# 2nd Operation Phase E&S Monitoring Report - 584 MW Gas Fired Combined Cycle Power Project in Sonargaon, Narayanganj, Bangladesh – Apr-Jun 2024

PREPARED FOR

SFL Unique Nebras
Meghnaghat Power PLC.

SFL SFL Unique Nebras Meghnaghat Power Limited

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Final Report
0575406

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## ACRONYMS AND ABBREVIATIONS

| Acronyms | Description |
|---|---|
| AAQ | Ambient Air Quality |
| AI | Aspect Impact |
| AIIB | Asian Infrastructure Investment Bank |
| AoI | Area of Influence |
| ARIPA | Acquisition and Requisition of Immovable Property Act |
| BCPA | Bangladesh Crop Protection Association |
| BECR | Bangladesh Environmental Conservation Rules |
| BFSCD | Bangladesh Fire Service & Civil Defense |
| BIWTA | Bangladesh Inland Water Transport Authority |
| BLA | Bangladesh Labour Act |
| BLR | Bangladesh Labour Rules |
| BOD | Biochemical Oxygen Demand |
| BPDB | Bangladesh Power Development Board |
| BWA | Bangladesh Water Act |
| BWR | Bangladesh Water Rule |
| CAAB | Civil Aviation Authority of Bangladesh |
| CAR | Corrective Action Request |
| CCGT | Combined Cycle gas Turbine |
| CCPP | Combined Cycle Power Plant |

| Acronyms | Description |
|---|---|
| CEMS | Continuous Emission Monitoring System |
| CIA | Cumulative Impact Assessment |
| CL | Casual Leave |
| CMB | Common Monitoring Basin |
| CO2 | Carbon di oxide |
| CoC | Cycle of Concentration |
| COD | Commercial Operation Date |
| COVID | Corona Virus Disease |
| CSR | Corporate Social Responsibility |
| CW | Cooling Water |
| DEG | Deutsche Entwicklungs- und Investitionsgesellschaft |
| DG | Diesel Generator |
| DIFE | Department of Inspection for Factories and Establishments |
| DoE | Department of Environment |
| DWP | Demineralized Water Plant |
| E&S | Environment & Social |
| ECA | Environmental Conservation Act |
| ECA | Ecologically Critical Area |
| ECC | Environmental Clearance Certificate |
| EHS | Environment, Health and Safety |
| EIA | Environmental Impact Assessment |
| EL | Earned Leave |
| EMF | Electric and magnetic Field |
| EMP | Environmental Management Plan |
| EPC | Engineering, Procurement and Construction |
| ERM | Environmental Resources Management |
| ESDD | Environmental and Social Due Diligence |
| ESIA | Environmental and Social Impact Assessment |
| ESMP | Environmental and Social Management Plan |
| ESMS | Environment and Social Management System |
| ETP | Effluent Treatment Plant |
| FGD | Flue gas Desulphurization |

| Acronyms | Description |
|---|---|
| FGL | Finished Grade Level |
| FNTP | Full Notice to Proceed |
| GBV | Gender Based Violence |
| GE | General Electric |
| GHG | Green House Gas |
| GIIP | Good International Industry Practice |
| GIS | Gas Insulated Switchyard |
| GLC | Ground Level Concentration |
| GoB | Government of Bangladesh |
| GRM | Grievance Response Mechanism |
| GSA | Gas Supply Agreement |
| GT | Gas Turbine |
| GW | Ground Water |
| $H_2S$ | Hydrogen Sulphide |
| HAZOP | Hazard and Operability |
| HDD | Horizontal Directional Drilling |
| HFL | High Flood Level |
| HIRA | Hazard identification and Risk Register |
| HP Steam | High pressure Steam |
| HR | Human Resource |
| HRSG | Heat Recovery Steam Generator |
| HSD | High Speed Diesel |
| IDCT | Induced draft-cooling tower |
| IEC | Installation, Erection and Commissioning |
| IEE | Initial Environmental Examination |
| IFC | International Finance Corporation |
| ILO | International Labour organization |
| Km/Hr | Kilometer/Hour |
| KPI | Key Performance Indicator |
| kV | kilovolt |
| LESA | Lenders' Environmental and Social Advisor |
| LGED | Local Government Engineering Department |

| Acronyms | Description |
|---|---|
| LoI | Letter of Intent |
| LOTO | Lock Out Tag Out |
| LP Steam | Low Pressure Steam |
| LPG | Liquefied petroleum Gas |
| LRP | Livelihood Restoration Plan |
| MPEMR | Ministry of Power, Energy and Mineral Resources |
| MPR | Monthly Progress Report |
| MSDS | Material Safety Data Sheet |
| MW | Megawatt |
| NAAQS | National Ambient Air Quality Standards |
| NEPC | Northeast No.1 Electric Power Construction Co Ltd |
| NFPA | National Fire Protection Association |
| NG | Natural Gas |
| NOC | No Objection Certificate |
| NOx | Nitrogen Oxides |
| OCC | Optimized for Cycling and Constructability |
| OPEC | OPEC Fund for International Development |
| P&ID | Piping and Instrumentation Diagram |
| PAH | Poly Aromatic Hydrocarbons |
| PAP | Project Affected Person |
| PCB | Poly Chlorinated Biphenyls |
| PEL | Permissible Exposure Limit |
| PGCB | Power Grid Company of Bangladesh |
| PLF | Plant Load Factor |
| PPA | Power Purchase Agreement |
| PPE | Personal Protective Equipment |
| PS | Performance Standard |
| PUC | Pollution Under Control |
| PVC | Poly Vinyl Chloride |
| PWD | Public Works Department |
| RAP | Rehabilitation Action Plan |
| RCC | Reinforced Cement Concrete |

| Acronyms | Description |
|---|---|
| RMS | Regulatory Metering Station |
| RoW | Right of Way |
| SCB | Standard Chartered Bank |
| SE | Socio Economic |
| SEAH | Sexual Exploitation, Abuse and Harassment |
| SEP | Stakeholder Engagement Plan |
| SFL | Strategic Finance limited |
| $SO_2$ | Oxides of Sulphur |
| SPM | Suspended Particulate Matter |
| ST | Steam Turbine |
| SUNMP | SFL Unique Nebras Meghnaghat Power PLC |
| STP | Sewage Treatment Plant |
| SWAS | Steam and Water Analysis System |
| TDS | Total Dissolved Solids |
| TGTDCL | Titas Gas Transmission and Distribution Company Ltd |
| TL | Transmission Line |
| TSS | Total Suspended Solids |
| UHRL | Unique Hotel and Resorts Limited |
| USP | Unsolicited Proposal |
| WARPO | Water Resources & Planning Organisation |
| WHO | World Health Organization |
| WMP | Waste Management Plan |
| WTP | Water Treatment Plant |

# EXECUTIVE SUMMARY

ERM India Pvt. Ltd. (ERM) was commissioned by Deutsche Entwicklungs- und Investitionsgesellschaft ("DEG"), Asian Development Bank (ADB) and Asian Infrastructure Investment Bank (AIIB) (hereinafter collectively referred to as "Lenders") to conduct an independent Environmental and Social Due Diligence (ESDD) for proposed 584 MW gas fired combined power cycle project located in Sonargaon, Narayanganj, Bangladesh ("Project"). A consortium led by Strategic Finance Limited named "SFL Unique Nebras Meghnaghat Power PLC" ("SUNMP"), is developing this project. It is understood that Lenders are evaluating opportunity of equity investment in the project and have appointed ERM as Lenders' E&S Advisor (LESA) to support their due diligence prior to financial close as well as for periodic monitoring during the investment period.

As part of this engagement, ERM has so far conducted initial ESDD in January 2021 followed by five periodic E&S compliance monitoring of the project during construction phase and two periodic E&S compliance monitoring of the project during operation phase. This report present findings/observations of the 2nd operation phase EHSS compliance monitoring audit.

*Note: Given the current unrest situation in Bangladesh which has led to a nationwide protests and curfew leading to travel/network disruption including restricted movement, the 2nd E&S operations monitoring report of the project has been prepared based on desktop review/assessment of limited information made available for the period Apr-Jun 2024 by the Sponsor.*

## CURRENT PROJECT STATUS

The Engineering, Procurement and Construction (EPC) Contract is awarded to M/S General Electric Global Services (GmbH) whereas M/S Tractebel Engineering Pvt. Ltd. has been identified as the owner's engineer. The EPC Contractor has made consortium with NEPC and have commenced site construction activities, with NEPC-S working as the O&M contractor post declaration of COD. Review of the Monthly Progress Report (MPR) shared by SUNMP for June 2024 indicated the following operational progress status as stated below:

- The commercial availability for the month of March is 87.58% indicating an Equivalent Force Outage Factor (EFOF) of 12.42%.
- The plant load factor for June was 13.58%, far below the 60% target.
- The net export energy for June was 57.11 GWh, achieving 22.64 % of the target. The decrease in generation was due to fuel gas supply, trip incidents and lower demand from NLDC. Additionally, during the outage period plant imported 1.55 GWh of electrical energy from the national grid.
- No power generation in this month due to lower demand and a shortage of gas supply, resulting in lower-than-forecasted utilization of the unit.
- The total consumption was 404409.919 MSCF, representing a decrease of 76.6% from the targeted amount for the month since the plant was operated at a lower load factor due to a shortage of gas supply.

- For June 2024, no Lost Time Incidents (LTIs), near miss and/or first aid incidents were recorded, thus resulting in a cumulative total of 163 days without any LTIs since the inception of COD.

## ENVIRONMENT LINKED OBSERVATIONS

**Wastewater recycling:** Review of the site clearance conditions requires SUNMP to develop and implement a plan to facilitate 100% wastewater recycling during operations. However, discussion with EPC consortium reveals that as per the design both Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP) to be installed and operated will be having two separate outfalls with no provision for wastewater recycling. As verified during the current visit, SUNMP has applied for exemption of 100% water recycling requirement as mentioned in the condition no.5 of EIA report vide letter no. UMPL777 -DOE-L-2001 dated 25 March 2024 from DoE. In the letter SUNMP has committed to achieve 75% water recycling for that a plan/framework has been outlined in Wastewater Management procedure towards achieving 75% treated wastewater recycling by December 2028 through installation of two stage Reverse Osmosis (RO) Plant. However, the plan is not found to be comprehensive as it does not outline the volume of water to be generated, capacity of the RO plant etc.

**BERC Registration for Gas Supply Pipeline:** With COD declared in January 2024, SUNMP has written to TGDCL vide letter dated 3 Dec 2023 seeking sharing of the BERC license for gas supply pipeline. However, copy of the same is yet to be shared for review and validation.

**E&S Management Plans:** The site has developed following plans/procedures for operation phase as per the ESMP requirements: Air Quality Management, Wastewater Management, Waste Management, Occupational Health & Safety, Environment Monitoring Plan and Incident Investigation. The above-mentioned procedures are effective from 1 January 2024. The site needs to update the management plans according to the gaps identified as part of the E&S Monitoring Report.

**Noise Barrier wall:** The site has prepared a Noise Prevention and Control Plan for operations with noise barrier wall (~3m height) reportedly to be constructed on top of the project boundary wall for which the budget has already been approved by SUNMP Board of Directors. As informed by SUNMP EHS team during current monitoring, the construction of 3m boundary wall has been complete and post completion of the wall construction, noise barrier installation is expected to commence sometime in Aug 2024. Noise barrier material has been shipped from manufacturing country as per status update.

**Environmental Monitoring:** As per monitoring report dated February 2024, treated effluent from ETP has not been monitored as per compliance with the inland surface water discharge standards specified in Schedule 4 of the BECR, 2023. Reportedly the site has installed a Continuous Emission Monitoring System (CEMS) for both main and bypass stack. Review of the online real time values indicate negative values for NOx (-3.56 mg/m3) with PM values also noted for both main stack (6.55 mg/m3) and bypass stack (24.15 mg/m3). Considering natural gas is being used as a fuel, the reason for such high PM concentration in flue gas could not be validated and is ascertained largely due to calibration issues with CEMS, which is reported to be pending.

**Green House Gas (GHG) Emissions:** With project COD declared in Jan 2024, SUNMP is yet to undertake annual quantification of GHG emissions during operations in accordance with internationally recognized methodologies and good practices viz IPCC guidelines for National

GHG inventories. However, the site has started calculating GHG emission internally which does not ensure adherence to proper scope, methodology following IPCC guidelines.

## HEALTH & SAFETY LINKED KEY OBSERVATION

**Electrical Safety:** As noted, the electrical wiring and earthing of the operational units onsite were not found to be subjected to annual review and certification by government licensed Wiring Inspector or Institution as per Bangladesh Labour Rules (BLR), 2015 requirements. Multiples instances were noticed where provision of insulated mats was lacking in front of high voltage electrical panels as per regulatory requirements.

**Machine & Equipment Safety:** Inspection records of lifting tools and tackles are not maintained in prescribed format (Form 24) as specified in the Bangladesh Labour Rules (BLR), 2015.

**Workplace Safety:** As observed during the physical visit, the scaffolds set up for the construction of the boundary wall near the security room and dormitory building is not found to conform to the safety standards prescribed in BNBC, 2020. Key gaps/deviations identified - lack of scaffold tagging system, no toe boards & guard rails, planks serving as platform not secure and observed to be deteriorated, etc.

**Hazardous Chemicals:** Provision of spill kits and chemical neutralizing material was found to be lacking at the following chemical storage and handling areas viz. water purifying chemical storage room (DM Plant), bulk acid & alkali storage unit and bulk diesel storage (fire pump room) as per specific MSDS requirement. Display of hazard labels and precautionary signages also found to missing on bulk storages of diesel, $HCl$, $NaOH$ and $NaOCl$.

**Occupational Health Surveillance & Monitoring:** SUNMP has reportedly undertaken pre-employment medical examination of 72 O&M workforce with the records maintained in a health register (From 26). Sample fitness certification in Form 26(A) has also been shared for few workers. However, the pre-employment medical screening/assessment is limited to only direct workers and do not include contractual workers engaged in such dangerous operations. Furthermore, the site has also not developed and implemented an Occupational Health Surveillance Procedure to this regard.

**Life & Fire Safety:** Documentation review indicate that the site has updated the current firefighting floor plan and submitted the same to BFSCD on 03 June 2024 for total floor area of 400371 sq. ft. Based on site visit undertaken for sample buildings within the project, following key gaps/deviations have been identified:

- Nitrogen plant building, hypochlorite dosing unit building (for STP) and bulk acid and alkali storage unit not found to be covered in the updated firefighting floor plan submitted to BFSCD on 03 June 2024.
- The sprinkler system installed at the diesel storage area, were found to be lacking sprinkler heads.
- Installation of smoke and heat detection system is currently pending at the raw water pump house as per the approved fire safety plant.

Furthermore, with respect to fire safety, SUNMP is yet to engage a third-party agency for annual inspection and maintenance of the active and passive fire protection system onsite as per BNBC, 2020 norms.

## SOCIAL LINKED OBSERVATION

**Overtime and minimum wage rate compliance:** Non-conformity with rest to overtime payment rate and revised minimum wage rate for construction workers (published in August 2021), were highlighted in previous audits. SUNMP has agreed to ensure payment of differential amount of overtime hours performed and minimum wage payment to eligible workers to ensure compliance requirement. In this regard, a detailed assessment on differential amount for eligible workers is prepared.

Releasing of the differential amount is not being initiated now, in view of potential business interruption related risk that were discussed in detail during ERM's 4th E&S monitoring visit. In ERM's 5th E&S Monitoring visit (Feb 2024), it was apprised that project COD was achieved on 19th January 2024 and calculation of differential amount is completed and it has considered period till January 2024. Next steps towards payment release includes formation of back wage committee, Bank Account opening for depositing the fund for differential amount and the initiating payment to eligible construction workers. It was also apprised that payment disbursal is likely to be initiated by May/June 2024.

There has not been any further progress till July 2024 towards payment of differential amount for eligible construction workers.

**LRP Implementation:** LRP implantation tasks are being carried as planned. Key activities in terms of imparting different kinds of livelihood trainings and seed capital disbursement is completed for majority of the eligible participants and other associated engagement activities are also being carried out as per the schedule.

# 1. INTRODUCTION

## 1.1 BACKGROUND

ERM India Pvt. Ltd. (ERM) was commissioned by Deutsche Entwicklungs- und Investitionsgesellschaft ("DEG"), and Asian Infrastructure Investment Bank (AIIB) (hereinafter collectively referred to as "Lenders") to conduct an independent Environmental and Social Due Diligence (ESDD) for proposed 584 MW gas fired combined power cycle project located in Sonargaon, Narayanganj, Bangladesh (hereinafter referred to as "Project"). Unique Hotel & Resorts Limited (UHRL) is the major sponsor of the project with 51% shareholding. A consortium led by UHRL named "SFL Unique Nebras Meghnaghat Power PLC" (hereinafter referred to as "SUNMP" or "Company"), is developing this project. It is understood that Lenders are evaluating opportunity of equity investment in the project and have appointed ERM as Lenders' E&S Advisor (LESA) to support their due diligence prior to financial close as well as for periodic monitoring during the investment period.

## 1.2 OBJECTIVES

As Lenders' environmental and Social Advisor (LESA), ERM's overall role is to to support Lender's investment decision and follow-up approach by independently assessing the Company's operations and activities (existing and planned) against the Assessment Framework (see Section 1.3). ERM is required to identify gaps, describe necessary mitigation and management measures, assist the finalization of the ESIA report in accordance with the lenders' environmental and social safeguard policies and follow-up actions. This will be followed by periodic Environmental and Social (E&S) Monitoring i.e. quarterly during construction phase, quarterly for 1$^{st}$ year of operations and annually during operation for the following 2 years to verify compliance within assessment framework (Refer Section 1.4).

## 1.3 WORK SCOPE – PERIODIC E&S MONITORING

The E&S Monitoring will be undertaken during both construction and operational phases in order to verify compliance within the assessment framework stipulated, which will include verifying the following:

- adequacy of the Company's E&S monitoring report.
- adequacy of the Company and contractor staffing and expertise to properly execute and monitor the E&S aspects of the operational activities.
- implementation status of the contractually agreed Environmental and Social Action Plan (ESAP) and all related processes and documents, as well as any deviations.
- adequacy of the Environmental and Social Management System.
- the implementation status of the Environmental and Social Management & Monitoring Program (ESMP) under special consideration of CO2 emissions (considering use of gas / HFO).
- general site condition and cleanliness, and work execution.
- any known contractual problems with sub-contractors.
- any changes in the original operational plan and their impact.

- any indications for concerns with regard to the relation with local communities, former landowners (or users) or workers.
- any impacts on livelihoods.
- effectiveness and efficiency of stakeholder engagement and GRM.

## 1.4 APPLICABLE REFERENCE FRAMEWORK

The E&S Monitoring was carried out against the following the Assessment Framework

- Applicable local, national, international environmental, social (including occupational health and safety) legislation, and guidelines.
- ILO conventions covering core labour standards and the basic terms and conditions of employment.
- DEG Exclusion List.
- AIIBs ESP, ESSs and ES Exclusion List
- IFC Performance Standards (PS) 1–8, January 2012.
- World Bank Group General Environmental, Health and Safety (EHS) Guidelines, April 2007.
- World Bank Group General Environmental, Health and Safety (EHS) Guideline for Thermal Power Plants.
- World Bank Group General Environmental, Health and Safety (EHS) Guideline for Transmission Lines.
- World Bank Group General Environmental, Health and Safety (EHS) Guideline for Gas Distribution System.
- IFC`s Stakeholder Engagement Handbook.
- Good Practice Handbook on Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets; and
- Recommendation of the Council on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence.

