

Loan No. 2454-BAN-OCR

Public-Private Infrastructure Development Facility

ANNUAL ENVIRONMENTAL AND SOCIAL COMPLIANCE AUDIT REPORT

108 MW Power Project at Kolagaon, Chittagong, Bangladesh

EPV Chittagong Limited

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Prepared by

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List of Abbreviations

ADB	Asian Development Bank
CCC	Chittagong City Corporation
DOE	Department of Environment
ECR	Environment Conservation Rules
EPVCL	Energypac Power Venture Chittagong Limited
EHS	Environmental and Health Safety
EMP	Environmental Management Plan
ERP	Emergency Response Plan
FGD	Focus Group Discussion
IDCOL	Infrastructure Development Company Limited
IEE	Initial Environmental Examination
PPE	Personal Protective Equipment
SPS	Safeguards Policy Statement

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EXECUTIVE SUMMARY

Background

Considering the importance of electricity, the Government of Bangladesh (GOB) has adopted a number of initiatives including implementation of power plant through independent power producer (IPP) modality by private sector. The 108 MW HFO based project of Energypac Power Venture Chittagong Limited (EPVCL) is an example of this initiative of Government of Bangladesh.

Through a competitive bidding process Bangladesh Power Development Board (BPDB) has selected EPVCL to establish and operate an HFO based power plant by using Julda or Shikalbaha sub-station, Chittagong under a 15-year Power Purchase Agreement (PPA). Accordingly EPVCL has purchased required land at Kolagoan Union of Patiya Thana, Chittagong. The generated electricity will be sold to BPDB.

For financial assistance EPVCL has approached Infrastructure Development Company Limited (IDCOL), along with other lenders. Considering the importance of the Project to meet the national power demand, IDCOL has provided a term loan facility of USD 30 million in favour of the Project. IDCOL has sourced the required financing from the fund allocated as ordinary capital resources (OCR) for large infrastructure projects under Public-Private Infrastructure Development Facility (PPIDF) of Asian Development Bank (ADB).

The project has been classified as **B** under Safeguards Policy Statement, 2009 of Asian Development Bank (ADB) in regard of environmental compliance. But in consideration of Indigenous People (IP) and Involuntary Resettlement (IR) aspects the project has been classified as **C**. According to the Environmental Conservation Rules (ECR), 1997 of the Department of Environment (DOE), Bangladesh the project belongs to **Red** category. In addition, the Environmental and Social Safeguards Framework (ESSF) of Infrastructure Development Company Limited (IDCOL) has categorized the project as **High Risk** project. So, a comprehensive Initial Environmental Examination (IEE) Report has been prepared for the project by Bangladesh Centre of Advanced Studies (BCAS) as 'Environmental Consultant' appointed by EPVCL.

To assess the actual implementation of environmental management plan and social safeguards, respective IDCOL official visited the project site during construction and operation phases. According to the IEE, there is requirement of IDCOL to submit annual Environmental and Social Compliance Audit Report of this project to ADB. Accordingly, this audit report has been prepared by IDCOL.

Audit overview and findings

The respective IDCOL official has visited the project during the audit period (*January 2016 to December 2017*). He has also reviewed the available relevant documents and clearances. In addition, there was consultation with local people of different age groups and professions representing the adjacent neighborhood. While audit, it has been observed that EPVCL is satisfactorily responsive about complying with the environmental management plan and social safeguards including grievance redress and continuous public consultation.

1.0 INTRODUCTION

1.1 PROJECT PROPONENT

Energypac is a reputed name in electro-mechanical sector in Bangladesh. Confidence Group is a trusted name in cement and ready mixed concrete, lead-acid battery and electro-mechanical products. The captioned project is a joint initiative of these two well acknowledged entrepreneurs. As special purpose vehicle, the project proponent has been jointly named as Energypac Power Venture Chittagong Limited (EPV Chittagong Limited). The project related major information are as follows:

Table 1.1: Project related basic information

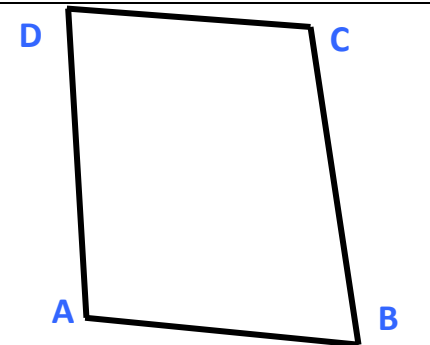
Project Company	EPV Chittagong Limited
Date of Incorporation	21 August 2011
Registration Number	C-94987/11
Registered Address	79 Shahid Tajuddin Ahmed Sharani, Tejgaon I/A, Dhaka 1208
Trade License Number & Issuer	No: 0948634; Dhaka City Corporation
TIN Number	211-202-3847/C 20
Type of Business	Power Generation
Project Location	Kolagaon, Chittagong
Capacity	108 MW
Fuel Type	HFO
GenSet Supplier	Rolls-Royce
Off-taker	BPDB
Project Tenure	15 Years from the COD
Project Type (Operational)	HFO fired Power Plant to be developed on BOO basis
Project Type (Awarding)	IPP ¹

1.2 AREA AND LOCATION OF THE PROJECT

The project site is located at Kolagoan Union of Patiya Thana under the jurisdiction of Chittagong City Corporation (CCC). The area of CCC is about 157 sq. kilometres. The land having an area of about 6 acres has been purchased by EPVCL. The site is about 9 kilometres away from Shah Amanat International Airport, Chittagong and about 5 kilometres away from the Chittagong Port. The site is about 270 kilometres away from the capital Dhaka. The location of the project in respect of Chittagong City Corporation area and adjacent area is presented in Annex-2.

