Annexure-I

Contractor & Suppliers work Policy

Proposed Contract Agreement between CuEZL and other industries

SUPPLEMENTAL AGREEMENT TO LAND LEASE AGREEMENT

This Supplemental Agreement to the Land Lease Agreement, executed on ……. and registered on …….. (the **"LLA"),** is made on this…….day of ……2022 ((the **"Supplement")**

AMONGST

COMILLA ECONOMIC ZONE LIMITED, a private company limited by shares, having its office at Fresh Villa, House # 15, Road # 34, Gulshan- 1, Dhaka-1212, established under the Companies Act, 1994 of Bangladesh and which has been awarded license by the Bangladesh Economic Zones Authority **("BEZA"),** represented by its Managing Director, **Mr.** Mostafa Kamal (hereinafter referred to as the **"Lessor"),** which expression unless otherwise repugnant to the context, shall include its successors-in-interests, administrators, legal representatives, executors, assigns and affiliates on the **One Part;**
AND
……, a private company limited by shares established under the Companies Act, 1994 of Bangladesh, bearing certificate of incorporation No…….. and having its registered office at……., Bangladesh **("Lessee"),** which expression unless otherwise repugnant to the context, shall include its successors-in- interests, administrators, legal representatives, executors, assigns and affiliates on the **Other Part;**

Both the **Lessor** and the **Lessee** are hereinafter individually referred to as the **"Party"** and collectively as the **"Parties".**

WHEREAS

A. The Parties entered into the LLA with the intention for the Lessee to lease the Scheduled Land for 30 years on certain terms and conditions and construct a factory to undertake specialty chemical businesses in Bangladesh.

B. Following the registration of the LLA, the Lessee noticed that there is a 132KV transmission line **("Transmission Line")** constructed by Power Grid Company of Bangladesh Limited **("PGCB")** adjacent to the eastern part of the Scheduled Land, which requires the Lessee to maintain. certain distance from all of its structure within the Scheduled Land.

C. The Lessor obtained specific exemptions from the PGCB in 2019 **("2019 Exemption")** with regards to keeping 5meter distance to ensure Right of Way **("ROW")** around any infrastructure constructed within the Scheduled Land.

D. Subsequently, the Electricity Rules 2020 **("2020 Rules")** has been enacted under the Electricity Act 2018, pursuant to which at least 14m distance (for 132 KV line) is required to be maintained to ensure ROW around any infrastructure on premises such as the Scheduled Land.

E. Pursuant to this, the Parties underwent discussions and negotiations with regards to the legal validity of the 2019 Exemption following the enactment of the 2020 Rules and reached mutual agreement.

F. Therefore, it has now become necessary to adopt and reflect their mutual agreement of the terms through this Supplement as part of the LLA as provided hereunder.

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. That the capitalized terms used in this Supplement shall, unless the context otherwise requires, have the same meaning given in the LLA.
2. The Lessor agrees to indemnify the Lessee for any financial losses arising from dismantling of infrastructure by relevant authority or by the order of relevant authority to maintain the ROW mentioned in the Clause C of this Supplement.
3. That in view of the above, the Lessee has agreed to keep 10 meter distance to ensure ROW around any infrastructure constructed (however, road and yards will be made keeping 5 meter distance from the power line) within the Scheduled Land and to construct a factory for their specialty chemical business accordingly.
4. This Supplement shall be deemed to be an integral part of the LLA.
5. This Supplement to the LLA shall be effective as soon as the Parties hereto shall execute this Supplement.
6. The Parties hereto hereby declare and confirm the terms of the Supplement made hereinabove and also acknowledge that they will abide by the same and also abide by other terms of the LLA which remains unchanged and also assert that the terms of the Supplement shall remain effective and binding on their successors-in-interest and assignees.
7. That this Supplement to the LLA may be executed in as many counterparts as there are parties and each of them shall be regarded as the same and original document.
8. That this Supplement and its performance shall be governed by and construed in all respects in accordance with the laws of Bangladesh.
9. Any dispute arising out of this Supplement shall also be resolved through arbitration in accordance with the provisions stipulated within Part L of the LLA.
10. The amount of rental chargeable on the said land is USD……..per square meter annum payable monthly in advance subject to escalating by 10% after every five years.

11. The LESSEE shall be charged 10% service charge on all utilities bill e.g. Electricity, Gas, Water, CETP and all other amenities.

12. The LESSEE is bound to construct its Factory Building in compliance with the Bangladesh National Building Code (BNBC) and S.R.O No. 46-Law/2017 subject to having the detailed Drawing & Design approval certified by BEZA.

13. LESSEE shall abide by the content of Schedule-01 of S.R.O. No. 354-Law/2015 dated 29 November 2015 as referred to as Bangladesh Privat Economic Zone Policy 2015. LESSEE shall not import any item as prohibited and restricted as show Annexure 01of Import Policy.

14. The LESSEE is not entitled to mortgage land to any bank /financial institution or any other party.

15. The LESSOR shall handover vacant possession of the said land to the LESSEE who shall have the right at its own cost and expenses to erect upon the said land a factory or other buildings which shall be subject to the approval of the Bangladesh Economic Zones Authority (BEZA) and shall be used as industrial premises in accordance with such approval and for no other purpose whatsoever.

16. The LESSEE undertakes that it will not build on the said land any type of building other than that prescribed by the LESSOR and that it will not permit the said land or the building to be used for any purpose other than as an industrial premises or for any purpose which is unlawful or which is or may be a nuisance or which may interfere with the peaceful possessions of the overs or occupiers of any neighboring plot/plots of land.

17. The LESSEE shall at all times permit the LESSOR its contractors agents, workmen and others authorized by it to enter upon the said land and premises for the purpose of erecting and of laying drains, sewers, pipes, cables-or wires on over or under ground and supplying gas, water, electricity and telephone services to and for drains of surface water and sewerage from the said land/ or any neighboring plot/plots of land.

18. The LESSEE that Will be provided with new connection of electricity, water and gas shall haze. to pay security deposit equivalent to 03 m0nths probable bills against the utilities. The probable bills will be calculated on the basis of the demand by LESSEE for the utility

19. The LESSEE shall, pay any rates or fees which may be levied on the property by the LESSOR in respect of services such as domestic garbage disposal, street cleaning, sanitary services, water, electricity, gas etc

20. (a) The LESSEE shall settle/pay all rental Sues, taxes, bills of water, electricity and gas etc. within 15 days from the date of issuing the bills fa ng which the LESSOR may suspend issuing of export permit and import permit.
(b) If the LESSEE defaults in payment of the said bills within fifteenth days aforesaid, a surcharge shall be levied by the LESSOR thereafter at a rate prescribed by it for in BEZA's Collection and Billing Procedure.
(c) In addition, and without prejudice to the powers, rights and remedies by the agreement conferred, if the LESSEE defaults in payment of the utilities bills along with surcharge within two months of due date, the LESSOR may Disconnect/snap the electricity/water/gas connections provided to the LESSEE.