## 1.5 ERM TEAM

A three-member ERM team had conducted the desktop review of the information shared by SUNMP for the period Apr-Jun 2024 as part of the 2nd E&S monitoring exercise undertaken for the project operation phase. The composition of the ERM team were as follows:

- **Subhradeb Pramanik (Environment, Health and Safety Specialist & Team Leader):** Subhradeb Pramanik holds a Master Degree in Environmental Science and is presently working as a Partner at ERM India in Kolkata office. He has over 16 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 14 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.
- **Debojyoti Kundu (Environment, Health and Safety Consultant):**

  Debojyoti holds a master degree in Environmental Engineering and presently working at the capacity of consultant based out of ERM's Kolkata office, India. Debojyoti has Six Years of demonstrated experience in Aluminum, Manufacturing, Textile, Pharmaceuticals and Thermal Power Industry and advisory services across industrial sectors in South Asia (India, Bangladesh). Debojyoti has strong experience in conducting EHS Assessments (Environmental Health & Safety assessments, Compliance, Management Systems.), Sustainability Reporting, Wastewater Treatment, Hazardous Waste Management, Energy Conservation, Occupational Health, and Safety.

## 1.6 APPROACH – E&S MONITORING

Given the current unrest situation in Bangladesh which has led to a nationwide protests and curfew leading to travel/network disruption including restricted movement, the 2nd E&S operations monitoring report for the project has been prepared based on desktop review/assessment of limited information made available by SUNMP in the Virtual Data Room (VDR).

The list of documents reviewed as part of the 2nd E&S monitoring exercise has been furnished under **Appendix B.**

## 1.7 LIMITATIONS & ASSUMPTIONS

While this assessment has endeavored to provide a comprehensive review against the requirements of the Applicable Standards, however, there remain certain limitations to the assessment that should be considered:

- As earlier discussed, the 2nd E&S monitoring has been prepared based on desktop review of limited documentation shared by SUNMP, as ERM team was unable to undertake any physical visit and/or consultations due to the current unrest situation in Bangladesh which impacted in-country travel and data/information sharing.
- This report is based on the desk based review of information made available to ERM till date. Note that the findings in this report are subject to change depending upon other information that may come up in future. We cannot guarantee that these activities will necessarily yield complete information.

- The independent review is a high-level assessment of environmental and social risks/issues and should not be construed as a detailed legal compliance review to the conditions stipulated by enforcement agencies in the regulatory approvals and limited to the environmental and social approvals already accorded to the Project and shared with ERM.
- 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. 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.

## 1.8 USE OF THE REPORT

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 that this report has been prepared for their 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.

ERM may grant other financial institutions involved in the financing of the Project ("Other Parties") the right to rely on Services or work product generated by or for ERM pursuant to the Contract (“Work Product”), provided that each Reliant Party is specifically identified by name, any agreed consideration is paid, and that these Other Parties deliver to ERM, a signed copy of ERM’s standard reliance letter. The reliance letter shall govern the Other Parties’ right to rely on the Work Product.

## 1.9 LAY OUT OF THE REPORT

The draft report is structured as under:

| | |
|---|---|
| Section 1 (This Section): | Introduction |
| Section 2: | Project Appreciation and Current Status of the Project |
| Section 3: | ESAP & ESMMP – Compliance Status |
| Appendix A: | Photo Documentation |
| Appendix B: | List of Documents/Information Reviewed |

# 2. PROJECT APPRECIATION & CURRENT PROJECT STATUS

## 2.1 THE PROJECT

SFL Unique Nebras Meghnaghat Power PLC (SUNMP), a Joint Venture Company constituted by the consortium consists of Nebras Power Investment Management, Unique Hotel and Resorts Limited (UHL), Strategic Finance Limited (SFL) and GE Capital Global Energy Investment BV, has been incorporated in the year 2018 for development of 600-Megawatt (MW) Gas based Combined Cycle Power Plant (CCPP) project with net output of 588.31 at Dudhghata mauza in Pirojpur union of Sonargaon upazila under Narayanganj district, Bangladesh. The consortium of UHRL, GE and SFL has been selected by Bangladesh Power Development Board (BPDB), Government of Bangladesh (GoB) through Unsolicited Proposal (USP) basis. The LoI (Letter of Intent) was issued by BPDB on 25th June 2018. GE has made a consortium with NEPC for project construction and commissioning activity. Corresponding agreements like Power Purchase Agreement (PPA) with BPDB, Gas Supply Agreement (GSA) with Titas Gas Transmission and Distribution Company Limited (TGTDCL), Implementation Agreement (IA) with Power Division, Ministry of Power, Energy and Mineral Resources (MPEMR), GoB and Power Grid Company of Bangladesh (PGCB) have also been executed. The proposed site is located in 21.07 acres of land to the South-west of the Dhaka-Chittagong Highway and right bank of branch channel of Meghna River. This project is expected to be funded by Asian Infrastructure Investment Bank (AIIB), DEG and OPEC Fund for International Development (OPEC Fund) under financial advisory of Standard Chartered Bank (SCB). Summary of the project is presented below:

TABLE 2-1 PROJECT DETAILS - SNAPSHOT

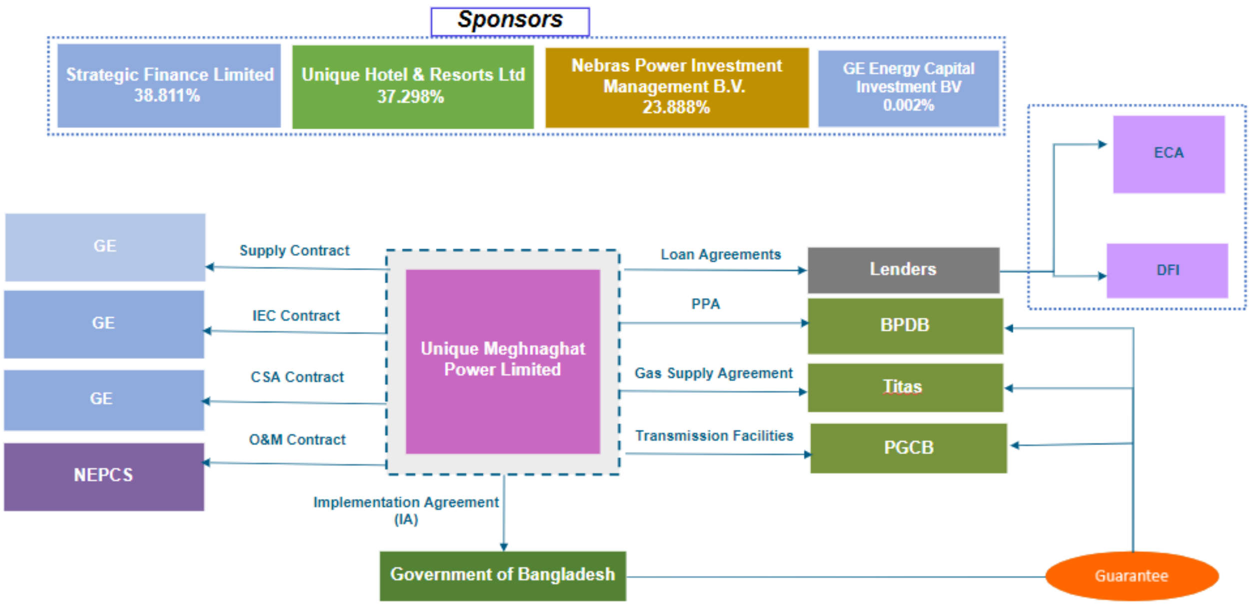
| **SUNMP 584MW Gas Fired Power Project** | |
|---|---|
| Location | Dudhghata Mouza of Pirojpur union, Sonargaon upazila, Narayanganj district, Bangladesh |
| Project owner | SFL Unique Nebras Meghnaghat Power limited (SUNMP) |
| EPC Contractor | General Electric Global Services (GmbH) |
| Area of Land proposed | 21.07 acres |
| Government Land/Private Land | Private Land from 343 landowners |
| Plant Load Factor | 84.6% with minimum availability of 90% |
| Electricity Generation | 584 MW, however EPC Contractor has guaranteed 588.31 MW |
| Unit Configuration | Power block of 600 MW with HRSG, one steam turbine and two generators |
| Fuel Type | Natural Gas (NG) |

| SUNMP 584MW Gas Fired Power Project | |
|---|---|
| Gas Supply | Titas Gas Transmission and Distribution Company Limited (TGTDCL) through 20-inch diameter subsurface pipeline across the Meghna River |
| Electricity Off-take | Grid substation of PGCB through 400 kV Single Circuit (S/C) line. |
| Grid Connection | Nearest Grid Substation of PGCB which is to be located around 800 meters from the project site across the Meghna river near Summit Meghnaghat power project |

### 2.1.1 PROJECT OWNER/COMPANY

SFL Unique Nebras Meghnaghat Power Limited (SUNMP) would be the proponent of the proposed power plant. SUNMP has been duly incorporated under the Laws of People Republic of Bangladesh in the year 2018 as a Limited company to develop, design, finance, build, own, operate and maintain the proposed power plant. SUNMP is a multi-venture company of Nebras Power Investment Management (23.88%), Unique Hotel and Resorts Limited (37.29%), Strategic Finance Limited (38.81%) and GE Capital Global Energy Investment BV (0.002%). Project is expected to be funded by AIIB, DEG and OPEC Fund for International Development (OPEC Fund) executed through EPC contractor. Project contractual structure is presented in **Figure 2.1.**

FIGURE 2-1 PROJECT CONTRACTUAL STRUCTURE




*Source: SUNMP*

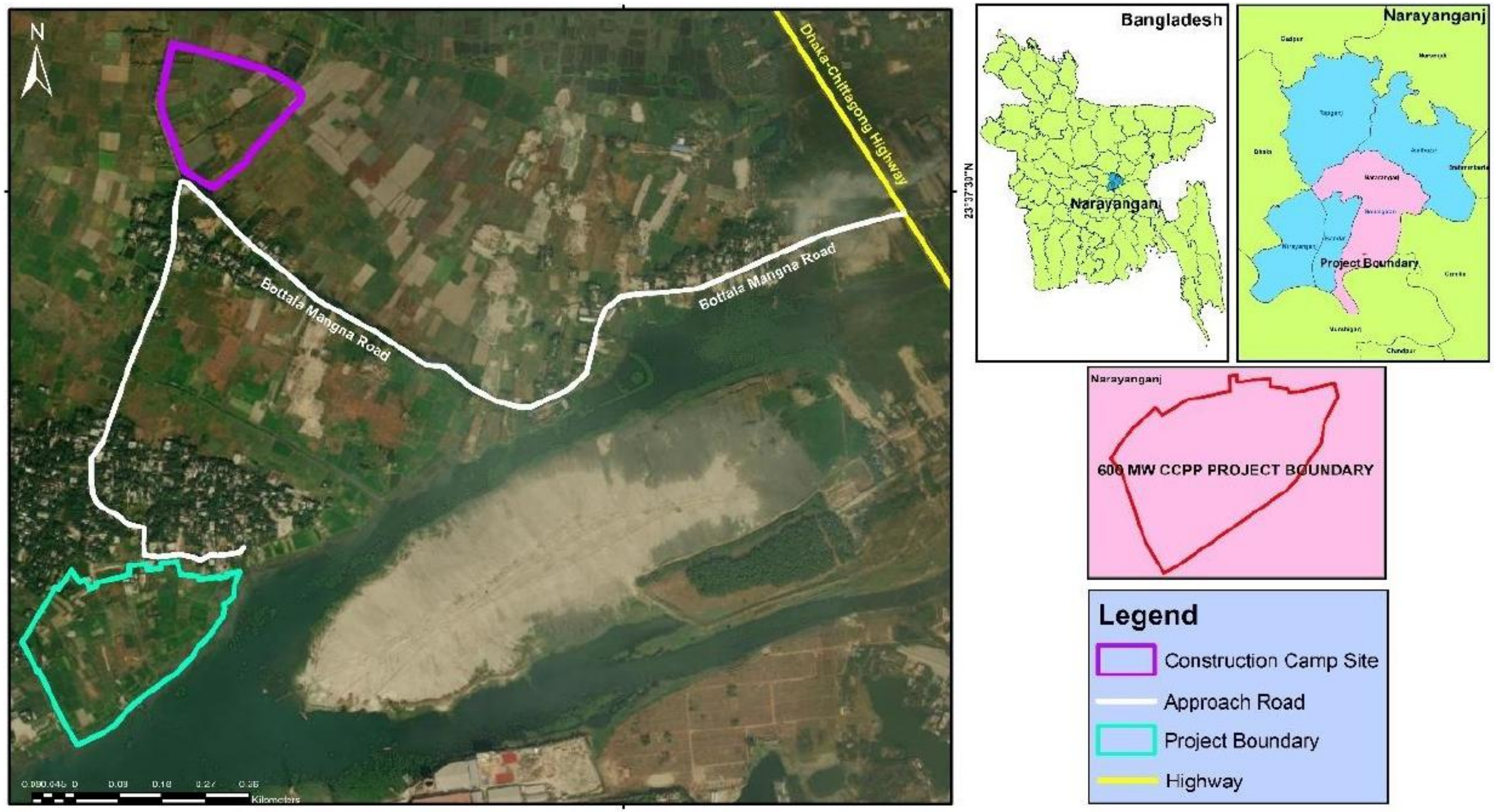
### 2.1.2 PROJECT LOCATION

The proposed project site for 584 MW gas fired Combined Cycle Power Plant (CCPP) by SUNMP is located in Dudhghata Mouza of Pirojpur union, Sonargaon upazila, Narayanganj district, Bangladesh. The site is about 1.46 km from Dhaka-Chattogram highway to the south-west, about 3.49 km south-west of the Sonargaon upazila headquarter and about 3.28 km away from Mograpara bus stand by road. The project site is situated on the right bank of the branch channel of Meghna River. The location of the proposed project site lies, geographically between 23°37'4.57"N; 90°35'19.23"E and 23°36'53.20"N; 90°35'34.55"E. The project location on satellite imagery is presented in **Figure 2.2.**

### 2.1.3 PLANT LAYOUT

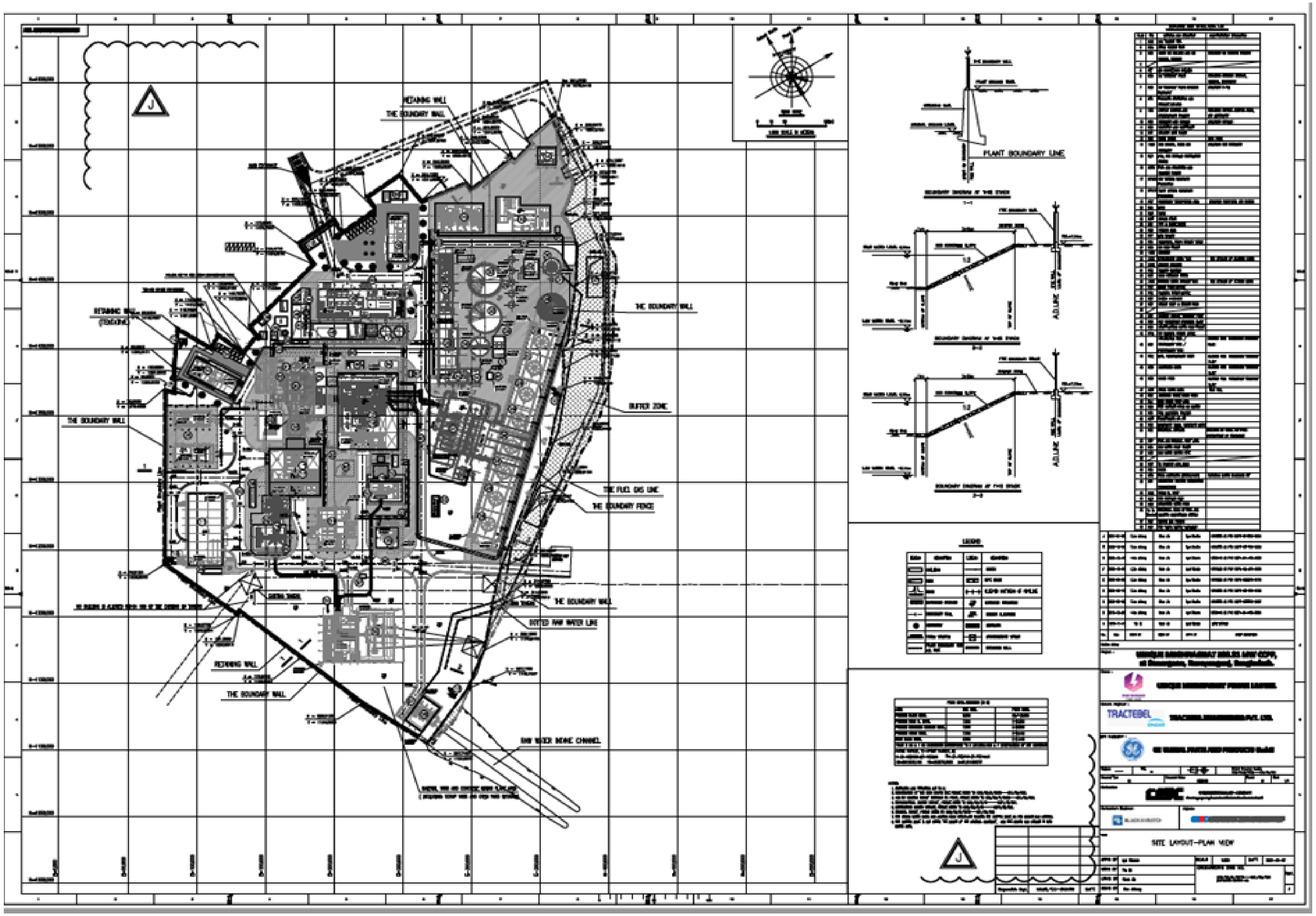
The proposed power plant would be consisting of main block area and auxiliary area. The main block would be comprising of gas turbine hall, HRSG, steam turbine hall, main transformer, and HV unit auxiliary transformer. The auxiliary area will include boiler make-up water treatment plant, industrial wastewater treatment plant, chemical dosing room, mechanical draft counter flow cooling tower, C.W. pump house, mechanical accelerated clarifier, raw water intake pump house, comprehensive water pump house, service & firefighting water basin, raw water basin and potable water basin, filter and sanitary wastewater treatment plant. A site layout map is presented in **Figure 2.3.**

FIGURE 2-2 PROJECT LOCATION – SATELLITE IMAGERY SNAPSHOT




*Source: SUNMP Project Final ESIA dated 18 Sep 2022*

## FIGURE 2-3 PROJECT SITE LAYOUT



### 2.1.4 KEY PROJECT COMPONENTS

ERM has the following understanding of the Project, key project facilities and specific requirements for the project operations:

- Single flow open circuit type gas turbine controlled by Local Control Cubicle and the Central Control Room.
- Heat Recovery Steam Generator (HRSG) at downstream of gas turbine and auxiliaries.
- Steam Turbine Generator plant and auxiliaries.
- Feed water system for delivering feed water from low pressure drum to the HRSG economizer inlet header and supplies spray water of HP steam system, HP bypass system and reheat steam system.
- Condensate system to deliver condensate accumulated into condenser hot well to the LP steam drum of HRSG via the condensate extraction pumps.
- Cooling water system to supply make-up water for demineralized cooling water for gas turbine oil coolers, gas turbine generator hydrogen coolers, steam turbine oil coolers, steam turbine generator air coolers, pumps, steam and water samplers, air compressors, and any other equipment requiring cooling water and to reject the waste heat to the auxiliary cooling water via the closed cooling water coolers.
- Plant Water System to draw water from the Meghna River by 2 X 100% raw water make-up pumps located in the intake water pump house. A closed cooling water system employing Induced draft-cooling tower (IDCT) has been envisaged for each proposed unit to minimize the plant water intake requirement.
- Wastewater Treatment System wherein the wastewater from De-mineralized Water plant and other service area will be treated in the neutralizing pit and effluent treatment plant to the required degree. The total effluent available after treatment from effluent Treatment Plant will be utilized partially for plantation and the balance effluent shall be routed to the outfall.
- A 400kV Gas Insulated Switchyard (GIS) for evacuation of power, import of power for start-up / shut down / station auxiliary power through Unit Transformers.