¹ IPP means Independent Power Producer

Table 1.2: Geographic location of the project site with schematic lay out

	Point	Latitude	Longitude
	A	22°20.064'N	91 ° 52.510' E
	B	22 °20.013' N	91 °52.448' E
	C	22 °19.975' N	91 °52.614' E
	D	22 °20.030' N	91 °52.625' E

Source: GPS survey by IDCOL

Along the BC, AB, DA and CD are access road& vacant land, neighborhood, vacant land & Western Marine Shipyard, and Karnaphuly River respectively.

Table 1.3: Distance of project site from major infrastructures

Major Infrastructure	Approx. areal Distance from site (kilometer)
Julda 132VV Sub-Station	4
Shah Mirpur 132KV sub-Station	9.5
Bangladesh Navy Bases/Jetty	6.5
Chittagong Port	5.5
Shah Amanat Bridge on Karnaphuli River	1.5
Bangladesh Naval Academy	10
Eastern Refinery, & BPC Chittagong Oil Depots	8.5
KAFCO	10
Shah Amanat International Airport	9
Marine Academy	7.5
Shikolbaha 120MW Power Plant	4

1.3 BRIEF DESCRIPTION OF THE PROJECT

The technology involves for power generation of EPVCL108 MW power is mainly based on reciprocating engines. The primary fuel is HFO. There are 16 (sixteen) reciprocating engines of 7.2 MW each to be coupled with alternator to generate electricity. The following Table 1.4 shows list of major equipment as have been used in this power plant.

Table 1.4: List of major equipment

Equipment	Unit	Country of Origin
Rolls-Royce B32:40V16A	16	Norway
Generator (AvK make DIG 167/d8)	16	Germany
11/132 kV Step-Up Power Transformer	2	Bangladesh
11/ 0.415kV Distribution Transformer	2	Bangladesh
Indoor and outdoor switchgear	21	Bangladesh
Power Transformer Control Panel	2	Bangladesh
Current Transformer (132KV)	2	Bangladesh

The engine model B32:40V16A manufactured by Rolls-Royce for the 108 MW HFO based power plant is 4-stroke, turbocharged, inter-cooled. The following Table 1.5 shows detail technical specifications of the engines.

Table 1.5: Engine specifications

Particular	Specification
Model	B32:40V16A
Number of cylinders	16
Engine speed (rpm)	750
Maximum Continuous Alternator Rating	6984 kW
Cylinder bore	320 mm
Piston stroke	400mm
Mean effective pressure (BMEP) Bar	24.9
Altitude above sea level (max)	100m
Turbocharger air suction temperature (max)	+35°C (25°C)
Charge air cooling water inlet temp	+42°C (25°C)
Relative humidity	70%@35°C

The generators are synchronous, three-phase, brushless, salient pole and marine types. The generators are designed to operate together with B32:40V16A engines. The following Table 1.6 shows technical specifications of the generators.

Table 1.6: Generator specifications

Parameters	Description
Make	CGT (AvK)
Type	DIG
Construction	IM 1101 (B20), Two bearings
Output	6984 kW(e) 8730 kVA
Power Factor	0.80
Voltage	11 kV
Frequency	50Hz
Generator speed	750 rpm
Insulation Class	F

1.4 OBJECTIVES OF THE ENVIRONMENTAL AND SOCIAL COMPLIANCE AUDIT

The audit has been conducted with the aim to assess the project's compliance with-

- (i) Environment Conservation Rules (ECR)1997 of GOB;
- (ii) Environmental and social safeguards according to the Environmental and Social Safeguard Framework (ESSF) of IDCOL;
- (iii) Environmental and social safeguards according the Safeguards Policy Statement (SPS), 2009 and other relevant standards and guidelines of the ADB;
- (iv) Proposed mitigation measures and monitoring procedures according to the committed environmental management plan (EMP), resettlement action plan (RAP) as are applicable.

1.5 METHODOLOGY

The audit includes the following steps:

- (i) visits the project site and consult with stakeholders especially local people;
- (ii) review the environmental and social safeguards documents including environmental impact assessment report, EMP and Resettlement Action Plan (as are relevant) ;
- (iii) assess actual implementation of the guidelines/action plan of the safeguard related documents.

1.6 REPORTING PERIOD

The reporting period of this Environmental and Social Compliance Audit Report is January 2016 to December 2017.

1.7 CHANGES IN PROJECT SCOPE

There is no change in the technology and operational process as have been declared by the respective government and accepted by EPVCL. So, it can be said that the Environmental Management Plan of ADB approved Initial Environmental Examination (IEE) is fully applicable during the reporting period as well.

1.8 ENVIRONMENTAL MONITORING

The parameter, frequency and methodology of environmental monitoring are in accordance with EMP of ADB approved IEE, as has been detailed in chapter 3 of this audit report.

2.0 REGULATORY REQUIREMENTS

2.1 ENVIRONMENT CONSERVATION RULES, 1997 OF BANGLADESH

The project has to comply with the Environment Conservation Rules (ECR), 1997. According to the categorization of ECR, 1997, the project has been categorised as **Red**² meaning that it has significant adverse environmental impacts, which are to be mitigated with proper mitigation measures.

2.2 ENVIRONMENTAL AND SOCIAL COMPLIANCE RELATED STANDARDS AND GUIDELINES OF ASIAN DEVELOPMENT BANK

The project has to be complied with Safeguards Policy Statement (SPS), 2009 of ADB in regard of environmental and social (E&S) compliances. Considering the adversity of environmental impacts, it has been categorized as **B** from environmental safeguard point of view. Accordingly an IEE has been prepared, which is already approved by the ADB. As no record of any indigenous habitat has been found in Kolagaon, the project has been categorised as **C** in respect of Indigenous People (IP). In addition, as there was neither any issue of involuntary resettlement (IR) nor adversely affecting any income generating activity, the project has been categorised as **C** from IR perspective.

