHS&S Compliance Audit reporting submitted by ERM on 3<sup>rd</sup> November 2014;
- Operation phase ESMMP of the project;
- IFC's *Environmental & Social Action Plan (ESAP)*;
- CAP of 11<sup>th</sup> EHSS compliance audit conducted by ERM in January 2019; and,
- Internal EHS&S, Labour and Social audit verification conducted by BCAS in July 2019.

A total of 11 audits have been undertaken by ERM till date since September 2014, with this being the twelfth in the series. The present audit undertaken from 20<sup>th</sup> and 21<sup>st</sup> August 2019 was to primarily assess the compliance status of the project with respect to the Project ESMMP, IFC ESAP and EHSS CAP as mentioned above.

### 2.2 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 between borrower and lenders, IFC ESAP, Construction & Operations Phase Environmental & Social Management & Monitoring Plan (ESMMP) of the EIA, action plan resulting from labour and social audit by BCAS, applicable legal requirements and to identify any key EHS&S issues (if any) for the Project:

The scope of the compliance audit was as follows:

- To assess the Project's compliance with the environment, health, safety and social (EHS&S) requirements of the audit framework (described subsequently);
- To review the effectiveness of implementation of mitigation measures and monitoring programmes at site developed as part of the ESIA study;

---

<sup>1</sup> Initially, ERM was commissioned by SBPCL on 17<sup>th</sup> September 2014 for independent Environmental, Health, Safety and Social (EHS&S) Compliance Audit as an internal audit requirement. The first audit by ERM was conducted in the last week of September 2014 and final report of audit was submitted on 3<sup>rd</sup> November 2014. After the first EHS&S compliance audit, based on the discussions with lenders, SBPCL had 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 to periodic compliance audits.

- To review the status of environment management, health and safety, protection of labour force, during construction and operation phases of the Project;
- 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;
- To review the status of ESAP as formulated by IFC and agreed by SBPCL;
- To review the implementation of the resettlement action plan (RAP) and livelihood restoration plan (LRP) developed for the Project;
- 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;
- To review the environment, health and safety records of site and compliance with respect to the site specific safety management system adopted by the O&M contractor and by the company; and,
- To provide objective reports to the project financiers confirming compliance and if not, recommending additional corrective actions, as appropriate to the Project during construction and operation stages.

## 2.3 Compliance Assessment Framework

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 3<sup>rd</sup> Nov 2014;
- All requirements specified in the Labour Audit report prepared by BCAS dated 25<sup>th</sup> June 2015;
- All requirements and mitigating or monitoring measures specified in the ESMMP of the ESIA report prepared by BCAS dated July 2014;
- All requirement specified in the Environmental & Social Monitoring Report and Social Audit report prepared by BCAS dated July 2019; and
- All requirements and mitigating or monitoring measures specified in the ESIA as well as RAP and LRP.

## 2.4 ERM Team for Site Visit

A three member ERM team had conducted the site visit and consultations from 20<sup>th</sup> and 21<sup>st</sup> August 2019. The composition of the ERM team was as follows:

- **Subhradeb Pramanik (Environment, Health and Safety Specialist):** Subhradeb Pramanik holds a Master Degree in Environmental Science and is presently working as a Principal Consultant at ERM India in Kolkata office. He has over 13 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 Senior Consultant with the Impact Assessment & Planning Practice at ERM India Pvt Limited. Over his 12 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.
- **Debabrata Ghosh (EHS Specialist):** Debabrata is presently working as Senior Consultant in ERM India Pvt. Ltd. and is based out at Kolkata office. He has 10.5 years of experience in conducting on site Implementation of Environment Management System in IFC sponsored project, Environment, Health and Safety Compliance Audits, EHS Due Diligence Assessments, Product regulatory reviews, Development and Implementation of Integrated Management System, and Environmental Impact Assessment in Oil & Gas, Mining & Common Municipal Solid Waste Management (CMSWMF) sector. Debabrata has considerable experience in conducting compliance assessments and is a core team member in conducting audits and due diligences. Debabrata has in depth understanding on Indian EHS Legislations and has conducted significant numbers of EHS due diligences and EHS Audits (approximately 120 Nos.) across sectors including Pharmaceuticals, Chemical units, Automobile, Heavy engineering workshops, corporate offices etc. He has rich experience in development, implementation and maintenance of EHS management system (as per ISO 14001:2015 & OHSAS 18001:2007) in various sectors including Construction sites, Telecommunication service providers, Banking and corporates etc. and has imparted EHS trainings while developing and implementing the system.

## 2.5 Approach to the Compliance Assessment

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

### 2.5.1 Kick-Off Meeting

The site visit began with a kick off meeting with the SBPCL and NEPC-S at the project site office. The kick off meeting helped in developing understanding on the current status of the Project 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.

### 2.5.2 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:

- Environment and Social Monitoring Report prepared by BCAS (July 2019);
- Environmental, Health, Safety & Social Monitoring Plan (SBPCL-EHS-007) prepared by SBPCL;
- CAP Status and Comments spreadsheet;
- NEPC-S Project Legal Register;



- NEPC-S Operational EHSS Procedures;
- Records of online and manual stack emissions monitoring, ambient air and noise monitoring, surface, ground water, ETP sludge and treated effluent sampling and analysis;
- Manual and calibration records for continuous emission monitoring system and ambient air quality monitoring system;
- Environmental & Social Management & Monitoring (ESSMP) Compliance Status for Operations as prepared by BCAS (July 2019);
- Monthly Environmental Performance Report as submitted by SBPCL to Department of Environment (DoE), Bangladesh for the period January to June 2019;
- Accident & Incident Register maintained in prescribed format as per Bangladesh Labour Rules 2015;
- Audit report of third party waste contractors;
- Chemical and waste inventory sheet maintained by NEPC-S;
- Inventory of lifting equipment and pressure vessels;
- Sample set of Safety Training Records;
- Sample set of Monthly EHS Inspections & Daily Site Visit Observations;
- Annual EHS Training Calendar;
- Sample copies of HSE meetings;
- Checklist of First Aid boxes;
- Safety Relieve Valve test report;
- Procedure on Working at Height-Hazard Control procedure, Confined Space Safety Operation Standard, ;
- Environmental Clearances for third party waste contractors;
- Sample copies of Monthly Reports for Operations;
- Facility Earthing Inspection Report;
- Mock drill reports;
- Fire Safety Plan;
- License of third party bulk petroleum storage and transportation agency;
- Workplace Illumination Monitoring Records – 2015;
- Details of community consultation held during 12<sup>th</sup> EHSS assessment period;
- Status report on back wage payment due for construction workers;
- Manpower break-up of the SBPCL, NEPC-S (O&M Contractor), NEPC (EPC Contractor); and,
- Grievance Management Process and Records;
- First CDP monitoring Report prepared an external CDP consultant;
- LRP completion Audit Report prepared by an external LRP audit consultant.

### 2.5.3 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 project operational component and associated activities. This was followed by consultations with the project affected communities. The different activities undertaken during the course of site visits included:

- **Discussions and Interviews:** The team conducted detailed discussions and interviews with the SBPCL personnel and relevant personnel of the O&M contractor (NEPC-S), employed to understand and assess the environmental, health and safety and labour related issues and their management onsite.
- **Discussion with the communities of SBPCL:** The ERM team had discussions with some of the PAPs in Resettlement Colony area as well as with the school management committee members in Parkul Village.

#### 2.5.4 Close Out Meeting

A close out meeting was held at the site office on 21<sup>st</sup> August 2019 with the NEPC-S and SBPCL Management representatives. *ERM* briefed both SBPCL and NEPC-S Management team 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, identified gaps and actions required to close the gaps identified were also discussed during this meeting. Some of the newly identified issues, associated with project operations were also briefed during the closing meeting.

#### 2.5.5 Reporting

Information from various sources gathered during the site assessment and direct observations made by *ERM* have been collated and compared against the reference framework.

### 2.6 Limitation

The report is based on information provided to *ERM* before, during the site visit and 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.

*ERM* is not engaged in consulting or reporting for the purpose of advertising, sales promotion, or endorsement of any client interests, including raising investment capital, recommending investment decisions, or other publicity purposes. Client acknowledges this report has been prepared for their and their clients' exclusive use and agrees that *ERM* reports or correspondence will not be used or reproduced in full or in part for such purposes, and may not be used or relied upon in any prospectus or offering circular. Client also agrees that none of its advertising, sales promotion, or other publicity matter containing information obtained from this assessment and report will mention or imply the name of *ERM*.

Nothing contained in this report shall be construed as a warranty or affirmation by *ERM* that the site and property described in the report are suitable collateral for any loan or that acquisition of such property by any lender through foreclosure proceedings or otherwise will not expose the lender to potential environmental or social liability.

### 2.7 Layout of this Report

The report has been prepared in the following layout:



- Section 2:*        (*this section*) provides a background of the assignment, objectives and scope of work, approach and methodology along with limitation of the review and report.
- Section 3:*        Project Appreciation and Current Status of the Project
- Section 4:*        Summary of Key Observations
- Section 5:*        Compliance Status of the CAP & ESMMP and IFC ESAP
- Section 6:*        EHS&S Regulatory Compliance Assessment
- Section 7:*        Corrective action items identified based on this monitoring
- Section 8:*        Conclusion

### 3. PROJECT APPRECIATION AND CURRENT STATUS OF THE PROJECT

#### 3.1 The Project

The project of 341 MW gas-fired CCPP is developed by SBPCL by installing one Gas Turbine (GT), one Heat Recovery Steam Generator (HRSG) and one Steam Turbine (ST). Gas supply for the Project is from Bibiyana Gas Field and is being supplied by the Gas Supplier – Jalalabad Gas Transmission and Distribution System Limited (JGTDSL). Power generated by the Project is being evacuated through an existing 230 kV transmission line of the Power Grid Company of Bangladesh (PGCB).

#### 3.2 Project Developer

The project developer for the Bibiyana II Gas Power Project is Summit Bibiyana Power Company Limited (SBPCL)<sup>2</sup>, which was incorporated in Bangladesh on 21<sup>st</sup> December 2010, as a joint venture of Summit Corporation Limited (SCL), which was formerly known as Summit Industrial and Mercantile Corporation (Pvt.) Ltd. and GE Energy LLC, a wholly owned subsidiary of General Electric Company. SCL 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.

#### 3.3 Current Project Status

**Table 3.1** below depicts important dates and timelines for SBPCL Project.

**Table 3.1 Key Timelines – SBPCL Project**

S. No.	Particular	Date
1	Date of signing Implementation Agreement (IA)	12 <sup>th</sup> May 2011
2	Date of signing Power Purchase Agreement (PPA)	12 <sup>th</sup> May 2011
3	Date of signing Gas Supply Agreement (GSA)	12 <sup>th</sup> May 2011
4	Date of Signing Land Lease Agreement (LLA)	12 <sup>th</sup> May 2011
5	Contract effective date	12 <sup>th</sup> 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	Combined Cycle COD	28 Dec 2015
12	Issuance of PAC to the EPC Contractor	28 August 2016
13	Demobilisation of EPC Contractor post completion of the warranty period	28 August 2019

<sup>2</sup> In pursuant to the provisions of the Companies Act, 1994, the name of Summit Bibiyana II Power Company Limited (SBIIPCL) now stands changed to Summit Bibiyana Power Company Limited (SBPCL). The aforesaid change has been notified by the Registrar, Joint Stock Companies and Firms, Bangladesh vide letter dated 26 January 2017.

### 3.4 Associated Project Facilities

Regarding work progress on the project associated facilities (not being constructed or financed by SBPCL) viz. gas pipeline, switchyard, access road, transmission line etc., an update has been provided in **Table 3.2** for reference. However, as clearly specified by the Borrower, the construction as well as operation and maintenance of these components rests with other parties (i.e. government entities).

**Table 3.2 Project Associated Facilities – Status**

S. No.	Facility*	Area (acres)	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/SBPCL	August 2013
5	Transmission Line	70 meters to switchyard	PGCB	28 February 2015

\* Components not under financing by Lenders

Source: SBPCL and BCAS

### 3.5 Project Operational Status and EHS Performance

The details of the project operational status and EHS performance during the half-yearly compliance audit for the period January to June 2019 have been presented in **Table 3.3** and **Table 3.4**, respectively.

**Table 3.3 Operational Performance – January to June 2019**

S. No.	Particular	Jan'19	Feb'19	Mar'19	Apr'19	May'19	Jun'19
1	Gross Generation, (MWH)	241,368.0	176880.6	228,746	193,356.5	212,474	157,132
2	Auxiliary Consumption (MWH)	6,417.0	5313.4	6,448	5,996	6,608.5	NA
3	Total Export, (MWH)	234,951.0	171770.5	222,355	187,552	205,862	205,862
4	Total Import, (MWH)	0	203.36	57	192.4	0	0
5	Net Energy Export (MWH)	234,951.0	171567.14	222,298	187,360	205,862	205,862
6	Natural Gas Consumption (As per GT's RMS meter) (MSCF)	1,576.8	1184.8	1,501	1,290.6	1417	NA
7	Availability (%)	100	88.23	98.12	92.97	100	NA
8	Equivalent Forced Outage Factor (EFOF) (%)	0	2.72	1.88	7.03	0	NA
9	Plant Factor (%)	92.6	74.92	87.63	76.33	81.14	NA
10	DM production (m <sup>3</sup> )	7590	7510	10988	72,975	9941	9561
11	Clarified water production (m <sup>3</sup> )	137800	100754	87970	399,499	211609	180367

Source: NEPC-S Monthly Reports for January to June 2019; NA – Not available

**Table 3.4 EHS Performance – January to June 2019**

S. No.	Particular	Jan'19	Feb'19	Mar'19	Apr'19	May'19	Jun'19
<b>A</b>	<b>Environment</b>						
1	Quantity of NOx Emission (tons)	10.11	10.01	11.80	11.62	10.29	7.59
2	Quantity of CO <sub>2</sub> Emission (tons)	88177.6	66260.0	83956.8	72173.6	79245.60	59091.8
3	Quantity of effluent (m <sup>3</sup> )	3483	3191	4318	5201	6288	11284
4	Quantity of sludge (kg)	1000	800	1000	1000	1150	1100
5	Quantity of Oily cloth (kg)	0.03	0.03	0.03	0.03	0.03	0.03
6	Quantity of used oil filter (pcs)	0	02	00	00	00	00
7	Quantity of used oil (litres)	50	40	50	60	45	60
8	Generation of medical waste (kg)	0.01	0.01	0.014	0.01	0.01	0.01
9	No. of environmental accidents	0	0	0	0	0	0
<b>B</b>	<b>Health &amp; Safety</b>						
1	Fatality	0	0	0	0	0	0
2	Lost Time Accident (LTA)	0	0	0	0	0	0
3	First Aid Cases	0	0	0	0	0	0
4	Near Miss	0	0	0	0	0	0
5	Days since LTA	1336	1364	1395	1425	1456	1486

Source: NEPC-S Monthly Reports for January to June 2019

## 4. SUMMARY OF KEY OBSERVATIONS

Considering that the Project is already in combined cycle operations since last 37 months with COD for combined cycle operations declared in December 2015, efforts have been made by the ERM team to assess project EHSS performance for operations stage and also to verify compliance status of any pending EHSS related actions, which were put as corrective action plan in the last compliance audit in January 2019. The EHSS observations/findings made in this regard have been summarized in the subsequent sections below.

### 4.1 Environment, Health and Safety

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

#### 4.1.1 Legal Register

The EHSS Compliance Audit Report prepared by ERM dated November 2014 suggested development of a legal register for both construction and operations phases. SBPCL has prepared a permitting register for ensuring timely approval or renewal of all legal compliances of the project with respect to operations. **Table 4.1** provides status of the various permits/licenses as applicable for operational phase of the project.

**Table 4.1 EHS License/Permit Compliance Status for Operations Phase**

S. No.	Permit/ License	Issuing Authority	Issue/ Reissue Date	Valid Until	Status*
1	Trade License	Aushkandi Union Parishad	14 <sup>th</sup> July 2019	30 <sup>th</sup> June 2020	In compliance
2	License for use of river water/ foreshore/jetty	Bangladesh Inland Water Transport Authority (BIWTA)	29 <sup>th</sup> August 2018	28 <sup>th</sup> August 2019	In compliance.
3	Environment Clearance Certificate	Department of Environment (DOE)	17 <sup>nd</sup> July 2019	16 <sup>th</sup> June 2020	In compliance
4	Permission for acid and alkali storage [The license is valid for storage of sulphuric acid (12.6 KL); hydrochloric acid (12.6 KL) and sodium hydroxide (8 KL).]	Department of Explosives (DOEXP)	30 <sup>th</sup> May 2019	30 <sup>th</sup> June 2020	In compliance
5	Fire Permit	Fire Service and Civil Defence	30 <sup>th</sup> June 2019	30 <sup>th</sup> June 2020	In compliance.
6	License for storage of Carbon Dioxide (6 KL capacity)	Department of Explosives (DOEXP)	3 <sup>rd</sup> January 2018	31 <sup>st</sup> December 2019	In compliance.
7	License for Diesel Storage (4KL capacity)	Department of Explosives (DOEXP)	3 <sup>rd</sup> January 2018	31 <sup>st</sup> December 2019	In compliance.
8	License for Diesel Storage (1.36 KL capacity)	Department of Explosives (DOEXP)	20 <sup>th</sup> January 2019	31 <sup>st</sup> December 2020	In compliance
9	License for generation of Hydrogen and storage of Hydrogen inside plant	Department of Explosives (DOEXP)	3 <sup>rd</sup> January 2018	31 <sup>st</sup> December 2019	In compliance.
10	License for installation of High pressure Gas pipeline inside power plant	Department of Explosives (DOEXP)	13 <sup>th</sup> May 2015	Entire project life cycle	In compliance
11	License of Boiler (IP, HP & LP Drum & Auxiliary Boiler )	Office of the Chief Inspector of Boilers (CIB)	08 <sup>th</sup> June 2019	7 <sup>th</sup> December 2019	In compliance.

S. No.	Permit/ License	Issuing Authority	Issue/ Reissue Date	Valid Until	Status*
12	Permission for Stack Erection	Bangladesh Air Traffic Services (BATS)	16 <sup>th</sup> June 2014	Entire project life cycle	In compliance.
13	License for Power Generation [License obtained for generation of 349 MW power (gross)]	Bangladesh Energy Regulatory Commission (BERC)	29 <sup>th</sup> June 2019	28 <sup>th</sup> June 2021	In compliance
14	Factories License	Deputy Chief Inspector of Factories	29 <sup>th</sup> May 2019	30 <sup>th</sup> June 2020	In compliance.
15	Groundwater abstraction permit for drinking purpose	Union Parishad	23 <sup>rd</sup> September 2014	Entire project life	In compliance
16	Groundwater abstraction permit for alternate plant water supply	Union Parishad	February 2016	Entire project life	In compliance

\* Status as on August 2019

#### 4.1.2 Environment Linked Observations

Some of the key observations linked to the Environmental performance of the project are mentioned below:

- SBPCL along with NEPC-S has in place a legal register updated to include the applicable EHS regulations and permit/license conditions along with their compliance status.
- The facility has obtained IMS Certification (ISO 9001: 2015, ISO 14001: 2015 and ISO 18001: 2007/ ELOT 1801: 2008) from M/s TUV Austria on 20 December 2017, which is found to be valid till 19 December 2020.
- NEPC-S has engaged M/S TUV Austria for third party monitoring of ambient air quality at plant and nearby villages. The monitoring was conducted in June 2019 for PM<sub>2.5</sub>, PM<sub>10</sub>, SPM, SO<sub>2</sub>, NO<sub>x</sub>, O<sub>3</sub>, CO and CO<sub>2</sub>. The results indicated the area as non-degraded airshed with pollutant concentrations well within the applicable Bangladeshi national ambient air quality standards as well as IFC/WB standards (*Interim Target -1*). Per the ESMMP requirement, the next ambient air quality monitoring is due in December 2019.
- NEPC-S continues with the monthly in-house monitoring of ambient noise quality within the site premises and near sensitive receptors like village settlements of Parkul, Bongaon and Paharpur. However, the ambient noise at the aforesaid locations were found to be higher than the night-time noise standard of 45 decibels which could be largely due to ongoing construction works of power plants in the vicinity of our plant. Additionally, NEPC-S has also engaged a third party monitoring agency – M/S TUV Austria to conduct ambient noise quality monitoring. Monitoring results for the period January- June 2019 within the plant reveals compliance to both day and night time noise standards specified for industrial area under Bangladesh ECR, 1997. NEPC-S also carries out regular workplace noise monitoring at the 8 locations which are identified as high noise areas.
- For the year 2018, NEPC-S has undertaken analysis of treated waste water, by engaging a third party agency – M/s TUV Austria. The monitoring program includes a total of 32 pollutant parameters with results found to be in conformance with the inland water discharge standard specified under *Bangladesh ECR, 1997*.
- Surface water analysis has been undertaken in June 2019 by TUV Austria for the following parameters – BOD, DO, pH and total coliform with all four (04) parameters monitored at the effluent discharge point. In all the cases, the results were found to be well within the standards prescribed. Testing of radioactive substances and radioactive material in wastewater was carried out by TUV Austria and results indicated that the radioactivity levels were below the applicable standards of DoE as well as WHO.
- In accordance to ESMMP for operations, fish habitat survey to be undertaken following the first year of operation. With plant in operation since early 2016, such study is yet to be undertaken and is reportedly to be carried out by September 2020. Fish habitat survey report dated early 2016 is likely to vary because the two large power plants, one in operation and one in construction phase, were non-existing at the said period.
- Drinking water analysis program is undertaken by NEPC-S by engaging a third party agency – M/s TUV Austria and is found to be covering all parameters in comparison to the Schedule 3B drinking water standards of the *Bangladesh ECR, 1997*.
- Both fuel and lubricants were found to be stored along with hazardous waste viz. used oil at the designated hazardous waste storage area. The secondary containment in the form of drip trays provided at the fuel drum storage was noted to be damaged owing to the loading and unloading of the said drums.



- NEPC-S continues with its efforts to ensure that biomedical waste generated is segregated and stored in dedicated bins which are adequately labelled and colour coded in accordance to the provision of the *Medical Waste Management & Processing Rules, 2008*.
- As recommended in the earlier audit report, the Site has engaged TUV Austria for carrying out analysis of sludge to assess its hazardous nature. Review of the report dated 25 July 2019 reveals the sludge has been analysed for the following parameters viz. chloride, fluoride, moisture, arsenic, cadmium, copper, lead, mercury, nickel, zinc, sulphate, pH, chromium, phenols and barium. However the results of the heavy metal content in sludge is expressed in mg/kg instead of mg/l as specified in the Bangladesh Sludge Management Guidelines. Furthermore, the analysis does not encompass the following parameter as specified in the said guidelines viz. total organic carbon, loss of ignition, dissolved organic carbon and calorific value. Per the guidelines requirement, NEPCS is also required to develop a sludge management plan based on the analysis results and current disposal activities and submit the same to DoE.