### 2.1.5 KEY PROJECT FACILITIES

#### 2.1.5.1 NATURAL GAS SUPPLY

As indicated in the ESIA Report daily requirement of Natural Gas would be approximately 96192 million standard cubic foot (mscf). The gas will be supplied by Titas Gas Transmission and Distribution Company Limited (TGTDCL), which is at distance of 500-700 m across the Meghna Branch Channel. Gas Supply Agreement (GSA) has already been signed between TGTDCL and SUNMP. Reportedly and as observed the site has already laid 20inch dia X ~600m pipeline across the Meghna River using horizontal directional drilling (HDD). Leak test of the pipeline has also been completed with pipeline currently under operation.

FIGURE 2-4 GAS PIPELINE FINAL ROUTE MAP


*Source: SUNMP Project Final ESIA Report dated 18 September 2022*

### 2.1.5.2 TEMPORARY JETTY

Two (02) temporary river jetty has been constructed with the following details:

- One (01) temporary jetty (40m X 20m) has been constructed for unloading of construction material, heavy equipment and machinery brought to the site using Meghna waterways. SUNMP has obtained permission from Bangladesh Inland Water Transport Authority for use of foreshore waterfront of Meghna River for construction of temporary Jetty, water pipeline & pump house and RCC guide wall.

- In addition to this, Site is constructing another temporary jetty of approximate dimension of 55m X 12m-16m having 600 MT material handling capacity, for unloading of engines.

As observed and reported during the current visit, SUNMP is currently in the process of decommissioning the jetties as the project is currently in operations stage.

#### 2.1.5.3 POWER EVACUATION LINE

Power generated from the proposed power plant will be evacuated to the nearest grid substation of PGCB through 400 kV Single Circuit (S/C) overhead transmission line. 400kV grid sub-station belonging to PGCB will be located around 800 m from the project site. Evacuation of power from the proposed power plant will be done at 400 kV level. The 400-kV single circuit transmission lines between power plant 400 kV substation and PGCB grid sub-station, for this purpose, will be under the scope of this project. Further detailed interconnection plan with PGCB nearest grid substation along with Load flow, short circuit and transient stability with due consideration of capacity addition of proposed 584 MW project will have to be carried out by SUNMP in coordination with PGCB.

#### 2.1.5.4 CONSTRUCTION CAMP/LAYDOWN AREA

A total of 12 acres land in Dudhghata mouza has been taken on temporary lease for three years from Hamdard Laboratories (WAQF), a Bangladeshi Company for setting up construction camp/laydown are. The land was filled up by SUNMP by using river sand up to the road level for constructing temporary construction campsite. As the project has entered operation phase, the construction camp will be decommissioned by August 2024. The construction camp/laydown area presently comprise of the following:

- Office area and living area for SUNMP, GE and NEPC.
- Provision of warehouses comprising of shed warehouse as well as Class A & Class B warehouses.
- Provision of material storage in open storage yards.

#### 2.1.5.5 SEWAGE TREATMENT PLANT (STP) & DISCHARGE PIPELINE

Sewage generated from the site is currently being treated through a modular STP. The STP would consist of Biological Oxidation tank, secondary sedimentation tank, sludge tank and disinfection tank. The treated effluent is being discharged to a public sewage channel through a 105 m long discharge pipeline.

In addition to the above with project now in operations, an Effluent Treatment Plant (ETP) and STP has been installed and being operated in the main plant area to treat the process wastewater and domestic effluent respectively prior to its discharge into the abutting Meghna River.

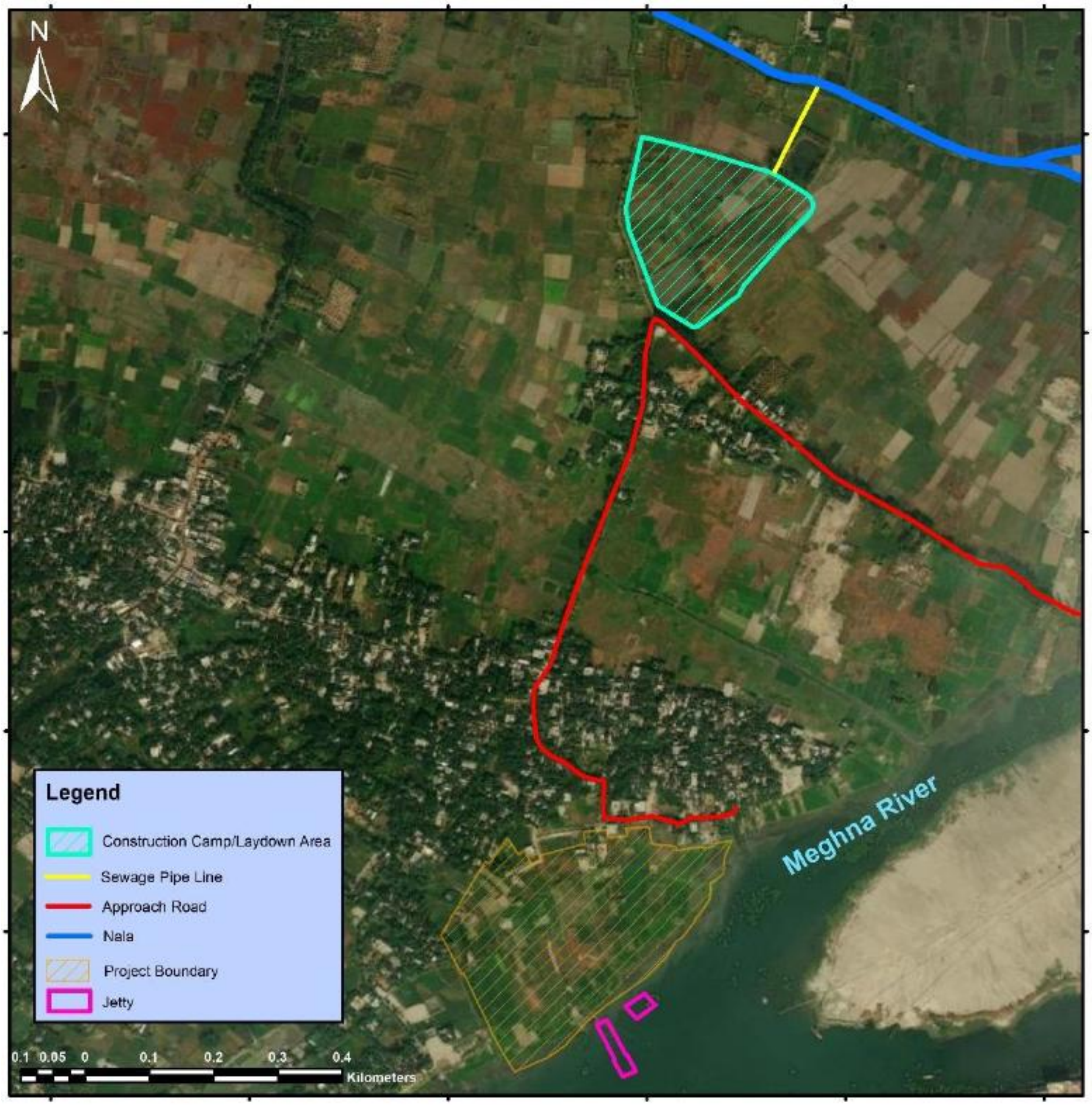
### 2.1.6 PROJECT ASSOCIATED FACILITIES

#### 2.1.6.1 ACCESS ROAD:

The Project location will be accessed through an earthen branch road coming out from Dhaka-Chittagong Highway. The distance between Highway and project site is approximately 1.5 km. There is no alternate access road available for connecting the site. ERM consider access road widening work as part of associated facility of the project in view of the fact that SUNMP requires an access road to connect site location for viability of the project, especially during construction phase for material transportation.

ESIA report mention that 0.1664 acres (0.0673 Hectare) from 27 landowners were procured along the existing village road between Battala Bazar to Plant Gate for widening and strengthening of existing village road that will also be used as access road for the project. As observed during the site visit, the access road is currently being widened by Local Government Engineering Department (LGED) under the Rural and Culvert Maintenance Program.

FIGURE 2-5 LAYOUT OF PROJECT FACILITIES




*Source: SUNMP Project Final ESIA Report dated 18 September 2022*

## 2.1.7 CURRENT PROJECT STATUS

### 2.1.7.1 EPC CONTRACTOR

The Engineering, Procurement and Construction (EPC) Contract is awarded to M/S General Electric Global Services (GmbH) whereas M/S Tractebel Engineering Pvt. Ltd. has been identified as the owner's engineer. The EPC Contractor has made consortium with NEPC and have commenced site construction activities. Presently, the Monthly Progress Report (MPR) for the EPC was not available for review given the disruption in network connectivity owing to the unrest and curfew situation in Bangladesh.

#### 2.1.7.2 O&M CONTRACTOR

- The commercial availability for the month of March is 87.58% indicating an Equivalent Force Outage Factor (EFOF) of 12.42%.
- The plant load factor for June was 13.58%, far below the 60% target.
- The net export energy for June was 57.11 GWh, achieving 22.64 % of the target. The decrease in generation was due to fuel gas supply, trip incidents and lower demand from NLDC. Additionally, during the outage period plant imported 1.55 GWh of electrical energy from the national grid.
- No power generation in this month due to lower demand and a shortage of gas supply, resulting in lower-than-forecasted utilization of the unit. The plant has received 1.559 GWH import power. The plant total generation YTD 55.45 GWH.
- The implementation of the APM and OPM-GE digital solution system by GE, as per CSA, is in progress.
- The review of O&M manuals provided by GE is in progress as noticed by GE.
- The total consumption was 404409.919 MSCF, representing a decrease of 76.6% from the targeted amount for the month since the plant was operated at a lower load factor due to a shortage of gas supply.
- For June 2024, no Lost Time Incidents (LTIs), near miss and/or first aid incidents were recorded, thus resulting in a cumulative total of 163 days without any LTIs since the inception of COD.

### 2.1.8 STATUS OF E&S INDICATORS

#### 2.1.8.1 EPC CONTRACTOR

As earlier discussed under section 2.1.7.1, the status of E&S indicators was not readily available from EPC for the current reporting period owing to the unrest and curfew situation in Bangladesh resulting in prolonged disruption in network connectivity and in-country travel.

#### 2.1.8.2 O&M CONTRACTOR

The status of E&S indicators as obtained from the project O&M Contractor (NEPC) June 2024 is presented in Table below:

TABLE 2-2 O&M CONTRACTOR EHS KPI'S JUNE 2024

| SL # | Indicators | June 2024 |
|---|---|---|
| 1. | No Lost Time Accidents (LTAs) Since last occurrence (days) | 163 |
| 2. | Reportable LTA (Monthly) | 0 |
| 3 | Reportable LTA YTD | 0 |
| 4 | Reportable Damage to Asset (Monthly) | 0 |
| 5 | Reportable Damage to Asset YTD | 0 |
| 6 | Reportable Environmental Incidents Monthly | 0 |

| SL # | Indicators | June 2024 |
|---|---|---|
| 7 | Reportable Environmental Incidents YTD | 0 |
| 8 | EAR (Equivalent Accident Rate) Monthly | 0 |
| 9 | EAR YTD | 0 |
| 10 | EHSS walkdowns performed Monthly | 4 |
| 11 | EHSS walkdowns performed YTD | 23 |
| 12 | Technical walkdowns performed Monthly | 4 |
| 13 | Technical walkdowns performed YTD | 23 |

*Source: O&M Contractor Monthly Progress Report – June 2024*

In addition to the above, the O&M Contractor (NEPC) has identified the following environmental and social KPIs, with the current status of the said KPIs for the month of June 2024 presented in Table 2.3 below.

### TABLE 2-3 O&M CONTRACTOR E&S KPI'S JUNE 2024

| SL # | Indicators | Unit | June 2024 | YTD |
|---|---|---|---|---|
| 1. | Number of accidents (air/effluent/spill) | Number | 0 | 0 |
| 2. | Total NOx emission | Tons | 0.1389 | 0.7005 |
| 3 | Total CO2 emission | Tons | 770.63 | 3853.17 |
| 4 | Effluent generated | $M^3$ | 9705 | 50530 |
| 5 | General waste generated | kg | 440 | 2305 |
| 6 | Oil cloth generated | kg | 2 | 5 |
| 7 | Used oil filter generated | pcs | 0 | 0 |
| 8 | Mud cake generated | kg | 360 | 2240 |
| 9 | Sludge generated | kg | 0 | 0 |
| 10 | Used oil generated | drums | 0 | 0 |
| 11 | Medical waste generated | kg | 0 | 0 |
| 12 | Grievance Recorded | Number | 0 | 33 |
| 13 | Number of grievances redressed | Number | 0 | 33 |
| 14 | Stakeholder Engagement | Number | 2 | 6 |

*Source: O&M Contractor Monthly Progress Report – June 2024*

However, review of the aforesaid table indicates, that O&M Contractor is yet to include other priority KPIs especially around waste management and water conservation viz. waste disposed, waste recycled, water consumed, water recycled etc. Furthermore, O&M is yet to share the grievance register to review the grievances lodged and manner of redressal.

### 2.1.9 PROJECT MANPOWER REQUIREMENT

Overall manpower size deployed for the project has significantly reduced by end of July 2024 and is presented in **Table 2.4 & 2.**5 below.

TABLE 2-4 MANPOWER INVOLVED AT SITE

| SL # | Employer | Manpower size |
|---|---|---|
| 1. | SUNMP Employees | 45(14 corporate management staff including 2 female + 9 site management staff + 22 Support) |
| 2. | GE employees | 12 (8 Officers + 4 Support) |
| 3 | NEPCS employees | 54 (06 Chinese + 48 Bangladeshi) |
| 4 | NEPC Management staff employee | 8 (03 Chinese + 5 Bangladeshi) |
| 5 | NEPC workers (Chinese) | 10 including 1 females |
| 6 | NEPC Subcontractor Workforce (total of 3 subcontractors engaged) | 95 |
| | **Total** | **224** |

Manpower break-up of the sub-contractors engaged by NEPC is presented below.

TABLE 2-5 CONTRACTOR MANPOWER BREAK-UP

| S. No | Sub-contractors | Scope of work | Manpower size |
|---|---|---|---|
| 1 | Man is Power corporation | Main Plant & Lay down | 58 |
| 2 | Meghna Enterprise | Main Plant & Lay down | 2 |
| 6 | Elite Force (Security) | Main plant and lay down | 35 |
| | **Total** | | **95** |

### 2.1.10 PROJECT SCHEDULE

The proposed schedule for the project has been presented in the Table below.

## TABLE 2-6 PROPOSED PROJECT SCHEDULE VS ACTUAL STATUS

| SL # | Project Component | Planned | Actual/Forecast |
|---|---|---|---|
| 1. | Signing of EPC Contract between GE and SUNMP | 30 August 2019 | 30 August 2019 (A) |
| 2. | Full Notice to Proceed (FNTP) | 23 October 2019 | 23 October 2019 (A) |
| 3. | Clear and Unhindered access to site | 23 October 2019 | 1 December 2019 (A) |
| 4. | GT on Foundation | 7 April 2021 | 22 January 2022 (A) |
| 5. | HRSG OCC Modules (Installation Started) | 25 February 2021 | 4 September 2021 (A) |
| 6. | GT Generator on Foundation | 8 April 2021 | 22 January 2022 (A) |
| 7. | ST Generator on Foundation | 19 April 2021 | 12 March 2022 (A) |
| 8. | Commencement of Cold Commissioning | 17 August 2021 | 20 March 2023 (A) |
| 9. | Completion of Back Energization | 23 August 2021 | 25 June 2023 (A) |
| 10. | Fuel Gas Available | 23 October 2021 | 5 June 2023 (A) |
| 11. | GT First Firing in Simple Cycle | 4 December 2021 | 15 August 2023 (A) |
| 12. | Completion of 1st Synchronization | 12 December 2021 | 21 August 2023 (A) |
| 13. | Completion of Steam Blowing | 24 December 2021 | 25 October 2023 (A) |
| 14. | First Steam to Turbine | 13 January 2022 | 3 November 2023 (A) |
| 15. | Completion of Trial Operation | 16 June 2022 | 19 January 2024 (A) |
| 16 | Completion of Performance Test | 22 June 2022 | 26 February 2024 (A) |
| 17 | PAC (Provisional Acceptance Certificate) * | 22 June 2022 | Subject to availability of gas |

*Source: SUNMP*

** Performance Test Completion and PAC date is contingent upon availability of gas.*

# 3. COMPLIANCE STATUS – ESAP, ESMMP, LRP, SEP, GRM IMPLEMENTATION

The compliance status based on the desktop review of the documentation undertaken during Aug 2024 has been presented in **Table 3.1** and relevant sub-sections. To define the status of various action items, colour coding has been used for easy referencing, which is as follows:

| | | | |
|---|---|---|---|
| (green) | **Action Item Closed/ Complied** | (yellow) | **Satisfactory Progress** |
| (orange) | **Partially Complied** | (red) | **Not Complied/ Delay** |
| (blue) | **To be assessed during Operations/Decommissioning** | (light grey) | **Document Pending** |

**Note: The project E&S compliance status for period Apr-Jun 2024 has been established based on only desktop review of limited information/documentation shared by SUNMP owing to the current unrest situation in Bangladesh. For action items, where information was not readily available to assess the current compliance status, the observations from the last E&S monitoring report (Jan-Mar 2024) was presented with a note indicating the same.**

## 3.1 ESAP, ESMMP & REGULATORY COMPLIANCE STATUS

The observations made by the ERM audit team with respect to the project EHS aspects as outlined in the ESAP, EMMP and applicable local and national regulations have been presented in **Table 3.1** below.