2.3 ENVIRONMENTAL AND SOCIAL SAFEGUARDS FRAMEWORK OF IDCOL

IDCOL has adopted an Environmental and Social Safeguards Framework (ESSF) in 2011, which is to be complied with all infrastructure projects as are to be funded IDCOL. According to the environmental categorization of ESSF, the project has been categorised as **High Risk**³ project requiring significant compliance safeguards including comprehensive environmental impact assessment and regular monitoring. In consideration of social categorization, the project has been categorised as **Low Risk** project both for Indigenous People (IP) and Involuntary Resettlement (IR) perspectives.

² Schedule-1 of ECR (project no. 6 of Red category), 1997

³ The project risk screening checklist of ESSF, IDCOL is provided in Annex-3

3.0 IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS

3.1 COMPLIANCE WITH ENVIRONMENT CONSERVATION RULES, 1997

EPVCL has to comply with the requirement of ECR, 1997 of the DOE. In the following Table 3.1, the compliance status of EPVCL, in regard of major milestones of ECR, 1997 is depicted. The renewal of Environmental Clearance is available at Annex-1.

Table 3.1: Compliance with the requirement of ECR, 1997

Basic Requirement	Compliance Status
Award Site Clearance Certificate	Fully complied
Award EIA approval	Fully complied
Award Environmental Clearance Certificate	Fully complied
Renewal of Environmental Clearance Certificate	Fully complied

3.2 COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT PLAN

a. Institutional arrangement

The responsibility of overall EHS implementation of this project has been given to Mr. Md. Akram Hossain. He is a graduate Electrical Engineer having significant competence on EHS issue of power sector.

b. Compliance status

In the IEE, a number of activities having potential adverse environment impacts and occupational health safety aspects have been identified. In the following Table 3.3, suitable mitigation measures to address these impacts according to the EMP and responses by EPVCL have been given.

Table 3.2: Response of ECPVCL on project activities and mitigation measures during operation phase

Project Activity	Potential Impacts	Proposed mitigation measures in EMP	Actual implementation	Compliance status
Transportation of HFO oil to the plant	Possible spillage and leakage of oil during storage	Oil should be stored through close piping system.	Oil has been found to be stored through closed piping system.	Fully complied
	Emission from the power plant	- Using 27 meter tall stack; - Installation of stack emission monitoring equipment for major pollutants; - Planting of indigenous trees around the Project site.	27 meter tall stacks have been installed.	Fully complied
	Generation of noise from generators and associated sub-stations , which could exceed 70 dB(A) at site boundary	- Locate facility 70–100 m from nearest receptor; - Use walls, fencing, and/or greenbelt to provide partial noise barrier; - Provision of silencers or generators an turbines; - Use of ear-muffs and ear-plugs by plant personnel working in the generator and turbine facilities of the plant.	- The project is about 100 m away from nearest settlement; - Walls are being installed as noise barrier; - Ear plugs were being used as noise barrier.	Fully complied
	SO ₂ generation from the engine, which has adverse health impact	- Use low sulfur (0.5 %) content fuel. - Distillate fuel oil to control SO₂; - If the SO₂ emission is more than standards, desulfurization measure is to be adopted.	ECPVCL has installed fuel treatment plant. So, it can be said that the sulfur content in the fuel is within the limit of acceptable standard.	Fully complied
	Suspended particulate matter (SPM) and PM _{2.5} , PM ₁₀ generation from the engine, which can adversely affect health	- Use fabric bag filter to reduce particulate matter before discharging the emission; - Good combustion control, required stack height should also be maintained properly.	Fabric bag has been introduced.	Fully complied

Project Activity	Potential Impacts	Proposed mitigation measures in EMP	Actual implementation	Compliance status
<i>Power generation</i>	Electro-magnetic wave or electrical interference, which may result in occupational health risk.	▪ All equipment should be grounded earthing with mesh system. ▪ Power plant to sub-station should be connected by HT cable. ▪ Power plant & substation site is away from the settlement. ▪ No house is located in the immediate vicinity of the site.	▪ Relevant equipment have been grounded; ▪ Power plant to sub-station has been connected by HT cable; ▪ Power plant & substation site are away from the settlement; ▪ No house is located in the immediate vicinity of the site.	Fully complied
<i>Heath safety during operation</i>	Risk of human health and property damage	▪ All necessary safety equipment should be ready at the plant. ▪ Regular training on safety needs to provide.	▪ PPE were found to be practiced.	Fully complied
<i>Fires, explosion and other accidents</i>	Risk of human health and property damage	▪ Use of personal protective equipment during operation and maintenance. ▪ Prepare and implement safety and emergency manual. ▪ Regular inspection of lines for faults prone to accidents. ▪ Provision of fire protection equipment. ▪ Provision of Lightning arrestors	▪ There are fire extinguishers; ▪ Automated firefighting system has been installed.	Fully complied
<i>Domestic wastewater and sewage</i>	BOD, fecal coliform contamination in groundwater and surface water	▪ Need to provide septic tank with soak pit for treatment of sewage.	▪ Septic tank with soak pit for treatment of sewage.	Fully complied
<i>Wastes oil from Plant (scrap metal, waste, lube oils, spill oil etc)</i>	Potential soil and groundwater contamination	▪ Secure on-site storage, waste sell to the DOE authorized vendor for discharge in a safe place.	▪ Used lube oil is being sold to DOE designated vendor.	Fully complied

C. Environmental monitoring

I. Technical approach of environmental monitoring

According to the EMP of ADB approved IEE, EPVCL has to comply with the monitoring requirement during operation as is mentioned in Table 3.3.