#### 4.1.3 Health & Safety Linked Observations

Some of the key observations on the health and safety aspects are as follows:

- Illumination monitoring undertaken in house during 5 July 2019 at the following plant locations - air compressor, chemical building 1, 3 & 4 floor, ST Condenser Area, ST 1&2 floor, GTG, Emergency diesel generator area, admin and workshop area, HRSG area, CW area, raw water area, multi water pump house, hydrogen station and dormitory. The monitoring records are documented in the checklist - NEPCS-O&M-FM-MNT-001 Maintenance. However, the illumination at WTP MCC room is recorded to be 310 lux which is below the threshold limit of 350 lux specified in the BLR, 2015. No illumination monitoring has been undertaken at the security room, kitchen and canteen to assess compliance with illumination value specified in the aforesaid rule.
- During the site walkthrough it was noted scaffolds were erected near the hydrogen plant boundary and CW pump house for painting and related maintenance work. However, physical review of the scaffolding structure and interaction with representative NEPCS personnel reveal the safety issues/gaps with respect to the erection and inspection of the said structures in accordance to the NEPCS-O&M-P-OHS-0016 WORKING AT HEIGHT HAZARDS Control Procedure.
- NEPCS has prepared a mock drill calendar for the year 2019 with drills conducted on the following emergencies scenarios for the period Jan to June 2019 - water leakage in multi-water pump house, accident in dormitory, transformer explosion, fall from height and hazardous chemical spill.
- In consistent with the ERM audit recommendation in December 2017, NEPC-S has continued with its effort with monthly noise exposure monitoring at 8 high noise areas identified within the plant. During the present audit, it was observed that audiometric test/ examination were carried out for all employees/ workers as part of the annual medical examination of the employees. Similar medical examination including audiometric test for the SBPCL officials and other staffs was also carried out in January, 2019 and the results indicated no issues related to hearing.
- As observed during the site visit, the hydrogen station within the licensed premises were equipped with LEL detector for hydrogen; however the calibration records of the LEL detectors was not readily available for review. Also with nitrogen cylinder being stored in the aforesaid hydrogen station for purging purpose, NEPCS has not installed any O2 analyser to provide early warnings/alarms in case of emergency situation like nitrogen leaks. No calibration procedure has also been developed and implemented by NEPCS.
- Reportedly, there exist a total 7 first aid boxes placed at the facility to deal with any minor injuries or cuts. All such first aid boxes are checked on a monthly basis for its contents particularly for

expired medicines, if any. NEPC-S has also implemented a monthly inspection tag for all first aid box maintained at the facility.

- Flow rate assessment has been undertaken in-house for hose reel and automatic sprinklers although the flow results were not found to be in conformance with the BNBC requirements (Table 4.4.1) for the occupancy type G1 (low hazard industries) which requires flow rate of hose and sprinkler system to be maintained at 1900 l/min and 2650 l/min respectively. Furthermore, physical check of sprinklers at the control room building during the audit reveals visible material clogging for at least 2 such sprinklers.
- NEPC-S has prepared an EHS training plan for Year 2019 based on training need assessment, which covers both O&M and Safety related aspects and identified the specific participants for each training program.
- SBPCL along with NEPC-S continues with carrying out of six monthly fire drill along with Bangladesh Fire Service and Civil Defence Authority. The last drill was conducted in May 2019 with records found to be maintained in prescribed format as specified in BLR, 2015.
- For the periodic Jan-June 2019, automatic sprinklers at pump house and ST hall are subjected to monthly inspection and record maintained. Review of the historical inspection records since Jan 2018, indicates that such test is limited to only sprinklers installed at ST hall, pump houses, waste lube oil tank and warehouse. Sprinkler test not undertaken for dormitory, kitchen, canteen, diesel storages and hydrogen stations.

#### 4.1.4 EHS Regulatory Compliance Status

- Environmental Performance and Monitoring Reports (EPR) has been prepared and submitted to DoE for the period January to June 2018.
- NEPC-S has engaged M/s Rima Enterprise and M/s Comfort Medical Services for disposal of hazardous waste and medical wastes respectively. Both the entities are having valid approval from DoE for handling, transportation and disposal of hazardous and bio-medical wastes, with both these facilities being audited in January 2019.
- As specified in the ERM audit report dated 1 June 2016 and 8 Sep 2016, the establishment of a Worker Participation Fund and a Workers Welfare Fund is still found to be pending. This is identified as a legal requirement as specified in the Bangladesh Labour Rules 2015 and the Factory License dated 21 June 2016.
- NEPC-S has internally conducted testing of the earth connections at multiple locations within the plant. Furthermore as per the regulatory requirement, SBPCL has submitted the ground resistance measurement report to the Inspector of Explosives, Sylhet Division vide letter no. 50/18-19/NU/132 in June 2019 for review and acceptance.
- NEPC-S has deployed M/S LIFTSOL for undertaking testing of pressure vessels however review of their certification issued in Form 30 reveals that such authorisation is valid for lifting tools, tackles and vessels (non-pressurised). Furthermore, such testing has been undertaken on 11-12 December 2018 whereas the validity of their certification has expired on 16 Nov 2018.
- M/S LIFTSOL has also been deployed for testing of lifting tools and tackles during Nov 2018 with the next test due on Nov 2019. However for passenger lifts (2) examination by third party competent agency is found to be due on May 2019 in consistent with BLR, 2015 which requires hoists and lifts to be inspected on a six monthly basis.
- In consistent with the requirements of the Pressure Vessel Rules, 1995, the hydrogen storage tanks located within the licensed area were not found to be bear the testing particulars.
- Occupational noise levels monitored at the ST Room, GT Room, Cooling Tower and HRSG Auxiliary Pump house both in-house and by third party agency (TUV Austria) indicates exceedance to the threshold limit of 80 decibels. Site walkthrough indicates NEPC-S has

provided appropriate PPEs like ear plugs for workers operating in such areas including display of signages.

- Firefighting Plan developed by NEPCS for the operational site has not been developed to cover all aspects specified in the BLR, 2015 with updation of the plan also found to be pending.
- Separate inspection checklist found to be available for SCBA and full body harness (including safety belts). However, review of activity wise PPE Checklist (NEPCS-O&M-FM-OHS-02-02: Safety and Health Inspection) developed, indicates lack of coverage of the following PPEs - SCBAs and fire masks with respect to firefighting operations. Furthermore, the annual PPE inspection checklist available at firefighter office including the checklist maintained by firefighters were not found to encompass gas masks and SCBAs.
- In line with the earlier audit recommendation, NEPC-S now maintains service book for the contractual staff (security guards, canteen workers etc.) in prescribed format i.e. Form 7.
- Register of workers in Form 8 is being maintained is now found to be maintained for all workers as per BLR, 2015 requirements.
- Service book has now been prepared and shared with all payroll staff of NEPC-S, in prescribed format (Form 7).
- NEPC-S continues to maintain the letter of appointment, identity card and service book for all staff and contractual workers (only temporary identity cards are provided to third party workers engaged on contractual basis) in Form 6A and a leave register is maintained in Form 9 as specified under *Bangladesh Labour Rules 2015*. However the contractual workers engaged through third party services are only provided with temporary identity cards and no appointment letters, service book maintenance etc. are not tracked.
- Registration of labour supply contractors viz. *Tahsin Enterprise, Rafi Enterprise, Sohag Enterprise* continues to remain pending. Similar findings has been made by the Labour Inspector vide its site visit report dated 4<sup>th</sup> January 2018. Reportedly, necessary communication has been made by NEPC-S with the aforesaid contractors to obtain the same on a fast track basis.
- NEPC-S has insurance provision for its direct workers and is not found to be applicable for other contract workers.
- Fitness testing of NEPCS personnel undertaken on an annual basis by the site registered physician and fitness certificate issued in prescribed format i.e. Form 26.

## 4.2 Social Observations

### 4.2.1 Manpower engagement

Present workforce strength in SBPCL power plant are employed three entities which include:

- SBPCL's direct staff deployed at site comprising of staff on payroll and staff engaged on contractual basis;
- Employees and contractual workers engaged by M/s. NEPC (EPC contractor); and
- Employees and contractual workers engaged by M/s. NEPC-S – Operation & Maintenance Contractor

#### 4.2.1.1 SBPCL Staff

Manpower strength engaged through SBPCL is same as observed in ERM previous visit which includes 5 direct payroll staffs and 6 contract workers. **Table 4.2** provides break-up of the current manpower deployment.

**Table 4.2 Manpower engaged at power plant by SBPCL**

S. No.	Designation	Number	Employer
Payroll Staff			
1	Operation Manager	1	SBPCL
2	Maintenance Manager	1	
3	EHS Executive	1	
4	Community Development Manager	1	
5	Admin & Account	1	
Contract Workers			
1	Driver	2	[1]
2	Kitchen staff	2	Resources and Solutions Limited
3	Cleaner	1	
4	Office boy	1	
Total		11	

[1] SBPCL has taken 2 vehicles on rent for which drivers are also provided by the respective vehicle owners.

Source: SBPCL Site Officials

#### 4.2.1.2 Workforce engaged by M/s. NEPC (EPC contractor)

NEPC had deployed 16 Chinese staffs in the Plant till the completion of warranty period i.e. August 2019. NEPC had also 9 Bangladeshi workers for their support. In this visit, ERM observed NEPC in the process of winding up their operation. Most of their Chinese staff have already shifted. Remaining will be shift by the end of August 2019.

#### 4.2.1.3 Workforce engaged by M/s. NEPC-S (Operation & Maintenance Contractor)

The total staff and workers engaged by NEPC-S has increased to 95 as per the data made available during ERM's 12<sup>th</sup> visit for EHS&S compliance assessment.

All the Bangladeshi contractual staff of NEPC-S are now employed through a third party manpower supply agency. **Table 4.3** highlights break-up of the manpower engaged through NEPC-S.

**Table 4.3 NEPC-S engaged manpower in Power Plant during 12<sup>th</sup> EHSS Assessment**

S. No.	Department/Position	Nationality	Number	Male	Female	Employment Status
1	Operation	Bangladeshi	20	20	0	Regular
2	Maintenance	Bangladeshi	16	16	0	Regular
3	<u>Admin</u> Officer/Engineer/Fire fighter Kitchen Office Helper Security	Bangladeshi	14 6 2 12	34	0	Regular Contractual Contractual Contractual
<b>Sub Total:</b>			<b>70</b>	<b>70</b>	<b>0</b>	
4	Operation	Chinese	12	11	1	Regular

5	Maintenance	Chinese	8	8	0	Regular
6	Admin	Chinese	5	2	3	Regular
<b>Sub Total:</b>			<b>25</b>	<b>21</b>	<b>4</b>	
<b>Total O&amp;M Staff</b>			<b>95</b>	<b>91</b>	<b>4</b>	

Source: NEPC-S HR Department

Apart from the above 95 staffs, NEPC-S has also hired contract workers from three manpower supply contractors as described below:

- 7 contractual workers (1 supervisor and 6 cleaners) for cleaning & gardening work within the plant premises are engaged through M/s. Tahsin Enterprise;
- 9 contractual workers from M/s Rafi Enterprise for regular maintenance activities; and
- 8 contractual workers from M/s Suhag Enterprises for regular maintenance activities.

#### 4.2.2 Compliance against BLA, 2006 (amendment 2013) and BLR, 2015 Provisions

ERM in its first ESDD report for SBPCL (November 2014) had highlighted certain gaps in Summit Corporate HR policy which is also applicable for SBPCL. Subsequently, SBPCL adopted HR policy and procedures of the parent company (i.e. Summit Corporation Limited - SCL) through its board meeting held on 11<sup>th</sup> June 2015 along with additional policies on the aspect of Non-employment of Adolescent & Children at Work, Anti-harassment and Abuse at Work, and Anti-discrimination policy. ERM reviewed these policies and found them to be aligned with requirements of labour act, 2006 and broad provisions of IFC Performance Standards-2.

##### 4.2.2.1 Labour: Compliance status – SBPCL

ERM had reported in its 6th EHSS Audit Report that HR management system of SBPCL lacks compliance w.r.t certain applicable aspects as per Bangladesh Labour Act 2006 (BLA 2006) and Bangladesh Labour Rule 2015 (BLR 2015). SBPCL had made good progress till 9th EHSS audit and there are still few open issues. **Table 4.4** presents current status as on 12th EHSS audit upon actions taken by SBPCL to close the gaps in HR management system.

**Table 4.4 SBPCL corrective action against gaps identified in HR Management Practices**

S. No	Legal Provision/ IFC PS-2 Requirements	Gap/Observation in 6th EHSS Audit	Observations in 9th EHSS Audit	Observations in 12th EHSS Audit
1	<p><b>Leave Entitlement</b></p> <p>As required under BLL 2006, Summit HR policy should have at least provision of following mentioned leave besides festival holidays:</p> <ul style="list-style-type: none"> <li>• Sick leave of 14 days;</li> <li>• casual leave of 10 days;</li> <li>• Earned leave of 1 day after completing every 18 working days post completion of one year service to the establishment.</li> </ul>	<p>Apart from legal provision on leave entitlement, SBPCL HR policy (<i>which was approved through Summit Board Meeting on 11<sup>th</sup> June 2015</i>), have also provision for;</p> <ul style="list-style-type: none"> <li>• Maternity leave of 180 days,</li> <li>• Paternity leave of 7 days, etc.</li> </ul> <p>However during consultation with SBPCL employees in 6<sup>th</sup> EHSS Audit, it was observed that Summit is actually still following its 2003 leave rules which entitles for only;</p> <ul style="list-style-type: none"> <li>• 7 days of CL leave;</li> <li>• 7 days of sick/medical leave; and</li> <li>• 15 days of annual leave without encashment provision.</li> </ul> <p>Besides this, maternity leave as provisioned under BLL 2006 is also being provided. Paternity leave is not part of actual leave policy.</p> <p><i>Thus it is evident that present CL leaves &amp; Sick leave entitlement is less than the statutory requirement.</i></p> <p>In follow up discussion with Summit post completion of ERM's 6<sup>th</sup> EHSS visit, it was reported that a revision (of the HR Manual/ Service Rule with certain additions/changes) has been proposed to the Board/ Senior Management of Summit and approval is currently pending.</p>	<p>Corporate HR manual of Summit Group was revised and approved by board of directors in October 2017. ERM has reviewed the revised HR manual and key observations on present HR manual are as follows:</p> <ul style="list-style-type: none"> <li>• Sick Leave &amp; casual leave entitlement as described in revised HR manual of Summit, is aligned with BLL 2006;</li> <li>• <b>Earned Leave (EL):</b> ERM's observations related to EL entitlement are as follows: <ul style="list-style-type: none"> <li>○ As per revised HR manual, entitlement for EL is 15 days/year after confirmation;</li> <li>○ BLL 2006 states 'EL should be calculated @ 1 day/18working days post completion of one year of service' {Refer section 117, clause 1 (a) of BLL2006};</li> <li>○ As per this EL calculation formula, EL entitlement could go up to 16. So it would be wise to define EL entitlement as per BLL 2006 requirements;</li> <li>○ Revise HR manual states EL cannot be accumulated for more than 20 days. However as per BLL 2006, EL can be accumulated up to 40 days {Refer Section 117 clause 5 (a)}</li> </ul> </li> </ul>	<p>No changes have been made to the HR Manual w.r.t EL leave entitlement.</p>



S. No	Legal Provision/ IFC PS-2 Requirements	Gap/Observation in 6th EHSS Audit	Observations in 9th EHSS Audit	Observations in 12th EHSS Audit
		ERM has not been provided draft copy of revised HR manual/Service Rule. This would be reviewed in next EHSS audit.		
2	<b>Insurance</b>  BLL 2006 has provision for insurance for workers.	Summit HR policy also entitles its employees for insurance. However it was observed during 6 <sup>th</sup> EHSS audit that SBPCL staffs are not being provided any insurance.  In follow up discussion with Summit post completion of ERM's 6 <sup>th</sup> EHSS visit, it was reported that Summit is in talks with two vendors regarding premium pricing and benefits to be provided.  HR department will finalise Insurance provision, once the Board agrees to the proposal. However no timeline towards completion of this activity was given by HR Department.	Revised HR policy includes provision of insurance facility for summit employees. It was also reported during 9 <sup>th</sup> EHSS audit that process of getting insurance through a suitable insurance agency is in progress and expected to be finalized soon.	Complied
3	<b>Clear Communication on Terms of Employment</b>  One of the key requirements under IFC PS-2 is related to clear communication of terms of employment to the employees.	Summit has system of issuing appointment letter to each new joiner. Appointment letter describes about condition of employment.  One of the conditions as mentioned in appointment letter says " <i>leave and other facilities would be governed by Summit Rules &amp; regulation</i> ". However Summit doesn't have formal system of sharing this Rules and Regulation book of the group with its employees.	Revision is ' <i>Existing Employee Information Pack</i> ' has not been initiated post finalisation of Summit HR manual. However Summit employee seems to be aware with the changes (like revision of leave entitlement, insurance facility etc.).  HR department is advised to update ' <i>Existing Employee Information Pack</i> ' and share with employees.	Employee information pack is not yet updated.
4	<b>Approved Service Rule</b>	Presently there is no such approved Service Rule for SBPCL in	There are few observations related to EL leave in revised HR manual ( <i>refer S.No:1 of this table</i> ). HR Department is advised	There is no change in status. The Services Rules have not

S. No	Legal Provision/ IFC PS-2 Requirements	Gap/Observation in 6th EHSS Audit	Observations in 9th EHSS Audit	Observations in 12th EHSS Audit
	Review of section-3 of BLL 2006; Rule-3, Rule-4, Rule-5 of BLR-2015 provides an understating that it is mandatory for Summit to have a 'Service Rule' approved by Inspector General (IG). Content of Service Rule should be as per form-1 [Section 3 & Rule 3(2), Description of the condition of Service in the Service Rules] and Form-2 [Section 3 & Rule 3 (4), Number of appointed workers].	Service books maintained for contractual staff.  In follow up discussion with Summit post completion of ERM's 6 <sup>th</sup> EHSS visit, it was reported that HR Manual/ Service Rule is being revised/portions added and will be submitted for approval to Inspector General, once it is approved by the Board (Of Summit Corporation).	to do needful and close these observations. Thereafter Summit is advised to either take legal opinion or visit office of Inspector General (Department of Inspection of Factories & Establishment) in Dhaka, for seeking clarification on requirement of IG approval over 'service rule' of Summit Group.  As per ERM's understanding, having IG approval over service rule of Summit Group is required in accordance with BLL 2006.	been approved by Inspector General.



#### 4.2.2.2 Compliance Status – NEPC-S

The O&M Contractor, NEPC-S was also observed to be lacking certain practices in their HR Management system in previous audit (6<sup>th</sup> EHSS Audit) and those gaps were pertaining to maintaining various registers, service book, leave book etc., required under BLR 2015. In successive audits, identified gaps were found to be closed by NEPC-S HR Department.

#### 4.2.2.3 Other observations on compliance status

- Two contractors (M/s. Tahsin Enterprise and M/s. Suhag Enterprise) have not yet obtained labour license as required under Rule 354 of Bangladesh Labour Rule 2015. NEPC-S HR department is reportedly planning to retain the workers supplied by these two contractors through M/s. Rafi Enterprise which has got labour license. This will be validated in next EHSS visit;
- Based on review of leave records of the Bangladesh staff for the year 2018, it appears that earned leave (EL) balance for mostly staff had come down to zero even though they had some balance casual leave (CL) at the end the calendar year. This indicates that staffs are pushed for utilizing and finishing their due EL by the end of each calendar year, thus preventing staff from EL accumulation indirectly. This practice of involuntary consuming EL by staff, is against the expectation of;
  - Section 117 (5) of Bangladesh Labour Act 2006, allowing accumulation of EL leave up to 40 for factory workers; and
  - Rule 107 (2) of Bangladesh Labour Rule 2015, allowing encashment of balance EL leave for the workers.

#### 4.2.3 Payment of minimum wage and overtime by EPC contractor

ERM had highlighted the issue of non-compliance w.r.t minimum wage for certain group of workers engaged in construction phase of the plant. Despite the regular reminder from Summit, the EPC contractor was observed to be non-compliant in terms of paying minimum wage for certain unskilled category of workers during construction Phase of the project. This issue was discussed with Summit in length in previous audit as well. (Refer 4<sup>th</sup> EHSS Compliance Assessment Report of ERM for further detail).

Now Project is already in operation stage and **COD** has also been received by the M&E contractor i.e. M/s. NEPC-S on **28<sup>th</sup> Dec 2015**. However the issue of paying balance amount of the applicable minimum wage rate for certain unskilled categories of the workers engaged by EPC contractor during construction phase, is yet to be resolved.

**During ERM's 5<sup>th</sup> EHSS audit report**, it was reported that SBPCL is in the process of preparing detailed list of workers engaged during construction phase, who are to be paid balance amount of their due wages in order to compensate and get aligned with minimum wage rate.

- It was also reported that payment of minimum wage would be settled via EPC contractor (NEPC) only.
- Summit would ensure the same by keeping on hold an amount of Taka 17,053,986/- from the money due to the EPC Contractor.

ERM had shared its observation in previous audit report that establishing the ESCROW account for settlement of the minimum wage could lead to a complicated procedure, because the labourers would be required to go to the bank as well.

**During ERM's 6<sup>th</sup> EHSS audit site visit**, it was informed that further development toward settlement of minimum wages has taken place.

- Summit has formed one committee at plant level, including incorporation of an independent member, to settle the issue of payment of Short Fall of Minimum Wages for labours working

during the whole period of the construction works conducted by the EPC Contractor (NEPC).  
Committee members are:

- Mr. Li Wenping, NEPC
  - Mr. Koushtuv Kanti Biswas, Community Development Manager, SBPCL (in capacity of Member Secretary)
  - Dr. Moinul Islam Sharif, BCAS
  - Mr. Xu Wei (Victor), General Manager, NEPC-S
  - Mr. Hozyfa Ebne Seraj, Manager (Maintenance and Contract), SBPCL
- NEPC prepared one comprehensive list of the total number of workers (934) who did not receive the minimum wage payment for certain period of time when they have worked at the time of the construction phase of Bibiyana II plant.
  - The EPC Contractor submitted the list to SBPCL and SBPCL shared the list of 934 workers with the Financers. On 11<sup>th</sup> October 2016, the advertisement of back wage payment was circulated in two local newspapers namely 'The Daily Express' and 'Daily Khowai'. ERM reviewed copy of the advertisement during site visit.
  - Post advertisement, only 11 persons contacted CDM so far. Out of this 11, only 3 persons were found eligible for balance payment of their total due minimum wage amount, as per the list of 934 persons. These workers have been asked to furnish their Worker ID issued by NEPC during their engagement and their bank account information.