## TABLE 3-1 ESAP, ESMMP & REGULATORY COMPLIANCE STATUS

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
|---|---|---|---|---|---|---|---|---|
| **1.** | **EHSS Regulatory Permitting /Compliance** | | | | | | | |
| 1.1 | Develop and implement a plan for 100% wastewater recycling for project operations.<br>Update the green belt development plan to ensure 33% coverage of the project area. | S. No 1.1, Table 3.1 | SUNMP | Copy of wastewater recycling plan<br>Copy of greenbelt development plan | 6 months prior to COD | Review of the site clearance conditions requires SUNMP to develop and implement a plan to facilitate 100% wastewater recycling during operations. However, discussion with EPC consortium reveals that as per the design both Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP) has been installed and operated having two separate outfalls with no provision for provision for wastewater recycling. As verified during the current visit, SUMPL has applied for exemption of 100% water recycling requirement as mentioned in the condition no.5 of EIA report vide letter no. UMPL777 -DOE-L-2001 dated 25 March 2024 from DoE. In the letter SUNMP has committed to achieve 75% water recycling. SUNMP has outlined a plan/framework in Wastewater Management procedure (Doc No. NEPCSS-M3-EHS-23 effective from 01 January 2024) towards achieving 75% treated wastewater recycling by December 2028 through installation of two stage Reverse Osmosis (RO) Plant. However, the plan is not found to be comprehensive as it does not outline the volume of water to be generated, capacity of the RO plant etc.<br>Review of the updated green belt development plan indicates that the current area proposed for green belt has now been increased from 6.22 acres to 6.95 acres which represents 33% of the total project area. The site has started implementing green belt development plan within the plant constituting 6.41 acres of the total project area. Remaining green belt (0.54 acres) to be developed outside plant i.e., along the project access road and project peripheral boundary. As noted during the site visit, tree plantation has already been completed in 3.97-acre land. The site has planted Mango Tree, Palm Tree and Conifers near CCB area, Raw water intake, rear end of GIS area, Warehouse area within the plant premises. | | Update and implement the 75% water recycling plan as per timeline set in Wastewater Management Procedure. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
|---|---|---|---|---|---|---|---|---|
| 1.2 | Update the BIWTA clearance to cover both storm water outfall lines as depicted in the project operations drainage layout. | S. No 1.2, Table 3.1 | SUNMP | Copy application seeking amendment<br>Copy of BIWTA approval | Immediately, prior to first disbursement<br><br>Within six (6) to eight (8) months from application date | BIWTA clearance obtained by SUNMP for the stormwater outfall lines, water intake structure foreshore usage, construction of guide wall, gas pipeline and transmission towers has expired on 31 Aug 2023. Renewal application to this effect has been filed on 25 July 2023, the site is yet to receive the renewed license for current financial year. The site has sent a follow-up letter to the Deputy Director of Meghna River port on 05 May 2024. | | *Action closed as per the Oct-Dec 2022 E&S monitoring report.* |
| 1.3 | Coordinate with WARPO to obtain approval for ground water sourcing from all the onsite bore wells on a fast-track basis. | S. No 1.3, Table 3.1 | SUNMP | Copy of communication with WARPO | Immediately, prior to first disbursement | Documentation review indicates that SUNMP has obtained permission from WARPO vide letter dated 11 Aug 2022 for abstraction of 450 KLD of ground water to meet construction requirements and 14000 KLD of surface water from Meghna River branch channel. The permit is found to be valid for a period of 2 years i.e. Aug 2024. | | *Action closed as per the Oct-Dec 2022 E&S monitoring report* |
| | | | | | | Documentation review indicates that SUNMP has made communication with WARPO vide letter dated 7 Sep 2023 seeking enhancement in the surface water withdrawal rate to 16300 KLD as compared to 14000 KLD earlier. In consistent with requirements specified in the last E&S monitoring report, SUNMP has now prepared and submitted water resource availability and ground water abstraction impact assessment study report along with surface and ground water consumption records for the period Jan-Jun 2023 which is found to vary from 25-30 KLD and 42-44 KLD respectively. In this regard, SUNMP has also sought exemption from WARPO in the aforesaid communication regarding the following condition i.e., installation of monitoring well and implementation of rainwater harvesting system, however no confirmation has been received from WARPO till date.<br>Although SUNMP has sought exemption/waiver towards implementation of rainwater harvesting the water resource availability study undertaken recommends such system implemented along with sustainable groundwater management practices like | | Update and implement the rainwater harvesting system and sustainable ground water management plan in accordance with the recommendation of the water resource availability study. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
|---|---|---|---|---|---|---|---|---|
| | | | | | | artificial recharging etc. Discussion with SUNMP representatives indicates that no communication/exemption granted to SUNMP on the above matter.<br>The site has prepared a document regarding rainwater harvesting system and sustainable groundwater management (Doc No. NEPCSS-M3-EHS-019 dated 01 January 2024) however review of the same indicates that plan is lacking details related to the volume of surface run-off to be generated from paved surfaces (including roof tops) with rainfall data presented is found to be dating back to the period 2003-09 with no recent data being considered. Furthermore, the plan does not bear any information related to the design of two stormwater basins identified inside the plant including implementation timeline. | | |
| 1.4 | Follow up with WARPO seeking status on the clearance/permission on the riverbank protection for the project. | S. No 1.4, Table 3.1 | SUNMP | Copy of communication with WARPO | Immediately, prior to first disbursement | Documentation review reveals indicates that SUNMP has obtained permission from WARPO vide letter dated 27 Sep 2022 for setting up riverbank protection and temporary Jetty at the branch of Meghna River for the proposed project. The permit is found to be valid for a period of 2 years i.e. Sep 2024. | | *Action closed as per the Jan-Mar 2023 E&S monitoring report and validated for the current monitoring period.* |
| | | | | | | Refer response to S. No. 1.3 | | Demonstrate compliance to the conditions specified in the WARPO permission for construction of riverbank protection and temporary jetty. |
| 1.5 | Install indication mark for the pipeline crossing the Meghna River at both sides as per applicable regulatory requirements. | S. No 1.5, Table 3.1 | SUNMP | Photographic evidence of installed indication mark | Immediately, prior to first disbursement | In consistent with the Natural Gas Safety Rules, 1991, SUNMP has applied for and obtained necessary approval for laying of the natural gas pipeline (20" X 600m) vide Department of Explosives, Bangladesh vide letter dated 30 May 2021. In this regard, SUNMP has notified the Chief Inspector of Explosives of the pipeline leak testing with the same being undertaken on 23 April 2022 and relevant test documentation being maintained as per the aforesaid Rules. With | | *Action closed as per the Oct-Dec 2023 E&S monitoring report.* |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
|---|---|---|---|---|---|---|---|---|
| | | | | | | project COD declared on Jan 2024 SUNMP has obtained approval from the Department of Explosives for the pipeline transmission of natural gas vide letter dated 22 May 2023.<br>As noted during the site walkthrough, SUNMP is have noted indication mark of the pipeline passing across the Meghna River at the crossing point of both sides. | | |
| 1.6 | Follow with up Deputy Commissioner office to seek update on the approval status of LPG storage.<br>Post approval, apply for LPG cylinder storage license to the Department of Explosives, Bangladesh | S. No 1.6, Table 3.1 | EPC | Copy of evidence of communication with Deputy Commissioner<br>Copy of communication with Department of Explosives, Bangladesh | Immediately, prior to first disbursement | As per the temporary facilities demolition plan shared by SUNMP indicates that the site is planning to start demolition of worker's camp from 1 October 2024 and finish the activity by 30 November 2024. In this regard it is to be that noted that the project has declared COD in Jan 2024, with LPG storage currently being limited to the laydown area. After the decommissioning of worker's camp, the usage of LPG will no longer be applicable for the laydown area which is reportedly. Hence in view of the above, necessary effort needs to be made to obtain license from Department of Explosives for the temporary storage or keep the storage quantities below the threshold beyond which a license is likely to get triggered. | | Make an application for LPG cylinder temporary storage at worker camp to the Department of Explosives. Alternatively, keep the filled LPG storage cylinder below the threshold limit exceeding which a license may need to be obtained. |
| 1.7 | Seek approval of layout plan of hydrogen plant under construction from Department of Explosives on a fast-track basis. | S. No 1.7, Table 3.1 | SUNMP | Copy of approved lay out plan | 3 months prior to COD | The project involves the installation and operation of hydrogen plant, with the hydrogen to be used for filling up of high-pressure hydrogen cylinders, which in turn is required for generator initial fill up and regular make-up for generator rotor cooling. Documentation review indicated that SUNMP has now obtained license from Department of Explosives for storage of 240 hydrogen cylinders vide letter dated 26 July 2023. The license is found to be valid till 31 Dec 2023. The license is also found to be renewed vide application dated 16 November 2023 and currently valid till 31 December 2024. | | None |
| 1.8 | Obtain license from the District Deputy Commissioner for the storage and usage of acid and alkalis as part of the project DWP regeneration system | S. No 1.8, Table 3.1 | SUNMP | Copy of valid acid storage license | 3 months prior to COD | Review of the documentation indicate that SUNMP has obtained license for storage of the acids and alkalis in bulk during operations. This includes:<br>• Sulphuric acid: 140 KL | | Share copy of the acid and alkali renewal storage license for review and validation |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
|---|---|---|---|---|---|---|---|---|
| | | | | | | • Hydrochloric acid: 140 KL<br>• Caustic soda: 80 KL<br>The license is found to be valid till 30 June 2024 with renewal application reportedly being filed. | | |
| 1.9 | Obtain BERC license as an independent power producer (IPP) prior to project operations. | S. No 1.9, Table 3.1 | SUNMP | Copy of valid IPP license | 3 months prior to COD | Review of the permitting documentation indicates that SUNMP has obtained temporary license from BERC vide letter dated 18 Sep 2023, which is found to be valid for a year (till 8 October 2024) subjected to submission of license fees. Documentation shared indicated the license fees has been submitted to BERC vide letter 24 Sep 2023. | | None |
| 1.10 | Coordinate with TGTDCL to share the BERC license for supply of natural gas and operation of the gas pipeline for the proposed power project prior to operations | S. No 1.10, Table 3.1 | SUNMP/TGTDCL | Copy of valid license for natural gas supply and pipeline operations | 3 months prior to COD | With COD declared in January 2024, SUNMP has written to TGDCL vide letter dated 3 Dec 2023 seeking sharing of the BERC license for gas supply pipeline. However, copy of the same is yet to be shared for review and validation. | | Coordinate with TGTDCL to share BERC license immediately. |
| 1.11 | Obtain boiler registration from the Chief Boiler Inspector prior to project operations. | S. No 1.11, Table 3.1 | SUNMP | Copy of valid boiler registration | 3 months prior to COD | SUNMP has obtained registration for three water tube boilers from Chief Boiler Inspector vide letter dated 10 Sep 2023. As stated in the aforesaid communication, boiler operation certification shall be issued post installation of safety valve and display of registration number which reportedly shall be undertaken prior to COD. With COD declared in January 2024, SUNMP has obtained boiler operation certification which is found to be valid till 19 August 2024. The site has assigned a Class I boiler attendant having valid certificate dated 30 April 2019 for operation, maintenance, and supervision of the boilers as per boiler permit condition. | | None |
| 1.12 | Follow up with manpower supply agency needed to ensure that they obtain the registration certificate soon. | S. No 1.12, Table 3.1 | SUNMP | Copy of communication with Department of Labour, Bangladesh | Immediately, prior to first disbursement | For the construction phase, the EPC consortium has deployed the following manpower supplier contractors – Manis Power and Meghna Enterprises. Document review indicates that aforesaid contractors has obtained license/registration from the Department of Inspection of Factories & Establishment (DIFE) which is found to be valid till 30th June 2024 and 17 July 2024. Copy of the renewed licenses for both | | Share copy of renewed registration license for the manpower supply contractors involved. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | contractors is yet to be shared for review and validation. | | |
| **2.** | **PS1: Assessment and Management of Environmental and Social Risks and Impacts** | | | | | | | |
| 2.1 | Develop and obtain ISO certification for project operations ESMS. | S. No 2.2, Table 3.1 | SUNMP | Copy of ISO certification for project operations ESMS | 1 year from COD | With project currently in operations and O&M team in the form of NEPC-S now being mobilized, SUNMP is currently in the process of drafting of the operations ESMS, with the certification planned to be obtained by end of 2024 as per the agreed ESAP timelines. | | Operation phase ESMS to be prepared. |
| 2.2 | Incorporate EHS&S Policies as part of the agreement / employment contract with the third-party agencies and workers. | S. No 2.3, Table 3.1 | SUNMP & EPC | Copy of sample agreement/contract | Immediately, prior to first disbursement. | The site has developed the EHS & Social Policy in local language (in Bengali) signed by the GE Project Director and the same was found to be displayed onsite at conspicuous places like site main entrance, worker camp etc. As noted during the last monitoring, SUNMP has integrated the EHSS policies in the sample employee appointment letter being issued. Furthermore, worker agreement (*Manis Power Corporation & Meghna Enterprise*) has also been updated to include the aforesaid policies.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period due to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as per the Jan-Mar 2023 E&S monitoring report.* |
| 2.3 | Review and update the AI matrix to cover all potential environmental aspects/impacts of the sewage treatment and batching plant operations. The AI matrix mitigation measures also need to be aligned to the project ESMMP and IFC General/Sectoral EHS Guidelines. | S. No 2.3, Table 3.1 | EPC | Update project Environment Aspect-Impact (AI) Register | Immediately, prior to first disbursement. | EPC consortium has prepared an Environment Aspect-Impact (AI) Matrix in line with the EHS Risk Assessment template shared in the EHS Plan. Per the earlier E&S monitoring recommendations, the EPC consortium has updated the AI matrix cover the potential environmental impacts and mitigation measures for sewage treatment and batching plant operations for construction phase as per the ESAP requirements.<br>Documentation review indicates that SUNMP along with the O&M contractor – NEPC-S has developed a HIRA matrix as well as an AI matrix to for operations to include the potential environmental impacts. The | | Identify proper mitigation measures related to identified risks resulting from the operational activities. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | current AI matrix includes all the operations and areas. The risks have been classified as per the significance of impact (Probability* Severity+ Legal Exposure). <u>However, the site has not properly identified mitigation measures related to the identified risks in the current document.</u> | | |
| 2.4 | Develop and maintain an updated EHSS regulatory register encompassing applicable regulatory requirements and permit conditions for both construction and operations. Track and record compliance status against regulatory register on a periodic basis | S. No 2.5, Table 3.1 | SUNMP, EPC & O&M | Copy of updated regulatory register for construction along with quarterly internal regulatory compliance audits. . | Immediately, prior to first disbursement during construction. | In line with the ESAP recommendation, SUNMP along with EPC Consortium has developed a E&S permit and regulatory register to track compliance with the E&S permit conditions and applicable regulations viz. *Environmental Conservation Rules, 2023, E-Waste Rules 2021, Air Pollution Control Rules, 2022, BIWTA Rules, BNBC 2020, Solid Waste Rules 2021, Water Rules 2018, Noise Control Rules 2006 etc*. The legal register has also been updated to furnish the requirements related to demonstrating compliance with environmental standards prescribed for ground water, treated wastewater, sewage and ambient noise as per the provision of Bangladesh Environmental Conservation Rules (BECR), 2023 and Noise Pollution Control Rules, 2006. | | |
| | | | | Copy of updated regulatory register for operations along with six (6) monthly internal regulatory compliance audits | Three (3) months prior to commencement of COD and ongoing | SUNMP has developed a consolidated legal register for both construction and operations with the operations phase register now updated to cover the following E&S regulations viz. *Boiler Act, 1923; Petroleum Rules, 2016; and Acid Control Act, 2002.* <u>The site has also started tracking the regulatory E&S permit conditions, but the conditions related to following licenses are still missing in the legal register: Hydrogen storage license, pipeline operations license, BERC license, boiler operations license. However, the legal register is yet to be updated to include the provision of the Natural Gas Rules, 1991 and Boiler Attendant Rules, 1953.</u> | | Update the legal register for operations encompassing the following regulations viz. *Natural Gas Rules, 1991 and Boiler Attendant Rules, 1953 and license conditions of Hydrogen storage license, pipeline operations license, BERC license, boiler operations license.* |
| 2.5 | Develop / update and implement the project specific E&S management plans for construction, operations and | S. No 2.6, Table 3.1 | SUNMP | Copy of site-specific management plan along | Immediately, prior to first disbursement | As specified in the ESAP and ESMP, the site has presently developed/updated the following management plans as part of the ESIA viz. Hydrotest Water Management Plan; Dredged Material | | Update the following procedures as per the gaps identified - Occupational Health |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | decommissioning (as applicable) viz. Hydrotest Water Management Plan; Dredged Material Management Plan; Drill Cutting & Drilling Mud Management Plan; Water Management Procedure and Decommissioning Management Plan.<br>Implement Gender Action Plan commitments which includes developing a policy on sexual harassment; constitution of a dedicated committee dealing with sexual harassment issues; organizing awareness session on GBVH with communities and workforce.<br>Implement the Labour Management Plan commitment which includes preparing a Code of Conduct (CoC) for contractor /suppliers which is to form a part of the employment contract and displayed at conspicuous places.<br>Update the Labour Management Plan to encompass specific role and responsibilities of key personnel identified for implementation of the Plan including a checklist to assess compliance with the Plan requirements on a periodic basis. | | | evidence of implementation<br>Evidence of closure of gaps identified and implementation of the Plans | | Management Plan; Drill Cutting & Drilling Mud Management Plan; Storm Water Management Plan and Decommissioning Management Plan. As recommended in the last audit, the EPC consortium has development a method statement and a timeline for decommissioning activities to be undertaken at both camp and office including management of waste generated from some activities. The method statement also outlines the potential E&S risks associated with decommissioning activities like height work, material lifting, dust and noise generation etc. along with the mitigation measures/controls to be adopted.<br>SUNMP have an approved 'Sexual Harassment Policy' in place which defines the process of reporting and handling the sexual harassment related cases associated with project. Awareness session on GBVH issues with local communities are being conducted by Sajida Foundation (LRP implementation Agency) under the supervision of SUNMP CDM (Community Development Manager). CDM is also responsible for conducting GBVH awareness session with construction workers. Sexual harassment committee is formed by Sajida foundation to deal with any GBV issues if reported by community. As advised in previous audit, this sexual harassment committee has now ensured representation from SUNMP as well. As advised in previous audit, SUNMP was developed Labour Management Plan document and included COC (code of conduct) that are applicable for all site workers including sub-contractor workers.<br>With project now in operations, NEPC-S – the O&M contractor has developed the following E&S plans/procedures for operations phase:<br>• Permit to Work<br>• Caustic, Acid and Chlorine Handling Procedure<br>• Emergency Response Plan<br>• Electrical Safety Program<br>• First Aid<br>• Spill Prevention and Response Procedure<br>• Waste Management Procedure | | & Safety Management Plan, Air Quality Management Procedure and Environmental Monitoring Plan. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | • Community Development Procedure<br>• Grievance Redressal Mechanism/Procedure<br>• Noise Exposure Evaluation and Hearing Conservation<br>• Compressed Gas Cylinder Management Procedure<br>• Flammable Liquid Handling Procedure<br>• Machine Guarding Procedure<br>• Pest Control Procedure<br>• Stakeholder Engagement Procedure<br>The site has developed following plans/procedures for operation phase as per the ESMP requirements**: Air Quality Management, Wastewater Management Plan, Waste Management, Occupational Health & Safety, Environment Monitoring Plan and Incident Investigation**. The above-mentioned procedures are effective from 1 January 2024. Following gaps were identified in the current procedures:<br>• The air quality management procedure does not cover requirements of Air Pollution Control Rules 2022. Stack emission has not been identified under source of air emission however the site has covered ambient air quality, indoor air quality and odor management in the procedure.<br>• Waste management plan includes classification, storage, handling, treatment & disposal requirements. However, the roles & responsibilities has not been defined regarding storage, handling and disposal.<br>• The site has identified all the sources of environmental pollution and captured the monitoring requirements accordingly. However, as per the document review the site has not identified the parameters to monitored for wastewater and air emission as per BECR 2023 and Air Pollution Control Rules 2022 respectively. | | |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | • The Occupational Health & Safety plan does not include any risk identification and control measures for operational phase.<br><br>**Note: The validation of all action items could not be undertaken for the current monitoring period due to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |
| 2.6 | Ensure mobilization of the remaining EHS Supervisors by NEPC as per the organogram.<br>Document and integrate the roles and responsibilities of the SUNMP EHS Manager and Assistant Manager – Community Development in the EHS Plan. | S. No 2.7, Table 3.1 | SUNMP & EPC | Copy of appointment letter NEPC EHS Supervisors.<br>Documented roles and responsibilities SUNMP EHS Manager and Assistant Manager – Community Development | Immediately, prior to first disbursement | In line with the ESAP recommendation, the EPC consortium has deployed a Project EHS Manager (GE), Assistant EHS Manager (GE) and 2 Project EHS Manager (NEPC) and the same has been presented in the EHS organogram along with the EHS Supervisors, Site Doctor & Paramedic, EHS Trainer, Lifting Specialist & Coordinator and Certified Scaffolder. In addition to the above, GE and NEPC has mobilized 7 and 15 EHS Supervisors respectively and the same was found to be depicted in the EHS Organizational chart.<br>Review of the project EHS Plan indicates that the roles and responsibilities of the SUNMP EHS Manager and Manager – Community Development has now been documented and integrated in the aforesaid Plan.<br>Review of the operations organogram and consultation with SUNMP representative reveals that a total of two (2) managerial level EHS personnel (EHS Head and EHS Engineer) has been mobilized by NEPC-S – the O&M contractor for this project. Reportedly, for managing the E&S risks pertaining to the warranty and transition period, the O&M EPC contractor will be supported by an EHS In charge to be mobilized by the EPC Contractor along with an EHS Supervisor, EHS Manager, an EHS Engineer, two fireman and one fire truck driver.<br>As recommended in the last monitoring report, SUNMP has now defined the roles and responsibilities of the EHS personnel of both NEPC-S and EPC Contractor. | | Mobilize the EPC EHS Engineer and fireman on a fast-track basis for the warranty period. |