Table 3.3: Monitoring parameters and frequency of monitoring

Ambient Air Quality Monitoring		
Monitoring station	frequency	parameter
At Project site, residential /institutional /commercial areas within 500m outside from plant boundary	Quarterly (routine) analysis	SPM, SOx, NOx
Ground Water Monitoring		
Monitoring station	frequency	parameter
Project site at Kolagaon	Bi-annual basis in every year	pH, Temperature, DO, BOD, COD, TDS, Oil and grease
Noise Level Monitoring		
Monitoring station	frequency	parameter
At four corners of Project boundary	Quarterly	Limits in dBA

Table 3.4: Air quality at project site

Parameter	Test result ($\mu\text{g}/\text{m}^3$)		DOE Standard ($\mu\text{g}/\text{m}^3$)
	13 September 2016	9 September 2017	
Sulfur dioxide (SO ₂)	6.2	6.5	365 (Annual Average)
Nitrogen dioxide (NO ₂)	9.4	10.0	100 (Annual Average)
SPM	171	186	200 (8 hour average)

Source: EPVCL

Table 3.5: Ground Water quality at project site

Parameter	Test Result		DOE Standard
	13 September 2016	9 September 2017	
PH	6.5	7.25	6-9
Temperature	25 °C	27 °C	20-30 °C
DO	5.53 mg/l	55 mg/l	6 mg/l
BOD5	0.05 mg/l	0.03 mg/l	0.2 mg/l
COD	0.54 mg/l	0.55 mg/l	4 mg/l
TDS	151 mg/l	335 mg/l	1000mg/l

Source: EPVCL

Table 3.6: Noise level at project site

Measuring station no.	Location of measuring point	Noise level in dBA			
		Day time (6 am-9 pm)		Night (9 pm to 6 am)	
		13 September 2016	9 September 2017	13 September 2016	9 September 2017
Station 1	Outside of the project site boundary wall (central point on eastern side)	55	55	60	61
Station 2	On the plant jetty side (western side)	50	55	55	60
Station 3	In front of the existing small house outside the project site main gate (eastern side)	53	56	60	66
Station 4	On south corner of project site (behind transformer yard)	55	57	60	63
DOE standard for industrial zone		75		70	

Source: EPVCL

II. Result of environmental monitoring

The monitoring result of air, water and water has been found to comply with DOE standard.

III. Disclosure of environmental monitoring

As disclosure of environmental monitoring, EPVCL has kept relevant monitoring reports available at plant.

IV. Monitoring adjustment measure

As the monitoring result air, water and noise quality was within the acceptable limit, the requirement of monitoring adjustment was not determined.

3.3 COMPLIANCE WITH SAFEGUARDS POLICY STATEMENT, 2009 OF ADB

It is already said that the EPVCL project has to comply with the requirement of SPS, 2009 of ADB. Accordingly, the compliance of this project in regard of major EHS related requirement are mentioned in Table 3.7.

Table 3.8: Compliance with important EHS aspects

ADB Requirements	Issue and Description of Observation	Status of compliance
<i>Environment Assessment requirements for various financing modalities</i>	Initially EPVCL has conducted the detail environmental assessment by BCAS. In operation phase, they have been found to implement the EMP (as has been mentioned in the impact assessment) to a satisfactory level.	Fully complied
<i>Occupational and Community Health and safety</i>	While visit, satisfactory application of PPE and significant awareness on occupational health safety has been observed.	Fully complied
<i>Biodiversity conservation and Sustainable natural resource Management</i>	Due attention has been observed to prevent any adverse effect by the project to the biodiversity and natural resource	Fully complied
<i>Pollution prevention and abatement</i>	EPVCL has been found to monitor the air, water and noise quality regularly to ensure that the pollution level remains within the acceptable limit.	Fully complied
<i>Physical Cultural resources</i>	Due to the unavailability of physical cultural resources within the range of close distance, the issue of adversely affecting the physical cultural property seems not to be relevant with the project.	Fully complied

4.0 IMPLEMENTATION OF SOCIAL SAFEGUARDS

4.1 IMPACT ON RESETTLEMENT OF THE PROJECT AFFECTED PEOPLE AND LIVELIHOOD

As the project site is a purchased land of ECPVCL from private land-owners through *willing seller-willing buyer* arrangement, there is no issue of resettlement. In addition, as the project site was of a low lying land with dominating water logging trend, there was no significant economic activity. So, the project is not associated with adversely affecting the livelihood of any local household.

4.2 INSTITUTIONAL ARRANGEMENT ON SOCIAL SAFEGUARD

Institutional arrangement

As like as environmental safeguard, Mr. Akram Hossain is also in charge of social safeguard.

Grievance Redress Mechanism

The project site is a purchased land having no involuntary resettlement issue. In addition, there is no habitat of indigenous community in the project area. According to the local community members, during construction phase, EPVCL focused on deploying workers coming from local community and they were satisfactorily paid. In addition, ECPVCL supported the local community in various social infrastructures like widening of existing roads, renovation of mosque etc. So, no grievance was flagged.

For ensuring proper redressal of grievances, EPVCL has introduced Grievance Box and Grievance Log Book. While reviewing the Grievance Log Book and consultation with local people, no significant grievance has been observed.

4.3 IMPACT ON INDIGENOUS PEOPLE

Based on the primary observation during site visit and secondary sources including Chittagong City Corporation and Chittagong Development Authority, no habitat of any indigenous community has been reported at Kolagaon. So, the project has been categorized as **C** for Indigenous Peoples (IP) safeguards concluding that there is no issue about adversely affecting IP neither in construction phase nor in operation phase.

EPVCL has conveyed that they are gender and caste neutral. So, any qualified person coming from the indigenous community will be equally treated during the recruitment process, and will be given the same benefits as like as other personnel.