The committee member (constituted for settlement of minimum wage issue) held an internal meeting on 27<sup>th</sup> Nov 2016 to discuss about the way forward for settlement of the issue. Following action points were discussed in this internal meeting of the committee members:

- Responses from the workers have been very low. Only 11 persons reported so far post advertisement and only 3 of them were found eligible as per list of 934 beneficiaries. It was reported by SBPCL that a re-advertisement of the list of beneficiaries will be carried out in the last week of December 2016;
- The eligible claimants (3) were assessed for payment eligibility after submission of National ID copies. They were told to submit Worker ID of NEPC and Bank Account Details. Moreover, the above list was signed by Committee Members and forwarded to BCAS for authenticity check and validation for processing payment;
- The person not being in the list but has the Worker ID of NEPC will be re-discussed after the re-advertisement;
- Copy of this meeting minute will be circulated with NEPC, NEPC-S, SBPCL Management, BCAS and Financers.

**During ERM's 7<sup>th</sup> EHSS audit site visit**, following development were observed towards settlement of minimum wage for the workers engaged during construction phase;

- Fifth monthly committee meeting took place on the 9 April 2017. In the meeting, Mr. Li Wenping from NEPC, Mr. Koushtuv Kanti Biswas & Mr. Hozyfa Ebne Seraj from SBPCL and Mr. Xu Wei (Victor) from NEPC-S were present;
- As on 09 April 2017, more than 1000 people contacted with Community Development Manager (CDM) referring to the advertisement. Among them, 434 workers were found in the list;
- Responses from the workers as of the 9 April 2017 have significantly increased, among whom 434 are found in the list;
- The claimants (434) were checked for payment eligibility – the claimants submitted copy of their NID along with other papers, if any;

- Since number of eligible worker is high, so to avoid crowding and to ensure smooth payment procedure it is agreed in the committee meeting that payment will be made in groups i.e. fifty workers will be paid in the first month (April 2017);
- The compilation of the 50 eligible workers was signed off by Committee Members and will be forwarded to BCAS for authenticity check and validation for payment;
- SBPCL is currently communicating with the workers to collect their bank account details;
- Progress towards further development for settlement of minimum wage issue, would be reviewed by ERM in next EHSS audit.

**During ERM's 8<sup>th</sup> EHSS audit site visit**, following development were observed towards settlement of minimum wage for the workers engaged during construction phase;

- The committee member (constituted for settlement of minimum wage issue) held 3 meetings in last 3 months in order to discuss about progress and facilitate the ongoing payment process of due minimum wage payment to the construction workers. In total 8 meetings have been conducted so far since inception of this committee;
- About 550 workers have been identified and have been requested to submit necessary documents (such as National ID card);
- Payment has been released to 342 workers so far. Verification exercise for other workers is underway.

**During ERM's 9<sup>th</sup> EHSS audit site visit**, it was observed that total 550 workers out of the 934, have been identified and communicated by SBPCL site management for their due payment. Payment to 522 workers have been disbursed so far.

**During ERM's 10<sup>th</sup> EHSS audit site visit**, it was observed that total 718 workers out of the 934, have been paid due wage for retrospective work done for EPC contractor during construction phase. The wage payments are being made in phases, currently 216 workers are yet to be paid. It has been reported that all the workers have been identified and the list of identified workers for the back dated wage payments has been displayed at the premises gates. The payments are being made in phases by conducting verification of the documents of the workers.

**During ERM's 11<sup>th</sup> EHSS audit site visit**, it was reported that total 763 workers are likely to be paid their due balance wage payment by end of January 2019. It is to be noted that the remaining 171 workers have not communicated with SBPCL till date, and the deadline for communication was also got finished in December, 2018. Now, SBPCL will discuss the issue with the lenders for way forward for balance payment. After discussion with the lenders, SBPCL may extend the deadline for six or twelve more months and then may circulate the list of remaining 171 workers through different means, and may commence third phase back wage payment to more workers (as much as possible).

**During ERM's 12<sup>th</sup> EHSS audit site visit**, it was reported that the deadline for further communication and payment to more workers was extended up to June, 2019. During the reporting period, additional 39 people were identified and paid their due back wage payment.

Till the date of ERM's visit, total 763 workers out of 934 were paid back wage settlement payment. As nobody out of the remaining 171 cases reported for their claim and the warranty period of EPC Contractor was also finished by the end of August 2019, SBPCL management is considering to close this process of back wage settlement payment.

#### **4.2.4 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.

#### 4.2.4.1 R&R implementation: ADB's financed Project Component

ADB's finance is limited to the Power Plant area.

- There were 31 Project Affected Households (PAHs) identified for the 11 acres land acquired for the power plant establishment. There were total 14 land owners on 11 acres 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 was dependent upon the piece of land acquired for this project.
- Land compensation to 14 landowners has been paid by the concerned government department. ADB had provisioned for providing one time compensation of Tk 7,500 to each sharecropper PAH and Tk 8,000 to each agriculture labour PAH to offset their economic loss. This payment was released by SBPCL already to all concerned sharecropper and agriculture labour.
- It was also provisioned to give Tk 2 lacs (0.1 million= 1 lac) in addition to the land compensation amount paid by government, to one of the PAHs who became landless after land acquisition for power plant. This amount was disbursed in two instalments and it was informed that the affected household invested the additional compensation amount in opening a new grocery shop and was observed to be successfully running the shop currently.

#### 4.2.4.2 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.

SBPCL has got Livelihood Restoration Plan (LRP) prepared through an external consultant and it was finalised after incorporating comments from IFC. One local NGO called as IDEA (Institute of Development Affairs) was engaged by SBPCL for LRP implementation and it was completed in the year 2017. Key highlights of LRP implementation are discussed in the previous monitoring reports.

SBPCL has now hired a consultant (Mr. AKM Shahjahan) for LRP completion audit. Objective of this completion audit are to;

- assess progress and performance of LRP implementation and output and outcome produced for achieving the target as indicated in LRP;
- assess whether the livelihood of affected households restored, especially their income and living standard enhanced and identify any gaps to be addressed further along with corrective measures;
- assess effectiveness of mitigation measures undertaken by SBPCL on the basis of guidelines provided in SIA, LRF and RAP report and LRP implementation for restoration of livelihood of PAH;
- make an overall evaluation of LRP implementation and assess whether the LRP monitoring should be concluded; and,
- assess impact through audit on socio economic changes occurred in community including PAHs as a result of LRP implementation.

As reported Inception report for LRP completion audit, has been submitted by this consultant, Draft report is awaited.

#### 4.2.4.3 Old age pension

As per the 'SIA, RAP & LRF' document of IFC, 57 old age and 11 widows were identified under vulnerable category during the SIA survey process and they were considered eligible for getting Tk 1000 per month as pension under the RAP.

Reassessment of the vulnerable list was carried out by the IDEA (LRP implementation agency) during first quarter (November 2015 to January 2016). Key observations of the assessment were as follows:

- Total 49 persons under vulnerable category could be identified for pension scheme. However 'SIA, RAP & LRF' document have budgetary provision for 68 candidates for pension scheme;
- Total 24 Male could be identified till March 2016 for vulnerable group pension. 21 were from the baseline list of 'SIA, RAP & LRF' document and 3 were newly identified;
- 25 Female were identified. This includes 3 new cases and rest of them were from baseline list of 'SIA, RAP & LRF' document.
- For the verification and eligibility assessment, the candidates should submit photocopies of their National ID card and passport size photo.
- SBPCL will maintain one register for the payment and the candidates will give signatures upon receiving the monthly stipend from the concerned person.
- SBPCL will assess the eligibility and vulnerability of the upcoming candidates and include them for future considerations if there are any suitable cases for inclusion;

**During 5<sup>th</sup> EHS&S compliance monitoring** period it was reported that;

- Further assessment of vulnerable PAPs based on their ID card information indicates only 36 PAPs (18 male and 18 female) are identified for pension;
- Number of eligible PAPs have come down on account of two reasons which include;
- 7 eligible PAPs died before starting disbursement of pension;
- some of the PAPs were observed to be below age limit (65 years for male and 60 years for female) in order to become eligible for old age pensioner;
- Disbursement of pension to these 36 PAPs has been started since April 2016;
- SBPCL is maintaining a register of payment and signature from pensioner is also being taken;

**During 6<sup>th</sup> EHS&S compliance** monitoring period, number of beneficiaries for old age pension were same as 36.

**During 7<sup>th</sup> EHS&S compliance monitoring** period, one old age pension beneficiary died and one PAP became eligible (crossed 65 years) in January 2017. Therefore total number of old age pension beneficiary still remain as 36.

**During 8<sup>th</sup> EHS&S compliance monitoring** period, number of beneficiaries for old age pension were same as 36.

**During 9<sup>th</sup> EHS&S compliance monitoring** period, number of beneficiaries for monthly pension was reduced to 35 as one of the PAP from Resettlement Colony (Ariful Bibi) has died and her monthly pension was stopped.

Mohammad Faisal s/o Ariful Bibi (PH ID 08) from Resettlement registered his grievance during consultation with ERM regarding stoppage of disbursement of pension amount as her mother (who was entitled for pension) died last month. Faisal had got injured about 6 months back and he couldn't recover fully and not fit for doing any manual work. He had received seed money of 75,000 Taka that was largely spent on paying medical expense for his & her ailing mother treatment. So he was unable to invest this amount properly in any livelihood related activity like poultry. Pension amount of her mother used to be important source of sustenance for his family till her mother was alive. Faisal expects SBPCL to continue releasing of pension amount. Few local leaders have written letter to SBPCL to grant him pension, considering his vulnerability.

**During 10<sup>th</sup> EHS&S compliance monitoring** period, it was reported that there has been one more deletion in total number of pension holders as one of the PAP from Resettlement Colony (Haji Abdul Noor) has died. So monthly pension amount is being disbursed to 34 PAPs now.



Consultations with Mohammad Faisal was also undertaken during visit to the Resettlement Colony and the same grievance was raised citing his inability to work ably to support a family of four. There has been no decision on the request of Mr Mohammad Faisal's request, highlighted during 9<sup>th</sup> Audit visit, in the box above.

**During 11<sup>th</sup> EHS&S compliance monitoring period**, number of beneficiary for pension was same as 34. It was also apprised that approval for releasing pension to Mr. Faisal (from resettlement) is expected soon and hence monthly pension to Mr. Faisal will be initiated shortly.

**During 12<sup>th</sup> EHS&S compliance monitoring period**, number of beneficiary for pension was same as 34. In the first CDP monitoring report, it has been recommended to consider two persons for the monthly pension scheme considering their vulnerability. This includes one person from Paharpur village (i.e. Mr. Faisal Mian) and one Person from Parkul village (Ms. Salema Begum). SBPCL is yet take decision on this recommendation.

#### 4.2.5 LRP Completion Audit Status & Outcome

ERM was shared draft LRP completion audit report conducted by AKM Shahjahan for review. Overall objective of this LRP audit report has been to demonstrate status of compliance of the interventions undertaken by SBPCL as part of LRP programme and disbursement of compensation and R&R entitlements as suggested in the SIA -LRF prepared for IFC. This LRP completion audit report also suggest some additional actions to be taken by SBPCL, in order to achieve the larger objective of LRP programme.

Findings and outcomes in this audit report are based on sample Household (HH) survey, focused group discussions (FGDs) and Key Informants Interview (KII) undertaken by the LRP audit consultant.

Key messages/outcomes of the draft LRP audit report as observed by ERM are as follows;

- The LRP audit report establishes that stakeholder engagement interventions carried out at the beginning of LRP implementation was adequate and effective. It further reports that LRP implementing agency had satisfactorily disseminated useful information on livelihood restoration to all beneficiaries of IGA training and to eligible beneficiaries of seed money;
- 87% PAHs received compensation satisfactorily for acquired land and they indicated appropriateness and adequacy of the compensation disbursement process. Remaining 13% (i.e. 12 PAHs in actual) were not released compensation on account of ongoing title dispute among the land owners. This matter is still pending before the court for final decision. Based on final verdict, eligible PAHs will receive their due compensation amount;
- Sample HH survey (9 out of 15 resettled PAHs in resettlement colony) indicated they have received all due entitlement as per the RAP and expressed satisfaction over appropriateness and adequacy of the resettlement support and entitlement disbursement process;
- Regarding delivery and impact of LRP entitlement (i.e. IGA training and seed money), all surveyed PAHs expressed satisfaction except for the two categories of PAHs that are;
  - 12 land owner PAHs whose land compensation disbursement is pending due to ongoing title dispute among land owners which had caused SBPCL to withhold releasing of seed money. However after getting final verdict of the court on this title dispute, the eligible PAHs will claim for seed money as well;
  - 22% PAHs belonging to Agriculture Labour category, expressed dissatisfaction as they were not considered for seed money in LRP entitlement.
- The LRP audit also establishes that PAPs are aware of and have access to the existing grievance mechanism and it is functioning effectively;
- On utilisation of compensation money received by land owner PAHs, 24% of surveyed landowner PAHs reported using the compensation money in construction/renovation of their houses. 20%

PAHs used for house renovation as well as for household's expenditure. Another 20% reported spending on purchase of land/cattle/investment in IGA assets. 19% PAHs spent on shopping for daily household needs. 14% reported spending full compensation amount on purchasing land/cattle/other IGA assets. Remaining 3% surveyed PAHs reported spending compensation money on marriage ceremony of their sons/daughters;

- On utilisation of seed capital amount, 87% surveyed PAH reported spending 100% on the IGA activities of their choices. Rest of the surveyed population spent partly on IGA activities and spent remaining amount on meeting family exigencies;
- LRP audit report has also provided a detailed assessment on LRP benefits and change in overall socio-economic condition upon PAHs after completion of LRP. The assessment tracks changes in predefined various socio-economic parameters that are indicative to socio-economic conditions of the PAHs. Outcome of surveyed PAHs in LRP audit indicates positive change in majority of the PAHs against the predefined socio-economic indicators.

The LRP audit concludes that LRP implementation was completed satisfactorily and no further corrective measures were recommended in the audit report. It has only recommended to consider two PAPs for monthly pension scheme in view of their existing vulnerable condition. These two PAPs includes; Faisal Mian (Paharpur village) and Salema Begum (Parkul village). ERM do agree with this recommendation.

Refer ERM's previous reports (6<sup>th</sup> to 9<sup>th</sup> EHS& Social compliance assessment reports) for ERM's feedback on LRP implementation.

#### 4.2.6 Community consultations in 12<sup>th</sup> EHS&S assessment

During site visit, ERM also had consultation with local community at two places. Details are provided below.

**Table 4.5 Community consultation by ERM in 12<sup>th</sup> EHSS visit**

Stakeholder group	Participants	Key discussion points
PAFs at Resettlement Colony (Paharpur)	<ul style="list-style-type: none"> <li>• Faisal Mian</li> <li>• Shafeeque Mian</li> <li>• Khushi Begum</li> <li>• Khela Begum</li> </ul>	<ul style="list-style-type: none"> <li>• Community members shared their expectation for hand pumps installation by Summit in resettlement colony at the earliest;</li> <li>• Discussed on pension amount disbursement to eligible beneficiary;</li> </ul>
Parkul school committee members at Parkul primary school	<ul style="list-style-type: none"> <li>• Rashendra Kumar Das (Principle, Parkul Primary School);</li> <li>• Arshad</li> <li>• Shahabuddin Mian</li> <li>• Manjoor Mian</li> <li>• Asad Mian</li> <li>• Sujon Mian</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion on the proposal for development of Parkul Primary school as part of CDP program;</li> <li>• School committee members enquiring about progress on execution of proposed school development works.</li> </ul>

#### 4.2.7 Community Development Plan

SBPCL was supposed to undertake certain actions regarding local community development as a part of Community Development Plan. **Table 4.6** highlights those actions and progress made against each of those actions.

**Table 4.6 Status on CDP implementation**

S. N.	Category of Expenditure	Cost (Tk)	Description	Timeline	Responsibility	ERM Remarks as on August 2019
1	Enhancement of Local Education (including non- formal education)	10,000,000	Free education materials, to reduce dropout of students and enhance construction of new building (modern toilet and drinking water facilities) & development of non-formal education facilities	January 2015	SBPCL	<ul style="list-style-type: none"> <li>15 schools were visited as a part of short listing process of school for spending the proposed budget. Among the shortlisted schools, one school (Parkul Primary School) was identified. The enhancement work of school infrastructure is proposed to be initiated after the formation of new school committee. CDM followed the case of formation of school committee and new school committee was formed. The School committee submitted one application to Summit vide dated 30th June 2016, requesting for construction of four new class room;1 office room;2 toilets for students;1 toilet for teachers; and Boundary wall for Parkul Primary school.</li> <li><b>During 6th EHSS audit</b>, it was reported that the proposal of school committee have been accepted by Summit. However completion date for the activities of this proposal is extended by December 2017.</li> <li><b>During 7th EHS&amp;S compliance assessment</b>, no progress was reported.</li> <li><b>During 8th EHS&amp;S compliance assessment</b>, it was reported that initial quote has been taken from 2 contractors for construction of 5 class rooms, 1 teacher room, 2 toilets, 1 library room and boundary wall in Parkul school. Quote is to be send to corporate for review and approval. CDM is waiting for go ahead from Summit corporate office for further actions like taking final quote from contractors, initiating tendering process etc. for initiating this activity.</li> <li><b>During 9th EHS&amp;S compliance assessment</b>, no further progress was reported. However it is to be noted here that revised timeline for completion of this activity is December 2017.</li> <li><b>During 10th EHS&amp;S compliance assessment</b>, it was reported that Consultant to support CDP Monitoring and Evaluation is in the process of</li> </ul>



S. N.	Category of Expenditure	Cost (Tk)	Description	Timeline	Responsibility	ERM Remarks as on August 2019
						<p>selection and will take things forward once appointed. The appointment is reportedly under process and should get completed by end of August.</p> <ul style="list-style-type: none"> <li>■ <b>During 11th EHS&amp;S compliance assessment</b>, it was observed that the consultant for CDP monitoring has been hired and CDP monitoring work is in progress now. Monitoring report is awaited.</li> <li>■ <b>During 12th EHS&amp; compliance assessment</b>, 1st CDP monitoring report undertaken by an independently hired consultant was shared with ERM for review. This report recommends detail specifications for development of Parkul school which came out on the basis of need assessment of the community done by CDP monitoring consultant. Specific timeline for initiating this development is not given by SBPCL yet.</li> </ul>
2	Establishment of a Library	3,000,000	Establishment of library, Furniture, Book Shelf, new books, Scientific Journal, Setting up Internet and related materials for modern education	January 2015	SBPCL	<ul style="list-style-type: none"> <li>■ A high school in Sherpur was identified for establishment of library. CDM had discussed with the school management committee and assessed the scope to develop the library;</li> <li>■ Summit has extended deadline for completion of this activity by June 2017;</li> <li>■ No action was taken in <b>7th EHS&amp;S compliance assessment period</b>;</li> <li>■ <b>During 8th EHS&amp;S assessment period</b>, CDM has received a proposal for supply of books and magazines a supplier (i.e. Zara Enterprises). The proposal has been forwarded by CDM to Summit Corporate office for approval which is awaited.</li> <li>■ <b>During 9th EHS&amp;S assessment period</b>, no further progress was made. However revised timeline for this activity has already over which was June 2017.</li> <li>■ <b>During 10th EHSS assessment period</b>, it was reported that additional FGDs have to be conducted by the consultants to be selected for CDP Monitoring and evaluation.</li> </ul>

S. N.	Category of Expenditure	Cost (Tk)	Description	Timeline	Responsibility	ERM Remarks as on August 2019
						<ul style="list-style-type: none"> <li>■ <b>In 11th EHSS assessment visit</b>, it was apprised that the consultant has undertaken consultations with the school staff and villagers. Minutes of consultation is awaited from the consultant.</li> <li>■ <b>In 12th EHS&amp;S assessment visit</b>, it was observed that 1st CDP monitoring report recommends for establishing a furnished library in Parkul School equipped with required number of chairs, tables, bookshelf, books, computer etc. Recommendation for establishment of library is recommended as part of overall development of the Parkul School. However specific timeline for initiating this development is not yet given by SBPCL.</li> </ul>
3	Enhance Health Service in existing centre	1,500,000	Doctors and technical staff, medicine supply in the existing Centre for 5 years	December 2014	SBPCL	<ul style="list-style-type: none"> <li>■ One doctor has already been employed. Since the community health complex situated adjacent the plant site is under government, the private doctor is not allowed practicing at the premise. Hence, SBPCL has rented a separate place at Parkul (in front of the power plant beside CDM's Office) for ensuring access of local people to the Doctor's service at free of cost.</li> <li>■ Facility of supplying free medicines has not been initiated. CDM reported that distribution of medicines requires permission from concerned medical officer of this region.</li> </ul>
4	Enhancement of a Local Hospital	13,500,000	Civil structure, beds, medical equipment, lab facilities and additional running cost.	June 2015	SBPCL	<ul style="list-style-type: none"> <li>■ Local hospital is not available within 5 km area of the plant. SBPCL had made efforts by negotiating with health service providers in the region for utilising the budget capped for enhancement of local hospital. Alternate opportunity for incurring this budget, is yet to be identified;</li> <li>■ Summit has revised deadline for this activity by June 2018;</li> <li>■ <b>During 8th EHS&amp;S assessment period</b> no progress on this activity was reported in.</li> <li>■ <b>During 9th EHS&amp;S assessment period</b>, status remains unchanged and no progress was reported.</li> <li>■ <b>During 10th EHS&amp;S assessment period</b>, SBPCL management has reported that since tenure of providing support to the existing health centre</li> </ul>