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| | | | | | | <u>However, the recruitment of EHS Engineer and one fireman is pending as per the approved organogram.</u> | | |
| 2.7 | Update the EPRP to include the site lay out plan, list of fire prevention and control equipment, updated onsite responders list along with details of medical and firefighting team. | S. No 2.8, Table 3.1 | SUNMP and EPC | Updated EPRP<br>Copy of mock drill report | Immediately, prior to first disbursement<br>Six monthly during construction and operation period | The EPC consortium has updated the EPRP to include the list of fire prevention and control equipment, along with contact details of First Intervention Team, Alarm & Evacuation Team, Emergency Coordinators, Search and Rescue Team, Security Team, Tactical Team and Oil Spill Response Team.<br>Documentation review indicates that an annual mock drill schedule has been prepared for 2024, with mock drills being undertaken on a six-monthly basis and results documented. Records indicated that the site has undertaken mock drills on 25 April 2024 with records to be shared for review and validation. The site has conducted mock drill in the presence of representative from BFSCD on 16 July 2024 where total 57 persons from SUNMP participated and record has been maintained in prescribed format (i.e. Form 22A) as per BLR, 2015 requirements.<br>As per BLR 2015, at least 18% workers of every division of the establishment shall be provided with training on fire extinguishing, rescue and first aid and the use of portable fire extinguishing equipment's and from the trained workers fire extinguisher teams, rescue teams and first-aid teams (6% member of every team) shall be formed, and this shall be recorded in accordance with Form- 22. <u>However, with project now in operations, the O&M team is yet to constitute a trained and certified fire extinguishing, rescue and first-aid team with details recorded in the aforesaid format.</u> | | Constitute a trained and certified team of firefighters, rescuers and first aider for operations and maintain details in Form 22. |
| 2.8 | Arrange for a standby boat equipped with life jacket and trained personnel to respond to any project riverine traffic related emergencies. | S. No 2.9, Table 3.1 | SUNMP and EPC | Photographic evidence | Immediately, prior to first disbursement | In consistent with the ESAP recommendation, the site has now updated the Emergency Preparedness and Response Plan (EPRP) to encompass emergencies related to road and riverine traffic incidents/accidents along specific response, evacuation and rescue measures. Furthermore, as specified in the EPRP and ESAP, the site has now provided a standby boat equipped with life jacket and trained personnel at the | | *Action closed as per the Oct-Dec 2022 E&S monitoring report.* |

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| | | | | | | material loading and unloading temporary jetty. The same was found to be made available during the current E&S monitoring visit undertaken.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period due to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |
| 2.9 | Perform quarterly E&S audits of the manpower supply contractors to assess compliance with applicable regulatory requirement and project E&S plans/procedures.<br>Extend the coverage of the weekly EIC to cover the worker accommodation along with the development of CAPA for all non-conformances identified. | S. No 2.11, Table 3.1 | SUNMP & EPC | Copy of quarterly subcontractor audits<br><br>Copy of weekly EIC | Immediately, prior to first disbursement | The Project EHS Plan developed by the EPC consortium reveals the requirement for performing quarterly audit/inspection of the subcontractor HSE performance with the audit findings and corrective actions/recommendations to be reported to the subcontractor site manager to facilitate necessary closure. Presently, EPC has engaged "*Meghna Enterprises*" and "*Man-Is-Power*" as manpower supply contractors for the construction phase of the project.<br>The EPC consortium undertakes quarterly EHS performance audits of the aforesaid subcontractors with audit reports being maintained. As recommended in the last quarter audit, Corrective & Preventive Action Plan (CAPA) is required to be developed for the non-compliance identified as part of such quarterly EHS audits. Review of the sample subcontractor audit report for Manis Power dated 24 October 2023, indicate that non-compliances have been identified with respect to maintenance of weekly records and usage of PPEs by contractor workers for which corrective action has been identified (including the personnel responsible for implementation) and tracked for closure. | | *Action closed as per the Oct-Dec 2023 E&S monitoring report.* |
| 2.10 | Update and implement the project Environmental Monitoring Plan to cover all environmental attributes and parameters as specified in the regulations and IFC EHS guidelines. The plan to clearly outline the rationale for selection of the monitoring locations. | S. No 2.12, Table 3.1 | SUNMP & EPC | Copy of updated Environmental Monitoring Plan & Monitoring Reports. | Immediately, prior to first disbursement | Environmental Monitoring Plan (EMP) outlined in the ESIA report for the purpose of environmental monitoring activities is being implemented for operation phase. Furthermore, as per ECC the site is required to undertaken six monthly monitoring of NOx in flue gas and quarterly monitoring of ambient noise levels and results submitted to DoE, Bangladesh. Review of records indicates that SUNMP has submitted an online application for such monitoring to DoE | | Undertake monitoring of the STP treated effluent for operations to assess conformance with the inland surface water discharge standards specified Schedule 3 of BECR, 2023. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | operated laboratory only on 5 May 2024. Reportedly the site has engaged a third-party agency – M/s Environmental Laboratory and Research Centre (ELRC) to carry out E&S monitoring for the project during operation phase.<br>Review of the ELRC quarterly monitoring report for the period Jan to March 2024 indicated revealed the following observations.<br>*Ambient Air Quality Monitoring*<br>Monitoring of ambient air is undertaken at 6 locations on a monthly basis (24 hr sampling) including worker camp and main site. The parameters monitored is limited to *PM10 (23.23-45.43 µg/m3), PM2.5 (12.79-35.33 µg/m3), SO2 (19.87-35.57 µg/m3); NOx (12.49-34.64 µg/m3); Ozone (47.19-53.38 µg/m3); and CO (0.01-0.03 mg/m3).* The result in all cases was found to be in compliance with Schedule 12 of the *Air Pollution Control Rules, 2022.*<br><br>*Ambient Noise Quality Monitoring*<br>Monitoring of ambient noise (both day and night) is undertaken at 7 locations (2 at main plant site, 1 at worker camp and 4 outside the plant near sensitive receptors viz, *Purbapara Mosque, Kurbanpur Ghat* etc.). The monitoring is being undertaken on a weekly basis with results in all cases found to be in compliance with the day and night-time noise standards prescribed under Noise Rules, 2006. <u>However, for the *Poschim Para Jame Mosque* and *Purba Para Mosque* location both day-time equivalent noise levels were found to be higher than the prescribed standards for silent area/zone primarily attributed to anthropogenic activities. Noise level during daytime inside the plant near STG area, GT area, CW pump house was observed to be higher than the permissible limit for industrial zone.</u><br><br>*Surface Water Quality Monitoring*<br>Monitoring of surface water quality is being undertaken at 3 locations – upstream and downstream of Meghna | | Update and implement ETP treated effluent monitoring program for operations to cover all pollutant parameters specified in Schedule 4 of BECR, 2023.<br>Conduct third-party point source emission monitoring in accordance with operations ESMP to validate the CEMS monitoring results.<br>Engage a third-party agency to perform calibration of CEMS on a fast-track basis.<br>Commence with the soil quality monitoring for operations phase |

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| | | | | | | River and near the project temporary jetty. The sampling is undertaken on a monthly basis and samples analyzed for the following parameters – pH, BOD, DO, COD, TSS, TDS, ammoniacal nitrogen, total chromium, lead, mercury, Total Dissolved Solids (TDS), Oil & Grease and Total Coliform with results found to be in compliance with the newly notified BECR, 2023.<br><br>*Ground Water Quality Monitoring*<br>Review of the quarterly GW monitoring report for the Jan-Mar 2024, reveals the ground water and drinking water has been monitored from bore well and RO water of worker camp respectively. The ground water and drinking water monitoring suite has been updated to cover all 55 parameters with results found to be in compliance with Schedule 2 of the BECR, 2023. The site has not undertaken any ground water monitoring inside the plant boundary.<br><br>*Storm Water Quality Monitoring*<br>The site has undertaken monitoring of storm water from the outfall at both main project site and worker camp. The monitoring encompasses the following parameters – temperature, pH, TSS, oil and grease, total residual chlorine, total chromium, copper, iron, zinc, lead, cadmium, mercury and arsenic with the results found to be in compliance with the IFC EHS Guidelines for Thermal Power Plants. However, the site has not monitored the storm water outlet water quality located near the Raw Water Pump House.<br><br>*Treated Sewage and Effluent Monitoring*<br>Review of the monthly treated STP effluent monitoring report of Camp site and main plant reveals the effluent has been analyzed for pH, temperature, BOD, COD, TSS, sulphate, phosphate, nitrate, oil and grease and total coliform with results found to be in compliance with the standards prescribed in Schedule 3 of BECR, 2023. The effluent is generated from the STP located | | |

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| | | | | | | at the worker camp and is being discharge to a natural drainage channel.<br>The following observations is made with respect to operations environmental monitoring:<br>• Review of monitoring report dated February 2024 reveals that the treated effluent from ETP has not been monitored as per compliance with the inland surface water discharge standards specified in Schedule 4 of the BECR, 2023. Furthermore, SUNMP has not updated and implemented the wastewater monitoring program for operations to cover all the parameters as specified in Schedule 4 of the aforesaid Rules.<br>• Reportedly the site has installed a Continuous Emission Monitoring System (CEMS) for both main and bypass stack. Review of the online real time values indicate negative values for NOx (-3.56 mg/m3) with PM values also noted for both main stack (6.55 mg/m3) and bypass stack (24.15 mg/m3). Considering natural gas is being used as a fuel, the reason for such high PM concentration in flue gas could not be validated and is ascertained largely due to calibration issues with CEMS, which is reported to be pending.<br>• SUNMP has not undertaken any third-party source emission monitoring as specified in the operations ESMP for validation of the CEMS results.<br>• The site has not undertaken any soil sampling for operation phase.<br>**Note: The validation of all action items could not be undertaken for the current monitoring period due to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| 2.11 | Update the monthly E&S progress report to include social KPIs along with key environmental KPIs such as water consumption, wastewater generated and discharged, waste recycled/disposed | S. No 2.13, Table 3.1 | SUNMP & EPC | Copy of monthly EHS KPIs for construction | Immediately, prior to first disbursement | EPC generates a monthly progress report encompassing Environmental and H&S KPIs along with key E&S incidents/issues and corrective actions. The following key EHS KPIs are reported in the progress report viz. *Fatalities, LTIs, Medical Treatment Case, First Aid Case, Fire, Near Misses, Stop Work, Safety Rewards, Training hours, Toolbox Talks, Safe Man hours, EHS Inspections, Spill Incidents, Waste generation etc.*<br>As recommended in the last audit report, environmental and social metrices in the form of water consumption, waste generation and stakeholder meetings etc. has been captured in the EPC monthly progress report of August 2023. The same was reviewed and validated for the current monitoring period.<br>Reportedly, O&M KPIs will be documented and reported by the GE-NEPC consortium till the time performance test is complete post which this will be taken up the O&M team (NEPC-S and SUNMP). Review of the monthly progress report of June 2024 (as prepared by the O&M contractor) reveals coverage of EHS KPIs which includes safety KPIs like Loss Time Injury, Damage to Asset, Monthly EHSS walkdowns and number of accidents (air/effluent/spill). Key environmental and social KPIs include:<br>• Total NOx emission (tons)<br>• Total CO2 emission (tons)<br>• Effluent generated (m3)<br>• Oil cloth generated (kg)<br>• Used oil filter generated (pcs)<br>• Mud cake generated (kg)<br>• Sludge generated (kg)<br>• Used oil generated (drums)<br>• Medical waste generated (kg)<br>• No of Grievances Reported<br>• No of Grievances Resolved<br>• Stakeholder Engagement<br>Kindly refer Table 2.3 to find the monthly and YTD reported value to the indicators. | | Update the E&S KPIs for operations to include waste management and water conservation indicators.<br>Share copy of the grievance register to review the nature/type of grievances and resolutions proposed and agreed upon. |

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| | | | | | | However, the O&M is yet to include other priority KPIs especially around waste management and water conservation viz. waste disposed, waste recycled, water consumed, water recycled etc. Furthermore, O&M is yet to share the grievance register to review the grievances lodged and manner of redressal | | |
| 2.12 | Update the SEP to include a point on specific channel of communication for external stakeholders established on regular basis to register concerns /feedback from general public or any other external stakeholder.<br>A clear reporting format should be developed and used for SEP Implementation.<br>Implement the Grievance Redress Mechanism for community and report regularly. | S. No 2.15, Table 3.1 | SUNMP | External Communication procedure document<br>Stakeholder activities to be reported in the ES monitoring report<br>Functional GRM; records and database of grievances (including all formal and informal complaints and legal court cases) and resolutions: grievances to be reported in the ES monitoring report. | Immediately, prior to first disbursement<br><br>Ongoing activity<br><br>Ongoing activity | It was reported in previous ERM's audit report that SEP document has included the specific channel of communication for external stakeholders, and it is being implemented by SUNMP management.<br><br>GRM function appears to be working at satisfactory level. Stakeholder, specifically local community in close vicinity of project are well aware with team responsible for registering their issues and concerns. Records of issues received from stakeholder are recorded and also feature in periodic social monitoring report. Review of grievance register indicates no new grievance reported since ERM's last site visit in February 2024. No grievances reported by local community member in last reporting period. | | *Action closed as per the Jan-Mar 2024 E&S monitoring report with implementation to be ongoing.* |
| 2.13 | Check effectiveness of GRM for workers through review of grievance records, action taken report, workers' consultations etc. | S. No 2.1 & 2.14, Table 3.1 | SUNMP | GRM implementation evidence | Ongoing activity | GRM functions were observed to be working fine. Grievances recording system is in place and it is being documented. | | *Action closed as per the Jan-Mar 2024 E&S monitoring report with implementation to be ongoing* |
| **3.** | **IFC PS 2: Labour and Working Conditions** | | | | | | | |
| 3.1 | Update SUNMP HR policies to ensure alignment with IFC PS-2 | S. No 2.1, Table 3.4 | SUNMP | Updated HR policy | Immediately, prior to first disbursement | In previous audit report for the period July-Sept 2023 visit, it was reported that SUNMP management has | | *Action closed as per the Jul-Sep 2023* |

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| | requirements as well as BLA 2006 requirements. | | | | | updated their HR policy and got it approved by board of directors of the company. | | *E&S monitoring report* |
| 3.2 | Facilitate approval of the service rules in coordination with the competent authority | S. No 3.2, Table 3.1 | SUNMP | Approved Service Rule | 3 months prior to COD | SUNMP has applied for service rule approval on 31st July 2023 after updating their HR policy. Company has not received further response from Labour department on approval. However as per labour rule 2015, deemed approval is granted for service rule upon completion of three months since the date of application. | | *Action closed as per the Jul-Sep 2023 E&S monitoring report* |
| 3.3 | Generate a list of contract workers documenting their overtime work status till date (beginning of construction phase till end of Jan'23), gaps with respect to overtime payment including arrears to be paid. | S. No 3.4, Table 3.1 | SUNMP in coordination EPC Contractor | OT work status spreadsheet for contract workers | Immediately, prior to first disbursement | As discussed in previous audit report, SUNMP has agreed to ensure payment of differential amount of overtime hours performed and minimum wage payment to eligible workers in alignment with the revised minimum wage notification that was published in August 2021. In this regard, a detailed assessment on differential amount for eligible workers is prepared.<br>Releasing of the differential amount is not being initiated now, in view of potential business interruption related risk that were discussed in detail during site visit. SUNMP has submitted a Memo in this regard along with details on valid reason for delay in releasing the differential amount, disbursement plan as well as details on differential amount calculation sheet. This Memo assures that SUNMP and EPC contractor (GE) will ensure initiating the process to disburse the differential amount payment to the eligible workers immediately after the completion of project construction phase, and within one month after the achievement of project PAC which is likely to be completed by January 2024.<br>In ERM's 5th E&S Monitoring visit (Feb 2024), it was apprised that project COD was achieved on 19th January 2024 and calculation of differential amount is completed and it has considered period till January 2024. Next steps towards payment release includes formation of back wage committee, Bank Account opening for depositing the fund for differential amount and the initiating payment to eligible construction workers. It was also apprised that payment disbursal is likely to be initiated by May/June 2024.<br>In ERM's 6th E&S monitoring visit (May 2024), it was noted that there has not been any further progress | | SUNMP is responsible to ensure that payment of differential amount to eligible workers, is released by EPC contractor as per the revised disbursement Plan. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | since previous audit period for facilitating disbursement of different amount. No additional progress made till July 2024 since ERM's 5th E&S monitoring visit. | | |
| | Facilitate and complete payment of arrears to the contract workers identified with OT gaps in the list above. | S. No 3.4, Table 3.1 | EPC Contractor | Evidence of payment of OT related arrears to the eligible workers. | Prior to COD | In ERM's 5th E&S monitoring visit, it was reported that differential amount of OT and minimum wage will be paid together as per the disbursement Plan. No additional progress made till July 2024 since ERM's 5th E&S monitoring visit. | | Same as above |
| | Ensure OT payment to both direct and contractual workforce is undertaken in alignment with Bangladesh Labour Rules (BLR), 2015 from 1 Feb 2023 onwards | S. No 3.4, Table 3.1 | EPC Contractor | Documentary evidence of compliance | Same a s above | Same as above | | Same as above |
| 3.4 | Every worker should be issued appointment letter by their respective sub-contractors of EPC contractor as required under section 5 of BLA 2006. | S. No 3.6, Table 3.1 | EPC Contractor | Documentary evidence of compliance | Immediately, prior to first disbursement | Based on last monitoring visit, it is being assumed that all new workers would have received appointment letter from their respective contractor/employer. **Note: The validation of the action item could not be undertaken for the current monitoring period due to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | Regular follow-up with manpower supply agencies should continue to ensure that all of their new recruits provided appointment letter on the very day first of their joining. |
| 3.5 | EPC contractor should also comply with applicable provisions of BLA 2006 w.r.t records and registers required to be maintained as per BLA 2006 | S. No 3.7, Table 3.1 | EPC Contractor | Documentary evidence of compliance | Immediately, prior to first disbursement | Based on last monitoring visit, it is being assumed that Manpower supply agencies (i.e. 'Meghna Enterprise' and 'Man is Power') will be maintaining the applicable compliance related documents. **Note: The validation of the action item could not be undertaken for the current monitoring period due to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | None |
| 3.6 | Ensure improvement of the driver accommodation conditions at the worker camp as per EBRD guidelines. | S. No 3.8, Table 3.1 | EPC Contractor | Monitoring checklist and monthly monitoring reports on | Immediately, prior to first disbursement | Based on site performance in ERM's previous visit, it is being assumed that accommodation arrangement for workers would be in alignment of EBRD guidelines. **Note: The validation of the action item could not be undertaken for the current monitoring period** | | *Action closed as per the Oct-Dec 2023 E&S monitoring report with* |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | Ensure the sanitation facilities at the driver accommodation at the worker camp is designed to provide workers with adequate privacy, including ceiling-to-floor partitions. Proper locking arrangements to be provided at all doors of the temporary toilet rooms/ units on-site. | | | accommodation facility. Photographic evidence | | **due to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *implementation to be ongoing* |
| 3.7 | Remove/replace electric hand power tools using defective/frayed wiring. Appoint designated personnel having valid license for supervision of electrical works and carrying out work on high voltage electrical installations. | S. No 3.12, Table 3.1 | EPC | Photographic evidence<br>Copy of wireman permit of all the electricians specifying its validity | Immediately, prior to first disbursement | As observed during the site walk round, handheld power tools being used were found to be equipped with earthing provision and the same is checked monthly using dedicated electrical inspection checklist. As recommended in the last audit, the site has now made provision of double earthing across all arc welding machines in use at the hot work areas onsite. The electric pumps/motors at the worker camp Water Treatment Plant (WTP) have also been equipped with double earthing except for a few which was actioned and completed during the course of the audit.<br>The site has appointed electricians having wireman and supervisory permit to conduct installation and operation of medium and high voltage electrical works in accordance with the provision of Electricity Rules, 2020. Review of sample supervisory certification for two designated electrical supervisors reveals the certificate is valid for undertaking Class A, B and C type electrical equipment installation and maintenance. | | Closed during current monitoring. |
| 3.8 | Make provision of standalone lighting at the worker restroom/shelters at the main plant site. Share periodic illumination monitoring records for review and validation.<br>Update the GW monitoring program as specified in S. No. 3.13 of Table 3.1 of the 1st E&S monitoring report. | S. No 3.13, Table 3.1 | EPC | Photographic evidence<br>Illumination records<br>Updated GW monitoring program | Immediately, prior to first disbursement and ongoing | As noted during the current monitoring, the site continues to ensure provision of adequate illumination at all restrooms/shelters provided onsite. Reportedly and documentation review indicates that the site undertakes periodic illumination monitoring for all work areas to assess compliance with the illumination standards prescribed. Review of the monitoring records for the period May-July 2024, indicates that SUNMP has undertaken illumination monitoring at the following areas viz. steam turbine, gas turbine, dormitory building, monitoring basin, demineralization | | Undertake illumination monitoring at the worker camp with results to be shared. |