(d) The LESSEE shall comply with all the terms and conditions contained in the permission letter or any permission of the LESSOR issued for day to days smooth operation. In the event that the LESSEE fails to perform or observe as per conditions of permission letter and misconduct or violate any terms and conditions of any permission of the LESSOR and if the LESSEE practices any corruption, shall be subject to adjudication by LESSOR or the Customs Authority of the zone, even if such violation is detected by any other agency, the LESSOR shall be entitled to terminate the lease agreement and shall impose penalty as it deems fit in this respect.

21. Dues amount including surcharge shall not exceed to the amount equivalent to two quarter mental charges. If not paid earlier, after the expire of second quarter the land lease agreement would be liable to be cancelled and the arrears shall be adjusted from the security deposit and the LESSOR shall have the right to take other measure to realize the dues, if any after such adjustment, as it deems fit.

22. Without prejudice to the powers, rights and remedies by the agreement conferred, In the event that the LESSEE fails to setup the manufacturing operation within the specified period of time and is unable or fail to produce and /or export as per the project document submitted by its, the LESSOR shall be entitled to terminate the lease agreement after the expiry of twenty one (21) days of sending a notice in writing by the. LESSOR to the LESSEE in this respect.

23. LESSOR shall have no responsibilities for any noncompliance of LESSEE with any low, policies, regulations applicable in Bangladesh and further LESSOR shall not be responsible for any noncompliance of LESSEE to any third party.

24. The LESSEE shall comply with the rules pertaining to environment protection, pollution control and effluent treatment and take necessary safety measures against possible fire hazards.

25. LESSEE shall treat and dispose of or cause to be treated and disposed of trade and other effluents in a manner which is in accordance with the standards of state bodies and to the Sd4sfaction of the said authority.

26. The LEESSEE shall have to keep provision of multistoried factory building, as applicable, and have to start the construction work of the factory building on the allotted plots for best utilization of the land. The structural design and drawing of the Factory Building must be comply with the National and Bangladesh Economic Zones Authority (BEZA) building code.

27. This lease agreement shall come into force with effect from the…… and the lease rent will be charged from the same date

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE PUT THEIR RESPECTIVE SIGNATURES ON THIS SUPPLEMENT TO THE LLA AS OF THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED BY THE SIGNED AND DELIVERED BY THE LESSEE LESSOR

Mr. Mostafa Kamal

Managing Director

Signature for and on behalf of Comilla Economic Zone Ltd. (1st Party)

Witness:

1.

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

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দ্বিপক্ষীয় সমঝোতা স্মারক

প্রকল্পের নামঃ কঠিন বর্জ্য অপসারন কার্যক্রম

সুমন চন্দ্র ভৌমিক সিনিয়র ডি.জি.এম একাউন্টস, কুমিল্লা ইকোনমিক জোন লিমিটেড হাউস- ১৫, রোড- ৩৪, গুলশান ঢাকা

..... **১ম পক্ষ।**

মাসুদুর রহমান মাসুম, স্বত্তাধিকারী, মেঘনা এন্টারপ্রাইজ, গভঃ রেজি নং- ০২.০২.৬৭০০.১৪০.৭০.০১৫.১৭-১৪১ ,সাং-কাদিরগঞ্জ ,সোনারগাঁও, নারায়নগঞ্জ।

..... **২য় পক্ষ।**

পরম করুনাময় আল্লাহ তায়ালার নাম স্মরণে দ্বিপক্ষীয় সমঝোতা স্মারকের বয়ান করছি যে, আমি ১ম পক্ষ কুমিল্লা ইকোনমিক জোন লিমিটেড এর কারখানার সৌন্দর্য ও পরিবেশগত স্বার্থ রক্ষার্থে যাবতীয় কঠিন বর্জ্য ও অপ্রয়োজনীয় সামগ্রী স্থানান্তরের জন্য আপনি ২য় পক্ষ মেসার্স মেঘনা এন্টারপ্রাইজ-কে অদ্য ২৫/১০/২০২১ইং তারিখে প্রস্তাব প্রদান করলে, আপনি ২য় পক্ষ নিম্নলিখিত শর্ত সাপেক্ষে সম্মতি প্রকাশ করেন।

শর্তাবলীসমূহঃ

১। পরিত্যক্ত কাগজ, পরিত্যক্ত কার্টুন, নষ্ট টিউব লাইট, অব্যবহৃত/পুরাতন পলিব্যাগ, প্লাষ্টিক জাতীয় দ্রব্য, পুরাতন চট বা বস্তা, কাঠ, ইটিপি স্লাজ/বর্জ্য, কেমিক্যাল ড্রাম, টিন বা টিনজাত দ্রব্য এবং সর্ব প্রকার লোহা জাতীয় জিনিস ইত্যাদি এই চুক্তির আওতায় থাকবে।

২। দ্বিতীয় পক্ষ মেসার্স মেঘনা এন্টারপ্রাইজ তার নিজস্ব জনবল ও পরিবহনের মাধ্যমে প্রতি সপ্তাহে ১ দিন উল্লেখিত দ্রব্যসমূহ প্রথম পক্ষের মনোনীত স্টোর বিভাগের কর্মকর্তা/কর্মচারীর উপস্থিতিতে ওজন করে নিজস্ব পরিবহন এবং শ্রমিক দ্বারা প্রথম পক্ষের কারখানা থেকে নিয়ে যাবেন।

৩। দ্বিতীয় পক্ষ নগদ অর্থ প্রথম পক্ষের স্টোর ও হিসাব বিভাগে প্রদান সাপেক্ষে উক্ত মালামাল খালাস করিবেন।

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

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একশত টাকা

খঙ ৭৩৯৬৪৯১

৪। কারখানা চলাকালীন সময়ে (সকাল ১০.০০ হতে বিকাল ৫.০০) এই মালামাল কারখানার বাহির করতে হবে।

৫। কুমিল্লা ইকোনমিক জোন লিমিটেড এর উপরোক্ত মালামালগুলো সংগ্রহের পর তা দেশের বিদ্যমান বাংলাদেশ পরিবেশ সংরক্ষণ আইন-১৯৯৫ অনুযায়ী সংগ্রহ, সংরক্ষন, অপসারন অথবা নিস্পত্তি করা হবে, যেন পরিবেশের উপর কোন ক্ষতিকর প্রভাব বিস্তার না করে।