S. N.	Category of Expenditure	Cost (Tk)	Description	Timeline	Responsibility	ERM Remarks as on August 2019
						<p>(refer to S. No. 3) is going to end and there is a consideration to continue the same over a longer period. This will be depending upon the community accepting the same. In order to evaluate this proposition, SBPCL is planning to conduct focussed group discussions by the LRP implementation auditor (engaged recently).</p> <ul style="list-style-type: none"> <li>■ <b>In 11th EHS&amp;S visit</b>, it was apprised that community has indicated the need for continuing with the existing health centre in the FGD sessions conducted by LRP implementation auditor. Consultation minutes is awaited from the consultant.</li> <li>■ <b>In 12th EHS&amp;S visit</b>, it was observed that 1st CDP monitoring report recommends to expand the existing health care centre provided by SBPCL in Parkul village. key improvement areas as recommended in the CDP report for the existing health centre are; <ul style="list-style-type: none"> <li>■ Need more space for the health centre with toilet and running water arrangement for effective delivery of the services;</li> <li>■ More health care infrastructure is needed in the centre like adding a qualified nursing staff &amp; pathology technician;</li> <li>■ Provide more equipment in the centre like Biochemical Analyser (for creatinine, electrolyte, bilirubin and blood sugar test), CBC cell counter (for haemoglobin test), ECG machine, Urine test machine, Autoclave and surgical set, Reagent and other materials/test-tube, disposable syringe etc.</li> <li>■ Need adequate furniture with two patient handing beds</li> <li>■ SBPCL is now required to act and come out with a time bound plan in order to implement the recommended measures in the CDP monitoring report.</li> </ul> </li> </ul>
5	Improvement of 3 km Road	2,600,000	Paved Road Sherpur-Bongaon	June 2015	SBPCL	<ul style="list-style-type: none"> <li>■ Completed improvement from Sherpur to Plant (2.5 km). However the road has not yet been extended up to Bongaon;</li> </ul>

S. N.	Category of Expenditure	Cost (Tk)	Description	Timeline	Responsibility	ERM Remarks as on August 2019
						<ul style="list-style-type: none"> <li>Development of paved road of remaining half kilometre which Sherpur to Bongaon, is pending. Visual inspection of this 0.5 km indicates that this road is brick soiled road and suitable for driving motor vehicle on this road;</li> </ul>
6	Installation of 5 tube wells	1,00,000	Parkul, Resettlement site Tk. 20,000 x 5 Tube well	July 2020	SBPCL	<ul style="list-style-type: none"> <li>SBPCL installed 5 tube wells at the Resettlement Site. However, all the installed tube wells were found to be contaminated with arsenic content. Therefore, tube wells were closed and signboards of 'not fit for use' in local language are placed.</li> <li>The families in Resettlement colony were observed to be using small pond in front of their houses for meeting domestic water requirement. Drinking water is being sourced from tube wells of other nearby houses. The Kushiya River located about 300 meter away from the resettlement, also used as source of water including drinking purpose. Reportedly, the Union Parishad is planning to install a deep tube well to cater to the drinking water requirements of the Resettlement colony.</li> <li>In 11th EHSS compliance assessment visit, ERM visited resettlement colony and had consultation with some dwellers wherein it was apprised that a new hand pump have been installed at 750 ft boring, with the financial support provided by a local person of Parkul village. Water quality is reported as good, but there has been any testing of water quality. Dwellers of the colony reiterated that there is need for providing more hand pumps at different locations of the colony at minimum depth of 750 feet so as to get good quality of water. However SBPCL management approval for this demand is still awaited.</li> <li>In 12th EHSS visit, it was observed that it has been recommended in the first CDP monitoring report for reinstallation of hand pumps at select locations in the resettlement colony. The CDP report do mention detail plan for this activity which highlights specific locations recommended for hand</li> </ul>

S. N.	Category of Expenditure	Cost (Tk)	Description	Timeline	Responsibility	ERM Remarks as on August 2019
						pump installations, minimum depth for the hand pump, maintenance etc. SBPCL is required to provided timeline for completing this work.
7	Plantation Program	1,000,000	Along the access road and project site boundary	June 2015	SBPCL	<ul style="list-style-type: none"> <li>Plantation was done on either sides of the access road connecting to Power Plant. Presently most of those plants were observed to be damaged/ disappeared. Although SBPCL has provided protection in form of a wooden cage for each plant. But these plants were reportedly damaged /uprooted by some local people during night time.</li> </ul>
8	Monitoring & Evaluation of CDP	60,00,000	Total 13 Report for 5 years	December 2014 to December 2019	SBPCL	<ul style="list-style-type: none"> <li>In 12th EHSS visit, it was observed that CDP monitoring is already begun and the monitoring &amp; evaluation consultant has already submitted the first monitoring report to SBPCL.</li> </ul>

Source: Community Development Officer, SBPCL

#### **4.2.8 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 presently has a dedicated Community Development Officer (CDO) who was observed to be in regular touch with the neighbouring community.
- 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.

Review of the stakeholder engagement records/ grievances maintained by CDO during ERM's 12<sup>th</sup> EHSS site visit, indicates that project has not received any grievances during the 11th EHSS assessment period.

## 5. Compliance Status of CAP & ESMMP AND IFC ESAP

The compliance status based on the site visit and review of documents as on July 2018 has been presented in **Table 5.1** and **Table 5.2**. In order to define the status of various action items, colour coding has been used for easy referencing, which is as follows:

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

**Table 5.1 CAP & ESMMP Compliance Status**

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
<b>1</b>	<b>PS 1: Assessment and Management of Environmental and Social Risks and Impacts</b>							
1.1	Review of all the records being maintained as part of EHS Plan by the O&M contractor	High	SBPCL and O&M Contractor	Records Review and Corrective Actions	Periodic	NEPC-S has procured necessary equipment for carrying out the external testing of pressure vessels and has tested all the 19 pressure vessels externally. All the pressure vessels were found in sound condition. However, the tests should be carried out externally in every 6 months by a competent person approved by Department of Inspection for Factories and Establishments. Hence, NEPC-S or concerned official of NEPC-S shall obtain the competency certificate for carrying out these tests. Otherwise, competent third party possessing the certificate shall have to be engaged for carrying out the external test of		NEPC-S engaged TUV Austria for ultrasonic gauging and thickness testing of the pressure vessels; and LIFTSOL Bangladesh for hydro-testing of pressure vessels . Testing was performed by the aforesaid agencies in December 2018.  Out of the 19 pressure vessels within the plant, hydro-test reports of 17 pressure vessels were provided for review and found satisfactory. The test reports of 15 pressure vessels were also furnished in Form 25(A) of the Bangladesh Labour Rules, 2015. However review of certification of LIFTSOL issued in Form 30 reveals that such authorisation is valid for lifting tools, tackles and vessels (non-pressurised). Furthermore, such testing has been undertaken on 11-12

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<p>the pressure vessels. External test of the pressure vessels shall be carried out in every six months.</p> <p>Hydrostatic testing of 15 pressure vessels were conducted during December, 2018 by LIFTSOL. Internal test of these tested vessels will be due on or before 11<sup>th</sup> December 2020, which can be extended up to 2 more years; and hydrostatic test of these vessels will be due on or before 11<sup>th</sup> December 2022. However, neither internal nor hydrostatic test of the remaining 4 vessels (CO<sub>2</sub> tank, LP drum, IP drum and HP drum) has yet been carried out. If these vessels are not possible to be tested during plant operation, they might be tested during the scheduled shut down of the plant.</p> <p>Out of 33 safety/safety relief valves, 11 were tested by NICCO ENGINEERING SERVICES LIMITED on 15 February 2019. All the tested safety valves were in sound condition. However, testing of the following remaining 22 safety/safety relief valves are pending: Low pressure feed water, IP</p>		<p>December 2018 whereas the validity of their certification has expired on 16 Nov 2018.</p> <p>Ultrasonic gauging and thickness testing was conducted for 16 pressure vessels by TUV Austria. <i>However, testing of compensation water tank, flush tank, continuous blowdown tank, periodic blowdown tank are still pending.</i></p> <p><i>The site has conducted testing of safety relief valves (11 out of 33 SRVs) through appointing M/S Nicco Engineering Services Limited dated 15 February 2019. Reportedly, the testing of the remaining valves will be conducted by December 2019.</i></p> <p>As recommended earlier, NEPC-S now maintains an injury/illness logbook at the infirmary. Review of the aforesaid logbook and discussion with medical practitioner in charge of the infirmary reveals no injuries/first aid cases being reported for the period January to June 2019. The same is also reflected in the monthly performance reports being prepared by NEPC-S.</p> <p><i>Furnish testing reports of remaining safety relief valves of pressure vessels.</i></p> <p><i>Appoint a third party agency possessing necessary authorisation under Form 30 for hydro testing of pressure vessels. Conduct</i></p>



S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<p>feed water, Continuous blowdown flush tank, Gland steam HP/IP inlet, Instrument compressed air tank-1, Instrument compressed air tank-2, Service compressed air tank, Gas supply Coaleser filter safety vent valve#1, Gas supply Coaleser filter safety vent valve#2, Gas heater Safety vent valve #1, Gas heater Safety vent valve #2, Gas SCRUBBER safety vent valve, Gas inlet supply line safety vent valve #1, Gas inlet supply line safety vent valve #2, Hydrogen storage tank – 1, Hydrogen storage tank – 2, Hydrogen storage tank – 3, Air storage tank of Hydrogen station, Air storage tank of DM Plant, Alkali dilute heater safety vent valve, Air storage tank of compressor room, ST Hall air storage tank.</p> <p>NEPC-S continues the good practice of maintaining injury/illness logbook. No injury/first aid case was reported for the period of January 2019 to June 2019.</p>		ultrasonic gauging and thickness testing of the remaining four pressure vessels.
1.2	Develop and maintain legal register for all the Project components	High	4.1	Legal Register for Operation	Within 3 months prior to the operation	<p>Updated legal register is in place.</p> <p>SBPL has renewed all the required permits/licenses.</p>		SBPCL has identified the applicable EHS permits/licenses (Refer <b>Table 4.1</b> ) required during both construction and operational

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
				Phase on Combined Cycle basis	phase and half yearly review			phases and their validity and approval status has been provided in <b>Table 4.1</b> .
1.3	Comply with the findings (not aligned) and recommendations	High	SBPCL and EPC Contractor	Legal compliance	Within 2 months of date of deal closure or December 2014, whichever is earlier	Complied. Refer to Table 2.3: EHS License/Permit Compliance Status for Operations Phase.		Complied.  Refer <b>Table 4.1</b> on Project EHS&S Regulatory Compliance Status.
1.4	Training of SBPCL Staff and EHS team of EPC Contractor on Operations ESMMP	Low	SBPCL	Training Calendar (Operation)	Within 2 months of Combined Cycle Operation	NEPC-S has carried out TNA for 2019 and has developed a training calendar for 2019 comprising of the following training programs/elements: <ul style="list-style-type: none"> <li>■ Bangladesh Govt. Rules &amp; Regulation Training</li> <li>■ EHS plan for operations</li> <li>■ first aid training for emergency illness</li> <li>■ Proper PPE usage training</li> <li>■ Factory site fixed fire equipment facilities training &amp; fire extinguisher use training</li> <li>■ Characteristic training of various chemicals</li> <li>■ Safety Training for Special Operator (Electrical, Lifting, Welding Cutting, Forklift, Scaffolding)</li> <li>■ Whole plan environmental equipment facilities &amp; waste management Training</li> </ul>		As per the EHS training calendar of Year 2019, trainings were conducted for appropriate target groups on the following training programs/ elements: <ul style="list-style-type: none"> <li>■ Bangladesh Govt. Rules &amp; Regulation Training</li> <li>■ EHS plan for operations</li> <li>■ First aid training for emergency illness</li> <li>■ Proper PPE usage training</li> <li>■ Factory site fixed fire equipment facilities training &amp; fire extinguisher use training</li> <li>■ Characteristic training of various chemicals</li> <li>■ Safety Training for Special Operator (Electrical, Lifting, Welding Cutting, Forklift, Scaffolding)</li> <li>■ Whole plan environmental equipment facilities &amp; waste management Training</li> <li>■ Best behaviour training for the employee</li> </ul>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<ul style="list-style-type: none"> <li>■ Best behaviour training for the employee</li> <li>■ Boiler flue gas and high temperature steam work training</li> <li>■ Gas turbine accident handling training</li> <li>■ Operation and maintenance daily safety and accidents cases discussion</li> <li>■ Till June 2019, the trainings were organized in line with the training calendar. NEPC-S maintains the training records. In addition, 'fire emergency mock drill' was organized on 2<sup>nd</sup> May, 2019 at the presence of representative from Bangladesh Fire Service and Civil Defence. Drill report is in place associated with the requisite BLR forms.</li> </ul>		<ul style="list-style-type: none"> <li>■ Boiler flue gas and high temperature steam work training</li> <li>■ Basic electrical safety training</li> <li>■ Gas turbine accident handling training</li> <li>■ Operation and maintenance daily safety and accidents cases discussion.</li> </ul> <p>The site is maintaining training record except for the training imparted in the month of July 2019 safety training for special operator; In addition, the site has imparted Safety Training on Permit to Work (PTW) system dated 5 August 2019 and record of the same has been maintained.</p> <p>For operations, NEPC-S has developed an induction training program for the newly recruited workforce in both English and Bengali (the local language). NEPC-S has also prepared a preliminary site safety introduction form in Bengali. Reportedly, this form is to be read and signed by the newly inducted workers prior to commencement of operations onsite. The same was reviewed and verified by ERM for the current audit period.</p>
1.5	Mapping of training needs of SBPCL Staff and development of training calendar	High	SBPCL	Training Calendar	Within 2 months of Combined Cycle Operation	As discussed in <i>Sl. No. 1.4</i> NEPC-S has developed a training calendar for 2019 and the same has been based on a training need assessment survey undertaken by NEPC-S.		As discussed in <i>Sl. No. 1.4</i> NEPC-S has developed a training calendar and the same has been based on a training need assessment survey undertaken by NEPC-S for respective department. The results of the

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								surveys has been recorded and utilised to update the annual training calendar.
1.6	<p>Develop an emergency response plan into a consolidated document with:</p> <ul style="list-style-type: none"> <li>■ Identification of, including risks associated with all project components;</li> <li>■ Key community and environmental sensitivities (such as village settlements, ponds, etc.) and the potential of offsite consequences along with mitigation measures;</li> <li>■ A common communication and emergency response process flow for onsite emergencies as well as their</li> </ul>	Medium	SBPCL	Emergency Response Plan for Operation Phase	1 month prior to the date of Combined Cycle Operation	Updated Emergency Preparedness and Response Plan is in place. 'Fire emergency mock drill' was performed as mentioned in Sl. No. 1.4 of this table.		<p>NEPC-S has already developed an Emergency Preparedness and Response Plan for implementation. The response plan has specified control measures for the following emergencies – fire and explosion, medical emergency, hazardous material release, natural hazards and terrorist threats. The Plan also bear the details of firefighting resources and offsite emergency responders; including the contact details of the onsite ERT team. Nearby village communities also participated in the emergency mock drill organised by NEPC-S along with Bangladesh Fire Service and Civil defence authorities on May 2019.</p> <p>As recommended in the earlier audit report, NEPC-S have now outlined the procedure to be followed for rescuing and recovery of personnel/workers involved in height work and confined space entry.</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
	<p>communication to authorities offsite;</p> <ul style="list-style-type: none"> <li>Disclosure to communities in the vicinity of the project on the emergency readiness of the company in case of any incidents.</li> </ul>							
<b>2.</b>	<b>PS 2: Labour and Working Conditions</b>							
2.1	<p>SBPCL while finalising its HR policy may consider the following aspects for inclusion:</p> <ul style="list-style-type: none"> <li>Roles and responsibilities associated with various positions need to be mentioned;</li> <li>Non-discrimination policy should be mentioned;</li> <li>HIV/ AIDS non-discrimination should also be spelt out;</li> </ul>	High	SBPCL	HR Policy and Procedures	At the earliest	<p>After revision of the HR policy of SBPCL previously, no further improvement took place so far.</p> <p>NEPC-S currently maintains workers register, overtime register, safety record book, safety board &amp; safety committee. NEPC-S disclosed excerpts of BLL 2006 &amp; BLR 2015 at prominent places of the plant. NEPC-S files half yearly return as well. However, tasks related to regularizing security staffs and provision of compensatory payment @ double of wage rate are still under process. NEPC-S also could not ensure obtaining license for its sub-contractors from Labour Department. At present, the staff of</p>		<p>ERM had highlighted certain gaps in HR management system of SBPCL in ERM's 6<sup>th</sup> EHS&amp;S audit. Actions were also taken by SBPCL and NEPCS to close gaps and align HR management system with the requirements of Bangladesh labour regulations.</p> <p>Attendance register, leave register, service book, cleaning register etc. are being maintained by both SBPCL and NEPC-S.</p> <p>SBPCL has done Group Term Life Insurance and Group Hospitalization Insurance with Delta Life Insurance Company Ltd. for the permanent employees of SBPCL.</p> <p>In 9<sup>th</sup> EHS&amp;S audit, it was observed that Earned Leave provision as defined in</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
	<ul style="list-style-type: none"> <li>Working with Suppliers and contractors and non-employee workers may also be referred to;</li> <li>Non-tolerance of child labour and forced labour not only for employee, but for the non-employee workers if any</li> <li>Anti- Sexual Harassment Policy may be explicitly captured;</li> </ul> <p>All contractors and sub-contractors within the consortium should be required to apply the principles of the SBPCL HR Policy document and also ensure that their internal procedures follow local and international standards.</p>					NEPC-S are enjoying extra leave for working on festival holidays.		<p>revised HR manual of Summit is not fully in sync with requirements of labour law.</p> <p>In the 10<sup>th</sup> EHSS audit also, no changes had been observed in light of the recommendations made during December 2017.</p> <p>In the 11<sup>th</sup> EHSS audit also, no changes have been observed in light of the recommendations made during July 2018. It was reported by SBPCL management that action will be taken on streamlining EL provisions at Summit Group level and same will require some time to complete this process. It was also reported that this process will be completed by September 2019.</p> <p>In 12<sup>th</sup> EHS&amp;S visit, no further update was provided by SBPCL regarding streamlining EL provisions for their employees.</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
2.2	<ul style="list-style-type: none"> <li>HR Policy of the EPC contractor should comply with the provisions of SBPCL HR Policy.</li> <li>EPC contractor's local staffs' terms and conditions of employment to be put in compliance with SBPCL HR policy.</li> <li>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.</li> <li>Workers to be provided clear terms and conditions of employment.</li> </ul>	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>SBPCL has completed the payments for 1st Phase of back-wages settlement involving 550 workers. SBPCL has commenced the 2<sup>nd</sup> phase of back-wages payment settlement that involves 215 eligible workers. Among them, 197 workers have already been paid. Among the remaining 18 workers out of the 215 under the 2<sup>nd</sup> phase, 16 will be paid by SBPCL in January, 2019. So it is expected that back wage payment of 763 worker will be completed by January, 2019.</p> <p>It is to be noted that the remaining 171 workers have not communicated with SBPCL till date, and the deadline for communication has also been ended in December, 2018. Now, SBPCL will discuss the issue with the lenders regarding what to do.</p> <p>After discussion with the lenders, SBPCL may extend the deadline for six or twelve more months and then may circulate the list of remaining 171 workers through different means, and may commence third</p>		<p>In ERM's 12th EHSS audit site visit, it was reported that the deadline for further communication and payment to more workers was extended up to June, 2019. During the reporting period, additional 39 people were identified and paid their due back wage payment.</p> <p>Till the date of ERM's visit, total 763 workers out of 934 were paid back wage settlement payment. As nobody out of the remaining 171 cases reported for their claim and the warranty period of EPC Contractor was also finished by the end of August 2019, SBPCL management is considering to close this process of back wage settlement payment.</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						phase back wage payment to more workers (as much as possible).		
2.3	Prepare a Job hazard analysis for all the operation activity and same should be communicated to all the workers.	High	O&M contractor	Job safety analysis	Within 1 month of the PAC	Job hazard analysis is in place and appropriate risk control measures have been specified accordingly. Safe work practices for operation of different machines are displayed in local language i.e. Bengali for ease of understanding by the local workforce.		<p>In accordance to ERM audit recommendation as part of the 10th EHSS Compliance Assessment Report, NEPC-S has now developed safe work procedures in both Chinese and Bengali for operation of lathe machines, bench drills, grinding machines, drilling machine etc. at the workshop. Job Safety Analysis for operation of lathe and drill machines have also been developed in consistent with the recommendation and found to be adequate.</p> <p>Job hazard analysis for lathe and drill machines operations at workshop area has been further updated based on the risk assessment and appropriate risk mitigation measures have been specified. It was also reported that all the work in the workshop area is carried out under the supervision of the supervisor and only 3-4 workers who trained to carryout work with these machines are engaged for work as and when required. Safety instruction signage are also provided in Chinese and Bangla language at the work stations of these machines.</p>
2.4	Prepare a PPE program for the facility and program	High	EPC Contractor	PPE Implement	Within 1 month of date of deal closure	PPE Program is in place. NEPC-S has updated the inspection checklist of PPEs bearing the references of		As discussed in the earlier audit report, NEPC-S has developed and maintains a location specific annual PPE inspection



S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
	<p>should cover the following essential elements:</p> <ul style="list-style-type: none"> <li>■ Workplace Survey;</li> <li>■ Selecting appropriate controls;</li> <li>■ Training;</li> <li>■ Maintenance;</li> <li>■ Audit of the program.</li> </ul>			ation Program	or November 2014, whichever is earlier	the work permit number against which such checks are being performed.		<p>checklist in format as prescribed in the PPE Management Procedure. The primary purpose of the inspection has been to assess the availability and effectiveness of the PPEs in use at various locations within the site.</p> <p>Separate inspection checklist found to be available for SCBA and full body harness (including safety belts). Review of activity wise PPE Checklist (NEPCS-O&amp;M-FM-OHS-02-02: Safety and Health Inspection) indicates lack of coverage of the following PPEs - SCBAs and fire masks with respect to firefighting operations. Furthermore, the annual PPE inspection checklist available for firefighter office and PPE inspection checklist maintained for firefighters were not found to encompass gas masks and SCBAs.</p> <p><i>Undertake inspection of firefighting PPEs viz. SCBAs and gas masks and maintain records of the same.</i></p>
2.5	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	Training modules for job specific trainings are in place, and workers required to undergo job specific trainings were identified previously. Different job specific trainings have been found to be organized during the reporting period.		With project in operations the O&M contractor has prepared training presentation comprising of the following aspects viz. Permit to Work, Fire Prevention & Protection; Injury & Illness Prevention; Pressure Vessel Safety; Power & Hand Tools Safety; Job Safety Analysis; Emergency Preparedness & Response;

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>Material Lifting; PPE Use; Lock Out Tag Out; Confined Space Entry; Basic Electrical Safety and Machine Guarding. Furthermore a training register has been developed for the following activities viz. low voltage electrical work, overhead travelling crane operation, forklift operations, scaffolding and demolition work, chemical leak handling, housekeeping, emergency response, visitor induction, electrical safety, critical operations safety and first aid and fire extinguisher use.</p> <p>Review of the training records indicates that only 4 designated firefighters are subjected to training on the usage of SCBA on 25 September 2018 with records maintained. However, with a total of 40 designated firefighters available onsite such training is yet to cover the remaining firefighters. Furthermore, no dedicated training has been imparted to the designated firefighters on the usage and maintenance gas and fire masks respectively.</p> <p><i>Ensure firefighting training for remaining firefighters and maintain records for the same.</i></p>
2.6	Conduct the first aid training with the help of qualified first aider and make	High	EPC Contractor	First aid trainings	Within 2 months of date of deal closure or December	First aid training was conducted during 27-29 March 2016. Certification training on firefighting, fire prevention, rescue and first aid		NEPC-S for operations has identified 35 personnel for first aid certification training which has been imparted by Bangladesh Red Crescent Society during 27-29 March

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
	sure that first aiders are available at all times at facility.				2014, whichever is earlier	has been imparted to about 40 NEPC-S personnel by Bangladesh Fire Service and Civil Defence Director on 26-27 February 2018. The certified first aiders are available round the clock throughout the facility.		2016. The certified first aiders are available round the clock throughout the facility.  Also as discussed in the earlier section, certification training on firefighting, fire prevention, rescue and first aid has been imparted to about 40 NEPC-S personnel by Bangladesh Fire Service and Civil Defence Director on 26-27 February 2018.
2.7	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 and the good practice is being continued.		The facility has developed a hazard prevention and control plan for the following key operations/activities: <ul style="list-style-type: none"> <li>■ Confined Space Entry;</li> <li>■ Liquid ammonia and other chemical operations;</li> <li>■ Diesel loading and unloading;</li> <li>■ Hot work;</li> <li>■ Hydrogen production and storage;</li> <li>■ LV and HV distribution operation;</li> <li>■ Pressure vessel operations;</li> <li>■ Operation hoist and lifting machineries; and</li> <li>■ Work at height</li> </ul> <p>The plan has been updated to include management measures/safety control available for operation of the natural gas pipeline and hydrogen gas storage. Furthermore as recommended in the 9<sup>th</sup> EHSS Compliance Assessment Report, confined space procedure has now been</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								updated to identify the underground raw water tank at the intake house as a confined space. The tank was also found to be accordingly labelled to prevent any unauthorized entry.
2.8	SBPCL 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: <ul style="list-style-type: none"> <li>■ Compliance checklist against the Applicable Standards including applicable requirements under BLR 2015 ;</li> <li>■ Criterion on contractor selection to minimize HSE or labour related risks and issues at the time of engagement;</li> </ul>	High	SBPCL	Contractor Management System	Within 2months of date of deal closure or December 2014, whichever is earlier	<p>The O&amp;M Contractor NEPC-S has insurance provision for each permanent staff hired by them. Insurance provision is not applicable for other contract workers.</p> <p>The labour sub-contractors are without a valid Labour Licence to be issued by Department of labour.</p>		Except for the two contractors (i.e. M/s. Tahsin Enterprise and M/s. Suhag Enterprise) engaged by NEPC-S, remaining contractors have obtained valid labour license. NEPC-S HR department is reportedly planning to retain the workers supplied by these two contractors through M/s. Rafi Enterprise which has got labour license. Retain the workers supplied by M/s. Tahsin and Sohag Enterprise through M/s. Rafi Enterprise, who possesses a valid labour license.