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| | | | | | | plant, control building, main gate, raw water pump house, cooling tower area, emergency lighting (all areas), control rooms, switchyard, oil storage tanks, transformers and outdoor switchgears with results found to be in compliance with the BNBC 2020 standards. <u>However, the illumination monitoring records for the worker accommodation area has not yet been undertaken.</u><br>For the groundwater monitoring program, please refer to S. No. 2.10 of this Table. | | |
| 3.9 | Ensure locking out (de-charging and leaving open with a controlled locking device) and tagging out (warning sign placed on the lock) devices during service or maintenance.<br>Ensure all hot work activities is performed with use of proper barrier screens and in presence of a standby "fire watch" at all times.<br>Provide toe board with the exiting hard barricading at open end of floor/platform as per BNBC norms.<br>Implement standalone work permits for height work and confined space entry. Ensure provision of SCBAs, rescue watch, first aid etc. for all activities involving confined space entry.<br>Conduct Job Safety Analysis (JSA) for all high hazard activities being undertaken<br>Share details of the Safety Committee composition along with meeting minutes. | S. No 3.14, Table 3.1 | EPC | Photographic evidence<br>Work permits for height work and confined space entry.<br>JSA for high hazard works<br>Safety committee composition & meeting minutes | Immediately, prior to first disbursement | *Electrical Safety*<br>With respect to electrical safety, the site has marked the hazardous areas (electrical rooms, installation etc.), with appropriate safety signages and warning signs. The site uses electrical hand power tools with proper earthing, which is subjected to monthly inspection based on a defined checklist and records maintained. Also as recommended, the site has implemented a robust Lock Out Tag Out (LOTO) program/permit system, which was evidenced during the current monitoring period. Furthermore, the bulk diesel storage tank (~1200 litres capacity) at the fire pump room has been equipped with dual earthing in accordance with the provision of the Petroleum Rules, 2002.<br>The site has inspected 30 earth pits on 23 March 2023 through third party having valid license for Class A, B & C electrical equipment installation and maintenance. As per the letter dated 9 April 2023 from Chief Electrical Inspector, the site has obtained validation and approval of earthing system<u>. The electrical wiring and earthing of the operational units onsite is not yet subjected to annual review and certification by government licensed Wiring Inspector or Institution as per Bangladesh Labour Rules (BLR), 2015 requirements.</u><br><u>Multiples instances were noticed where provision of insulated mats was lacking in front of high voltage electrical panels as per regulatory requirements.</u> | | Ensure provision of insulated mats in front of all high voltage electrical panels on site.<br>Engage licensed agency/personnel to conduct annual review and certification electrical wiring and earthing of the operational units as per BLR, 2015 requirements.<br>The site must maintain a Safety Record book as per BLR 2015 requirement.<br>Ensure maintenance of records of all lifting tools and equipment's examination by competency agency in Form 24.<br>Ensure scaffolding onsite conform to the safety requirements |

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| | | | | | | *Hot Work*<br>For hot work-related activities, the site has implemented a work permit system which requires all personnel performing such work to possess requisite competency, use appropriate PPEs and safety equipment viz. flame arrestors, make provision of necessary firefighting equipment at the hot work area etc. Sample document review and physical visit to the site indicates that the site made provision of fire blankets and stand by "fire watch" in the work permits as per the IFC General EHS Guideline requirements. Sample inspection of the work areas also indicate the workers involved in such high hazard activities are equipped with appropriate PPEs.<br>*Safety Committee*<br>In accordance with the BNBC, 2020 requirements, a Safety Committee has now been constituted to efficiently manage all safety related affairs. The GE-Site in Charge acts as the head of the Committee which meets on monthly basis. Documentation review indicates monthly safety committee meeting minutes being maintained and corrective actions identified.<br>The site has constituted a safety committee on 1 April 2024 consisting of 24 members from management, SUNMP PLC and EPC. The first quarterly meeting has been held on 1 July 2024 and minutes of meeting has been shared for review.<br>*Safety Record Book*<br>Safety record book not found to be maintained and displayed at conspicuous places onsite bearing the following information as specified in the Bangladesh Labour Rules, 2015:<br>• A list of machinery or chemical substances used and preserved in an establishment which may cause danger or risk.<br>• A description of personal safety appliances or equipment's, which are to be used by workers.<br>• The date and number of participants in a fire drill. | | outlined in the BNBC, 2020.<br>Ensure access control through provision of fencing at selected stretches in the RMS area. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | • Information related to examination of electrical wiring and appliances.<br>• The list of safety committee members, date and number of participants in the relevant training<br>• Information on the safety measures taken by SUNMP.<br><br>*Height work*<br>As observed during the site walkaround, every open side floor/platform including stairways of under construction building onsite is provided with temporary hard barricading of appropriate height. Also as recommended in the ESAP, the hard barricading railing for such buildings were now provided with toe boards as per BNBC requirements. In this regard and as earlier recommended, site has developed and implemented a standalone height work permit system with all scaffolds being provided with coloured tags specifying its "USE/NO USE" status. Inspection of sample areas indicated workers operating on such scaffolds equipped with appropriate PPEs like safety harnesses etc. For ladders being used, an inspection checklist is also found to be available and implemented.<br>As observed during the current visit, the scaffolds set up for the construction of the boundary wall near the security room and dormitory building is not found to conform to the safety standards prescribed in BNBC, 2020. Key gaps/deviations identified - lack of scaffold tagging system, no toe boards & guard rails, planks serving as platform not secure and observed to be deteriorated, base is not sound, and level not adjusted etc.<br><br>*Confined Space Entry*<br>In consistent with the earlier monitoring report review of the sample work permit for confined space entry for commissioning indicates that oxygen and LEL levels are now being monitored and values are also being documented in the work permit.<br><br>*Excavation Work* | | |

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| | | | | | | Documentation review and physical visit undertaken indicates that the site has developed and implement a permit system for excavation work with barricading now being provided near open trenches/drains near ST building, dormitory building and fire pump room.<br>*Machine & Equipment Safety*<br>Reportedly, site is involved in the operation of lifting equipment in the form of EOT Cranes, chain pulley blocks, lifts etc. for operations. However, the aforesaid lifting equipment's has been inspected and certified by Servelo Inspection Company having valid approval from Department of Inspection for Factories & Establishment, Bangladesh in form-20 dated 16 May 2023 valid for two years. However, the inspection records are not maintained in prescribed format (Form 24) as specified in the Bangladesh Labour Rules (BLR), 2015. Regulatory Metering Station (RMS) at the main plant site has now been provided with proper access control. Photographic evidence has been shared for the same.<br>**Note: The validation/closure of all the action items could not be established for the current monitoring period due to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |
| 3.10 | Develop and implement a robust near miss recording system. Conduct regular training of the workforce to enhance awareness on "near miss" definition to improve overall reporting.<br>Update the training program to encompass the refresher training and its frequency. Maintain separate records for all refresher training being provided. | S. No 3.15, Table 3.1 | EPC | Near Miss Reporting & Recording Procedure<br><br>Training Records (including refresher training) | Immediately, prior to first disbursement | Documentation review indicates that site has implemented a safety induction program for the workforce with records found to be maintained.<br>Reportedly and as noted during the documentation review, the site records and reports near miss as part of the monthly EHS KPI report. In this regard, a near miss reporting system has been established and awareness campaigns being undertaken on a monthly basis.<br>Reportedly, refresher trainings are being conducted however the frequency of such trainings have not been | | *Action closed as per the Jan-Mar 2023 E&S monitoring report.* |

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| | | | | | | defined under the training program and records documented. **Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |
| 3.11 | Develop and implement occupational noise monitoring plan for workers operating nearing high noise equipment viz. batching plant, grinding machines, concrete mixers etc. and maintain records for the same. | S. No 3.16, Table 3.1 | EPC | Occupational noise monitoring plan and records | Immediately, prior to first disbursement | The site has prepared high noise map zone covering a total of 7 areas within main plant viz. main gate, HRSG, dormitory, batching plant, jetty, RMS and STG. Documentation review indicates noise is monitored at these locations 4 times in a day on a monthly basis. In consistent with the ESAP recommendation, the site has undertaken monitoring of occupational noise levels near high noise generating equipment and operations (diesel generator sets, cranes, batching plant, grinding and concrete mixing operations) with results found to be in compliance with the threshold occupational exposure limit of 85 decibels specified under the IFC General EHS Guidelines. <br><u>The site has included workplace noise monitoring in the current environmental monitoring plan (Document No: NEPCSS-M3-EHS-00 dated 01 January 2024) however that does not encompass high noise areas and applicable regulatory requirements. Records reviewed for monitoring report from May- July 2024 indicate that SUNMP has undertaken internal workplace noise monitoring at 28 locations within plant; however, the values recorded have been assessed with respect to ambient noise standards and not with workplace noise standards. As earlier recommended with project now in operations, the site is yet to develop and implement an occupational noise monitoring plan to assess compliance with the occupational noise standards specified in the IFC General EHS Guidelines.</u> | | Update the environmental monitoring plan to include coverage of all high noise areas and regulatory requirements. <br>Develop and implement an occupational noise monitoring plan for operations. Workplace noise levels records to be assessed with the occupational noise standards specified in the IFC General EHS Guidelines. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| 3.12 | Ensure all LPG cylinders at the worker camp and main plant are being stored in covered storage and chain linked. For temporary/satellite LPG storages onsite ensure display of appropriate hazard communication. | S. No 3.16, Table 3.1 | EPC | Photographic evidence | Immediately, prior to first disbursement | As observed during the site walkthrough, appropriate hazard and safety signages was observed to be displayed at the designated LPG storage area at the worker camp and construction site along with copy of the MSDS (in both English and Bangla). Also as recommended in the earlier monitoring report, the site has made effective provision for chain-linking of the LPG cylinders at storage and usage areas onsite. In this regard, the site has also developed a Compressed Gas Cylinder Management procedure which outlines the process of cylinder unloading in consistent with industry best practices.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as per the Jul-Sep 2023 E&S monitoring report.* |
| **4.** | **IFC PS 3: Resource Efficiency and Pollution Prevention** | | | | | | | |
| 4.1 | Review and validate the project main and bypass stack design in consistent with the IFC General EHS Guidelines requirements.<br><br>Prepare and implement a Noise Prevention & Control Plan for operations to ensure compliance with the applicable noise standards at the sensitive receptors (both day and nighttime) | S. No 4.1, Table 3.1 | SUNMP | Copy of stack height design validation study based on IFC EHS Guidelines.<br><br>Copy of Noise Prevention and Control Plan along with evidence of implementation. | Immediately, prior to first disbursement | The HRSG stack height of 75m has now been validated in accordance with the IFC General EHS Guidelines and is found to be line with the requirements, which specifies the minimum stack height to be 72.5 m.<br>The site has prepared a Noise Prevention and Control Plan for operations with noise barrier wall (~3m height) reportedly to be constructed on top of the project boundary wall for which the budget has already been approved by SUNMP Board of Directors. Reportedly construction of boundary and retaining wall is expected to commence in Dec 2023 and be completed by Mar 2024, with the installation of noise barrier expected to be completed by August 2024. In this regard, documentation review indicates that the site has already prepared the approved design documentation for boundary & retaining wall including the noise barrier. Signed agreement is also available with the concerned vendors for construction of the boundary wall and noise barrier along with supply of materials for erection of the noise barrier. | | Ensure installation of the noise barrier wall in accordance with the updated schedule. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | As informed by SUNMP EHS team, the construction of 3m boundary wall has been complete and post completion of the wall construction, noise barrier installation is expected to commence sometime in Aug 2024. Noise barrier material has been shipped from manufacturing country. | | |
| 4.2 | Perform annual quantification of GHG emissions during operations in accordance with internationally recognized methodologies and good practices.<br>Facilitate implementation of the Climate Change Risk Assessment (CCRA) Study Report | S. No 4.2, Table 3.1 | SUNMP | Copy of GHG emission quantification for operations.<br>Report on the implementation progress of CCRA study | Annually during operations. | With project COD declared in Jan 2024, SUNMP is yet to undertake annual quantification of GHG emissions during operations in accordance with internationally recognized methodologies and good practices viz IPCC guidelines for National GHG inventories. However, the site has started calculating GHG emission internally which does not ensure adherence to proper scope, methodology following IPCC guidelines.<br>SUNMP is also to provide/furnish status of implementation of the CCRA study recommendations.<br>**Note: The validation/closure of the action item could not be established for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | Engage a third-party agency to perform annual quantification of GHG emissions for operations in accordance with IPCC guidelines for National GHG inventories. |
| 4.3 | Install flow meters for all borewells at the site and camp. Maintain water consumption records from such borewells and report it as part of monthly EHS KPI report being generated. | S. No 4.3, Table 3.1 | SUNMP & EPC | Copy of flow meters purchase order and monitoring records.<br><br>Updated monthly EHS KPI report | Immediately, prior to first disbursement | Reportedly, the site is currently operating one borewell at the worker camp with records of such consumption being maintained through installation of flow meters. Water requirement for construction and operational activities is presently met through surface water source i.e. Meghna River. In line with the earlier recommendation, site is currently maintaining records of both ground and surface water consumption and details furnished as part of the monthly progress report KPIs.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as per the Jul-Aug 2023 E&S monitoring report.* |

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| 4.4 | Conduct analysis of the riverbed sediment for any potential contaminants by engaging laboratories outside Bangladesh.<br>Implement sediment control measures for the riverbed sand being used for levelling at the worker camp. | S. No 4.4, Table 3.1 | SUNMP & EPC | Copy of riverbed sand analysis report.<br>Photographic evidence | Immediately, prior to first disbursement | As mentioned in the last monitoring report, SUNMP has now undertaken analysis of the riverbed sediments (4 samples) by engaging a third-party agency – *ALS Technichem HK Pty Ltd*, to assess for any potential contaminants viz. PAHs, PCBs, BTEX, TPH and heavy metals. Review of the results with respect to the Dutch Soil Standards (in absence of any national soil standards) reveals in all the cases the concentration of the aforesaid contaminants to be well below the target and intervention values (as presented in the aforesaid standards), which is not indicative of any potential contamination.<br>During the site walkthrough it was noted that arrangements has been made to prevent overflow of riverbed sand to adjoining community land parcels etc. through use of sandbags. Also observed during the last and current monitoring visit, the site has implemented erosion control measures such as grass matting on the riverbed sand slopes of worker camp/accommodation area.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as per the Jan-Mar 2023 E&S monitoring report* |
| 4.5 | Update the WMP as per the ESAP recommendation to cover all major waste streams. viz. drill cuttings and drilling mud during gas pipeline laying; riverbed sediment from construction of water intake & outfall structures; and septic tank sewage sludge. | S. No 4.5, Table 3.1 | SUNMP & EPC | Copy of updated project WMP. | Immediately, prior to first disbursement | In line with recommendation made in the last audit report, the site has placed a request for analysis of sewage sludge through a third-party agency (EQMS) for the following parameters – copper, molybdenum, zinc, arsenic, nickel, lead, cadmium, selenium, benzene, xylene and ethylbenzene in accordance with the Bangladesh Sludge Management Guidelines. <u>However, the site is yet to share sludge analysis report by third party</u>. The EPC consortium has also developed a Sewage Sludge Management Plan which outlines the measures for the treatment of sewage and disposal of sewage sludge generated from the process through licensed waste disposal agencies. Reportedly, the | | Conduct analysis of sludge generated from the STP at worker camp through third-party agency prior to decommissioning of STP.<br>Update the Sludge Management Plan to include management of ETP Sludge and outline the requirement of |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | same will be undertaken during the decommissioning of the worker camp following operations.<br>For operations, sludge will be generated from the Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP), which reportedly will be disposed through authorized third-party vendors. The site has developed a Sludge Management Procedure (Document No: NEPCSS-M3-EHS-10 dated 1 January 2024) for operation phase. However, the plan does not include any details regarding ETP sludge generation, storage, handling and disposal and the requirement to analyze the waste sludge prior to identifying the appropriate disposal methodology in accordance with the Bangladesh Standards and Guidelines for Sludge Management.<br>**Note: The validation/closure of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | sludge analysis and disposal in accordance with the Bangladesh Standards and Guidelines for Sludge Management. |
| 4.6 | Create a centralized, covered and paved hazardous waste storage facility at both main site and construction camp. All hazardous waste storage containers at the said facility to be appropriately labelled bearing hazard codes.<br><br>Maintain a waste inventory and manifests for hazardous waste being generated and collected from site in accordance with the WMP requirements. | S. No 4.6, Table 3.1 | SUNMP & EPC | Photographic evidence.<br><br>Copy of waste inventory and manifests.<br><br>Details pertaining to drilling cutting and drilling mud disposal. | Immediately, prior to first disbursement | The site has established a centralized hazardous waste storage area as per the ESAP recommendation. The hazardous waste comprising of used oil was found to be kept on a paved area with spill kit and firefighting and eyewash provisions.<br>Reportedly, the site has engaged Meghna Enterprises for the collection and disposal of both general and hazardous waste. Review of the communication received from DoE reveals that aforesaid agency is not required to obtain Environmental Clearance Certificate (ECC) for such waste collection and disposal activities. As communicated, Meghna Enterprise is involved in selling of the used oil to a third-party agency – Min Oil Unit-2 Ltd, having ECC which is found to be valid till April 2024. Documentation review also indicates that Meghna Enterprises has an agreement with the aforesaid agency for disposal of hazardous waste, which is found to be valid for a year. | | Discontinue storage of hazardous and solid waste on open and unpaved ground at the project area.<br>Ensure proper signage and secondary containment for hazardous waste storage shed. |