4.4 CHILD LABOUR

The Bangladesh Labour Act 2006 (Act XLII of 2006) also defines the “child” and the “adolescent” on the basis of age. As per section 2(8) of the Act, a person who has attained

the age of 14 but below the age of 18 is considered to be an „adolescent“ and as per section 2(63), a person not attaining the age of 14 is defined as a “child”.

According to The National Child Labour Elimination Policy 2010, following rights are to be complied with, in regard of addressing child labour Issue

- Employing children according to the age determined by the Acts and not to employ children below 14 years as a regular employee;
- Ensuring the children at domestic work not to perform any hazardous work and providing them with proper food and accommodation, education, recreation since they work full time; and
- Refraining child workers from physical, mental, sexual persecution and abuse.

EPVCL has been found to be careful about the child labour issue. So, neither in construction phase nor in operation phase, no child has been found to be engaged in the project activities.

4.5 PUBLIC CONSULTATION AND DISCLOSURE OF INFORMATION

i. Consultation

As part of environmental and social compliance audit, IDCOL official consulted with some local respondents comprising of various age group and professions. The list of respondents and photograph of consultation have been provided in Annex 16 and 17 respectively.

ii. Major findings

The major findings of public consultation is summarized in Box 4.1. It is almost the similar as it was in previous consultation session.

Box 4.1: Summary of major findings

- The land price has increased;
- There is employment opportunity for the local people;
- EPVCL has provided drinking water facility through connection with its deep tubewell;
- The quality of road has been improved;
- EPVCL has made financial contribution in social infrastructure like mosque;
- EPVCL has made significant initiative to control the noise limit within the acceptable standard;

iii. Response from EPVCL

While consultation, EPVCL responded that they are also aware about the temporary water logging issue near the boundary wall and they will try to improve the local drainage system.

iv. Disclosure

EPVCL has to adopt structured approach to disclose the grievance redress aspects, results of environmental monitoring and any other issue.

4.6 ENHANCEMENT

As a part of social support, EPVCL provides drinking water to adjacent neighborhoods. In addition, they also contribute in various social institutions.

5.0 CORRECTIVE ACTION PLAN

EPVCL has been found to satisfactory comply required environmental and social safeguards at a satisfactory level. Hence no gap has been identified which might require subsequent corrective action plan.

6.0 CONCLUSION

Based on the findings of environmental and social compliance audit, it can be concluded that EPVCL is satisfactorily responsive in regard of complying with environmental and social safeguards. And there is no requirement of corrective action plan.