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
	<ul style="list-style-type: none"> <li>Monitoring and audit procedures; and</li> </ul> <p>Further the EPC contractor and the sub-contractor should be made responsible for the insurance of the workers mobilised at the site.</p>							
<b>3</b>	<b>PS 3: Resource Efficiency and Pollution Prevention</b>							
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 SBPCL.	High	SBPCL and EPC Contractor  SBPCL	ESMMP implementation	As defined in ESMMP during construction phase	<u>Management System Certification</u> SBPCL has obtained Management System Certificates on ISO 9001: 2015, ISO 14001: 2015 and ISO 18001: 2007/ ELOT 1801: 2008 from TUV Austria in December, 2017. The certificates are valid till 19 December, 2020.		<p>Presently the project is in operations with COD for combined cycle operations declared in December 2015. To this regard, NEPC-S has developed an <i>Environmental &amp; Social Monitoring Plan (NEPC-S-O&amp;M-P-EHS-001-06)</i> in consistent with the Operations ESMMP as shared with SBPCL. The ESMMP requirements related to environmental monitoring and associated aspects are being tracked by NEPC-S on a monthly basis and records shared with the SBPCL for reference.</p> <p>With project now in full operation efforts have been made by the ERM audit team to assess the compliance status of the ESMMP implementation for operations. A summary of</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>the observations and recommendations made to this regard has been tabulated below:</p> <p><u>Management System Certification</u></p> <p>The facility has obtained IMS Certification from M/s TUV Austria on 20 December 2017 which is found to be valid till 19 December 2020.</p>
						<p><b><u>Flue Gas Emission</u></b></p> <p>NEPC-S keeps record of CEMS data continuously to continuously monitor pollutants (CO, NO<sub>x</sub>, PM<sub>10</sub>, SO<sub>2</sub>) from stack emission. CEMS data for the month of January, 2019 to June, 2019 were within permissible standards of DoE and IFC.</p> <p>In addition to that third party stack emission monitoring was also performed by TUV Austria on 27<sup>th</sup> June 2019 and all the monitoring results were found well within the applicable standards. Monitored values were as follows:</p> <ul style="list-style-type: none"> <li>■ PM : 1.78 mg/Nm<sup>3</sup>,</li> <li>■ NO<sub>x</sub>: 7.42 ppm (15.0 mg/Nm<sup>3</sup>),</li> <li>■ SO<sub>2</sub>: 0.16 ppm (0.451 mg/Nm<sup>3</sup>),</li> <li>■ CO : 3.4 ppm (4.19 mg/Nm<sup>3</sup>),</li> <li>■ CO<sub>2</sub>: 4.32%,</li> </ul>		<p><u>Flue Gas Emission</u></p> <p>As specified in operational phase ESMMP, SBPCL has installed and operating a Continuous Emission Monitoring System (CEMS) to continuously monitor pollutant (CO, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>) concentration in stack emission. The recalibration work of CEMS was completed on September 2017 and after that quarterly calibration is being performed by NEPC-S. In 2018, NEPC-S started monthly calibration of the CEMS. Last monthly calibration was conducted on 5 January 2019.</p> <p>Review of CEMS data from January to June 2019 indicated that results were in compliance with both Bangladesh Environment Conservation Rules, 1997 and IFC EHS Guidelines for Thermal Power</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<ul style="list-style-type: none"> <li>■ O<sub>2</sub> : 14.3%</li> <li>Temperature : 79.2°C</li> </ul>		<p>Plants. Maximum recorded values were as follows:</p> <ul style="list-style-type: none"> <li>■ PM : 2.970 mg/Nm<sup>3</sup>;</li> <li>■ NO<sub>x</sub> : 11.586 mg/Nm<sup>3</sup>;</li> <li>■ SO<sub>2</sub> : 7.914 mg/Nm<sup>3</sup>, and</li> <li>■ CO : 12.397 mg/Nm<sup>3</sup>.</li> </ul> <p>(* higher values of SO<sub>2</sub> and CO were recorded during GT start-up)</p> <p>In addition to that annual stack emission monitoring was also performed by M/S TUV Austria in June 2019 and all the monitoring results were found well within the applicable standards. Monitored values were as follows:</p> <ul style="list-style-type: none"> <li>■ PM : 1.78 mg/m<sup>3</sup> (1.23 mg/Nm<sup>3</sup>),</li> <li>■ NO<sub>x</sub>: 7.42 ppm (15.0 mg/Nm<sup>3</sup>),</li> <li>■ SO<sub>2</sub>: 0.16 ppm (0.451 mg/Nm<sup>3</sup>),</li> <li>■ CO : 3.4 ppm (4.19 mg/Nm<sup>3</sup>)</li> <li>■ O<sub>2</sub> : 14.3%</li> <li>■ Temperature : 79.2°C</li> </ul>
						<p><b><u>Ambient Air Quality</u></b></p> <p>NEPC-S keeps record of AAQMS data continuously for NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub> and CO at 3 stations: station 1 - dormitory roof (east side of the plant); station 2 - cooling tower roof (north side of the plant) and station 3 - circulating water pump house (west side of the plant). AAQMS data for the month of</p>		<p><b><u>Ambient Air Quality</u></b></p> <p>In accordance to the operations ESMMP requirement, NEPC-S has engaged M/S TUV Austria to undertaken annual ambient air quality monitoring at three locations (near the main facility gate and the surrounding villages of Parkul, Bongaon and Paharpur) outside the plant boundary. The pollutants concentrations recorded during June 2019 monitoring were as follows: NO<sub>x</sub> (4.12-4.92</p>



S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<p>January, 2019 to June, 2019 were within permissible standards of DoE and IFC. NEPC-S calibrates AAQMS every month.</p> <p>Third party test of ambient air quality was conducted by TUV Austria on 27<sup>th</sup> June, 2019 at 4 locations – Parkul village side, Paharpur village side, Bingao village side and at gate no. 2 of the plant. 2 samples were taken at each location. All The results of TUV tests were also within permissible standards of DoE and IFC.</p>		<p>µg/m<sup>3</sup>); SPM (41-71 µg/m<sup>3</sup>); PM<sub>10</sub> (17-40 µg/m<sup>3</sup>); PM<sub>2.5</sub> (24 - 35 µg/m<sup>3</sup>) and SO<sub>2</sub> (Nil), CO (0-1 ppm). All monitoring results were found well within the applicable national standards as per ECR, 1997. The next third party monitoring is due in June 2020 as per the frequency specified in ESMMP.</p> <p>Furthermore, an effort has been made to compare the aforesaid monitored values with the baseline data available from the EIA report to assess whether the said project is contributing to more than 25% of the applicable ambient air quality standards; however review of the EIA report indicates that the aforesaid villages are not explicitly mentioned in the ambient air quality data available to facilitate such analysis.</p> <p>SBPCL has installed 3 continuous ambient air quality monitoring stations (AAQMS), which are installed on the top of dormitory, water pump house and cooling tower, which are at about 10 to 14 m above the ground level. The system is operational since December 2015. Based on previous observations NEPC-S has started quarterly calibration of all the three stations. Now NEPC-S has started monthly calibration of the AQMS. Last calibration was carried out on 5 January 2019.</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>Review of the monitoring results for the period June to July 2019 revealed that:</p> <ul style="list-style-type: none"> <li>■ Average maximum 1-hourly NO<sub>x</sub> concentrations vary from 0.3067 µg/m<sup>3</sup> to 188.3691 µg/m<sup>3</sup>.</li> <li>■ Maximum 8-hourly CO concentrations vary from 1.17 µg/m<sup>3</sup> to 1456.59 µg/m<sup>3</sup>.</li> <li>■ Maximum 24-hourly SO<sub>2</sub> concentrations vary from 0.261 µg/m<sup>3</sup> to 552.19 µg/m<sup>3</sup>.</li> <li>■ Maximum 24-hourly PM<sub>2.5</sub> concentrations vary from 26.58 µg/m<sup>3</sup> to 53.03 µg/m<sup>3</sup>.</li> <li>■ Maximum 24-hourly PM<sub>10</sub> concentrations vary from 28.64 µg/m<sup>3</sup> to 56.74 µg/m<sup>3</sup>.</li> </ul>
						<p><b>Noise Quality</b></p> <p>NEPC-S continued in-house monitoring of ambient noise at 8 locations across the plant boundaries, 8 critical noise generating locations inside the plant and 3 locations at nearby villages. Review of the monitoring results at the plant boundaries for the period of January, 2019 to June, 2019 indicates compliance to both day and night time noise standards specified for industrial area under <i>Bangladesh ECR, 1997</i>. These results are also in compliance with IFC Guidelines Noise Level only except for day time</p>		<p><b>Noise Quality</b></p> <p>NEPC-S performs monthly in-house monitoring of ambient noise at 8 locations within plant premises (near water pump house, cooling tower, clarifier, living area, gas station, GT building, transformer and hydrogen plant) and 3 village locations (Parkul, Bongaon and Paharpur).</p> <p>The minimum and maximum values recorded during day and night time in-house monitoring at the village locations for period Jan-Jun 2019 with respect to the baseline values from EIA report is furnished below:</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)																																
						<p>results at South Side Boundary-2 point (Near GT turbine building).</p> <p>For the village locations, day and night time noise results were also in compliance with noise standards specified for mixed area under <i>Bangladesh ECR, 1997</i>. However, night time results for the villages were slightly over the IFC Guidelines Noise Level.</p> <p>Review of the monitoring results at the 8 critical noise generating locations inside the plant for the period of January, 2019 to June, 2019 indicates much higher level of noise in comparison to both day and night time noise standards specified for industrial area under <i>Bangladesh ECR, 1997</i>. Hence, use of PPE (ear plug) has been mandatory at those noise generating points.</p> <p>Third party noise test by TUV Austria was carried out on 27<sup>th</sup> June, 2019 at 17 locations – 3 at 3 villages (Parkul, Paharpur &amp; Bingao), 8 locations at plant boundaries and 8 locations at different noise generating areas inside the plant. The test results</p>		<table><tr><th>Location</th><th>Min Avg.</th><th>Max Avg.</th><th>Baseline Avg.(Day)</th></tr><tr><td>Parkul</td><td>49.10</td><td>51.50</td><td>NA</td></tr><tr><td>Paharpur</td><td>50.10</td><td>51.14</td><td>45</td></tr><tr><td>Bongaon</td><td>47.12</td><td>47.60</td><td>45</td></tr></table> <p>As noted from the above table, day time noise levels for the village locations for the period Jan-Jun 2019 were found to be in compliance with the regulatory standard of 55 decibels and slightly higher than the baseline value of 45 decibels monitored as part of EIA report preparation.</p> <table><tr><th>Location</th><th>Min Avg.</th><th>Max Avg.</th><th>Baseline Avg.(Night)</th></tr><tr><td>Parkul</td><td>47.10</td><td>49.60</td><td>NA</td></tr><tr><td>Paharpur</td><td>46.77</td><td>49.23</td><td>45</td></tr><tr><td>Bongaon</td><td>43.82</td><td>49.11</td><td>55</td></tr></table> <p>As specified in the night time noise level monitored at the village locations for the period Jan-Jun 2019 were found to be higher than night time noise standard of 45 decibels in all cases. Baseline noise levels monitored at Paharpur also indicated higher noise levels at 55 decibels contributed due to commercial activities in the region. The</p>	Location	Min Avg.	Max Avg.	Baseline Avg.(Day)	Parkul	49.10	51.50	NA	Paharpur	50.10	51.14	45	Bongaon	47.12	47.60	45	Location	Min Avg.	Max Avg.	Baseline Avg.(Night)	Parkul	47.10	49.60	NA	Paharpur	46.77	49.23	45	Bongaon	43.82	49.11	55
Location	Min Avg.	Max Avg.	Baseline Avg.(Day)																																					
Parkul	49.10	51.50	NA																																					
Paharpur	50.10	51.14	45																																					
Bongaon	47.12	47.60	45																																					
Location	Min Avg.	Max Avg.	Baseline Avg.(Night)																																					
Parkul	47.10	49.60	NA																																					
Paharpur	46.77	49.23	45																																					
Bongaon	43.82	49.11	55																																					

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<p>reveal that both day and night time readings for the villages and plant boundaries are within DoE and IFC standards. However, among the 8 noise generating areas inside the plant, GT, ST, Cooling Tower and HRSG Auxiliary Pump House areas generated slightly higher noise than acceptable limit defined in BLR 2015. Use of ear plug at all these heavy noise generating areas has been mandatory. Workers have been observed wearing ear plugs at these areas.</p> <p>Review of the monitoring results at the 8 critical noise generating locations inside the plant for the period of July 2018 to December 2018 indicates much higher level of noise in comparison to both day and night time noise standards specified for industrial area under <i>Bangladesh ECR, 1997</i>. Hence, use of PPE (ear plug) has been recommended at those noise generating points.</p> <p>Third party noise test by BV on 11th June, 2018 reveals that night time readings at the villages varied from 51.3 -56.17 dB (standard: 50 dB), such high readings were attributed</p>		<p>current high noise levels is attributed to the construction of the neighbouring power plants of Bibiyana III and Bibiyana South. This is also supported by the cumulative noise level modelling undertaken as part of the ESIA study which computed high night time noise level varying within 45-53.2 decibels; though it is assessed to be localised and temporary in nature owing to construction work of the abutting power production units. In view of the above analysis and as recommended in the ESMMP, SBPCL is required develop a noise management strategy in consultation with neighbouring independent power producers and local communities. All grievances related to noise need to be formally recorded and tracked for closure.</p> <p>Review of the in-house monitoring results within plant for the period Jan-June 2019 indicates compliance to both day and night time noise standards of 75 decibels and 70 decibels respectively as specified for industrial area under <i>Bangladesh ECR, 1997</i>. The third party ambient noise monitoring undertaken within the plant during July 2019 also indicated compliance to the aforesaid standards with day and night time noise varying within 61-70 decibels and 61-69 decibels respectively. However, the</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)												
						by the construction work currently under progress for Bibiyana I and Bibiyana III sites abutting the project. On the other hand, night time readings at near RMS room and cooling tower slightly crossed DoE limit (70.12 dB; standard: 70 dB), attributed by the outside construction works.		<p>baseline noise levels at the project site monitored during the EIA study indicated day and night time noise levels of 47 decibels and 55 decibels respectively. In this regard, it is to be noted that with the operation of the project, industrial area noise standard shall be applicable with results found to be within standards. The minimum and maximum values recorded during day and night time in-house monitoring within the plant for Jan-Dec 2019 is furnished below:</p> <table><tr><th>Time</th><th>Min</th><th>Max</th><th>Baseline</th></tr><tr><td>Day</td><td>51.56</td><td>60.23</td><td>47</td></tr><tr><td>Night</td><td>66.20</td><td>72.61</td><td>55</td></tr></table> <p>All ambient noise monitoring were performed when plant was in running condition using the equipment - Sound Level Meter (Model TES 1251B).</p> <p><i>Develop a noise management strategy in consultation with neighbouring independent power producers and local communities. All grievances related to noise need to be formally recorded and tracked for closure.</i></p>	Time	Min	Max	Baseline	Day	51.56	60.23	47	Night	66.20	72.61	55
Time	Min	Max	Baseline																	
Day	51.56	60.23	47																	
Night	66.20	72.61	55																	
						<b><u>Effluent Discharge</u></b>		<b><u>Effluent Discharge</u></b>												
						The analysis of ETP treated water has been undertaken on 27 June.		Treated effluent from ETP and STP gets collected in a Common Monitoring Basin												

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<p>2019 by TUV Austria for 32 parameters. However, ERC 1997 recommended for testing of 33 parameters, only one parameter was not tested. All the tested parameters were found within the acceptable limits set for 'Waste Water' in ECR 1997.</p> <p>The ETP sludge sample was also collected by TUV Austria for testing on the same date, and 15 parameters were tested. As standard limit for sludge is not yet set, TUV Austria could not come up to any conclusion whether the sludge parameters are within the acceptable limit or not.</p> <p>In addition to the above, NEPC-S also regularly (usually once in every week) conducted analysis of the treated waste water for the following parameters prior to the discharge – pH, Conductivity, Temperature, turbidity, Residual Chlorine, TSS, TDS, BOD, COD and Iron to check conformance with the inland water discharge standards specified in <i>Schedule 10 Bangladesh ECR, 1997</i>. Review of the test results for</p>		<p>(CMB) prior to its discharge into Kushiara River. All such discharges are being monitored by NEPC-S by engaging a third party on an annual basis as specified in the ESMMP.</p> <p>For the year 2019, NEPC-S has undertaken analysis of treated waste water, by engaging a third party agency – M/s TUV Austria. Review of the waste water analysis report dated 27 June 2019 indicates such test is covering 32 parameters specified in the <i>Schedule 10</i> of Standards for Waste From Industrial Units or Projects Waste of the Bangladesh ECR, 1997. Review of the monitoring report reveals that the parameters are in compliance to the aforesaid standard.</p> <p>In addition to the above, NEPC-S also regularly (every 5-7 days) conduct analysis of the treated waste water for the following parameters prior to the discharge – pH, Conductivity, Temperature, turbidity, Residual Chlorine, TSS, TDS, BOD, COD and Iron to check conformance with the inland water discharge standards specified in <i>Schedule 10 Bangladesh ECR, 1997</i>. However NEPC-S have not evaluated the results with respect to the discharge</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)																												
						the period of January, 2019 to June, 2019 reveals that all the results were found within the acceptable range.		standards specified in the IFC EHS Guidelines for Thermal Power Plants.																												
						<p><b><u>Surface Water Quality</u></b></p> <p>The analysis of surface water has been undertaken on 27 June, 2019 by TUV Austria for the following parameters: DO pH, coliform and BOD at discharge point, and BOD at downstream, upstream and mixing. All the tested parameters were within the acceptable limit set in 'Bangladesh Standard for Surface Water' (ECR 1997).</p> <p>NEPC-S monitors the surface water temperature at 4 points (discharge point, river water mixing point, 50 m upstream and 50 m downstream) for 10 times in every month. The monitoring results depict that the temperature of the discharged effluent was almost same as ambient temperature and river water temperature. Hence, there remains no threat against the bio-diversity of the aquatic life of River Kushiara.</p>		<p><b><u>Surface Water Quality</u></b></p> <p>NEPC-S monitors surface water temperature at four points (at discharge point, at river water mixing point, and at 50m upstream and at 50m downstream). The analysis of the temperature of the mixing zone vis-à-vis the baseline ambient temperature of Kushiara river for the period Jan-June 2019 is presented in the Table below.</p> <table><tr><th>Month</th><th>Mixing Zone Avg. Temp (°C)</th><th>Baseline River Temp (°C)</th><th>Delta Temp (°C)</th></tr><tr><td>January</td><td>22.13</td><td>30</td><td>7.87</td></tr><tr><td>February</td><td>22.11</td><td>30</td><td>7.89</td></tr><tr><td>March</td><td>26.40</td><td>30</td><td>3.60</td></tr><tr><td>April</td><td>29.33</td><td>30</td><td>0.67</td></tr><tr><td>May</td><td>29.29</td><td>30</td><td>0.71</td></tr><tr><td>June</td><td>30.21</td><td>30</td><td>-0.21</td></tr></table> <p>As specified in the aforesaid, Table the ambient temperature of the receiving water body i.e. Kushiara River is found to be higher compared to the temperature of the</p>	Month	Mixing Zone Avg. Temp (°C)	Baseline River Temp (°C)	Delta Temp (°C)	January	22.13	30	7.87	February	22.11	30	7.89	March	26.40	30	3.60	April	29.33	30	0.67	May	29.29	30	0.71	June	30.21	30	-0.21
Month	Mixing Zone Avg. Temp (°C)	Baseline River Temp (°C)	Delta Temp (°C)																																	
January	22.13	30	7.87																																	
February	22.11	30	7.89																																	
March	26.40	30	3.60																																	
April	29.33	30	0.67																																	
May	29.29	30	0.71																																	
June	30.21	30	-0.21																																	