৬। লোহা জাতীয় জিনিস রি-রোলিং কারখানায় হস্তান্তর করতে হবে।

৭। প্লাস্টিক জাতীয় মালামাল প্লাস্টিক কারখানায় হস্তান্তর করতে হবে।

৮। দ্বিতীয় পক্ষ তার দৈনন্দিন কাজে কোন শিশু শ্রম বা বলপ্রয়োগ শ্রম নিয়োগ করতে পারবে না।

৯। দ্বিতীয় পক্ষ কোন ঘুষ ও দুর্নীতিতে জড়ানোর অভিযোগ পাওয়া গেলে উক্ত চুক্তি বাতিল বলে গন্য হবে।

১০। পরিচ্ছন্ন কর্মী নিয়োগ, বেতন ভাতাদি সহ উক্ত কার্যক্রমে যে সকল মালামাল, যন্ত্রপাতি, পিপিই ও সামগ্রী ব্যবহার করা হবে সে সকল যন্ত্রপাতি ও সামগ্রী নিজস্ব অর্থে ক্রয়, সংরক্ষন, মেরামত ও হেফাজতের দায়-দায়িত্ব ২য় পক্ষ মেসার্স মেঘনা এন্টারপ্রাইজ এর উপর ন্যাস্ত থাকবে।

১১ উক্ত কার্যক্রমে সংশ্লিষ্ট সকল কর্মীকে মেসার্স মেঘনা এন্টারপ্রাইজ এর মনোগ্রাম সহ এপ্রোন ব্যবহার করতে হবে এবং তাদের সকলকে কর্তৃপক্ষের স্বাক্ষরিত ছবি সহ আই.ডি কার্ড ব্যবহার করতে হবে।

১২। ১ম পক্ষ বিনা নোটিসে উল্লেখিত যে কোন শর্ত ভঙ্গেও কারনে উক্ত চুক্তি বাতিলের ক্ষমতা সংরক্ষন করেন।

১৩। বাস্তাবতার প্রেক্ষিতে উক্ত চুক্তি যেকোন সময় উভয় পক্ষ আলোচনা সাপেক্ষে যেকোন শর্ত সংশোধন, সংযোজন ও বাতিল করতে পারবে।

"দেশপ্রেমের শপথ নিন, দুর্নীতিকে বিদায় দিন"

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

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একশত টাকা

খট ৪৭৪৬৪৬০

১৪। এই চুক্তিনামা অদ্য ২৫/১০/২০২১ইং তারিখ হতে কার্যকর হবে এবং পরবর্তী চুক্তি না হওয়া পর্যন্ত এই চুক্তি বলবৎ থাকবে।

উপরোক্ত শর্তাবলী পড়িয়া, বুঝিয়া এবং মর্ম অনুধাবন করে আমরা উভয় পক্ষ স্বজ্ঞানে, সুস্থ মস্তিস্কে নিম্নে বর্ণিত সাক্ষীগনের উপস্থিতিতে স্বাক্ষর করলাম।

স্বাক্ষীগনের স্বাক্ষরঃ

১। Md. Afzal Hossain
Sr. AGM

২। Md. Lutfur Rahman
Asst. Manager

৩। Mohammad Selim Hossain
Sr. officer

১ম পক্ষের স্বাক্ষর

২য় পক্ষের স্বাক্ষর

ANNEX - J

Grievance Redress Mechanism

ANNEX J
GRIEVANCE REDRESS MECHANISM

J.1 INTRODUCTION

During implementation and operational stages of any project, there exists chances of rising conflicts, allegations, dissatisfaction, and grievances among the workers, management and the local community. There should be a mechanism of addressing such issues regarding the project's performance in the constructional and operational phases and hence a Grievance Redress Mechanism (GRM) needs to be established. The mechanism should be able to address the aggrieved parties concerns and complaints promptly by using an understandable and transparent process which is accessible to all including workers in a workplace environment. The mechanism should be set up with an intention of it being an effective tool for early identification, assessment and resolution of complaints during the project life cycle. There can be a range of issues arising during a project phase. Such as:

- Compensation payment, or failure to fulfill commitments,
- Improper estimation of affected assets
- Poor management of construction activities
- Accidents during construction or due to inappropriate planning of vehicle movement,
- Cultural and social conflicts between migrant workers and local communities
- Disturbance due to excessive noise or other nuisance during construction or operation and
- Unfair treatment to workers or unsafe working conditions etc.

Therefore, it is imperative to have an internal mechanism in place where the aggrieved party/s can lodge their complaints and get it amicably settled prior to approaching the formal mode of solution available to them i.e. access to legal system through courts. In order to provide a formal forum to the aggrieved parties to deal with issues arising out of project, a Grievance Redress Mechanism (GRM) be instituted that is gender responsive, culturally appropriate and readily accessible to the affected persons at no costs and without retribution. The proposed Grievance Redress mechanism (GRM) will be developed for the Project in order to settle as many disputes as possible through consultations. Such a mechanism is important as it is expected that most cases, if not all, would be resolved amicably; and the process, as a whole, will promote dispute settlement through mediation to reduce litigation. However, the options of legal recourse will not be restricted in any way by the project proponent.

The main objective of GRM is to resolve any resettlement and environmental and social related grievances locally in consultation with the aggrieved party to facilitate smooth implementation of the EMP. Another important objective is to democratize the development process at the local level and to establish accountability towards the stakeholders.

J.2 DEVELOPMENT OF GRM

J.2.1 Procedure for GRM

The project proponent should ensure that procedures for lodging and registering of grievances are in place. The procedures for GRM should comprise of identifying the personnel (Grievance officer) who will be responsible for receiving and addressing the grievances and handle the cases at the escalation level. Procedures for grievance assessment, appropriate resolution process, making decisions on proposed settlements, time frames for grievance resolution etc. should be developed.

J.2.2 Publicize GRM

Once the procedures for Grievance Mechanism have been developed, it should be publicized through various stakeholder engagement activities. Various communicative methods can be adopted in disseminating the information like printed materials, displays, face to face meetings etc. The grievance redress mechanism (GRM) shall be documented in English and Bangla and copies shall be kept at the project site office and the Head Office. The GRM is also to be displayed at notice board at the project site office and training on the GRM shall also be provided during orientation. The contractor would keep the workers informed about the grievance mechanism at the time of recruitment and make it easily accessible to them. All the relevant contact numbers to be made available to them.

J.2.3 Recording of Grievances

There should be arrangement for collecting complaints in a grievance box. A Grievance Log or database emphasizing the records and status of the grievance is to be maintained by the identified Grievance Officer and track them throughout the redress process to reflect on their status and important details.