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| | | | | | | As earlier discussed under S. No. 4.5, the site is yet to develop and implement a Waste Management Plan (WMP) for operations in consistent with applicable legal requirement and IFC EHS guidelines. Also as observed during the previous site visit, both hazardous waste (like empty paint containers) and solid packaging waste generated from operational and construction activities was found to be kept in the open on an unpaved area. As per the photographic evidence shared during current audit, the site has constructed a waste storage shed with impervious flooring. However, the storage shed lacks proper signage and from the photographs it could not be concluded whether the shed has proper secondary containment. | | |
| 4.7 | Ensure all hazardous and medical waste generated from the construction site and worker camp is collected and disposed through third party agencies having valid agreement and permission from regulatory authorities.<br>Conduct screening audits to assess the performance of the waste treatment and disposal facilities/agencies identified prior to their engagement.<br>Renew the biomedical waste disposal agreement with M/s Suveccha hospital. | S. No 4.7, Table 3.1 | SUNMP & EPC | Copy of valid agreement & license/approval for all third-party waste management agencies.<br>Copy of audit report of third-party WMAs.<br>Copy of renewed agreement with biomedical waste disposal agencies | Immediately, prior to first disbursement | Based on the documentation review and interaction with SUNMP and GE representatives, it is understood that collection and disposal of solid wastes (including hazardous waste) and biomedical waste from site is being managed through third party agencies – M/s Meghna Enterprise and M/s Prism<br>Review of the agreement with Meghna Enterprise is found to be valid till 31 Mar 2024, while the agreement with Prism is found to be valid till November 2024. As earlier stated, Meghna Enterprise is not required to obtain Environmental Clearance Certificate (ECC) from DoE, Bangladesh for current nature of waste management activities. For Prism, ECC was found to be available and valid till 23 October 2024.<br>Furthermore, in line with the ESAP recommendation, the EPC consortium has conducted an audit of Meghna Enterprises and Prism in Nov 2023 with records being maintained. As recommended earlier, a corrective action plan has also been developed as part of such audits in order to track closure of the audit recommendations.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and** | | *Action closed as per the Oct-Dec 2023 E&S monitoring report.* |

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| | | | | | | **restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |
| 4.8 | Make provision of emergency showers/eye wash at all hazardous chemical/fuel storage sheds of EPC. Avail and display concise version of MSDS of fuel/chemicals in Bangla language.<br>Perform analysis of the transformer oil being used for the presence of PCBs.<br>For oil storage at the worker camp, ensure provision of secondary containment and spill kit as per the Hazardous Material Handling and Storage Management Plan | S. No 4.8, Table 3.1 | EPC | Photographic evidence.<br>Analysis report of transformer oil for PCBs<br>Photographic evidence | Immediately, prior to first disbursement | The diesel, lubricant and engine oil storage containers were found to be kept at the designated covered fuel and chemical storage sheds marked with hazard labels/pictograms. Material safety data sheets (MSDS) were found to be available for the aforesaid areas in both English and local language as recommended in the ESAP. Similar observation was made at the standalone hydrogen storage building and bulk acid and storage tanks of hydrochloric acid, sulfuric acid and sodium hydroxide which are presently operational.<br>Furthermore, the site has made provision of emergency eye wash at the aforesaid hazardous fuel and chemical storage areas including the diesel storage area at the worker camp and operational site. The emergency shower/eye-wash stations were found to be functional and also subjected to monthly inspection evident through the inspection tags observed.<br>As per the evidence shared during current audit, the site has started maintaining information regarding the supply of specific PPEs (as outlined in the MSDS) in the form of vapour mask, hand gloves, splash resistant goggles and coverall for workers engaged in dangerous operations like handling of DM and cooling tower dosing chemicals etc. in Form 23 as per BLR, 2015.<br>Furthermore, during the previous visit to the steam turbine building it was noted that at least 10 drums bearing hydrazine (identified as highly flammable chemical per MSDS available) was found to be appropriately labelled to display the hazard signages. The site has also provided an emergency eyewash, spill kit along with proper secondary containment at the said location.<br>Key gaps/deviations identified include: | | Ensure all hazardous chemicals stored at different areas of the plant have provision of proper spill control kits, chemical neutralizing materials and physical copies of MSDS available/displayed. |

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| | | | | | | • During the site visit to the DM plant, bulk acid and alkali storage unit, bulk diesel storage tank (near fire pump room) and hypochlorite dosing unit/plant it was noted that SUNMP maintain physical copies of chemicals (PAC, diesel, sodium hypochlorite, HCl and NaOH) used/stored in the aforesaid area; however the chemical MSDSs were not found to be displayed in such areas as per provision of BLR, 2015.<br>• As observed during the site walkthrough, provision of spill kits and chemical neutralising material was found to be lacking at the following chemical storage and handling areas viz. water purifying chemical storage room (DM Plant), bulk acid & alkali storage unit and bulk diesel storage (fire pump room) as per specific MSDS requirement. Display of hazard labels and precautionary signages also found to missing on bulk storages of diesel, HCl, NaOH and NaOCl.<br><br>**Note: The validation/closure status of all action items could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |
| 4.9 | Obtain and share the renewed license of the third-party agency involved in pest control activities onsite.<br>Discontinue the Bromadiolone and any WHO Classified Hazard Class Ia (extremely hazardous); or Ib (highly hazardous) pesticides.<br>Update the Pest Control Procedure to introduce pesticide screening and selection based on | S. No 4.9, Table 3.1 | SUNMP & O&M Contractor | Copy of renewed license of pesticide application agency<br><br>Notice communicating the discontinuation of WHO Class Ia &Ib pesticides | Immediately, prior to first disbursement | The EPC consortium has engaged a third-party agency (Care Pest Control Services Ltd.) for performing pest control activities onsite and camp on a weekly basis. Documentation review indicates that the license of the aforesaid agency as issued by the Department of Agriculture, Plant Protection Wing, Bangladesh is currently valid till 23 July 2025.<br>As reported the agency uses the following pesticides onsite viz. Lambda Cyalothrin, Cypermethrin, Permethrin and Darsbun, which do not fall within the category of Class Ia/Ib pesticide as per WHO classification. | | *Action closed as per the Jan-Mar 2024 E&S monitoring report.* |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | WHO Recommended Classification of Pesticides. | | | Updated pest control procedure | | EPC has also updated the Pest Control Procedure (U-EHS-PD-037) to clearly prohibiting the selection and use of WHO Class Ia and Ib pesticides with same now being communicated to the pest control agency. | | |
| **5.** | **IFC PS 4: Community Health, Safety and Security** | | | | | | | |
| 5.1 | Obtain relevant certification from concerned agency stating that the power project buildings/structures conform to BNBC requirements prior to commencement of operations.<br><br>Conduct HAZOP study of the natural gas pipeline – identified as an associated facility of the project through a reputed third-party agency. Implement the recommendation of the HAZOP study in the natural gas pipeline design. | S. No 5.1, Table 3.1 | SUNMP & EPC | Copy of BNBC certification from competent EPC personnel<br><br>Copy of HAZOP report for natural gas pipeline | 6 months prior to COD<br><br>Immediately, prior to first disbursement. | Vysus China Inc. was engaged NEPC to carry out a HAZOP study of the power project. Review of the HAZOP Report dated 8 October 2021 indicates that it covers the following: *Main & Secondary Cooling Water System; Water Supply and Treatment; Demineralized Water System; Biocide Dosing System Cooling Water; Closed Cooling Water; Wastewater; Hydrogen Storage and Distribution; Compressed Air System and Fuel gas system.*<br>As specified in the Oct-Dec 2022 monitoring report, HAZOP study has been extended to cover the natural gas pipeline. As discussed, and recommended in the last monitoring report, the HAZOP report has been updated to include the gas pipeline node to assess the provision of appropriate engineering controls. The review of the report indicates that there are no recommendations with respect to the gas pipeline node safety risks and controls available. | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |
| 5.2 | Prepare and implement a medical screening procedure for all workforce engaged in the project. Undertake specific medical test viz. audiometry, vision, colour blindness etc. for specific target worker groups based on the nature of work to be performed.<br>Ensure the sanitation facilities at the driver accommodation at the worker camp is designed to provide workers with adequate privacy, including ceiling to floor partitions. Proper locking arrangements to be provided at | S. No 5.2, Table 3.1 | SUNMP & EPC | Copy of pre-employment medical screening procedure along with medical examination reports for construction phase<br>Annual medical examination report for operations | Immediately, prior to first disbursement for construction phase.<br>Annually during operations<br>Immediately, prior to first disbursement | Reportedly and as observed during the earlier and current visit, the EPC consortium have made provision of a total of sanitation facilities at the main plant site to prevent exposure to water/vector borne disease resulting from improper sanitation and hygienic conditions. In addition, as per the ESAP recommendation, adequate toilet facilities have also been provided at the SUNMP/NEPC/GE employee cabins at the worker camp for both males and females. The aforesaid sanitation facilities are adequately lighted and observed to be subjected to daily cleaning by designated housekeeping team. As recommended in the ESAP and the Oct-Dec 2022 monitoring report, the worker sanitation facilities has made provision of privacy arrangement at the worker sanitation facilities at the camp. | | Undertake pre-employment medical screening of contractual workforce engaged in engaged in high hazard operations and issue fitness certificate in prescribed format (Form 26A) and maintain a health register in Form 26.<br>Develop and implement an Occupational Health Surveillance |

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| | all doors of the temporary toilet rooms/units onsite.<br>Make provision of additional first aid boxes and certified first aiders at the main plant site as per BNBC norms. | | | Photographic evidence | | Regarding the preparation of worker pre-employment and periodic medical surveillance procedure, the same has now been prepared and documented as U-EHS-PD-043. The procedure outlines the list of health screening parameters to be checked based on the nature of work activities. Reportedly EPC Consortium undertakes pre-employment medical screening of all workers (including security and housekeeping workforce). As earlier recommended, the site undertakes specific tests like audiometry, vision and colour blindness for designated target groups along with blood tests, ECG etc. and the same was validated as part of the sample medical records review undertaken during the current visit.<br>With respect to first aid, as recommended in the ESAP the EPC consortium has now made provision of a 14 first aid box at the main plant site and worker camp. The first aid box contents are subjected to periodic checks based on a defined checklist. Reportedly, a total of 22 trained and certified first aiders have been deployed onsite with name and contact details of the first aiders being displayed at the worker resting areas onsite.<br>For operations, NEPC-S has developed an occupational health surveillance checklist for operations workforce which is to be implemented on an annual basis. As specified in the Jan-Mar 2024, the O&M team is required to undertake pre-employment medical examination of the operational workforce (~80) through a registered practitioner and issue a certificate of fitness in Form 26(A) and maintain the heath examination records in Form 26 as per the provision of the BLR, 2015. In view of the above recommendation, SUNMP has reportedly undertaken pre-employment medical examination of 72 O&M workforce with the records maintained in a health register (From 26). Sample fitness certification in Form 26(A) has also been shared for few workers. However, the pre-employment medical screening/assessment is limited to only direct workers and do not include contractual workers engaged in such dangerous operations. | | Procedure for operations. |

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| | | | | | | Furthermore, the site has also not developed and implemented an Occupational Health Surveillance Procedure to this regard. | | |
| **6.** | **IFC PS 5: Land Acquisition and Involuntary Resettlement** | | | | | | | |
| 6.1 | Facilitate engagement of LRP implementation monitoring agency on a fast-track basis. | S. No 6.2, Table 3.1 | SUNMP | Engagement letter of LRP agency<br>LRP implementation report | Immediately prior to first disbursement<br><br>Quarterly during project construction and operations phase | LRP implementation agency (i.e. M/s. Sajida Foundation) and External Monitoring agency for LRP implementation (i.e. M/s. SSCL) are already on board and implementation activities are progressing as planned in their inception report.<br>Current update on LRP implementation based on is provided in sub-section 3.2 of this report.<br><br>**Note: The validation of the current update on LRP implementation couldn't be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | None |
| **7.** | **IFC PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources** | | | | | | | |
| 7.1 | Promote local fish breeding site in in consultation with the Fishery Department as per ESMP requirement. | S. No 7.2, Table 3.1 | SUNMP | Evidence of engagement with Fishery Department<br>Local fish breeding progress report | Immediately, prior to first disbursement<br>Quarterly during project construction and operations phase | In consistent with the recommendation of the Oct-Dec 2022 monitoring report, SUNMP has engaged with the Upazila Fisheries Department and local fishermen group with respect to promotion of local fish breeding sites. In this regard, the site was also visited by the local Fisheries Department Officer, who recommended the release around 100kgs of carp fish fingerlings of local species such as *Ruhi, Katla, Kalibaush, Mrigel & Sorputi, Bata* etc. by end of July to August when water level will be higher, and fishes get enough oxygen and natural feeding provisions. This is also captured as part of the SUNMP Corporate Social Responsibility (CSR) Plan.<br>As part of first phase of the plan, SUNMP has released 120kgs of fish fingerlings (ruhi, katla, kalibaush, mrigel, grass carp and sorputi) in the Meghna River on 27th August 2023. In the ceremony, SUNMP Site personnel, EPC personnel, Fisheries Dept. personnel, | | Continue to maintain a quarterly progress update report on implementation of the fish breeding promotion program. |

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| | | | | | | community people and fishermen were also present, and it was well appreciated by the local fishermen.<br>A meeting was organized with the local fishermen on 21 Feb 2024 to assess the implementation of the fish breeding program. Key observations from this engagement have been presented below:<br>• 50% of the released fish could not be sustained as those fish fingers were caught by the bamboo structures/cages at the bank of the river. The fish were sold to the nearby markets.<br>• For the future release, the fishermen advised to release the fishes to a different location away from the cages.<br>**Note: Current progress on fish breeding program couldn't be assessed for current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |
| **8.** | **IFC General EHS Guidelines & IFC EHS Guidelines for Thermal Power Plants** | | | | | | | |
| 8.1 | Develop and implement a dust control procedure for managing fugitive emission from construction activities/operation in accordance to the "*IAQM Guidance on the assessment of dust from demolition and construction.*" | S. No 8.1, Table 3.1 | EPC | Copy of dust control procedure with evidence of implementation. | Immediately, prior to first disbursement. | In consistent with the recommendation specified in the Oct-Dec 2022 monitoring report, the EPC Consortium has now developed a standalone "Dust Control Procedure" as per the IAQM guidance document as recommended in the ESAP. As specified in the plan, the EPC consortium has made provision of designated area for concrete mixer and vehicle washing, with the wash water getting collected in the storm water basin constructed. Also, with the project now in operations, only limited volume of wash water is generated from commissioning activities. | | *Action closed as part of the Oct-Dec 2023 E&S monitoring report.* |
| 8.2 | Update the Environmental Monitoring Plan for construction to undertake monitoring of treated sewage and storm water discharges from the main plant and worker camp to assess conformance with the discharge standards specified in BECR, | S. No 8.3, Table 3.1 | SUNMP, EPC & O&M Contractor | Updated EMP and records of treated sewage and storm-water monitoring | Immediately, prior to first disbursement and ongoing as per the frequency specified in the EMP. | The EPC consortium has installed a modular STP at the worker camp in accordance with the ESMMP requirements. The treated effluent from the modular STP is currently being discharged into the nearby natural sewer/drainage channel. Review of the third party quarterly environmental monitoring report (Apr-Jun 2023) indicates that both treated sewage and | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |

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| | 1997 and IFC Sectoral EHS Guidelines.<br>Make provision of proper drainage arrangement at the construction plant site to prevent water stagnation. Ensure provision of sedimentation tank for collection and treatment of vehicle wash water. Ensure functionality of batching plant wastewater treatment system in order to prevent wash water overflows.<br>Share copy of construction site drainage plan and relevant design documentation to validate the design of the septic tank system being utilized for sewage disposal at the main plant site. | | | Photographic evidence<br>Copy of construction site drainage plan and septic tank design documentation | Immediately, prior to first disbursement.<br>Immediately, prior to first disbursement. | surface run-off is being monitored to assess compliance with the discharge standards specified in Schedule 3 of the BECR, 2023 and IFC General EHS Guidelines. For further details, please refer to S. No. 2.10 of this Table.<br>As earlier mentioned in the Oct-Dec 2022 report, the sewage at the main plant site for construction is being disposed into septic tanks and is periodically cleaned/removed through third party waste management agencies for disposal at an external location (not known). Design documentation of the septic tank and soak pit has been shared for review and validation.<br>In accordance with the ESMMP, wastewater generated from concrete batching plant in the form of washing of transit mixers, vehicles etc. along with surface run-off etc. to be subjected to treatment through temporary sedimentation tank prior to discharge into Meghna River conforming to the standards specified in the BECR, 2023. However as recommended in the Oct-Dec 2022 monitoring report, the site has made provision of designated washing bay with wash water getting collected in the stormwater basin being constructed.<br>For the main plant site, the drainage plan shared indicate the provision of 2 outfall equipped with catch pits. For further details with respect to stormwater outfall monitoring please refer to S. No. 2.10 of this Table. | | |
| 8.3 | Evaluate installation of automated bleed/feed controllers, and use of inert construction materials to reduce chemical treatment requirements for cooling tower.<br>Select and use chemical additives devoid of heavy metals like chromium and zinc, being used as corrosion inhibitors. Apply intermittent shock dosing of | S. No 8.4, Table 3.1 | SUNMP, EPC & O&M Contractor | Copy of design of cooling towers<br>Details of chemical additives to be used for treatment of condenser cooling water | 3 months prior to COD | Review of the cooling tower design shared indicates use of inert material for construction. As per the Cooling Water Chemical Dosing System documentation, no specific additives are required except for sodium hypochlorite and sulphuric acid for dosing to prevent biofouling of the condenser and prevention of scaling respectively. | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |

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| | chlorine as opposed to continuous low-level feed. | | | | | | | |
| 8.4 | Ensure all LPG cylinders (both empty and filled) are kept in covered storage and chain linked to prevent any accidental fall. All such cylinder to be marked as empty/filled as per BNBC norms.<br>Update the monthly construction equipment inspection checklist to encompass gas-based welding equipment and maintain records of the same. | S. No 8.5, Table 3.1 | SUNMP & EPC | Photographic evidence along with quarterly inspection records of welding equipment<br>Updated monthly construction equipment checklist | Immediately, prior to first disbursement and ongoing | During the walkaround of the worker camp, reportedly empty LPG cylinders (45 kg capacity each) were found to be kept chain linked and in covered storage. Within the storage area, both the "empty" and "filled" LPG cylinders are separated out and marked for ease of identification.<br>In view of the ESAP recommendation, the site has developed and implemented a Gas Cutting Equipment Inspection Checklist (U-EHS-PD-001) to assess the availability and functioning of the engineering safety controls viz. non-return valves, flash back arrestors, condition of LPG/oxygen lines etc.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as part of the Oct-Dec 2022 E&S monitoring report.* |
| 8.5 | Perform characterization of waste sludge for operations and facilitate its reuse/disposal in accordance to the Bangladesh Standards and Guidelines for Sludge Management as notified by the Department of Environment (DoE), Bangladesh. | S. No. 8.6, Table 3.1 | O&M Contractor | Copy of clarifier sludge analysis report and disposal plan | 6 months from COD or following generation of sludge, whichever is earliest | For operations, sludge will be generated from the Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP), which reportedly will be disposed through authorized third-party vendors. Per the design shared, ~72 kg of sludge is computed to be generated from the wastewater treatment operations. Presently the aforesaid treatment units have commenced operations since Jan 2024, with low volume of sludge generated till date. The site has developed a Sludge Management Procedure (Document No: NEPCSS-M3-EHS-10 dated 1 January 2024) for operation phase. <u>However, the plan does not include any details regarding ETP sludge generation, storage, handling and disposal and the requirement to analyze the waste sludge prior to identifying the appropriate disposal methodology in accordance with the Bangladesh Standards and Guidelines for Sludge Management.</u><br>**Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and** | | Update the Sludge Management Plan to include management of ETP Sludge and outline the requirement of sludge analysis and disposal in accordance with the Bangladesh Standards and Guidelines for Sludge Management. |