S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>effluent mixing zone. In only one case i.e. June 2019 the temperature of the mixing zone exceeded the ambient temperature of Kushiya River by 0.21°C, which is well within the standards prescribed in the IFC EHS Guidelines for Thermal Power Plant. In this regard, it is also to be noted that the project does not involve once through cooling system.</p> <p>NEPC-S has engaged <i>M/s TUV Austria</i> to monitor Kushiya river water quality at one location i.e. at Kushiya River. Review of the monitoring dated 25 July 2019 reveals a total of 4 parameters (DO, pH, BOD and total coliforms) being monitored as referred in <i>Schedule 3 – Standards for Inland Surface Water of Bangladesh ECR, 1997</i>. The results of the parameters being monitored were found to be in compliance with the aforesaid standards.</p> <p>The site has monitored DO, pH, coliform and BOD at discharge point and BOD at upstream, downstream and mixing location.</p> <p>BOD<sub>5</sub> was tested at three locations in January 2019 and the results were as follows:</p> <ul style="list-style-type: none"> <li>■ BOD at discharge point : &lt;2 mg/L</li> <li>■ BOD at upstream: &lt;2 mg/L</li> </ul>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<ul style="list-style-type: none"> <li>■ BOD at downstream: 2.0 mg/L</li> <li>■ BOD at mixing location : 2.0 mg/L</li> </ul> <p>Testing of radioactive substances and radioactive material in wastewater was carried out by TUV Austria and results indicated that the radioactivity levels were below the applicable standards of DoE as well as WHO. Observed values were as follows:</p> <ul style="list-style-type: none"> <li>■ Radioactive substances (gross alpha activity) : 0.0047 Bq/L</li> <li>■ Radioactive materials (gross beta activity): 0.0089 Bq/L</li> </ul> <p>In accordance to ESMMP for operations, fish habitat survey to be undertaken following the first year of operation. With plant in operation since early 2016, such study is yet to be undertaken and is reportedly to be carried out by June 2020.</p> <p><i>Conduct fish habitat survey by engaging an experienced and qualified third party agency/personnel on a fast track basis.</i></p>
						On 27 <sup>th</sup> June, 2019 drinking water sample was collected by TUV Austria from the pump tap of the plant. A total of 58 parameters have been tested. All the parameters		<p><u>Ground Water Abstraction</u></p> <p>NEPC-S maintain daily water consumption records for the river water intake. In addition to the above, the site has also installed three deep tube wells to meet emergency water requirement. NEPC has also installed flow</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						were within DoE limits set for drinking water (ECR 1997).		meter for the wells connected to the cooling tower to monitor the water consumption  NEPC-S undertakes analysis of both ground water and drinking water (ground water following treatment), by engaging a third party agency – M/s TUV Austria. Review of the drinking water analysis report for 25 July 2019 indicates such test is performed for 58 parameters and in accordance to the <i>Schedule 3B</i> drinking water standards of the <i>Bangladesh ECR, 1997</i> . The results of July 2019 report is found to be in compliance to the aforesaid standards.  Testing for remaining parameters including radioactivity was carried out by TUV Austria in January 2019 and the results were observed well within the applicable standards.
						<b><u>Storm Water Management</u></b>  The good practices are in place.		<b><u>Storm Water Management</u></b>  SBPCL has not made any provision of installation of oil water separators for storm water drainage system. This is assessed to be justified based on the fact that the project hazardous material and waste storages are covered along with necessary provision made to channelize any waste/chemical spillages through dedicated underground

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>drainage system to a waste water collection basin for subsequent treatment.</p> <p>In the earlier audit report it was identified that the waste oil lube oil storage tanks were found to be equipped with any secondary containment to prevent any accidental leakages/spills. This is important given the storm water drain is located in close proximity (&lt;15m) of this waste lube oil storage. Based on the finding above, NEPC-S have undertaken an internal risk assessment of lube oil storage tanks to assess adequacy of the spill prevention and control arrangements. Review of the report reveals that lube oil storage tank is connected to the emergency oil sump which shall be operated to meet any emergency or contingency situations like leakage or spillage. Furthermore as an additional control measure, NEPC-S plans to make provision of temporary bunds/containment using sand bags to control any spillage.</p>
						<p><b><u>Waste Management</u></b></p> <p>NEPC-S has hired Comfort Medical Services for collection and transportation of medical waste from the plant and for ensuring safe disposal of the same. Comfort Hospital possesses the license for</p>		<p><b><u>Waste Management</u></b></p> <p>For the purpose of managing waste generated from operations NEPC-S has developed a <i>Waste Management Procedure</i> which has been updated in line with the earlier audit recommendation to include ETP sludge, air filters. Furthermore, the</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<p>this task. The contract was done on 15<sup>th</sup> September, 2018 and is valid for two years. NEPC-S has conducted an audit for the activities performed by Comfort Medical Services on January 6, 2019. It is to be noted that no such Authority has yet been formed in Sylhet Division as required in Medical Waste Management &amp; Processing Rules, 2008. Hence, till now, DoE license is the only valid requirement.</p> <p>Other solid wastes (both general and hazardous) are being collected, transported and dumped by DoE licensed Contractor named Rima Enterprise. An audit of the landfill site of M/s Rima Enterprise was also carried out by NEPC-S in January 2019.</p> <p>ETP sludge has been tested by TUV Austria.</p>		<p>procedure has been updated to include specific storage, transportation and disposal requirements for various wastes being generated from operations.</p> <p>Biomedical waste generated from the infirmary is observed to be segregated into adequately labelled five colour coded bins in accordance to the provision of the <i>Medical Waste Management &amp; Processing Rules, 2008</i>.</p> <p>Medical waste is now being disposed on a monthly basis through M/s Comfort Medical Services, Sylhet and the authorization of the disposal agency is valid till 25 October 2019. NEPC-S has entered into a Two (02) year contract with the service provider and the same was signed on 15 September 2018. Medical waste generation during the period between January to July 2019 was only 0.08 kg. An audit of the medical waste disposal facility of Comfort Medical Services was also carried out by NEPC-S in January 2019.</p> <p>NEPC-S has engaged M/s Rima Enterprise and M/s Comfort Medical Services for disposal of hazardous waste and medical wastes respectively. Both the entities are having valid approval from DoE for handling,</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>transportation and disposal of hazardous and bio-medical wastes. M/s Rima Enterprise also takes care of other solid waste. An audit of the landfill site of M/s Rima Enterprise was also carried out by NEPC-S in January 2019.</p> <p>As observed during the site walkthrough, fuel and lubricants were found to be stored along with hazardous waste viz. used oil at the designated hazardous waste storage area. The secondary containment in the form of drip trays provided at the fuel drum storage was noted to be damaged owing to the loading and unloading of the said drums. Furthermore, the waste oil drums at the hazardous waste storage yard was not found to be labelled to indicate the name of hazardous waste including the nature and type of the hazard.</p> <p><i>Maintain provision of leak proof secondary containment for the diesel and waste oil storage drums placed at designated yard. Mark all hazardous waste storage drums indicating the type and nature of hazardous waste being stored.</i></p>
						<p><b><u>Occupational Health &amp; Safety</u></b></p> <p>NEPC-S has updated its monthly noise monitoring program including</p>		<p><b><u>Occupational Health &amp; Safety</u></b></p> <p>NEPC-S has categorised the site into 8 zones – gas turbine room, steam turbine</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						<p>workplace noise exposure monitoring at ST room, GT room, air compressor house, cooling tower, emergency diesel generator, circulation water pump house, multi-house water pump and HRSG auxiliary pump house. NEPC-S has carried out audiometric testing of all the staff and workers as part of the annual medical examination of the employees. Medical examination was conducted for all the 90 NEPC-S staff and workers during 2018 and is expected to do the same this year.</p> <p>NEPC-S has ensured that LOTO Permits will have the information about the lock holder. However, it was not possible to update the current work permit software for inclusion of the dedicated electrical work. Hence, NEPC-S has developed an additional checklist for serving the purpose.</p> <p>Safe load bearing capacity has been marked on the racks used for storage of glass wool at the CW Pump House. The racks have been fixed to the floor using bolts to prevent toppling.</p>		<p>room, Heat Recovery Steam Generator (HRSG), Switch Room and Production Building Area, hydrogen s generation station, Chemical Storage and Water Treatment Area, Pump House, maintenance workshop, warehouse and dormitory. The aforesaid areas are subjected to routine audit on monthly basis jointly by shift in charge and EHS personnel by using an inspection checklist. The same was verified during the visit undertaken by the ERM team.</p> <p>NEPC-S has completed the medical examination of its workforce which also includes lathe machine workers and kitchen staff. Medical fitness certificate has been granted in Form 26 and health register maintained in Form 26A for both NEPC-S and SBPCL employees as specified in the <i>Bangladesh Labour Rules 2015</i>.</p> <p>In consistent with the ERM audit recommendation in December 2017, NEPC-S has continues its effort with monthly noise exposure monitoring at 8 high noise areas identified within the plant. Occupational noise levels monitored at the ST Room, GT Room, Cooling Tower and HRSG Auxiliary Pump house is found to be exceed the threshold limit of 80 decibels. Similar</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						Hard barricading has now provided to prevent any form of direct access to the rotating/moving parts of the strainer installed as part of the Water Treatment Plant (WTP) in order to control any occupational safety risk for the personnel operating in and around such area.		<p>observations were also made with respect to in-house noise monitoring being undertaken by NEPCS. However, as observed during the site visit, NEPC-S has made provision of appropriate PPEs like ear plugs for all workers operating in the aforesaid area along with display of "High Noise Area" signages.</p> <p>During the present audit, it was observed that audiometric test/ examination were carried out for all employees/ workers as part of the annual medical examination of the employees. Similar medical examination including audiometric test for the SBPCL officials and other staffs was also carried out in January, 2019. and the results indicated no issues related to hearing.</p> <p>Illumination monitoring undertaken in house during 5 July 2019 at the following plant locations - air compressor, chemical building 1, , 3 &amp; 4 floor, ST Condenser Area, ST 1&amp;2 floor, GTG, Emergency diesel generator area, admin and workshop area, HRSG area, CW area, raw water area, multi water pump house, hydrogen station and dormitory. The monitoring records are documented in the checklist - NEPCS-O&amp;M-FM-MNT-001 Maintenance. However, the illumination at WTP MCC room is recorded</p>



S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>to be 310 lux which is below the threshold limit of 350 lux specified in the BLR, 2015. No illumination monitoring has been undertaken at the security room, kitchen and canteen to assess compliance with illumination value specified in the aforesaid rule.</p> <p>As observed during the site walkthrough, provision of eye wash bottles/stations at the diesel storage area were found to be lacking. This is important as review of the MSDS for the said fuel indicates that its exposure to eyes and skin requires flushing with copious amount of water. The eye wash set up integral to emergency shower station at the pre-treatment dosing room is found to be missing, although monthly inspection tag available indicates such station to be functional and effective.</p> <p>MSDS was not found to be displayed for the transformer oil and lubricants being stored along with diesel fuel. Also the MSDS for both anion and cation exchange resin stored in the boiler dosing room in the DM Plant was not found to be available in local language.</p> <p>As observed during the site visit, the hydrogen station within the licensed</p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>premises were equipped with LEL detector for hydrogen; however the calibration records of the LEL detectors was not readily available for review. Also with nitrogen cylinder being stored in the aforesaid hydrogen station for purging purpose, NEPCS has not installed any O2 analyzer to provide early warnings/alarms in case of emergency situation like nitrogen leaks. No calibration procedure has also been developed and implemented by NEPCS.</p> <p>During the site walkthrough it was noted scaffolds were erected near the hydrogen plant boundary and CW pump house for painting and related maintenance work. However, physical review of the scaffolding structure and interaction with representative NEPCS personnel reveal the following gaps/deficiencies with respect to the erection and inspection of the said structures in accordance to the NEPCS-O&amp;M-P-OHS-0016 WORKING AT HEIGHT HAZARDS Control Procedure:</p> <ul style="list-style-type: none"> <li>■ Sole steel base plate not used for supporting the scaffold tubes;</li> <li>■ Wooden planks are being used as scaffolding platforms which do not conform to the BS 2482 standards as mentioned in the procedure;</li> </ul>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<ul style="list-style-type: none"> <li>■ Toe board and guard rails missing at some of the working platforms on the scaffold;</li> <li>■ Reportedly scaffolding structure in the CW Pump House is under erection however warning notices stating "Danger Scaffold Incomplete – Do Not Use" have not been fixed to such parts of a scaffold.</li> <li>■ Ladders to access the scaffold has not been set up at a desired angle and it also does not project above landing space to provide a handhold for stepping on and off.</li> <li>■ Scaffolding Inspection not undertaken and recorded in prescribed format as specified in the said procedure.</li> </ul> <p><i>Conduct illumination monitoring at security room, kitchen and canteen and ensure adequate illumination at WTP MCC room conforming to standards specified in BLR, 2015. Perform scaffolding work in accordance to the NEPC-S Work at Height Procedure.</i></p> <p><i>Make provision of eye wash bottles/stations at the diesel storage yard and ensure all emergency showers are subjected to thorough examination and records maintained.</i></p> <p><i>Ensure availability and display of MSDS for transformer oil, lubricants, anion and cation exchange resins in both English and local language.</i></p> <p><i>Develop a calibration procedure for all LEL detectors and maintain calibration records</i></p>

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								for the same. Install O2 analyzer at the nitrogen storage area at the licensed hydrogen tank yard.
						Emergency Preparedness & Response  NEPC-S has been updating the Emergency Preparedness and Response Plan continually following ERM recommendations. 'Fire emergency mock drill' was organized on 2nd May, 2019 at the presence of representative from Bangladesh Fire Service and Civil Defence. Drill report is in place associated with the requisite BLR forms.  Perform periodic inspection has been conducted for the firefighting equipment's particularly sprinklers and hose reels in consistent with the requirements of the Bangladesh National Building Code. This inspection will be conducted every year. However, the inspection was conducted without any use of flow meter.  During plant visit, three fire extinguishers were found with whose expiry dates were already over, while the inspection marks depicted that		<u>Emergency Preparedness &amp; Response</u>  NEPCS has prepared a mock drill calendar for the year 2019 with drills conducted on the following emergencies scenarios for the period Jan to June 2019 - water leakage in multi-water pump house, accident in dormitory, transformer explosion, fall from height and hazardous chemical spill. Fire emergency mock drill was conducted on 2nd May, 2019 in presence of representatives of Bangladesh Fire Service department. In order to improve emergency response preparedness SBPCL along with NEPC-S performs emergency drills on a monthly basis. The site has conducted a fire mock drill on 2nd May 2019 in presence of representative of Bangladesh Fire Service and Civil Defence Authority. The entire workforce comprising of 83 personnel participated in the drill. The fire mock drill records maintained in prescribed format i.e. Form 22A as specified in the <i>Bangladesh Labour Rules 2015</i> . Such drills according to the relevant provision of the <i>Bangladesh Labour Rules 2015</i> is required to be undertaken on a six monthly basis.

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
						those extinguishers were checked. NEPC-S should be more careful during inspection of firefighting equipment and should replace/refill them on timely manner.		<p>Regarding maintenance of emergency response equipment's NEPC-S has developed and implemented a periodic inspection checklist for fire extinguishers, fire hydrants, hose reels and smoke detectors. For the periodic Jan-June 2019, automatic sprinklers at pump house and ST hall are subjected to monthly inspection and record maintained. Review of the historical inspection records since Jan 2018, indicates that such test is limited to only sprinklers installed at ST hall, pump houses, waste lube oil tank and warehouse. Sprinkler test not undertaken for dormitory, kitchen, canteen, diesel storages and hydrogen stations.</p> <p>Heat/smoke detector are subjected to annual inspection in-house on functional aspects. However, review of the inspection records maintained reveals lack of coverage of detectors installed at the onsite diesel storages and kitchen room.</p> <p>Flow rate assessment has been undertaken in-house for hose reel and automatic sprinklers on 15 May 2019 with flow rates documented at 960 l/min and 178 l/min respectively. However the flow results were not found to be in conformance with the BNBC requirements (<i>Table 4.4.1</i>) for the occupancy type G1 (low hazard industries)</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>which requires flow rate of hose and sprinkler system to be maintained at 1900 l/min and 2650 l/min respectively. Furthermore, physical check of sprinklers at the control room building during the audit reveals visible material clogging for at least 2 such sprinklers.</p> <p><i>Ensure coverage of sprinkler testing at dormitory, kitchen, canteen, diesel storages and hydrogen stations. Conduct heat/smoke detector testing at diesel storages and kitchen with records being maintained. Ensure flow rate of hose reels and sprinkler conforms to BNBC requirements.</i></p>
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	SBPCL	ESMMP implementation	As defined in ESMMP during operation phase	Complied. For details please refer to S. No. 3.1- <i>Ambient Air Quality; Waste Water Discharge; Waste Management and Ambient Noise Quality of Table 5.1.</i>		For details please refer to S. No. 3.1- <i>Ambient Air Quality; Waste Water Discharge; Waste Management and Ambient Noise Quality of Table 5.1.</i>
3.3	Ensure that impacts associated with the decommissioning phase are assessed and addressed prior to	Low	SBPCL	ESMMP for decommissioning phase.	1 to 2 years prior to eventual decommissioning.	To be assessed during decommissioning phase for combined cycle operations.		To be assessed during decommissioning phase for combined cycle operations.

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)														
	eventual decommissioning.																					
3.4	Complete an annual GHG emissions estimation based on the actual operations of the Project during the operational phase.	Low	SBPCL	GHG estimation and reporting.	Annually, after one year of COD	<div>NEPC-S is calculating the GHG emissions in the form of CO2 emission (based on monthly gas consumption) and calculated N2O emissions as recorded by the CEMS.</div> <table><thead><tr><th>GHG Emission</th><th>CO2e (Tons)</th></tr></thead><tbody><tr><td>Jan – Dec 2017</td><td>816,933.8</td></tr><tr><td>Jan – Dec 2018</td><td>877,512.9</td></tr><tr><td>Jan – Jun 2019</td><td>448,905.56</td></tr></tbody></table>	GHG Emission	CO2e (Tons)	Jan – Dec 2017	816,933.8	Jan – Dec 2018	877,512.9	Jan – Jun 2019	448,905.56		<div>NEPC-S has initiated the process of calculating the GHG emissions in the form of CO2 emission (based on monthly gas consumption) and calculated N2O emissions as recorded by the CEMS. Total CO2 emission in 2017 and 2018 were as follows:</div> <table><thead><tr><th>GHG Emission</th><th>CO2e (Tons)</th></tr></thead><tbody><tr><td>Jan – Dec 2017</td><td>816,933.8</td></tr><tr><td>Jan – Dec 2018</td><td>877,512.9</td></tr></tbody></table> <div>However, no GHG data is available for the period of Jan-Jun 2019.</div> <div>Record and maintain GHG emission data for the project.</div>	GHG Emission	CO2e (Tons)	Jan – Dec 2017	816,933.8	Jan – Dec 2018	877,512.9
GHG Emission	CO2e (Tons)																					
Jan – Dec 2017	816,933.8																					
Jan – Dec 2018	877,512.9																					
Jan – Jun 2019	448,905.56																					
GHG Emission	CO2e (Tons)																					
Jan – Dec 2017	816,933.8																					
Jan – Dec 2018	877,512.9																					
3.5	Develop a Waste Management Plan for operation phase.	Low	SBPCL	Waste inventory and disposal options.	3months prior to start of Combined Cycle Operation	The ETP sludge sample was collected by TUV Austria for testing on 27 June 2019, and 15 parameters were tested. As standard limit for sludge is not yet set, TUV Austria could not come up to any conclusion whether the sludge parameters are within the acceptable limit or not.		<div>For details please refer to S. No. 3.1 “Waste Management” of <b>Table 5.1</b>. As recommended in the earlier audit report, NEPC-S was required to conduct analysis of sludge for the following parameters viz. Phenols, Fluoride, Arsenic, Barium, Chloride and Sulphate which has not been covered in the monitoring undertaken during June 2017. This is required as specified in the <i>Table 3 of the Bangladesh Standards and Guidelines for Sludge Management (February 2015)</i>.</div> <div>Review of the sludge analysis report dated 25 July 2019 reveals the sludge has been</div>														

S. No	Measures and/or Corrective Actions	Significa nce	Responsi bility	Deliverabl e	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
								<p>analysed for the following parameters viz. chloride, fluoride, moisture, arsenic, cadmium, copper, lead, mercury, nickel, zinc, sulphate, pH, chromium, phenols and barium. However the results of the heavy metal content in sludge is expressed in mg/kg instead of mg/l as specified in the Bangladesh Sludge Management Guidelines. Furthermore, the analysis does not encompass the following parameter as specified in the said guidelines viz. total organic carbon, loss of ignition, dissolved organic carbon and calorific value. Per the guidelines requirement, NEPCS is also required to develop a sludge management plan based on the analysis results and current disposal activities and submit the same to DoE. Also as observed during the site visit, the filter press of the waste water treatment plant is currently not found to be operational reportedly for the last 2 months due to preventive maintenance activities.</p> <p><i>Conduct analysis of the waste sludge for the following parameters - total organic carbon, loss of ignition, dissolved organic carbon and calorific value. Based on the analysis results, develop a sludge management plan and submit the same to DoE, Bangladesh.</i></p> <p><i>Ensure operation of filter press of the waste water treatment plan on a fast track basis.</i></p>



S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
4	<b>PS 4: Community Health, Safety and Security</b>							
4.1	Conduct a detailed QRA for the Project based on actual design and formulate an emergency response plan.	Medium	SBPCL	Quantitative Risk Assessment and Emergency Response Plan	3 months of COD	Complied previously.		Assessed to be in compliance by ERM during EHSS audit undertaken in December 2017. Refer <i>ERM 9<sup>th</sup> EHSS Compliance Assessment Report</i> .
4.2	Ensure any future security arrangements shall comply with PS4 requirements. The SBPCL Grievance Mechanism should include security within its scope.	Low	SBPCL	Compliance check against PS4 requirement.	1 months of COD	One complain was received from the security personnel and was resolved.		The O&M Contractor (NEPC-S) has employed 12 security guards for the plant. They are doing 8 hour shift and payment is at par with applicable minimum wage. These securities personal have access to grievance redressal system of SBPCL.
5	<b>PS 5: Land Acquisition and Involuntary Resettlement</b>							
	Ensure: ■ Preparation of the Livelihood restoration plan; ■ Documentation of the stakeholder engagement records;	Medium	SBPCL	Livelihood restoration plan and stakeholder engagement	Within 3 months of date of deal closure (and periodic review)	LRP implementation was completed previously. SBPCL is in the process of hiring a third party auditor for evaluation of LRP implementation.		LRP implementation is completed. Refer <i>Section 4.2.5</i> for further detail.