J.2.4 Appeal and Follow Up

If the solution is not acceptable or agreed by the complainant, the complainant should be offered to an appeal process. The accountability and transparency should be maintained in every step of the process.

Once the corrective action has been agreed upon, a good practice is to document the process, , getting confirmation from the complainant and retain evidence. In addition, monitoring and follow up on the resolution agreed upon should be conducted once to close the case accordingly.

J.3 PROPOSED GRM FOR THE PROJECT

The Grievance Redress Mechanism outlines the process for lodging of grievances, steps to be taken for subsequent action and the time limit within which the issue would be resolved to the satisfaction of the complainant (community members, project affected persons and workers). All complaints shall be recorded and addressed in a uniform and consistent manner. The GRM for the proposed project is presented below with time bound schedules and specific persons to address grievances.

J.3.1 Composition of Grievance Redress Committee (GRC)

For this project, a Grievance Redress Committee (GRC) should be formed to ensure fair and timely resolution of the grievances. The committee will be comprised of following personnel along with a representative from the local community.

- CuEZL Project Management Representative
- CuEZL EHS Representative
- Representative from local community
- Representative (Manager level) from the relevant industry. The committee will co-opt this personnel in case basis
- Admin Officer (Grievance Officer)

The functions of GRC are as follows:

- To provide support to affected communities/persons on problems arising from environmental or social issues;
- To record grievances of the affected community by categorizing and prioritizing them
- To provide solutions within a stipulated time period; and
- To report to the aggrieved parties, developments regarding their grievances and decisions of the GRC.

GRC will maintain a Complaints Database, which will contain all the information on complaints or grievances received from the communities or other stakeholders. This would include: the type of complaint, location, time, actions to address these complaints, and final outcome. The procedures to be followed and adopted by the grievance redress should be transparent and simple to understand or uniform process for registering complaints provide project affected persons with free access to the procedures. The response time between activating the procedure and reaching a resolution should be as short as possible. An effective monitoring system will inform project management about the frequency and nature of grievances.

A grievance form is presented below and hard copies of both English and Bangla will be made available at the MIEZL project office.

Table J.1: Sample of a Grievance Reporting Form

Name of the Complainant:	
Address:	
Date:	
Time:	
Contact Details: Telephone/ Cell phone number e-mail:	
Details of the Grievances (Please describe the problems, how, when, where, how many times it happened etc.)	
Signature of the Complainant: Or Thumb Impression of the Complainant	

The steps of grievance redressal are provided below:

Receive and Register a Complaint

Any stakeholder such as worker, person from local community or any other stakeholder, with concerns pertaining to onsite work such as health and safety, local employment, community risk, migrant labor or any issues etc., may register their complaint in writing to the nominated person/grievance officer at site level. The contact details of the Grievance Officer shall be maintained, updated and displayed at prominent places available to public and the project area. All grievances will be addressed during the construction and operation phase. Secured grievance boxes shall be placed at the entrance of the site office. Once a complaint has been received it shall be recorded in the grievance log register or data system.

Assessment and Addressal of a Complain

Figure J.1 depicts the assessment and adressal procedure of a complaint.

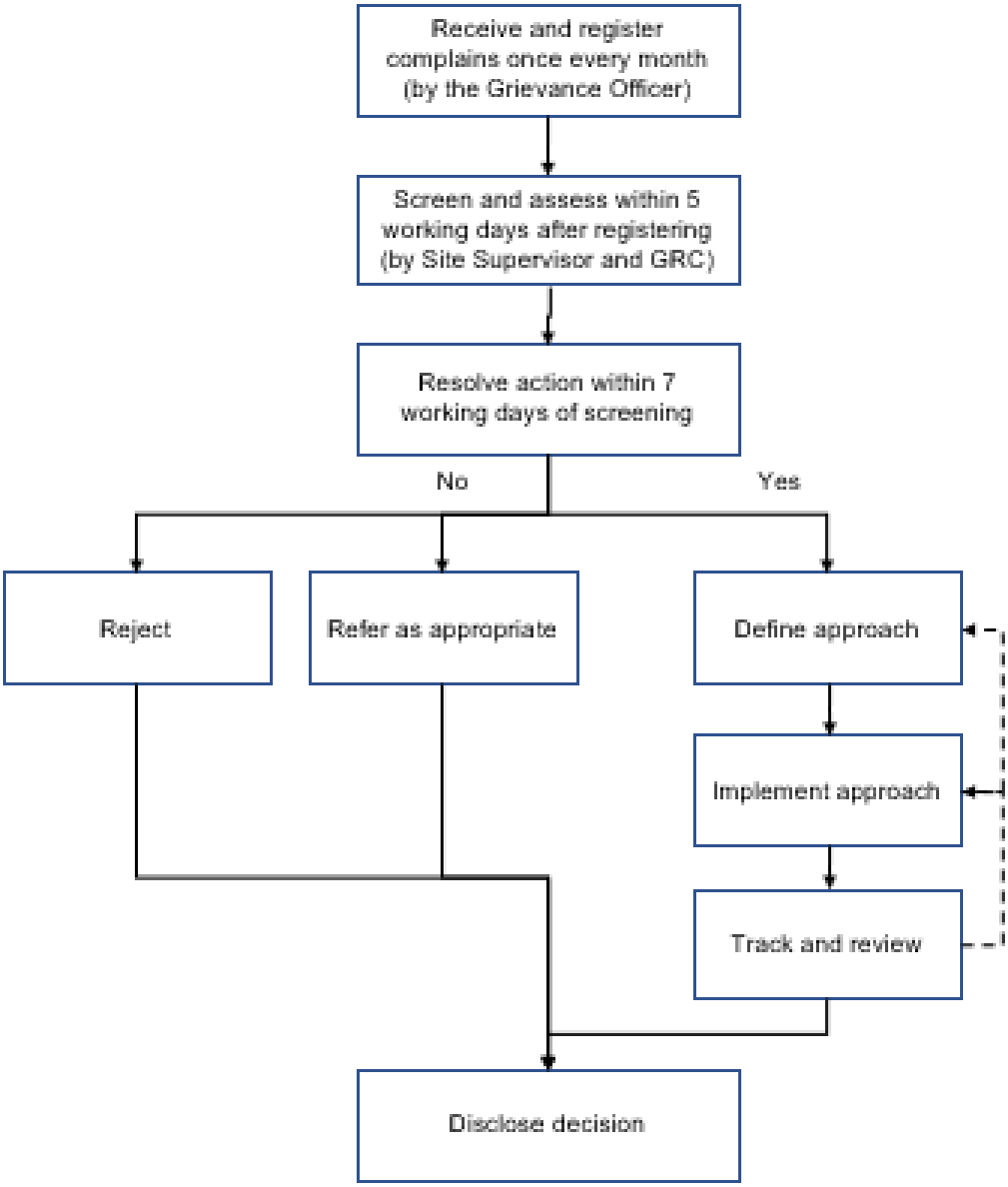

Figure J.1: Flow chart of Grievnce Redress Mechanism Process

Resources Required for GRM Implementation

Adequate resources should be allocated for an effective implementation of GRM. Adequate resources here refer to people, system, time and associated financial resources. In order to incorporate the responsibility of designing, implementing and monitoring the grievance mechanism, the senior management should be involved in the process. For a grievance mechanism to function effectively, it is important to establish a governance structure and assign responsibilities for the mechanism's implementation.