Annex 1: Environmental Clearance Certificate issued by the DOE

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার পরিবেশ অধিদপ্তর চট্টগ্রাম জেলা কার্যালয় জাকির হোসাইন রোড, তুলশী, চট্টগ্রাম ৪২০২ www.doe.gov.bd		শেখ হাসিনার নির্দেশ অলপায়ু সহিত বাংলাদেশ।
[বাংলাদেশ পরিবেশ সংরক্ষণ আইন ১৯৯৫ এর (১২) ধারা ও পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭ এর বিধি (৭) অনুসারে ছাড়পত্র]		
স্মারক নম্বরঃ ২২.০২.১৫০০.২০৭.৭.২০৩.১৭ - ২৭৬	তারিখঃ ০৮/৩/১৪২৪ বঙ্গাব্দ ২৪/৩/২০১৭ খ্রিষ্টাব্দ	
বিষয়ঃ ই সি পি ভি চিটাগাং লিঃ (১০৮ মেঃ ওঃ পাওয়ার প্রাউ) নামক প্রতিষ্ঠানের পরিবেশগত ছাড়পত্র নবায়ন (শ্রেণীঃ "গাং")।		
আবেদনকারী প্রতিষ্ঠান ই সি পি ভি চিটাগাং লিঃ (১০৮ মেঃ ওঃ পাওয়ার প্রাউ) (সাং কোলগাও, শিকলবাহা, পটিয়া, চট্টগ্রামে অবস্থিত) এর ০৫/০৯/২০১৭ তারিখের নবায়নের আবেদনসহ (অনলাইন আবেদন নংঃ ৪৩০১৫) আনুষ্ঠানিক কাগজপত্র পর্যালোচনার প্রতিষ্ঠানটির অনুকূলে এ দপ্তরের ০৩/০৯/২০১৮ তারিখের পত্র/চবি/ছাড়পত্র-১৮৫১৯/২০১২/৩২৮ সংখ্যক স্মারকে জারিকৃত পরিবেশগত ছাড়পত্র নবায়নযোগ্য বিবেচিত হয়। অতঃপর প্রতিষ্ঠানটির অনুকূলে ০৩/০৯/২০১৮ তারিখ জারিকৃত ছাড়পত্রের সকল শর্ত বহাল রেখে পরিচালক, পরিবেশ অধিদপ্তর, চট্টগ্রাম অঞ্চল কার্যালয়ের অনুমোদনক্রমে নিম্নবর্ণিত শর্ত সাপেক্ষে ০৪/০৪/২০১৮ পর্যন্ত পরিবেশগত ছাড়পত্র নবায়ন করা হলো।		
শর্তাবলীঃ - এ ছাড়পত্র ১০৮ মেগাওয়াট বিদ্যুৎ উৎপাদনের জন্য প্রযোজ্য হবে। - প্রাক্টে ব্যবহৃত পানি সেটলিং করার পর যথাযথভাবে পরিবেশে অপসারণ করতে হবে। - oil-Water Saperator সার্বক্ষণিক চালু রাখতে হবে এবং ও oil-Water Saperator হতে নির্গত তরল বর্জ্যের নমুনা বিশ্লেষণের ফলাফল প্রতি ০৩ মাস অন্তর এ দপ্তরে দাখিল করতে হবে। - প্রতি ০৩ মাস অন্তর কারখানার Down wind Direction এবং যে সব জায়গায় Ground Level Concentration সবচেয়ে বেশী অনুমিত হয় সে সব জায়গায় পরিবেষ্টক বায়ুর গুণগতমান (SPM, SO_x, NO_x & CO) পরীক্ষণ ফলাফল এ দপ্তরে দাখিল করতে হবে। - কারখানার শব্দ এবং তরল/বায়বীয় বর্জ্যের নিয়ন্ত্রণ/নির্গমন মাত্রা যথাক্রমে শব্দ দূষণ (নিয়ন্ত্রণ) বিধিমালা, ২০০৬ এবং পরিবেশ সংরক্ষণ বিধিমালা, ১৯৯৭-এ বর্ণিত মানমাত্রার মধ্যে হতে হবে। - Spent Lubricating Oil এবং Oil Filter পরিবেশ অধিদপ্তরের ছাড়পত্র গ্রহণকারী প্রতিষ্ঠান ব্যতিরেকে অন্য কোন Vendor এর কাছে বিক্রয় করা যাবে না। - প্রতিষ্ঠানের কার্যক্রম দ্বারা জনস্বার্থের ক্ষতি হলে তৎক্ষণাত ক্ষতিপূরণ দিতে হবে। দূষণ নিয়ন্ত্রণ ব্যবস্থা কার্যকর না থাকলে এবং এর ফলে পরিবেশ ও প্রতিবেশের ক্ষতি হলে Polluters Pay Principle অনুসারে ক্ষতিপূরণ দায়ী করা হবে এবং নির্ধারিত সময়ের মধ্যে ক্ষতিপূরণ দিতে হবে। - মেয়াদ শেষ হওয়ার অন্তত ৩০(ত্রিশ) দিন পূর্বে নবায়নের জন্য আবেদন করতে হবে। - পরিবেশগত ছাড়পত্রের মূলকপি প্রতিষ্ঠানে সংরক্ষণ করতে হবে। পরিবেশ অধিদপ্তরের এনফোর্সমেন্ট টিম, পরিদর্শক ও পরিদর্শনের ক্ষমতাপ্রাপ্ত অন্যান্য কর্মকর্তাগণ প্রতিষ্ঠান পরিদর্শনকালে ছাড়পত্র/নবায়নপত্র প্রদর্শন এবং প্রতিষ্ঠানের কার্যক্রম পরিদর্শনে সহযোগিতা করতে হবে।		
ব্যবস্থাপনা পরিচালক ই সি পি ভি চিটাগাং লিঃ (১০৮ মেঃ ওঃ পাওয়ার প্রাউ) সাং কোলগাও, শিকলবাহা, পটিয়া, চট্টগ্রাম।	শেখ মোঃ নাজমুল হুদা উপপরিচালক ফোনঃ ০৩১-৬৫৯০২১ / ১৪২৪ বঙ্গাব্দ তারিখঃ / ২০১৭ খ্রিষ্টাব্দ	
স্মারক নম্বরঃ ২২.০২.১৫০০.২০৭.৭.২০৩.১৭		
অনুলিপিঃ সদয় অবগতির জন্য- ১। পরিচালক, পরিবেশ অধিদপ্তর, চট্টগ্রাম অঞ্চল কার্যালয়, চট্টগ্রাম। ২। অফিস কপি।		
শেখ মোঃ নাজমুল হুদা উপপরিচালক ফোনঃ ০৩১-৬৫৯০২১		