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)
	<ul style="list-style-type: none"> <li>■ Maintaining proper records of the employment and vendor opportunity provided to the PAFs and the local community</li> </ul>							
	Continued engagement and resettlement monitoring by CDO.	Medium	SBPCL	Resettlement monitoring reports	Within 3 months of date of deal closure (and periodic review)	CDM is ensuring regular monitoring of LRP and other R&R aspects like disbursement of old age pension, regular interaction with stakeholders.		<p>CDO is ensuring regular monitoring of LRP and other R&amp;R aspects like disbursement of old age pension, regular interaction with stakeholders.</p> <p>On issue related to flooding at the resettlement colony, which by the storm water discharge from the PGCB sub-station. To discuss this issue SBPCL held meeting with PGCB representatives along with a joint onsite visit on 15 April 2019. PGCB acknowledged that the storm water outlet pipeline from the substation at west side need to be blocked to address the flooding issue. It was informed that the pipeline was there since the construction period and shall be closed out at the earliest due to the existing development of an organized drainage system inside the substation. SBPCL to follow up on this matter with PGCB to address this issue on a fast track basis.</p>

S. No	Measures and/or Corrective Actions	Significance	Responsibility	Deliverable	Suggested Timelines for Completion*	Status provided by BCAS (as on July 2019)	Status	ERM Observations (as on August 2019)												
	Establishment of a formal GRM for the PAFs and the community;	Medium	SBPCL	GRM for PAFs	Within 3 months of date of deal closure (and periodic review)	GRM is well established and functioning.		GRM is well established and functioning as understood through consultations undertaken with PAHS in Parkul village and Resettlement Colony in 12 <sup>th</sup> EHS&S visit.												
6	PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources																			
6.1	Develop greenbelt within the project boundary.	Low	SBPCL	Greenbelt Development	After completion of construction activities.	Green belt development plan is being implemented in a phase wise manner.		As recommended in the ERM Audit report of 1 June 2016, the facility has developed a phase wise green belt development plan which is being implemented in a phase wise manner.  Plantation activity carried out within last three years is as follows:												
								<table><tr><td>Year</td><td>Activity</td><td>Quantity</td></tr><tr><td>2016</td><td>Fruits &amp; flower trees</td><td>1500</td></tr><tr><td>2017</td><td>Fruits &amp; flower trees</td><td>100</td></tr><tr><td>2018</td><td>Mango trees*</td><td>130</td></tr></table>	Year	Activity	Quantity	2016	Fruits & flower trees	1500	2017	Fruits & flower trees	100	2018	Mango trees*	130
Year	Activity	Quantity																		
2016	Fruits & flower trees	1500																		
2017	Fruits & flower trees	100																		
2018	Mango trees*	130																		
							* During year 2018, each employee planted one mango tree sapling with their names in each tree.													
							Reportedly, the site will be updating the status for green belt development conducted in 2019 in next two (02) months.													

**Table 5.2 IFC ESAP Compliance Status**

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (January 2019)
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		<p>SBPCL has prepared an EHSS Policy for operations and the same has been shared with NEPC-S – the O&amp;M contractor for adoption and implementation. The policy was found to be displayed at conspicuous places within the site.</p> <p>As discussed earlier, NEPC-S has developed a list of 63 EHS related procedures and rules with only 45 of them being formally notified to the SBPCL and NEPC-S operations team. Documentation review indicates that an additional 18 EHS procedures have been incorporated to the aforesaid list which has been formally notified to NEPC-S and SBPCL personnel via email on 9 December 2016 as recommended by ERM in the previous audit report.</p> <p>As recommended in the ERM Audit report of Dec 2016, NEPC-S has updated the consolidated EHS plan update to include the relevant provision of the Bangladesh Labour Law. Furthermore the plan has been shared with the subcontractors with signed copies being maintained.</p> <p>Specific observations on the implementation of the operations phase EHS management procedures please refer to <b>Table 5.1</b> for details.</p>
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		Please refer to S. No. 3.1 – “Management System Certification” of Table 5.1

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (January 2019)
3	Development and implementation of SBPCL Human Resource Policy, Environmental Policy, Social Responsibility Policy and Health & Safety Policy/or Statement.	SBPCL Policies in place	31 Mar 2015		EHS, Social, and HR policies are in place. In 9 <sup>th</sup> EHS&S compliance assessment, it was observed that HR Policy of Summit has been revised and approved. However there are few issues regarding EL leave. The status of issues remains unchanged in 11 <sup>th</sup> and 12 <sup>th</sup> EHSS Audit visits. Refer section 4.2.2 of this report for detail.
4	Formation of SBPCL CMT and appointment of SBPCL's EHS Manager, CDO and Community Liaison Officer.	CMT. EHS Manager and CDO in place	15 February 2015		Assessed to be in compliance by ERM during EHSS audit undertaken in September 2015. Refer <i>ERM 3<sup>rd</sup> EHSS Compliance Assessment Report</i> . A newly appointed Assistant Environment Manager has been stationed onsite since June 2018 onwards.
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 of labour issues	Labour Audit Report	31 March 2015  May 2015		In ERM's 12th EHSS audit site visit, it was reported that the deadline for further communication and payment to more workers was extended up to June, 2019. During the reporting period, additional 39 people were identified and paid their due back wage payment.  Till the date of ERM's visit, total 763 workers out of 934 were paid back wage settlement payment. As nobody out of the remaining 171 cases reported for their claim and the warranty period of EPC Contractor was also finished by the end of August 2019, SBPCL management is considering to close this process of back wage settlement payment.  Except for the two contractors (i.e. M/s. Tahsin Enterprise and M/s. Suhag Enterprise) engaged by NEPC-S, remaining contractors have obtained valid labour license. NEPC-S HR department is reportedly planning to retain the workers supplied by these two contractors through M/s. Rafi Enterprise which has got labour license.

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (January 2019)
6	Develop, communicate and operationalise the worker's grievance mechanism	Grievance Mechanism in place and conveyed to all stakeholders	March 2015		SBPCL has complied with this action plan and it was mentioned in previous audit report as well.
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 SBPCL through BCAS and are being verified by ERM during quarterly auditing. ERM's observations on each of the action item are presented in <b>Table 5.1</b> . With project now in operations, the EHSS performance of the both SBPCL and NEPC-S is being evaluated by ERM is consistent with the lender and regulatory requirements, with specific recommendations given in italics text in <b>Table 5.1</b> .
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		Please refer to S. No. 1 of Table 5.2.
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		Please refer to S. No. 3.1 – "Waste Management" of Table 5.1
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		Second migratory bird survey was conducted during 3 – 5 December 2016 by Dr. Mohammad Firoj Jaman of Department of Zoology, University of Dhaka. The report concluded that the experts did not find any evidence of impact of the T-line on migratory birds, particularly on migratory ducks and therefore, further monitoring will not be required.

S. No	Measures and/or Corrective Actions	Deliverable	Schedule	Status	ERM Observations (January 2019)
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 implementation is completed.
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 and GRM is prepared and disclosed with stakeholders. Refer section 4.2.7 of this report for detail.
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		In 12 <sup>th</sup> EHSS assessment visit, it was observed that LRP completion audit by external auditor stands completed and report has been submitted to SBPCL by the consultant.

## 6. EHS&S REGULATORY COMPLIANCE ASSESSMENT

In addition to the CAP & ESMMP compliance assessment the ERM team has performed an EHS&S compliance audit of the project for construction and operations 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 6.1** 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:

<b>High</b>	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
<b>Medium</b>	Substantial deviation from EHS&S regulations/permit conditions resulting in limited legal liability managed through interventions at site management level
<b>Low</b>	Minor deviation from EHS&S regulations/permit conditions managed through intervention of project EHS manager/personnel
<b>Information to be provided</b>	Pending information to be shared for assessing compliance status

**Table 6.1 EHS&S Regulatory Compliance Status**

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
<b>1</b>	<b>Conditions of Environmental Clearance Letter dated 17 June 2015</b>			
1.1	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 – Stack Emissions; Effluent Discharge; Waste Management; Noise Quality; Surface Water Quality of Table 4.1.		Refer to S. No. 3.1 – <i>Stack Emissions; Effluent Discharge; Waste Management; Noise Quality; Surface Water Quality of Table 5.1.</i>
1.2	Comprehensive Environmental Performance report shall be submitted on a monthly basis to both the DOE offices.	SBPCL continues with the preparation and submission of monthly Environmental Performance Reports (EPR) to DoE on regular basis.		SBPCL continues with the preparation and submission of monthly Environmental Performance Reports (EPR) to DoE. Records indicate submission of EPRs to DoE for the period January to June 2019.



S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
1.3	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.	Environmental monitoring reports are submitted in specified format on a monthly basis.		Assessed and observed to be in compliance by ERM during EHSS audit undertaken in February 2016 during operations. Refer <i>ERM 4<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status verified and confirmed by ERM in the current audit.
1.4	The noise level of the Power Plant area shall not exceed the standard for industrial area mentioned in ECR, 1997.	NEPC-S continued in-house monitoring of ambient noise at 8 locations across the plant boundaries, 8 critical noise generating locations inside the plant and 3 locations at nearby villages.  Third party noise test by TUV Austria was carried out on 27 <sup>th</sup> June, 2019 at 17 locations – 3 at 3 villages (Parkul, Paharpur & Bingao), 8 locations at plant boundaries and 8 locations at different noise generating areas inside the plant. The test results reveal that both day and night time readings for the villages and plant boundaries are within DoE and IFC standards. However, among the 8 noise generating areas inside the plant, GT, ST, Cooling Tower and HRSG Auxiliary Pump House areas generated slightly higher noise than acceptable limit defined in BLR 2015. Use of ear plug at all these heavy noise generating areas has been mandatory. Workers have been observed wearing ear plugs at these areas.		Refer to S. No. 3.1 – Noise Quality of Table 5.1.
<b>2</b>	<b>Conditions of Boiler Registration</b>			
2.1	Boiler to be operated by certified boiler operator	Complied		Complied
<b>3</b>	<b>Conditions of Factories License</b>			

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
3.1	First Aid Boxes to bear photographs of first aid responders	Complied s– the good practice is being continued.		Assessed to be in compliance by ERM during EHSS audit undertaken in December 2017. Refer <i>ERM 9<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.
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.	No progress took place on this regard.		As specified in the ERM audit report dated 1 June 2016 and 8 Sep 2016, the establishment of a Worker Participation Fund and a Workers Welfare Fund is still found to be pending. This is identified as a legal requirement as specified in the Bangladesh Labour Rules 2015 and the Factory License dated 21 June 2016.  SBPCL considers this requirement to be not applicable with respect to their current operations with an exemption sought from the Deputy Inspector General, Moulvibazar vide letter dated 20 March 2017. A site visit has been undertaken by the Labour Inspector, Department of Inspection for Factories and Establishment on 19 Sep 2017. Review of the site visit report reveals non-compliance cited by the Labour Inspector with respect to the constitution of a Worker Participation Fund and a Workers Welfare Fund as required under <i>Rule 234</i> of the <i>Bangladesh Labour Act 2006</i> .

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
				During the current visit, it was communicated that SBPCL has engaged with Ministry of Labor and Employment regarding applicability of workers' participation fund/workers' welfare fund for independent power producers (IPPs). However, no response has been received from the aforesaid Ministry post such engagement.
<b>4</b>	<b>Conditions of HSD Storage License</b>			
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.	Compliance status verified and confirmed by BCAS in the current audit.		Compliance status verified and confirmed by ERM in the current audit.
4.3	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	Compliance status has been verified and confirmed by BCAS during the current audit.		As mentioned in the 6 <sup>th</sup> EHSS Compliance Assessment Report, the chemical inventory sheet has been updated to include storage and supply details of HSD. Compliance status has been verified and confirmed by ERM during the current audit.

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
5	<b>Bangladesh Petroleum Act, 1934 &amp; Petroleum Rules, 1937</b>			
5.1	As per Section 7 of this Act any person is required to obtain a license for the transport or storage of class II petroleum if the total quantity in his possession at any one place does not exceed two thousand liters and none of it is contained in a receptacles exceeding one thousand liters in capacity.	Complied.		Assessed to be in compliance by ERM during EHSS audit undertaken in December 2017. Refer <i>ERM 9<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.
5.2	<b>77. Approval of vehicles for transport in bulk necessary.</b> (1) Petroleum in bulk shall not be transported by land except under a license granted under these rule in a vehicle of a type approved in writing by the Chief Inspector.  <b>119. Renewal of License.</b> (2) Every application for the renewal of a licence shall be made so as to reach the licensing authority not less than thirty days before the date on which the licence expires, and, if the application is so made, the premises shall be held to be duly licensed until such date as the licensing authority renews the licence or until an intimation that the renewal of the licence is refused has been communicated to the applicant.	M/s Hazi Fotik Mia Filling Station is responsible for bulk supply and transportation of diesel. The aforesaid agency has engaged M/s Shapla Traders for supply of diesel onsite. Review of permit copy of the vendor indicates it possesses license for transport of petroleum in bulk under the relevant provision of the Petroleum Act 1934 and Petroleum Rules 1937 and the same is valid till 31 Dec 2019.		Diesel is being supplied by M/s Masuk Miya via a 1000 litre capacity tank bearing vehicle. Necessary license has been obtained by the aforesaid agency from Department of Explosives for the road transportation of diesel and is found to be valid till 31 December 2020.
5.3	<b>99. Marking of capacity of tanks:</b> The capacity in litres of every tank in an installation shall be conspicuously marked on the tank.	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 6<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
5.4	<b>102. Earthing of tanks:</b> All tanks or other receptacles for the storage of petroleum in bulk other than well-head tank or tanks or receptacles of less than 45,000 litres capacity containing class III petroleum, shall be electrically connected with the earth in an efficient manner by means of not less than two separate and distinct connections placed at opposite extremities of such tank or receptacle.	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 6<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.
5.5	<b>103. Inspection of earth connections:</b> The connections and contacts required by rule 102 shall be inspected and tested at least once in every year by an Inspector or Assistant Inspector of Explosives in the manner prescribed by the Chief Inspector.	NEPC-S has internally conducted testing of the earth connections within the plant and has submitted the Test Report to Department of Explosive for approval. SBPCL has submitted the TUV Test Report to Department of Explosive for approval.		The site has internally conducted testing of the earth connections at the following locations within the plant in 20 location using Earth Resistance Tester Model YTC 2571. Furthermore as per the regulatory requirement, SBPCL has submitted the ground resistance measurement report of to the Inspector of Explosives, Sylhet Division vide letter no. 50/19-19/NU/132 in June 2019 for review and acceptance. It was reported by SBPCL that no further communication was received from the concerned authority.
5.6	<b>64. Filling and discharge of tanks:</b> (1) Tank-wagons, lorries or carts transporting petroleum shall only be filled or discharged by means of metal pipes or armoured hose in which the armouring is electrically continuous throughout.	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 6<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
5.7	<b>107. Posting up of rules and conditions:</b> Copies of the preceding rules in this Chapter and of the conditions of the licence shall be exhibited in a conspicuous place in every licensed installation and storage shed.	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 6<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.
6	<b>Bangladesh Labour Law 2006 (as amended 2013)/Bangladesh Labour Rules, 2015</b>			
6.1	<b>Rule 60 (A) &amp; (D) of the Bangladesh Labour Rules, 2015 :</b> No lifting machine and no chain, rope or lifting tackle, shall be taken into use in any factory for the first time in that factory unless it has been tested and all parts have been thoroughly examined by a competent person as approved by Government in Form 24 and a certificate of such a test and examination specifying the safe working load or loads and signed by the person making the test and the examination, has been obtained and is kept available for inspection.  The records of all such examination to be kept in Form 24.	LIFTSOL Bangladesh possessing valid certification conducted examination of 27 lifting equipment, 24 hand chain hoists, 108 eye bolts, 37 wire rope slings and 44 shackles in November, 2018. The records have also been maintained in the Form 24 (as per BLR).  Two passenger lifts operated at plant and dormitory were also examined by M/s LIFTSOL Bangladesh in November 2018.		As specified in the earlier audit observation, NEPC-S has now developed a lifting tool and equipment inventory along with their status of tests/examinations. In November 2018, M/s LIFTSOL Bangladesh (having valid certification) had conducted examination of 27 lifting equipment, 24 hand chain hoists, 108 eye bolts, 37 wire rope slings and 44 shackles. The records have also been maintained in the Form 24 (as per BLR)  However as recommended in the earlier audit report, the testing for passenger lifts (2) examination by third party competent agency is found to be due on May 2019 in consistent with BLR, 2015 which requires hoists and lifts to be inspected on a six monthly basis.
6.2	<b>Rule 60 (C) of the Bangladesh Labour Rules, 2015 :</b> A table showing the safe working loads of every kind and size of chain, rope or lifting tackle in use, and, in the case of a multiple sling, the safe working loads at different angles of the legs, shall be posted in the store in which the chains, ropes or	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 7<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
	lifting tackles are kept, and in prominent positions on the premises, and no chain, rope or lifting tackle not shown in the table shall be used			
6.3	<p><b>89. First-aid appliances :</b> (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>(1) In every establishment the first-aid box or cupboard equipped with the contents prescribed by rules shall be provided to be readily accessible during all working hours</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 establishment.</p> <p><b>Rule 76(5) of the Bangladesh Labour Rules, 2015:</b> The person employed for the supervision of the box or almirah and the relevant accessories and supplies must test the usefulness of the materials at least once in every 3 months period. In addition, the relevant materials have to be replaced one month before the expiry of them</p>	Compliance status has been verified and confirmed by BCAS during the current audit		<p>Reportedly, there exist a total 7 first aid boxes placed at the facility to deal with any minor injuries or cuts. All such first aid boxes are checked on a monthly basis for its contents particularly for expired medicines, if any. NEPC-S has also implemented a monthly inspection tag for all first aid box maintained at the facility.</p> <p>Physical inspection of the first aid box located at the maintenance office room indicates the designated number of oral saline sachets are not being maintained as per the checklist. First aider details displayed on the first aid box at the infirmary and chemical department has not been updated.</p>
6.4	<b>79. Dangerous operations :</b> (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 notice specifying use and precautions regarding use of any corrosive chemicals.	The good practices are in place.		Reportedly, NEPCS has deputed 4 personnel in hydrogen generation operations. As required under the provision of BLR, 2015 all such activities are classified as dangerous operations with a register (Form 26-A) required to be maintained related to the health assessment of workers involved in such operations. Review of the register indicates

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
				that it does not cover information related to token number and date of joining of such personnel involved in dangerous operations.
6.5	<b>6. Service Book:</b> (1) Every employer shall, at his own cost, provide a service book for every worker employed by him.	Both NEPC-S and SBPCL have issued service books to all the staffs including security guards and canteen workers. Service books were not issued to the drivers, as they are engaged by the contracted vehicle owner, and the vehicles with drivers are hired on monthly basis for a stipulated payment package. Besides, service books have not been issued to sub-contractors' workers. NEPC-S should take necessary actions so that the sub-contractors issue service book to their workers.		As recommended earlier service book has now been prepared and shared with all payroll staff of NEPC-S, in prescribed format (Form 7).
6.6	<b>9. Register of Workers:</b> (1) The employer of every establishment shall maintain a register of workers, to be available to the Inspector at all times during working hours.	Register of workers in Form 8 is being maintained for all workers. The register of workers did not include drivers, as they are engaged by the contracted vehicle owner.		Register of workers in Form 8 is being maintained for all workers for which it is required at the facility.
6.7	<b>90. Maintenance of Safety Record Book:</b> In every establishment factory wherein more than twenty five workers are employed, shall maintain compulsorily, in the prescribed manner, a safety record book and safety board.	Safety record book and safety board are in place.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 9<sup>th</sup> EHSS Compliance Assessment Report</i> . However, review of the Safety Record Book maintained by NEPCS indicates that the same is yet to be updated e.g. details of Safety Committee not furnished; Mock Drill calendar is dates back to 2017; list of emergency responders not updated etc.
6.8	<b>111. Notice of periods of work for adults and preparation thereof :</b> There shall be displayed and correctly maintained in every establishment in accordance with the provisions of section 337, a	Notice on working hour at the plant has been approved by the Labour Inspector, and copies of the same has been sited at several points of the plant.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 6<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified



S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
	notice of periods of work for adult workers showing clearly the periods which adult workers may be required to work.  (8) Two copies of the notice of the hours of work under this section shall be sent for approval to the Inspector before the work in an establishment begins.			and confirmed by ERM during the current audit.
6.9	<b>Rule 183 (1) of the Bangladesh Labour Rules, 2015:</b> The owner of each company, where at least fifty permanent workers work, will form a participating committee within 3 months of starting operations.	Refer to Sl. No. 3.2.		Refer to Sl. No. 4.2.
6.10	<b>337. Abstracts of the Act, Rules and Regulations to be displayed:</b> (1) The employer of every establishment shall cause to be displayed in a conspicuous and accessible place at or near the main entrance of the place of work or the establishment, as the case may be, a notice in Bangla containing an abstract of the important provisions of this Act and of the rules and regulation.	NEPC-S has updated the abstract of the Bangladesh Labour Law, 2006 and Bangladesh Labour Rules 2015 and displayed at several points of the plant.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 9<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.
6.11	<b>Rule 62 (1) of the Bangladesh Labour Rules, 2015:</b> Every pressure vessel or plant in service shall be thoroughly examined by a competent person (i) externally, once in every period of six months; (ii) internally, once in every period of twelve months. Provided that if by reason of the construction of a pressure vessel or plant, a thorough internal examination is not possible, this examination may be replaced by a hydrostatic test which shall be carried out once in every period of two years and (iii) hydrostatically tested once in every period of four years.	NEPC-S has procured necessary equipment for carrying out the external testing of pressure vessels and has tested all the 19 pressure vessels externally. All the pressure vessels were found in sound condition. However, the tests should be carried out externally in every 6 months by a competent person approved by Department of Inspection for Factories and Establishments. Hence, NEPC-S or concerned official of NEPC-S shall obtain the competency certificate for carrying out these tests. Otherwise, competent third party possessing the certificate shall have to be engaged for carrying out the external test of the		NEPC-S engaged M/S TUV Austria for ultrasonic gaging and thickness of the pressure vessels and LIFTSOL Bangladesh for hydro-testing of pressure vessels and the testing was performed by respective agency in December 2018.  Review of LIFTSOL certification issued in Form 30 reveals that such authorisation is valid for lifting tools, tackles and vessels (non-pressurized). Furthermore, such testing has been undertaken on 11-12 December 2018