Monitoring and Reporting

Monitoring and reporting are requisite tools of measuring the effectiveness of the grievance mechanism, the efficient use of resources, determining broad trends and acknowledging recurring problems so that they can be resolved before they reach to a higher level of contention.

All grievances registered have to be recorded, documented and updated regularly. The site management or Grievance Officer is responsible of discharging this responsibility and he should be able to produce this document whenever any audits take place. All minutes of meetings with stakeholders, complainants and Grievance Committee are to be recorded and documented regularly for reference purposes. In addition, through the process of monitoring and the reports produced thereafter, assurance of continual improvement is guaranteed.

COMILLA ECONOMIC ZONE LTD

Meghna Group of Industries

Grievances Mechanism for InternalStakeholders

Revision 1.0

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DEFINITIONS

Complaint	A formal expression of discontent concerning company or contractor actions raised by one or more stakeholders. Same as 'concern', 'grievance and 'issue'
Complainant	An individual, group or organization who submits a grievance to the company
Grievance	A formal expression of discontent concerning company or contractor actions raised by one or more stakeholders. Same as 'concern', 'complaint' and 'issue'
Grievance Mechanism	A grievance mechanism is a process for receiving, investigating, responding to and closing out complaints or grievances from affected communities in a timely, fair and consistent manner
Stakeholder	Individuals or groups who can affect, are affected by, or have a legitimate interest in the company's performance. Stakeholders can include employee and workers**.**

ACRONYMS

SC	Safety Committee
GRM	Grievance Redressal Mechanism
MGI	Meghna Group of Industries
CuEZL	Cumilla Economic Zone Limited
PS	Performance Standard
SOP	Standard Operating Procedure
EBRD	European Bank for Reconstruction and Development

1 INTRODUCTION

The purpose of this document is to define the procedure for managing internal stakeholder concerns and complaints (referred to as “grievances”) in a planned, timely, and respectful manner.

The salient features of this Grievance Redressal Mechanism (GRM) are transparency and strengthening the existing Grievance Mechanism, through establishing an Standard Operating Procedure (SOP) for grievance handling and direction for documentation and reporting. The proposed GRM has been developin compliance with IFC Performance Standards.

1.1 OBJECTIVE & PURPOSE

Grievances can encompass minor concerns as well as serious or long-term issues. The grievances may be felt and expressed by a variety of parties including workers, employee, and communities likely to be affected by the social and environmental impacts of the Project. Hence, its impetus to have a robust andcredible mechanism to systematically handle and resolve any complaints to the possible extend feasible depending on the type of grievances.

The purpose of GRM is to

- Provide a forum of stakeholders to voice their concerns, queries and resolving issues in a timely matter especially with regard to environmental, health and safety, community and security issues;
- Provide the stakeholders with a system or channel through which their queries can be channeledand will ensure timely responses to each query; and
- Provide an accessible and credible mechanism to the employee and any stakeholders having a stake in the project to redress their issues and grievances in regards to project functioning.

1.2 SCOPE

The GRM will be accessible and applicable for Comilla Economic Zone Ltd. staff and other workers. The grievancemechanism will manage grievances from workers where operations of Comilla Economic Zone Ltd. might have an impact. This Process is designed to provide a system for managing grievance and all complaints received under this procedure shall be tracked until close out, regardless of the process under which theyare handled. The GRM also provide a scope for the stakeholders to appear in the court of law in case of any dis satisfaction.

To maximize the effectiveness of the Grievance Mechanism, CEZL shall uphold the following values during the implementation and operation of the system:

- Commitment to fairness in both process and outcomes;
- Transparency;
- Confidentiality; and
- Accessibility

1.3 REGULATORY FRAMEWORK AND SAFEGUARDS

The relevant provisions under following regulations, guidelines and pertinent standards are applicable towards the implementation of this Procedure.

Reference	Full Title
National Labour Laws	Bangladesh Labour Act 2006
National Labour Rules	Bangladesh Labour Rules 2015
Electricity Rrgulation	The Electricity Act 1910
IFC Performance Standards on Environmental and Social Sustainability	Performance Standard 2: Labor and Working Conditions; Performance Standard 4: Community Health, Safety and Security
EBRD Performance Requirement 2 - Labour and working conditions	Employee grievance mechanism Guidance note

1.4 ROLES AND RESPONSIBILITIES

Implementation of the Grievance Mechanism for workers and employees of CEZL facility will be the ultimate responsibility of the Admin Manager who will be supported by other members the roles and responsibilities of whom have been specified below.

Admin Manager-

- Lead the implementation of the GRM;
- Make all the employee and workers aware of the grievance mechanism through meetings and engagements;
- Implement the Procedure providing guidance on solutions to complaints and grievances in consultation with the relevant departments and ensure consistency of redress for all grievances received in relation to the day to day operation of the CuEZL.
- Designated a person to emptying grievance box, maintain grievance register and complaint register. Manage database of grievances, responses, track, analyze, and report grievance updates to management on a weekly basis.
- Involve in investigation of grievances and overseeing interaction between various plants, departments, contractors as well as the senior managers as required;

- Informed and update monthly status of the grievance lodged and cases resolved; and
- Maintain impetus and ensure company wide and community commitment to, and understanding of, its implementation and operation of the GRM.

Departmental Heads & Supervisor

- Informed all their workers and employee of the mechanism;
- Receive and acknowledge any issue, concern, complaint or grievance from the workers verbally or in writing;
- They will record the issue and report it to the Admin Manager in compliance with the Grievance Redressal Management (GRM) procedure; and
- Involved in the investigation of grievances as required depending on the nature and severity of the grievance and as directed by the GRM.

Project Head (Senior Executive Director)

- Ensure the GRM are followed and applied across projects and department operations under CEZL.
- Involved as key members in the investigation and of grievances and regularly update the cases of grievances lodged to the Factory Management Committee;
- Ensure a dedicated budget allocated for GRM and addressing grievances through financial or in-kind compensation as and when needed;
- Review and endorse grievance resolution, as appropriate and review grievance reports on a regular basis;
- Ensure Admin Manager has appropriate level of training to handle role and responsibilities; and
- Provide regular support process through review, leadership, and approvals.