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| | | | | | | **restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | |
| 8.6 | Ensure providing a mechanical shaft to the pinion at all the concrete mixers being used at labour camp area.<br>Provide adequate guard to the rotating part of the concrete mixer | S. No. 8.7, Table 3.1 | EPC | Photographic evidence | Immediately, prior to first disbursement | During the site walkthrough it was observed that the portable concrete mixers being used have been provided with mechanical shaft to the pinion along with mechanical covering of rotating parts except for one, where wooden log is being used as shaft. Photographic evidence shared also indicates that movable guards installed for the rotating parts of the concrete mixers deployed while operating the machine.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as part of the Oct-Dec 2022 E&S monitoring report.* |
| 8.7 | Arrange for nylon nets 3 m to 4 m below the working level along the periphery of tall buildings under construction at the main plant site. | S. No. 8.8, Table 3.1 | EPC | Photographic evidence | Immediately, prior to first disbursement | As specified in the earlier monitoring reports, EPC Consortium has developed and implemented full body harness inspection checklist (U-EHS-PD-02). Documentation review indicates that this inspection is being undertaken on a weekly basis and records maintained. Furthermore, as the site has made provision of nylon nets for all exterior height work activities as per BNBC,2020 requirement and this was validated during the site walkthrough undertaken at the construction areas. During the Jan-Mar 2024 monitoring period no external height work activity was found to be undertaken requiring the provision of fall protection arrangement in the form of nylon nets as per BNBC requirements.<br>**Note: The validation of the action item could not be undertaken for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |

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| 8.8 | Develop a driver guide on road and vehicular safety in consistent with the requirements of the Traffic Management Plan.<br>Conduct campaigns and develop brochures to enhance community awareness on pedestrian safety. | S. No. 8.9, Table 3.1 | SUNMP & EPC | Copy of driver guide on road and vehicular safety both on-site and off-site.<br>Photographic evidence and copy of road safety communication material. | Immediately, prior to first disbursement. | The project has developed a guideline for road and vehicular safety for drivers and nearby communication. Safety brochures have been prepared in local language in line with the above guidelines and also shared with local communities to enhance their awareness on road and pedestrian safety. | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |
| 8.9 | Ensure periodic inspection of all firefighting equipment (particularly hose reels, hydrants, sand buckets) based on a defined checklist and maintain records for the same.<br>Make provision for fire extinguisher and smoke detection system at the driver accommodation within the worker camp.<br>Install fire extinguishers near all temporary electrical panels and LPG storages onsite (both camp and main plant).<br>Ensure paints/varnishes storages onsite are constructed of fireproofing material. | S. No. 8.10, Table 3.1 | EPC | Copy of firefighting equipment inspection checklist and records.<br>Photographic evidence.<br>Photographic evidence.<br>Fire rating enclosure certification of paint /varnish store on-site | Immediately, prior to first disbursement | Review of the firefighting equipment layout for both worker camp and main plant and site walkthrough indicate that the site has made provision of fire extinguishers, hydrants, hose reel boxes and sand buckets at strategic locations onsite viz. paint, chemical, hazardous waste storages etc. In addition, provision has also been made for temporary water storage facilities to serve for emergency firefighting. Smoke detection system has been installed at the worker camp offices and GE/NEPC/SUNMP employee accommodation onsite. The site has also made provision of fire hydrant/hose reel system and smoke detection system at the driver accommodation. Wooden enclosure has been removed for the flammable chemical storages in conformance with the BNBC, 2020 requirements.<br>Documentation review indicate that the site has obtained approval of the firefighting floor plan from BFSCD for the operational buildings which covers total floor area of 389989.4 sq. ft. The site has obtained fire license (Building Usage Class: Essential Service E-3 valid till 30 June 2024) for total floor area of 400371 sq. ft. The site has updated the current firefighting floor plan and submitted the same to BFSCD on 03 June 2024 for total floor area of 400371 sq. ft.<br>In accordance with the BFSCD approved plan, site has made provision of active and passive fire protection system in the form of multi detectors, smoke detectors, sprinklers, gas detector, gas suppression | | Amend the BFSCD approved floor plan to include Nitrogen plant building, hypochlorite dosing unit building (for STP) and bulk acid and alkali storage unit and then update fire license as per the floor area of the buildings mentioned in the amended firefighting floor plan from BFSCD.<br>Ensure fast-track installation of a) smoke & heat detection system at the raw water pump house and b) sprinkler head on the deluge system at the bulk diesel storage tank.<br>Engage a third-party agency for annual inspection and maintenance of onsite active and passive fire |

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| | | | | | | system, manual call points, emergency lighting etc. at strategic locations viz. hydrogen storage buildings, turbine and substation building. Based on site visit undertaken for sample buildings within the project site, following key gaps/deviations have been identified:<br>• Nitrogen plant building, hypochlorite dosing unit building (for STP) and bulk acid and alkali storage unit not found to be covered in the updated firefighting floor plan submitted to BFSCD on 03 June 2024.<br>• The sprinkler system installed at the diesel storage area, were found to be lacking sprinkler heads.<br>• Smoke and heat detection system yet to be installed at the raw water pumphouse as per the approved fire safety Plan.<br>Furthermore, with respect to fire safety, SUNMP is yet to engage a third-party agency for annual inspection and maintenance of the active and passive fire protection system onsite as per BNBC, 2020 norms.<br>**Note: The validation/closure status for all action items could not be established for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | protection system installed as per BNBC requirements. |
| 8.10 | Initiate conducting a Fire Safety assessment to assess the fire protection requirements | S. No. 8.11, Table 3.1 | SUNMP and EPC | Copy of Fire Safety Assessment Report | 6 months prior to COD. | As required under Section 8.1.3 of Project EHS Plan, Site is required to undertake a Fire Safety Assessment to verify and validate the design to assess the fire protection requirements.<br>Reportedly the site has engaged Safety Wings to conduct the Fire Safety assessment. Review of the report dated 12 February 2023 suggests that in part-1 of the report BNBC 2020 requirements has been referenced followed by part-2 where a total of 22 buildings have been identified and details of fire-fighting equipment's required in each building has | | *Action closed as part of the Jan-Mar 2024 E&S monitoring report.* |

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| | | | | | | been listed down. The third party, safety wings has done two assessments on 16 January 2024 and 4 February 2024 to check the compliance status of firefighting equipment installation. As mentioned in the final assessment, installation of all kinds of Fire Protection & Detection System has been completed and complying to the NFPA & BNBC rules. | | |
| **9.** | **IFC EHS Guidelines for Gas Distribution Systems** | | | | | | | |
| 9.1 | Facilitate installation of gas detection and alarm system at the RMS in consistent with the IFC EHS Guidelines. | S. No 9.1, Table 3.1 | SUNMP & EPC | Copy of RMS design indicating provision of gas detection and alarm | During designing of RMS | Relevant supporting documentation to be shared by SUNMP for review and validation. | | Share documentation pertaining to the installation of gas detection and alarm system at RMS. |
| 9.2 | Assess the occupational risks associated with gas pipeline laying and operation with respect to welding activities and considering the presence of any buried utility infrastructure in near vicinity.<br><br>Coordinate with TGTDCL to ensure all confined space entry works are undertaken in accordance to a confined space entry procedure and appropriate work permits.<br><br>Ensure usage of ventilation and oxygen / explosive level detection and alarm equipment prior to any confined space access. | S. No 9.2, Table 3.1 | O&M Contractor | Copy of occupational risk assessment report for natural gas pipeline.<br><br>Copy of confined space entry procedure for pipeline laying.<br><br>Records of work permit with oxygen level detection level for confined space entry works. | 3 months prior to pipeline laying & operations<br><br>3 months prior to COD or pipeline operations, whichever is earliest.<br><br>Prior to confined space entry work during operations. | The site has completed with the pipeline laying activities across the Meghna River, with potential safety risk and mitigation measures being discussed under *"Method Statement of Fuel Gas Pipeline HDD Construction for Crossing the Meghna River" (UNQ/00/K/UEP--ADP/MS/038).* With project declared COD in Jan 2024 and gas pipeline in operations the aforesaid requirements could not be assessed at this stage. | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report* |
| 9.3 | Identify and locate existing gas and other buried utility infrastructure, if any prior to excavation for installation or repair of gas pipelines. Ensure installation of visual marking of | S. No 9.3, Table 3.1 | EPC & O&M Contractor | Copy of underground utility infrastructure layout along the pipeline RoW. | Prior to laying of gas pipeline.<br><br>Prior to COD or operations | As communicated by the SUNMP construction team, there exists no utility infrastructure along the natural gas pipeline RoW. However, copy of supporting documentation to be shared for review and validation. | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | gas pipeline as part of installation and carry out purging of gas from pipelines prior to welding/cutting activities. | | | Photographic evidence | of pipeline, whichever is earliest. | Provision of visual marking of the natural gas pipeline supplying the project has already been installed and validated as part of the Jan-Mar 2024 monitoring visit.<br>**Note: The validation of the action item could not be established for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh** | | |
| 9.4 | Develop and implement an O&M plan for the natural gas pipeline in coordination with TGTDCL. Submit the same to the Department of Explosives (DoE), Bangladesh. | S. No 9.4, Table 3.1 | O&M Contractor & TGTDCL | Copy of O&M plan submitted to the Department of Explosives | 3 months prior to COD | With gas supply line currently in operations, an O&M plan is yet to be developed and shared for the pipeline operations in accordance with the requirements of the Natural Gas Safety Rules (NGSR), 1991. The O&M is also required to be submitted to the Department of Explosives, Bangladesh.<br>**Note: The closure status of the action item could not be established for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh** | | Prepare and submit an O&M Plan for gas pipeline operations to Department of Explosives, Bangladesh. Facilitate implementation of the plan in accordance with the provision of NGSR, 1991 requirements. |
| 9.5 | Develop and implement an offsite emergency response and preparedness plan in coordination with TGTDCL. Communicate the potential hazards presented by the gas supply line, safety measure/controls in place and response measures to be adopted in case of any emergencies in the form of pipeline leaks/explosions.<br><br>Implement a telephone notification system to respond to reports of leaks or questions of general safety from the affected community and other interested parties. | S. No 9.5, Table 3.1 | SUNMP, O&M Contractor & TGTDCL | Copy of offsite emergency response and preparedness plan with evidence of implementation. | 3 months prior to COD or operations of pipeline, whichever is earliest. | The site has developed an Offsite Emergency Response Plan (Doc No: NEPCS-M3-EHS-020 dated Jan 2024). Review of the offsite emergency response plan developed indicates that the site has properly identified offsite emergency scenarios like:<br>• Fire & Explosion<br>• Release of toxic gas<br>• Oil & chemical Spill.<br>• Chemical and heat Burns to human and livestock.<br>• Overpressure shocks to human and livestock<br>• Damage to private and public property.<br>Emergency mitigation & evacuation plan, communication procedure, roles & responsibilities are also well defined in line with the current operations E&S organogram in case of emergency along with emergency contact details. As recommended in the | | Update the emergency response plan for operations to encompass:<br>a) details of emergency response equipment and b) MSDS of the chemical/fuel being stored/handled. |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
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| | | | | | | Jan-Mar 2024 monitoring report, the plan has now been updated to include list of the emergency response equipment, chemical and fuel inventory. However, the emergency response equipment available onsite has not been quantified with MSDSs of the chemicals/fuel being stored/handled not furnished in the aforesaid Plan. | | |
| **10** | **IFC EHS Guidelines for Electric Power Transmission & Distribution** | | | | | | | |
| 10.1 | Ensure installation of marker balls for the power transmission line to prevent bird collisions. | S. No 10.1, Table 3.1 | EPC | Photographic evidence | Prior to COD or energization of the transmission line, whichever is earliest. | During the earlier visits it was noted that marker balls have been installed on the transmission lines to prevent bird collisions | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |
| 10.2 | Ensure provision of effective grounding for the towers supporting the live transmission lines in accordance to the regulatory requirement. | S. No 10.2, Table 3.1 | EPC | Records of earthing resistance. | Prior to COD or energization of the transmission line, whichever is earliest. | Reportedly, all transmission towers have been provided with effective grounding in the form of earth pits. The same has been subjected to inspection internally by the EPC consortium with records being maintained.<br>**Note: The validation of the action item could not be established for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |
| 10.3 | Updated height work procedure to include work on transmission lines, rescue of fall arrested workers, use of rated hoisting equipment by trained operator. | S. No 10.3, Table 3.1 | EPC | Copy of updated height work procedure with evidence of implementation. | Immediately, prior to first disbursement. | GE-NEPC consortium has developed a Work at Height Procedure (U-EHS-PD-016) which outlines the hazards associated with height including general and specific requirements to be followed for carrying out such high hazard activity. The procedure also specified the inspection and training requirements for effective implementation of the Plan. In additional to the above, there is also a Work at Height Rescue Plan prepared and implemented for tower erection works which includes a checklist for rescue actions along with procedure for notification, emergency response actions, rescue team risk assessment and medical | | *Action closed as part of the Jul-Sep 2023 E&S monitoring report.* |

| S. No | Action item | Reference in ESDD Report | Responsibility | Deliverable | Suggested Timeline for completion | ERM Observations (August 2024) | Progress Status | Recommendations |
|---|---|---|---|---|---|---|---|---|
| | | | | | | evaluation and retrieval requirements. The contact details of both onsite and offsite emergency/rescue responders have also been furnished in the Plan. | | |
| 10.4 | Develop and implement an EMF Safety Program prior to the commencement of project operations | S. No 10.4, Table 3.1 | SUNMP & O&M Contractor | Copy of EMF Program with evidence of implementation | Prior to COD or energization of the transmission line, whichever is earliest. | SUNMP has developed a training module and implemented an EMF Safety Program as per the IFC Sectoral EHS Guidelines which includes source, effect of EMF and safety controls along with roles & responsibilities during the operation. A training program has been conducted on 05 May 2024 which has been attended by 29 workers. **Note: The validation of the action item could not be established for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as part of the Jan-Mar 2024 E&S monitoring report with implementation to be ongoing.* |
| 10.5 | Display cautionary signs and install barriers to prevent public contact with transmission towers located outside the project. Perform grounding of conducting objects (e.g. fences or other metallic structures) installed near power lines, to prevent shock. | S. No 10.5, Table 3.1 | SUNMP & O&M Contractor | Photographic evidence | Prior to COD or energization of the transmission line, whichever is earliest. | As noted during the earlier monitoring visit, cautionary signages and safety barricading was evidenced for the transmission towers. Electrical grounding was also noted for the transmission tower footings in accordance with the IFC Sectoral EHS Guidelines. **Note: The validation of the action item could not be established for the current monitoring period owing to limited availability of information due to disruption in network/data connectivity and restricted in-country travel triggered by the current unrest situation in Bangladesh.** | | *Action closed as part of the Jan-Mar 2024 E&S monitoring report with implementation to be ongoing.* |

## 3.2 LIVELIHOOD RESTORATION PLAN (LRP) IMPLEMENTATION STATUS

SUNMP has engaged Sajida Foundation as a LRP implementing agency and has engaged SSCL as an external Monitoring & Evaluation Agency for LRP implementation. LRP implementation activity is currently in progress, and inception report has been submitted by Sajida Foundation and SSCL to SUNMP. Sajida foundation has established their site office, and their field team are mobilized at site. Major LRP implementation progress achieved till July 2024 as observed based on review of review of the implementation progress document is summarized below:

- Process of registration of all targeted households completed which is essential for essential for the structured delivery of services and aid.
- Transitional aid disbursement was completed for 130 households.
- One-time grant support distributions to 56 fishermen were completed which is directly addressing the needs of this critical stakeholder group.
- Community engagement activities were continued, and additional consultations and engagement activities were also organized during 2$^{nd}$ operation phase E&S monitoring period. Total 6 FGDs and 2 satellite clinic sessions were organized during reporting period.
- For capacity building, a comprehensive training was imparted on the newly developed SOPs and Telehealth services, to enhance the capabilities of project staff, ensuring effective and efficient project delivery.
- Training on livestock for 105 PAPs completed and remaining eligible PAPs (92) for livestock training are scheduled to be completed by end of 2024.
- Seed capital amount disbursed to 89 PAPs who received livestock training. Disbursement of seed capital to remaining eligible PAPs will be completed by end of 2024.
- Training on micro business completed for 90 participants and seed capital disbursed to 75 participants. Remaining 15 participants will be provided seed capital by end of August 2024.
- Vocational training for 11 participants and sewing machine training for 60 participants, are scheduled to commence in August 2024.

SUNMP has also engaged SSCL (Sustainability Safeguard Compliance Limited) as External Monitoring consultant for LRP monitoring. SSCL has submitted their work plan as part of final Inception Report to SUNMP and they also submitted their first Monitoring Report in LRP implementation progress. SSCL is also assigned the task of developing community development plan (CDP) for the project. SSCL progress for current monitoring period were available.

**Note: Above described LRP implementation progress couldn’t be verified through ERM’s field visit and consultation with beneficiaries, owning to restricted in-country travel triggered by the current unrest situation in Bangladesh.**

## 3.3 STAKEHOLDER ENGAGEMENT PLAN (SEP) & GRM IMPLEMENTATION STATUS

A well-qualified and trained personnel in the capacity of Community Development Manager (CDM) engaged by SUNMP, is leading stakeholder engagement activities at site, with the support of a dedicated field staff who sits in Community relationship office set up by SUNMP in Doodhghata village, near plant gate. Based on ERM's consultation with PAHs from Doodhghata village, it was noticed that community members are well aware with the formal engagement system established by SUNMP and also quite familiar and comfortable with the CDM and his team in terms of sharing any sort of issues connected with the project activities.

SUNMP Community Development team have established a system of documentation of their engagement with PAHs and other stakeholder. Minutes of meeting of all important meetings carried out by CSR Manager is being documented for records. Community Development team have established a good connect with local stakeholder and also acting as chain of communication between SUNMP Management and local community.

GRM system is well established. GRM process is displayed at notice board. Workers are informed about this at the time of their induction training. Grievance boxes are placed across multiple locations in plant area and campsite. It was noticed that workers are familiar with this system, and they hesitate a little in using the formal channel. Instead, they prefer communicating their issues with their respective site supervisors. Although workers are encouraged to use formal channel of GRM by site level executives. Community issues are being taken care of by Community Development department.

Review of grievance register indicates that total 32 grievances received since 2021 from different stakeholder groups like local community including affected households and construction workers. all of these grievances were addressed and closed. No grievances were reported during 2$^{nd}$ operation phase E&S monitoring period by any stakeholder group

# APPENDIX A PHOTO DOCUMENTATION

ERM

Photo 1: Hazardous Waste storage shed

Photo 2: Colour coded bins for waste segregation

Photo 3: Illumination Monitoring inside office

Photo 4: Illumination monitoring at night

Photo 5: RMS area with barricading and access restriction

Photo 6: Secondary Containment at Hydrazine Storage


Photo 7: Double Earthing provided at Fire Diesel Tank storage.


Photo 8: community consultation by LRP implementation agency- Sajida

Photo 9: LRP Training Session

Photo 10: Satellite clinic organized by Sajida foundation

[Source: SUNMP]

# APPENDIX B DOCUMENT/INFORMATION REVIEW LIST

- Wastewater Management Plan
- Rainwater Harvesting System and Sustainable Groundwater Management Plan
- Environmental Aspect Impact Matrix
- Roles & Responsibilities of EHS personnel
- Form 22A (Joint Mock drill Report with BFSCD)
- SUNMP Monthly Report
- Electrical Supervisor License
- Illumination Monitoring Record
- Earthing Test Report
- Details of Safety Committee and Meeting Minutes
- Noise Monitoring Report
- Pre-employment Health Assessment Report
- Register regarding heath assessment of workers employed in dangerous operating tasks
- Off-site emergency plan
- PPE Register for Hazardous Operation
- Fire Safety Plan of SUNMP
- Letter to DoEx for submission of operating procedure of RMS
- LRP implementation progress update summary
- Current manpower data

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