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
		<p>pressure vessels. External test of the pressure vessels shall be carried out in every six months.</p> <p>Hydrostatic testing of 15 pressure vessels were conducted during December, 2018 by LIFTSOL. Internal test of these tested vessels will be due on or before 11th December 2020, which can be extended up to 2 more years; and hydrostatic test of these vessels will be due on or before 11th December 2022. However, neither internal nor hydrostatic test of the remaining 4 vessels (CO2 tank, LP drum, IP drum and HP drum) has yet been carried out. If these vessels are not possible to be tested during plant operation, they might be tested during the scheduled shut down of the plant.</p> <p>Out of 33 safety/safety relief valves, 11 were tested by NICCO ENGINEERING SERVICES LIMITED on 15 February 2019. All the tested safety valves were in sound condition. However, testing of the following remaining 22 safety/safety relief valves are pending: Low pressure feed water, IP feed water, Continuous blowdown flush tank, Gland steam HP/IP inlet, Instrument compressed air tank-1, Instrument compressed air tank-2, Service compressed air tank, Gas supply Coaleser filter safety vent valve#1, Gas supply Coaleser filter safety vent valve#2, Gas heater Safety vent valve #1, Gas heater Safety vent valve #2, Gas SCRUBBER safety vent valve, Gas inlet supply line safety vent valve #1, Gas inlet supply</p>		<p>whereas the validity of their certification has expired on 16 Nov 2018.</p> <p>Ultrasonic gaging and thickness testing was conducted for 16 pressure vessels and as per the inspection agency M/S TUV Austria.</p> <p><i>However, testing of compensation water tank, flush tank, continuous blowdown tank, periodic blowdown tank are still pending.</i></p> <p>As recommended earlier, NEPC-S now maintains an injury/illness logbook at the infirmary. Review of the aforesaid logbook and discussion with medical practitioner in charge of the infirmary reveals no injuries/first aid cases being reported for the period January to June 2019. The same is also reflected in the monthly performance reports being prepared by NEPC-S.</p>

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
		line safety vent valve #2, Hydrogen storage tank – 1, Hydrogen storage tank – 2, Hydrogen storage tank – 3, Air storage tank of Hydrogen station, Air storage tank of DM Plant, Alkali dilute heater safety vent valve, Air storage tank of compressor room, ST Hall air storage tank.		
6.12	<p><b>Rule 55 (10) of Bangladesh Labour Rules, 2015:</b> If possible, all workers or at least 18% of the workers employed in each department have to be trained on fire-fighting, emergency rescue operation, first aid and the usage of portable firefighting equipment's.</p> <p><b>Rule 55 (13) of Bangladesh Labour Rules, 2015:</b> The Manager of the factory/institute shall prepare a 'Fire Fighting Plan', detailing the necessary steps to be taken if fire breaks out and the plan shall also include the procedures for making the same as effective.</p>	Compliance status has been verified and confirmed by BCAS during the current audit.		Firefighting Plan developed by NEPCS for the operational site has not been developed to cover all aspects specified in the BLR, 2015 with updation of the plan also found to be pending.
6.13	<p><b>56. Ambulance room.</b> (1) The ambulance room or dispensary shall be in charge of a qualified medical practitioner assisted by at least one qualified compounder and nurse and such subordinate staff as the Chief Inspector may direct. The medical practitioner shall always be available on call during working hours.</p> <p>(6) The occupier of every factory shall, for the purpose of removing serious cases of accident or sickness, provide in the premises and maintain in good condition a suitable transport unless he has</p>	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Sep 2016. Refer <i>ERM 5<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
	made arrangements for obtaining such a transport from a hospital.			
6.14	<b>Rule 73 (1) of Bangladesh Labour Rules, 2015:</b> The facility shall preserve the record of each accident or mishap in a prescribed register in Form 28.	NEPC-S has submitted the accident register in Form 28 for the period of Jan-Jun 2019 to the Factory Inspector.		Records review indicate that SBPCL has submitted both the half yearly returns and duly filled in Accident Register in Form 28 to the Deputy Inspector General of Factories vide letter dated 16 July 2019.
6.15	<b>73. Pits, sumps, tunnel mouths, etc.:</b> Where in an establishment any fixed vessel, sump, tank, pit or tunnel in such that, by reason of its depth, situation, construction or contents, it may be a source of danger, it shall be either securely covered or fenced.	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 6<sup>th</sup> EHSS Compliance Assessment Report</i> .  As recommended in the <i>8<sup>th</sup> EHSS Compliance Assessment Report</i> ., NEPC-S has now provided gratings/covering for the open floor wash drains at the multi-water pump house. The same was verified by ERM team during site walkthroughs and review of photographic evidence shared by NEPC-S.
6.16	<b>Rule 333(a) of Bangladesh Labour Rules, 2015:</b> the owner or manager of the establishment shall submit two sets of statements in prescribed form by the stipulated date to the inspector general , namely:- -- (a) Half yearly statements as per Form-80 by 15 July; (b) Yearly statements as per Form-81 by 15 February.	SBPCL has submitted half-yearly return for the period Jan-June 2019 in Form 80 to the Factory Inspector.		Records review indicate that SBPCL has submitted both the half yearly returns and duly filled in Accident Register in Form 28 to the Deputy Inspector General of Factories vide letter dated 16 July 2019.

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
6.17	<b>Rule 68 (4) &amp; (6) of Bangladesh Labour Rules, 2015:</b> The owner of the institute shall conduct the physical fitness test of the workers on his/her own cost, by a registered Physician, for dangerous activities and he/she would receive a Medical Certificate of each worker as per Form-26, certifying his fitness for performing the activities. The concerned Physician and the owner must preserve the copies of physical fitness certificate in separate registers as per the description of Form-26A.	NEPC-S carried out medical fitness check including audiometric testing of all the staff and workers as part of the annual medical examination of the employees in October 2019. Medical examination was conducted for all the 90 NEPC-S staff and workers. SBPCL officials and other contractual staffs went under annual medical check-up (including audiometric test) in January, 2019. All have been found in good health.		Fitness testing of NEPCS personnel undertaken on an annual basis by the site registered physician and fitness certificate issued in prescribed format i.e. Form 26.
6.18	<b>Rule 55 (14) of Bangladesh Labour Rules, 2015:</b> Fire drills and emergency evacuation drills have to be arranged at least once in every six month period and the same has to be preserved in respective record books, in accordance with Form- 22A. In addition, the concerned Inspector and nearby Fire Service Station have to be informed minimum 15 days before the drills are held.	'Fire emergency mock drill' was organized on 2 <sup>nd</sup> May, 2019 at the presence of representative from Bangladesh Fire Service and Civil Defence. Drill report is in place associated with the requisite BLR forms.		NEPCS has prepared a mock drill calendar for the year 2019 with drills conducted on the following emergencies scenarios for the period Jan to June 2019 - water leakage in multi-water pump house, accident in dormitory, transformer explosion, fall from height and hazardous chemical spill. Fire emergency mock drill was conducted on 2 <sup>nd</sup> May, 2019 in presence of representatives of Bangladesh Fire Service department.
6.19	<b>Rule 55 (10) of Bangladesh Labour Rules, 2015:</b> The trained workers to be comprise of fire-fighting team, rescue team and first aid team (6% members in each team) and the records related to such workers have to be preserved in accordance with Form- 22.	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in August 2017. Refer <i>ERM 8<sup>th</sup> EHSS Compliance Assessment Report</i> . Status has been reviewed and verified by ERM during the current audit.

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
6.20	<b>Rule 7 (1) of Bangladesh Labour Rules, 2015:</b> Application to be made by the labour supply contractor to the Chief Inspector as per Form-77 for purpose of obtaining registration and licensing in connection with its activities.	Rafi Enterprise has got approval for getting labour license. Now, they need to submit the bond of BDT 2 lacs to government, and then the license will be provided to them. Once, Rafi Enterprise obtains the labour license, all the contractual workers might be hired from them.		Except for the two contractors (i.e. M/s. Tahsin Enterprise and M/s. Suhag Enterprise) engaged by NEPC-S, remaining contractors have obtained valid labour license. NEPC-S HR department is reportedly planning to retain the workers supplied by these two contractors through M/s. Rafi Enterprise which has got labour license.
6.21	<b>Rule 58 (2) of Bangladesh Labour Rules, 2015:</b> The factory of the company before going to production or business or service, is required to take an appropriate certificate on electric wiring and earthing of the facility from any person or institution approved by the government.	NEPC-S engaged TUV Austria to conduct testing of the earth connections and electric wiring within the plant. TUV Austria conducted the tests on 25 <sup>th</sup> April, 2018. In addition, NEPC-S has recently conducted earthing test of the plant internally.		Document review indicates that NEPCS through an in-house and authorised electrical supervisor have conducted ground resistance monitoring at the following areas during 10-15 May 2019 - CCB, CW, Raw Water Storage, Cooling Tower, Dormitory, Workshop, Tankages of carbon dioxide, hydrogen, diesel, compressed air etc. The aforesaid test report has been submitted by SBPCL to Department of Explosives, Sylhet Division, Bangladesh vide letter dated 12 June 2019.
6.22	<b>Rule 68 (9) of Bangladesh Labour Rules, 2015:</b> The data about the disbursement of personal safety equipment's that are required for performing the activities mentioned in Section 79 (d) must be preserved as per Form-23.	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 7<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.
6.23	<b>Rule 55 (2) of Bangladesh Labour Rules, 2015:</b> In the factory with the floor area more than 90 sq. m and where fire incident can occur from other combustible objects except the combustible liquid, electric equipment's and combustible metals, a dry	Complied previously. All the fire extinguishers in the plant are checked every month.		As mentioned in the <i>7th EHSS Compliance Assessment Report</i> , NEPC-S has now made available requisite number of fire extinguishers at the LPG Gas Bank near the canteen area. Compliance status has been

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
	chemical powder fire extinguisher or such kind of portable fire extinguisher should be installed for each additional 90 sq. m of the designated bucket mentioned in the sub-rule (1).			verified and confirmed by ERM during the current audit.
6.24	<b>Section 67: Casing of new machinery, Bangladesh Labour Act, 2006:</b> After the commencement of this Act, in every power driven machinery installed in an establishment- (a) every set screw, belt or key, or any revolving shaft, spindle wheel or pinion shall be so sunk, encased or otherwise effectively guarded so as to prevent danger; (b) all spur, worm and other toothed gearing, which does not require frequent adjustment while in motion, shall be completely encased, unless it is so situated as to be safe if it were completely encased.	As fixed or movable guards for the lathe and drill machines are not suitable, necessary precautions have been ensured based on job hazard analyses. NEPC-S confirmed that lathe and drill works are done under the supervision of supervisor and necessary safety measures are taken.		The rotating parts of the lathe and drill machines in operation at the facility workshop were still not found to be equipped with any fixed or movable guards in consistent with the requirements of the Bangladesh Labour Act, 2006.  It was reported by NEPC-S that fixed or movable guards are not possible to put. However, job hazard analysis for lathe and drill machines operations at workshop area has been further updated based on the risk assessment and appropriate risk mitigation measures have been specified. It was also reported that all the work in the workshop area is carried out under the supervision of the supervisor and only 3-4 workers who trained to carryout work with these machines are engaged for work as and when required. Safety instruction signage are also provided in Chinese and Bangla language at the work stations of these machines.
6.25	<b>Rule 19 of Bangladesh Labour Rules, 2015: (7)</b> The information regarding the letter of appointment, identity card and service book should be kept as per Form- 6 (a).	NEPC-S maintains the letter of appointment, identity card and service book for its workers in the format (Form 6A) prescribed under the <i>Bangladesh Labour Rules 201</i> . On the other hand, the contractual workers engaged through third party services are provided with identity cards and		NEPC-S has started maintaining the letter of appointment, identity card and service book for its workers in the format (Form 6A) prescribed under the <i>Bangladesh Labour Rules 2015</i> ; however the contractual workers engaged through third party services are only

S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
		appointment letters, but service book is not maintained. NEPC-S should take necessary actions so that the sub-contractors issue service book to their workers.		provided with temporary identity cards and no appointment letters, service book maintenance etc. are not tracked.
6.26	<b>Rule 24 of Bangladesh Labour Rules, 2015:</b> (1) In accordance with the section 10, the leave register will be kept as per Form- 9 and the descriptions of the leave mentioned in the sections 115, 116 and 117 will be written down in it.	NEPC-S maintains the leave register for its workers in the format (Form 9) prescribed under the Bangladesh Labour Rules 2015.		NEPC-S has started maintaining the leave register for its workers in the format (Form 9) prescribed under the <i>Bangladesh Labour Rules 2015</i> .
<b>7</b>	<b>Electricity Rules, 1937</b>			
7.1	Rule 42, 45 & 49 of the Electricity Rules, 1937	Complied previously, and the good practices are being continued.		Provision of insulated rubber mats were found to be absent at all electrical panels installed at the DM Plant. Also the mats provided in control room of the licensed hydrogen storage yard was not provided along the entire length of electrical panels thereby making such arrangement ineffective.
<b>8</b>	<b>Pressure Vessel Rules, 1995</b>			
8.1	Condition No 10 of the Renewed Hydrogen Generation & Storage License	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 6<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.
8.2	Rule 6 of the Pressure Vessel Rules, 1995	-		Walkthrough at licensed hydrogen tank yard reveals that the storage tanks located within the licensed area were not found to be bear the following particulars - test pressure, date of initial hydrostatic test and the subsequent



S. No	Regulatory Requirement	BCAS Finding /Observation (as on July 2019)	Risk Rating	ERM Observations (as on August 2019)
				test; and the chemical symbol/name of the gas being stored.
8.3	Rule 24 of the Pressure Vessel Rules, 1995	Compliance status has been verified and confirmed by BCAS during the current audit.		Assessed to be in compliance by ERM during EHSS audit undertaken in Dec 2016. Refer <i>ERM 6<sup>th</sup> EHSS Compliance Assessment Report</i> . Compliance status has been verified and confirmed by ERM during the current audit.
8.4	Rule 31 (2) and (4) of the Pressure Vessel Rules, 1995	Compliance status has been verified and confirmed by BCAS during the current audit.		Provision of flameproof construction conforming to BS 5345 requirements for electrical panels, switches, sockets, fixed lamps etc. at the licensed hydrogen storage yard were pending.  SBPCL has reported that the electrical panels, switches, sockets, fixed lamps etc. are having conformity for explosive atmosphere and having International Electro-technical Commission (IEC) equivalent certification. Explosion proof tags were also been provided to ERM as evidence.
8.5	Rule 32 of the Pressure Vessel Rules, 1995	Refer to Sl. No. 5.5.		Refer to <i>Sl. No. 5.5</i>

## 7. CORRECTIVE ACTION ITEMS

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 SBPCL.

**Table 7.1 Corrective Action Items List**

S. No.	Action Item	Responsibility	Completion Timeline*
<b>A</b>	<b>CAP, ESMMP&amp; IFC ESAP</b>		
1.	Conduct and maintain test records of all safety relief valves.	NEPC-S	January 2020
2.	Ensure availability of first aid contents as per checklist and display first aider details on first aid boxes at the infirmary and chemical department.	NEPC-S	December 2019
3.	Ensure availability and undertake inspection of firefighting PPEs viz. SCBAs and gas masks and maintain records of the same.	NEPC-S	December 2019
4.	Update mock drill calendar and Safety Record Book with details of Safety Committee.	NEPC-S	December 2019
5.	Incorporate information of the personnel engaged in dangerous operation in a register (Form-26-A).	NEPC-S	December 2019
6.	Develop a calibration procedure for all LEL detectors and maintain calibration records for the same. Install O2 analyzer at the nitrogen storage area at the licensed hydrogen tank yard.	NEPC-S	December 2019
7.	Maintain provision of leak proof secondary containment for the diesel and waste oil storage drums placed at designated yard. Mark all hazardous waste storage drums indicating the type and nature of hazardous waste being stored.	NEPC-S	December 2019
8.	Make provision of eye wash bottles/stations at the diesel storage yard and ensure all emergency showers are subjected to thorough examination and records maintained.	NEPC-S	November 2019
9.	Perform scaffolding work in accordance to the NEPC-S Work at Height Procedure.	NEPC-S	November 2019

S. No.	Action Item	Responsibility	Completion Timeline*
10.	Record and maintain GHG emission data for the project.	NEPC-S	December 2019
11	Develop a noise management strategy in consultation with neighbouring independent power producers and local communities. All grievances related to noise need to be formally recorded and tracked.	SBPCL	January 2020
12	Conduct fish habitat survey by engaging an experienced and qualified third party agency/personnel on a fast track basis.	SBPCL	September 2020
<b>B</b>	<b>EHS Legal Compliance</b>		
1.	Appoint authorized agency and undertake examination of the following pressure vessels viz. <i>compensation water tank, flush tank, continuous blowdown tank, periodic blowdown tank</i> on a fast track basis with records maintained in Form 25 & 25A.	NEPC-S	January 2020 Except CO <sub>2</sub> tank
2.	Appoint a third party agency possessing necessary authorisation under Form 30 for hydro testing of pressure vessels. Conduct ultrasonic gauging and thickness testing of the remaining four pressure vessels.	NEPC-S	January 2020
3.	Conduct illumination monitoring at security room, kitchen and canteen and ensure adequate illumination at WTP MCC room conforming to standards specified in BLR, 2015.	NEPC-S	December 2019
4.	Ensure periodic examination of passenger lifts (02) through third party competent agency.	NEPC-S	December 2019
5	Ensure display of testing particulars on the hydrogen storage tanks in accordance to the requirement of Pressure Vessel Rules, 1995.	NEPC-S	December 2019
6	Ensure provision of insulated rubber mats at all electrical panels installed at DM Plant. Ensure mats provided in control room of the licensed hydrogen storage yard is covering the entire length.	NEPC-S	November 2019
7	Ensure integrity of the drip tray used as secondary containment at the fuel drum storage area.	NEPC-S	December 2019
8	Ensure availability and display of MSDS for transformer oil, lubricants, anion and cation exchange resins in both English and local language	NEPC-S	November 2019
9	Ensure Firefighting Plan developed by NEPCS for the operational site covers all aspects specified in the BLR, 2015. Also update the Firefighting plan.	NEPC-S	January 2020

S. No.	Action Item	Responsibility	Completion Timeline*
10	Conduct analysis of the waste sludge for the following parameters - total organic carbon, loss of ignition, dissolved organic carbon and calorific value. Based on the analysis results, develop a sludge management plan and submit the same to DoE, Bangladesh.	NEPC-S	December 2019
11	Ensure operation of filter press of the wastewater treatment plan on a fast track basis.	NEPC-S	October 2019
12	Ensure coverage of sprinkler testing at dormitory, kitchen, canteen, diesel storages and hydrogen stations. Conduct heat/smoke detector testing at diesel storages and kitchen with records being maintained. Ensure flow rate of hose reels and sprinkler conforms to BNBC requirements.	NEPC-S	January 2020
<b>C</b>	<b>Labour Legal Compliance</b>		
1.	Review EL provision is revised HR manual of Summit and align with BLL 2006 requirements.	SBPCL	January 2020
2.	The labour sub-contractors like M/s. Rafi & M/s. Tahsin should also obtain a valid Labour Licence to be issued by Department of labour	SBPCL and NEPC-S	December 2019
3.	Bangladeshi staff should be allowed for EL accumulation/ encashment as per law	NEPC-S	January 2020
4.	Seek clarity from labour department regarding requirement of worker participation fund / worker welfare fund	SBPCL	December 2019
<b>D</b>	<b>Stakeholder Engagement &amp; Community Development Program Actions</b>		
1.	SBPCL is required to provide time bound action plan to initiate recommended activities in the first CDP Monitoring Report for the pending CDP activities	SBPCL	January 2020
2	Actively coordinate with PGCB to ensure closure/removal of the storm water drainage outlet contributing to the flooding at the resettlement colony.	SBPCL	January 2020

\* Tentative timelines and need to be reviewed by SBPCL and NEPCS

## 8. CONCLUSIONS

With project now in combined cycle operations and fully operated by the O&M contractor since last 37 months, SBPCL compliance to operational EHSS requirements has been assessed to be satisfactory. NEPC-S has already developed and started implementation of the EHS management system. Quality, environmental and occupational health and safety management system certification was also completed in December 2017 and valid till 19<sup>th</sup> December 2020. All the EHS permits/ licenses are in place and renewals are being obtained in time.

More focus is required to ensure improvement of occupational health and safety aspects (implementation of scaffolding safety procedure), EHS compliance, labour legal compliance (particularly with respect to the Bangladesh Labour Law 2006 and applicable provisions of the Bangladesh Labour Rules, 2015), trainings, monitoring and reporting as per the ESMMP as well as according to the developed procedures of EHS management system and sustain with the efforts being made to stay in compliance. In addition to that specific attention is required to implement pending CDP activities and evaluation.

The compliance status with respect to the corrective action items as outlined in the earlier sections will be verified during the next visit to be undertaken by ERM in January 2020 after internal compliance monitoring by SBPCL or any third party in December 2019.

## APPENDIX A PHOTO-DOCUMENTATION



Photo 1: Damaged and clogged sprinkler at Control Room Building.



Photo 2: Fire gas mask lacking preventive maintenance and inspection



Photo 3: Wooden planks provided on scaffolds do not conform to BS 2482 standards



Photo 4: Toe board, guard rail and access ladder missing at the scaffold onsite



Photo 5: Guard rail provided on floor opening to prevent any trip/fall risks.



Photo 6: Safety signage's displayed at high noise area onsite





Photo 7: Damaged secondary containment at diesel oil storage



Photo 8: Waste oil storage container identified as hazardous lacking appropriate labelling.



Photo 9: Eye was missing at the emergency shower at pre-treatment dosing room.



Photo 10: Missing insulated rubber mat in front of electrical panel at DM Plant.



Photo 11: Emergency evacuation floor plan displayed at control room building.



Photo 12: Colour coded and labelled biomedical waste containers at infirmary.



---

**ERM has over 160 offices across the following countries and territories worldwide**

Argentina	New Zealand
Australia	Panama
Belgium	Peru
Brazil	Poland
Canada	Portugal
China	Puerto Rico
Colombia	Romania
France	Russia
Germany	Singapore
Hong Kong	South Africa
Hungary	South Korea
India	Spain
Indonesia	Sweden
Ireland	Taiwan
Italy	Thailand
Japan	UAE
Kazakhstan	UK
Kenya	US
Malaysia	Vietnam
Mexico	
The Netherlands	

**ERM India Private Limited**

Building 10A, 4<sup>th</sup> Floor  
DLF Cyber City, Gurgaon  
NCR – 122002  
INDIA

T: +91 124 4170300

F: +91 124 4170301

[www.erm.com](http://www.erm.com)