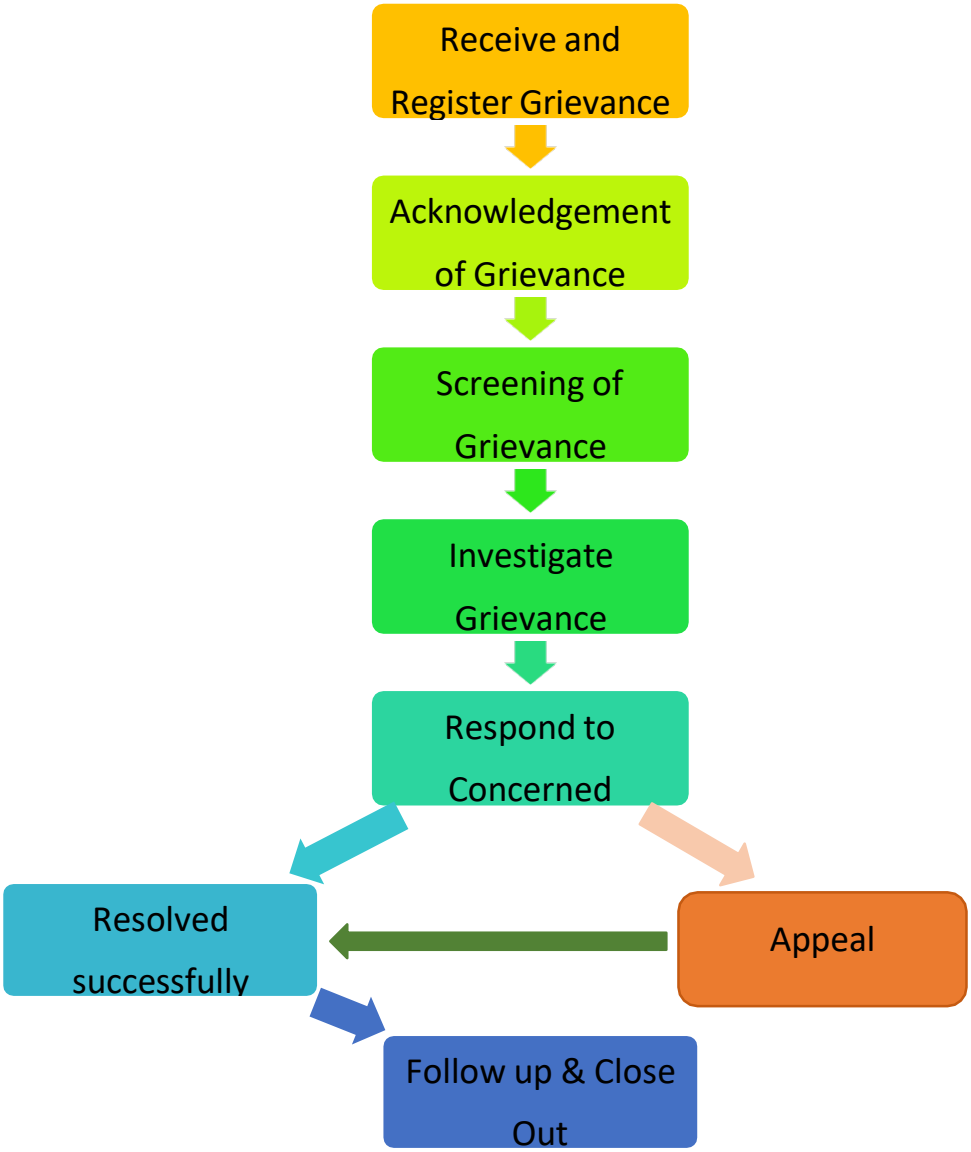
Safety Committee (SC)

- Engaged at the discretion of CuEZL, as required by the nature of the grievance
- Provide information and assistance in order to plan for response, respond and close the grievance
- Provide peer review of grievance process.

2 GRIEVANCE REDRESSAL PROCESS

To ensure that all person lodging grievances are protected against any inappropriate behaviors or actions, such as retaliation, all information shall be treated with confidentiality. In situation where there may be circumstances and by due to the nature of the investigation or disclosure, it will be necessary to disclose the identity of the complainant. In such circumstances, every effort will be made to inform such person(s) before such disclosure is made. Moreover, reasonable steps will be taken to protect the grievance owner from any victimization or detriment because of having made a disclosure.

The grievance redressal flow chart has been presented below.



2.1 LODGING OF GRIEVANCES

Stakeholders can submit their grievances through a number of methods, but not limited to the following:

- In Person: To Admin Manager/Department Head/Site or Contractor Supervisor
- Over telephone using the following number *+01704-167438*
- In writing: Through Grievance boxes, currently 8 in total, placed in different strategic locations- Office Buildings, Site, labour camp and in the main entrance. All grievance boxes will be open by the Admin Manager once a week.

Note: Any workers who prefer not to reveal his /her identity can also lodge grievances anonymously, the same will be recorded by the Admin Manager for the required process.

2.2 RECORDING AND ACKNOWLEDGING OF GRIEVANCES

All formal grievances will be logged in the Grievance Register (see Annex A). The Admin Manager shall formally acknowledge the receipt of any grievance as soon as possible and shall be informing the complainant about the timeframe in which a response can be expected except in the case of anonymous grievances. The Grievance shall be bearing a summary of the grievance, which shall be read to and acknowledged by the complainant.

2.3 SCREENING OF GRIEVANCES

Grievances will be screened depending the level of severity in order to determine who the grievance owner will be and how the grievance is approached. The following three levels of screening shall be followed for this purpose

Category	Description	Grievance Owner (GO)
Level 1	Grievances that poses no risk to the company, and can be resolved at the level of a supervisor and the Admin Manager. Such grievances require no investigation and can be resolve in no less than 15 days.	Admin Manager, (Departmental Head/Contractor Supervisor)
Level 2	Grievances that require investigation and may pose minor threat to Company reputation. Such investigation must be resolved in less than 30 days	Sr. Executive Director
Level 3	Potentially high risk and need intervention of the chairperson. Such grievances that may jeopardize the reputation of the Company and may pose conflicts with the communities and/or workers. The level 3 grievances will be resolved in 45 days	Safety Committee and Factory Management Committee

In cases where grievance is considered out-of-scope for the grievance mechanism, the Admin Manager would draft a response for signature by the Project Head explaining why it is out-of-scope and providing any guidance of where to go to get the issue addressed (if possible).