Annex 2: Location of the project site

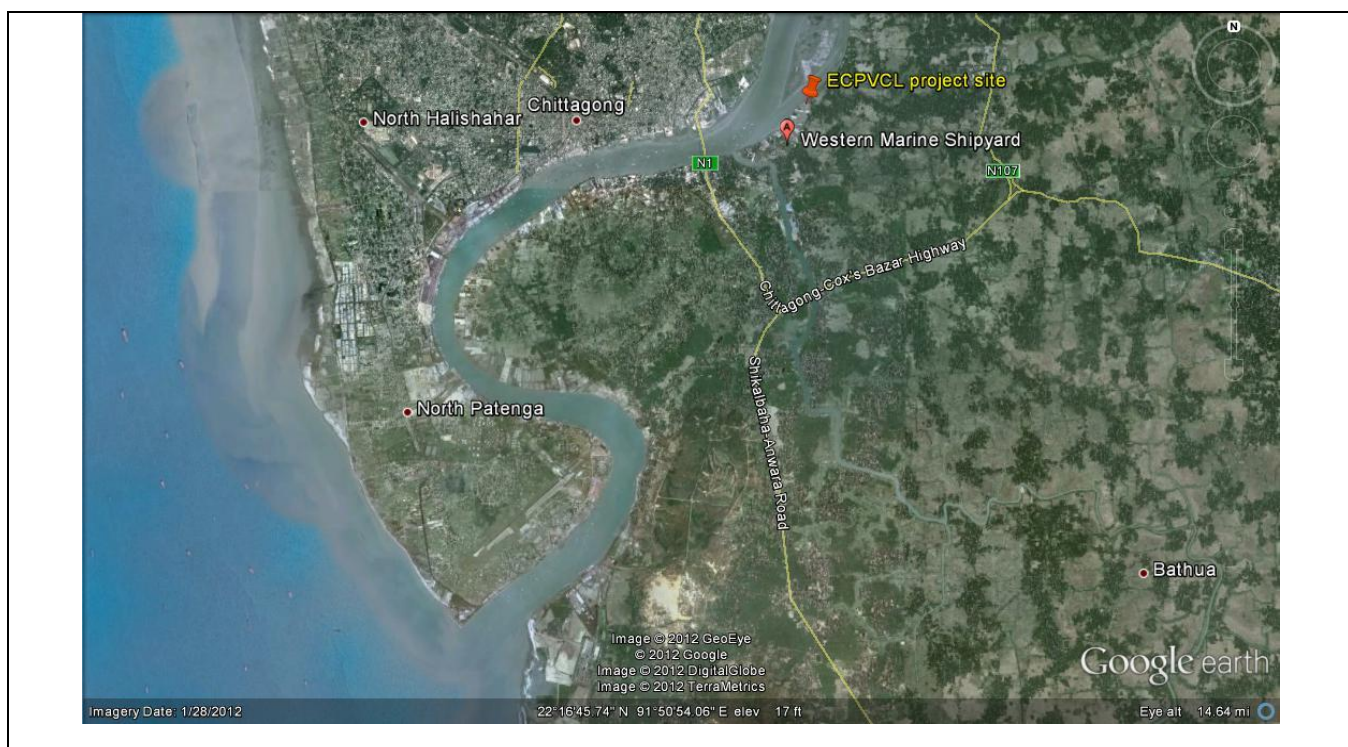


Figure : Satellite image of ECPVCL Project site in respect of Chittagong City

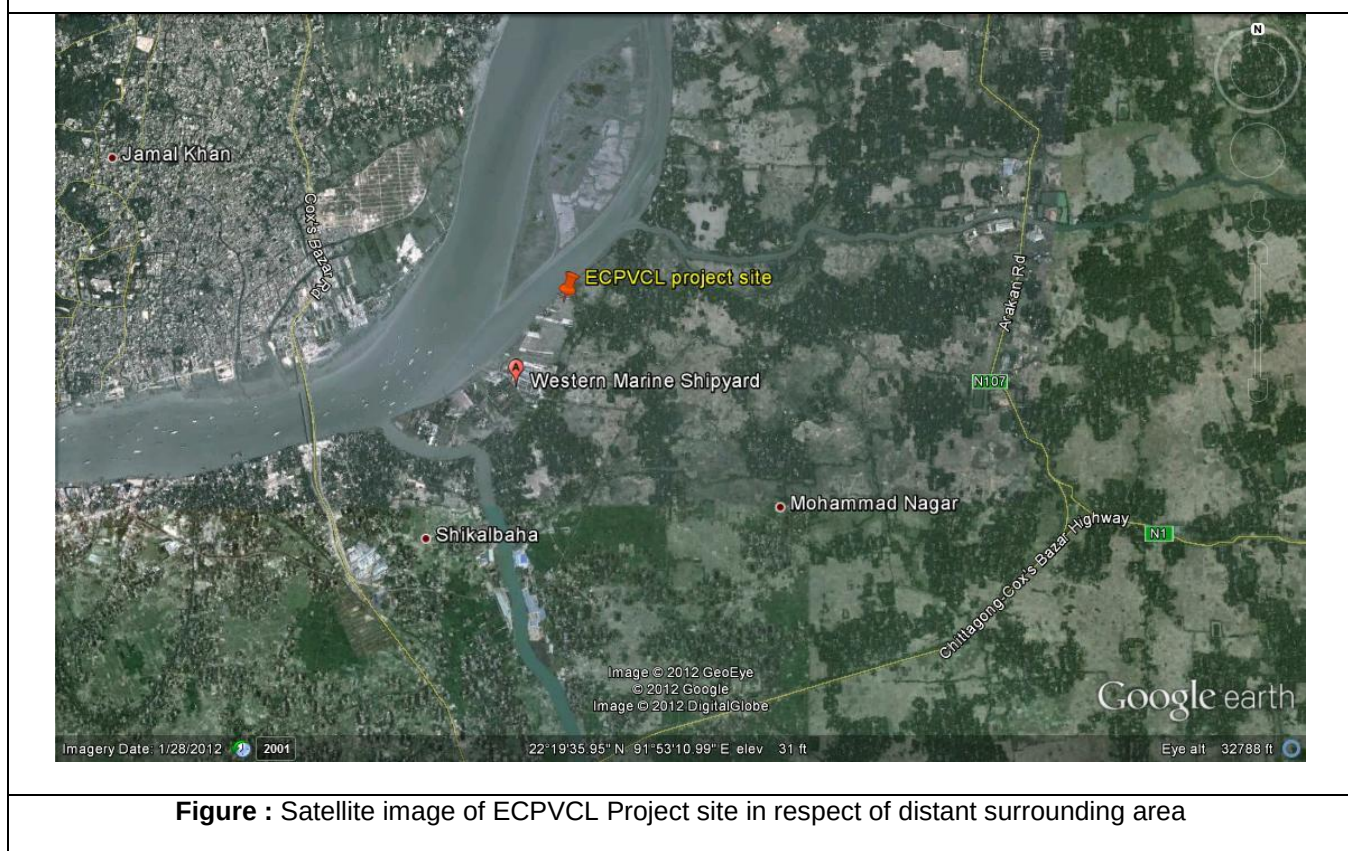


Figure : Satellite image of ECPVCL Project site in respect of distant surrounding area

Annex 3: Project risk screening checklist of ESSF, IDCOL

Sl. no	Env. and scl. risks rating criteria	Response		Remarks
		Yes	No	
01	For new projects, does the project have any pending compliance such as Location and Environmental Clearance based on its category (Red, Orange-A, Orange-B and Green), from the DOE?			
02	Is the project located in the immediate vicinity (likely to adverse impact) of environmentally critical areas (national wetlands, wildlife habitats, important bird areas, and protected areas)			
03	Does the project construction and/or operation lead to environmental impacts that are diverse, irreversible and/or unprecedented in nature?			
04	Does the project require involuntary resettlement that results in loss of land or livelihoods or physically displaces more than 200 persons?			
05	Is the project site on or in immediate vicinity of socially vulnerable or Indigenous People (IP) owned or occupied land and has the potential to cause an adverse impact on their culture and identity?			
06	Is the project vulnerable to climate change related impacts?			
07	Does the Borrower have a documented Policy on E&S Performance?			
08	Does the Borrower have dedicated human resources to address E&S performance?			
09	Has the Borrower established and implemented Environmental, Health & Safety Management Systems and Social Accountability Systems for the Project SPV or in the parent company?			