2.4 INVESTIGATION OF GRIEVANCES

The grievance owner is responsible for investigating the grievance. The investigation may require the grievance owner to make site visits, consult employees, and complete other activities. Records ofmeetings, discussions and activities all need to be recorded during the investigation. Proposed GRM for investigating cases id given below.

A three-tier mechanism will be adopted.

Tier 1: The complaints /grievances may be received by the Project head in charge of the concern department/projects or by the Grievance Officer verbally or through written applications. The Grievance/ welfare Officer/Admin Manager will review the complaints and efforts will be made to resolve them in consultation with the complainant. The grievance/complaint should be resolved within 15 days from the date of receipt of the complaint will be made. In case the aggrieved is not satisfied with the solution provided Tier 1 he may escalate it to Tier 2.

Tier 2: Complaints /grievances that cannot be resolved at Level 1 or if the aggrieved is not satisfied with the decision of the Tier 1 can appeals for redressal only such cases would be taken up at Tier II. The Project Head, Departmental/plants heads and Admin Manager will be resolved cases under TIER 2. The entire processof investigation would be completed within 30 days of the compliant being referred to Tier II.

Tier 3: The 3rd Level will be the Grievance Redressal Committee (GRC) in CEZL operations. The third tier will be addressed high brevity issues, which may pose threat to the company. Moreover, the committee willalso be addressed grievances that cannot be address or resolved at Tier 2 may be brought up to the GRC. TheProject Head of CuEZL. will head the GRC, along with the present of existing members of the SC. The GRC will resolve the matter within a period of 45 days from the date of receipt of the complaint at Tier 3.

Court of Law: If the grievance/ complaint is not resolved at GRC Level or the complainant is not satisfied with the solution provided by GRC, the person may approach Court of Law.

Note: In cases of grievances not resolved within the stipulated timeline mentioned above and may stretched up to 6 months or so, in such situation the Admin Manager shall communicate and update the Complainant on the status of the investigation on a weekly basis.

2.5 ACTION TAKEN

Following investigation, the grievance owner for all Level 2 and 3 grievances shall discuss the grievance and of grievances cannot be resolved outcome of the investigation in the monthly/ Quarterly Safety Committee (SC) meetings. The purpose of this is to identify the actions to be taken for resolving the grievance in consensus with the SC. Once all actions have been completed and the grievance owner feels the grievance has been resolved, they will then formally advise the complainant via their preferred method of contact.

2.6 FOLLOW UP AND CLOSE OUT

The grievance owner will make contact with the complainant after the grievance is resolved. If the stakeholder accepts the proposed resolution, the agreed actions are implemented. Such resolution are recorded in the Grievance Register with supporting documentation. Hence, the resolution of the grievance will be formally closed out. This includes signature and dates from the complainant that will be documented in the Grievance Register.

2.7 APPEAL

In cases where a stakeholder is unsatisfied with and/or unwilling to accept the resolution actionsproposed, the grievance may be escalated to the FMC for further review and final decision. The SC Committee reviews the case and determines if further reasonable action is possible. The complainant mayalso appeal the court of law in case of any dissatisfaction with the grievance redressal process.

2.8 NOTIFICATION

The procedure will be made aware to all the workers and employee. Notification will include:

- A summary of the procedure and how it can/should be used; and where people can go and whomthey can talk to if they have any grievance. This should be mandatorily covered as part of the E&SInduction Program being implemented by MGI.
- Details of the process, such as who is responsible for receiving and responding to grievance;
- When stakeholders can expect a response, and safeguards in place to ensure confidentiality.

All this information will be widely and regularly publicize and communicated in a manner appropriate to the audience through either meetings, trainings or distribution of fliers/brochure in a format and languages that are readily understandable by stakeholders.

2.9 MONITORING

In order to ensure that the procedure is effectively functioning, the Admin Manager shall be performing a monthly review of the following parameters to be featuring in the quarterly E&S performance reporting.

- Number of open grievances by grievance level and type;
- Timeframes for closure by grievance level and type; and
- Repeat of grievance from the same stakeholder.

ANNEX A: GRIEVANCE REGISTER

Stakeholder Name	Date Received	Contact Officer	Grievance Description	Action Taken	Accepted/Not Accepted	Stakeholder Sign	Date

COMILLA ECONOMIC ZONE LTD

Grievances Mechanism for External Stakeholders

Revision 0.0

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DEFINITIONS

Complaint	A formal expression of discontent concerning company actions raised by the communities or other external stakeholders. Same as 'concern', 'grievance and 'issue'
Complainant	An individual, group or organization who submits a grievance to the company
Grievance	A formal expression of discontent concerning company actions raised by one or more stakeholders. Same as 'concern', 'complaint' and 'issue'
Grievance Mechanism	A grievance mechanism is a process for receiving, investigating, responding to and closing out complaints or grievances from affected communities and other external stakeholders in a timely, fair and consistent manner
Stakeholder	A stakeholder is "a person, group, or organization that has a direct orindirect stake in a project/organization which can affect or will be affected by the Project/organization's actions, objectives, and policies".Stakeholders can thus vary in terms of the degree of interest, influence, and control they have over the project.

ABBREVIATIONS

FMC	Factory Management Committee
GRM	Grievance Redressal Mechanism
MGI	Meghna Group of Industries
CEZL	Comilla Economic Zone Limited
PS	Performance Standard
SOP	Standard Operating Procedure

1. INTRODUCTION

The purpose of this document is to define the procedure for managing all external stakeholders as listed out in the Stakeholder Engagement Plan and complaints (referred to as "grievances") in a planned, timely, and respectful manner.

The salient features of this Grievance Redressal Mechanism (GRM) are transparency and strengthening the existing Grievance Mechanism, through establishing an Standard Operating Procedure (SOP) for grievance handling and direction for documentation and reporting. The proposed GRM has been developing in compliance with IFC Performance Standards.

1.5 OBJECTIVE & PURPOSE

The grievances may be felt and expressed by the community and other external stakeholders such as the local and fence line communities, local authorities, NGOs etc., who are likely to be affected by the social and environmental impacts of the Project. Hence, their impetuses to have a robust and credible mechanism to systematically handle and resolve any complaints to the possible extend feasible depending on the type of grievances.

The purpose of GRM is to

- Provide a forum to voice their concerns, queries and resolving issues in a timely matterespecially with regard to environmental, health and safety, community and security issues;
- Provide a system or channel through which their queries can be channeled and will ensuretimely responses to each query; and
- Provide an accessible and credible mechanism for the communities having a stake in theproject to redress their issues and grievances in regards to project functioning.

1.6 SCOPE

The GRM will be accessible and applicable for communities including local/nearby communities might have an impact on account of the CEZL operation. This Process is designed to provide a system for managing grievance and all complaints received under this procedure shall be tracked until close out.