Annex 4: PPE arrangement



Photograph: Arrangement of PPE

Annex 5: Landscaping



Photograph: Roof garden



Photograph: Garden near generator



Photograph: Green view at entrance

Annex 6: Safety measures around fuel storage tanks



Photograph: Safety bund around fuel storage tanks

Annex 7: Fuel treatment process



Annex 8: Stack



Annex 9: Fire-fighting arrangement with fire drill



Annex 10: Current status of project



Photograph: External view of the plant (partial view and transformer)



Photograph: Internal view of the Plant (production record and gen sets)

Annex 11: Waste management



Photograph: Application of different types of dustbin

Annex 12: House keeping



Photograph: External housekeeping



Photographs: Internal housekeeping

Annex 13: Boundary wall



Photograph: Brick wall around village side



Photograph: Fencing wall at river side

Annex 14: River bank protection



Photograph: River bank protection

Annex 15: Safety signage

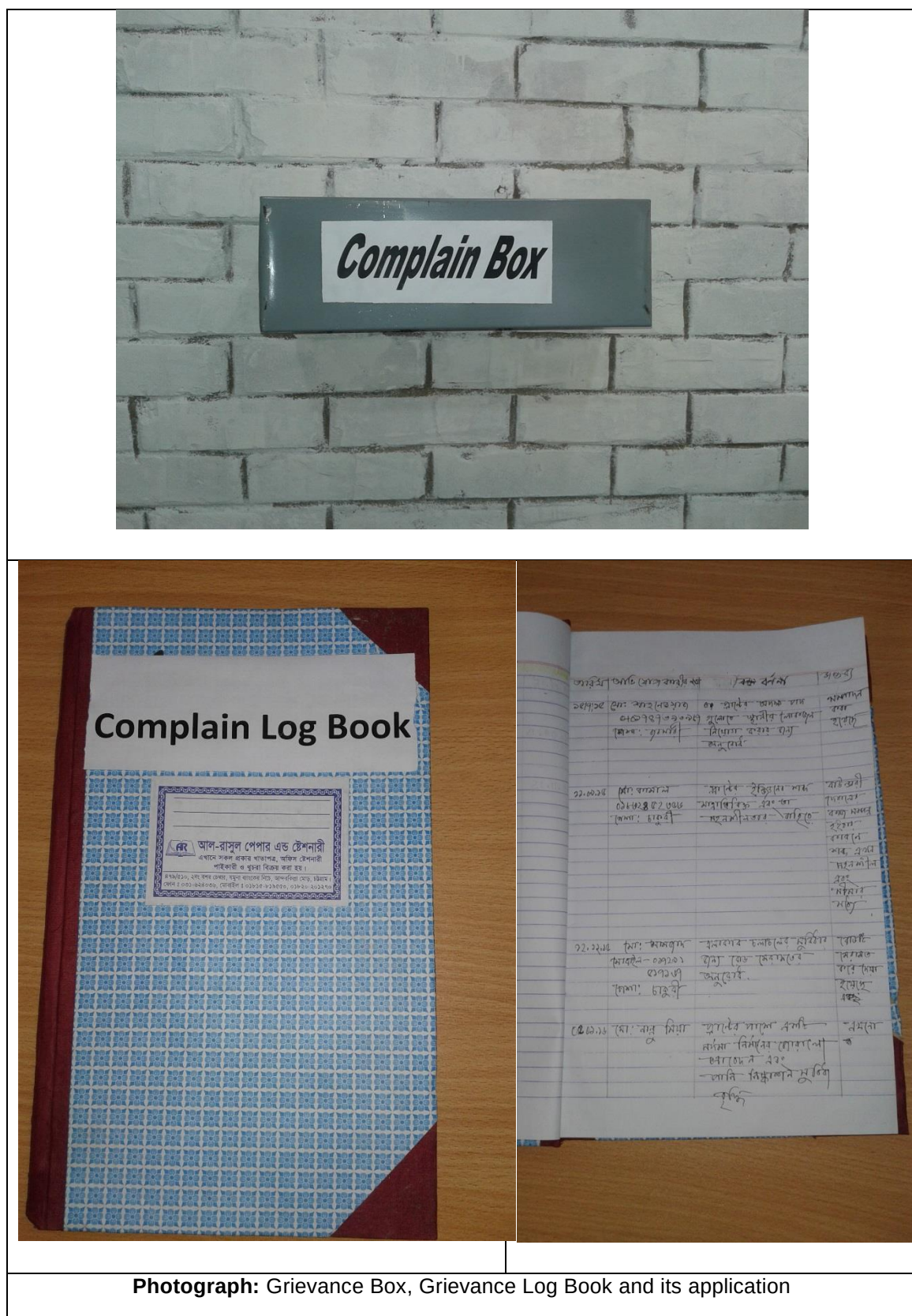


Photograph: Safety signage both in Bengali and English

Annex 17: List of participants in public consultation

Name	Father's name	Location
Mr. Rashid Ahmed	Late Moqbul ahmed	Kolagaon
Mr. Syed Ahmed	Late Nurul Haque	Kolagaon
Mr. Abdul Malek	Late Md. Ali	Kolagaon
Mr. Shofiul Kayes	Late Shiry Ahmed	Kolagaon

Annex 18: Grievance Redress Mechanism



Photograph: Grievance Box, Grievance Log Book and its application