The GRM also provides a scope for the stakeholders to appear in the court of law in case of any dis satisfaction.

To maximize the effectiveness of the Grievance Mechanism, CEZL shall uphold the following values during the implementation and operation of the system:

- Commitment to fairness in both process and outcomes;
- Transparency;
- Confidentiality; and
- Accessibility

1.7 REGULATORY FRAMEWORK AND SAFEGUARDS

The relevant provisions under following regulations, guidelines and pertinent standards are applicable towards the implementation of this Procedure.

Reference	Full Title
National Labour Laws	Bangladesh Labour Act 2006
National Labour Rules	Bangladesh Labour Rules 2015
IFC Performance Standards on Environmental and Social Sustainability	Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impact Performance Standard 4: Community Health, Safety and Security
IFC Good Practice Note on Addressing Grievances from Project Affected Communities	Guidance Note for Project and Companies on Designing Grievance Mechanism, Dated September 2009

1.8 ROLES AND RESPONSIBILITIES

Implementation of the Grievance Mechanism for the affected communities will be the ultimate responsibility of the Admin Manager who will be supported by other members the roles and responsibilities of whom have been specified below.

CEZL Admin Manager

- Lead the implementation of the GRM;
- Make all the communities and local administration aware of the grievance mechanism through meetings and engagements;
- Implement the Procedure providing guidance on solutions to complaints and grievances ensuring consistency of redress for all grievances received in relation to the day to day operation
- Maintain grievance register. Manage database of grievances, responses, track, analyze, and report grievance updates to management;
- Involve in investigation and managing of grievances lodged;
- Informed and update monthly status of the grievance lodged and cases resolved; to themanagement committee. Maintain impetus and ensure company wide and community commitment to, and understanding of, its implementation and operation.

Departmental Heads & Contractor Supervisor

- Informed all their workers and employee of the mechanism;
- Receive and acknowledge any issue, concern, complaint or grievance from the workersverbally or in writing;
- They will record the issue and report it to the Admin Manager in compliance with theGrievance Redressal Management (GRM) procedure; and
- Involved in the investigation of grievances as required depending on the nature and

severityof the grievance and as directed by the GRM.

Sr. Executive Director (ED)

- Ensure the GRM for the communities are followed and applied.
- Takes overall responsibility for the appropriate grievance management and addressing theissues in accordance with the mechanism
- Ensure a dedicated budget allocated for GRM and addressing grievances through financial orin-kind compensation as and when needed;
- Ensure Admin Manager has appropriate level of training to handle role and responsibilities;and
- Provide regular support process through review, leadership, and approvals.

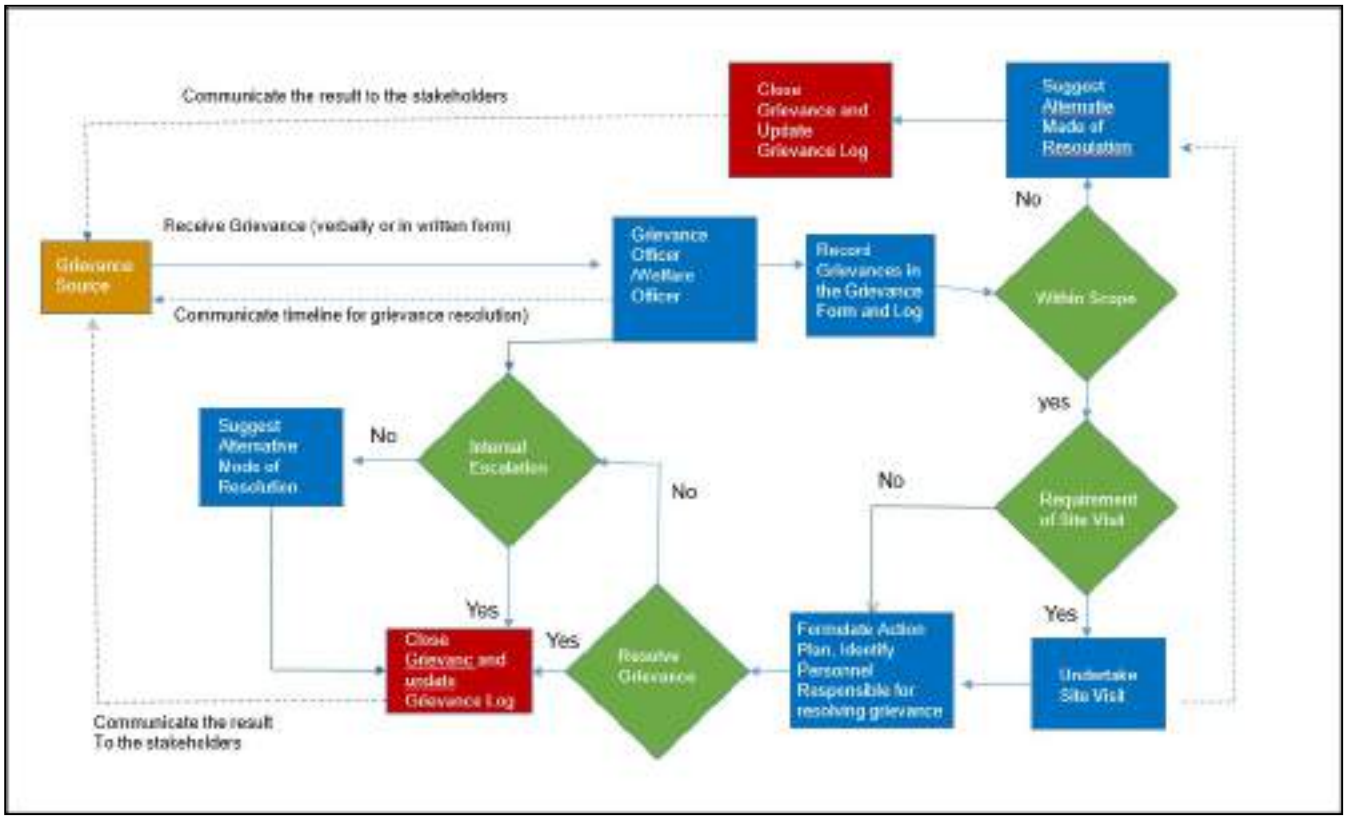
Factory management Committee/Chairman of MGI

- Engaged at the discretion of CEZL , as required by the nature of the grievance
- Provide information and assistance in order to plan for response, respond and close thegrievance
- Provide peer review of grievance process.

2. COMMUNITY GRIEVANCE REDRESSAL PROCESS

To ensure that all person lodging grievances are protected against any inappropriate behaviors or actions, such as retaliation, all information shall be treated with confidentiality. In situation where there may be circumstances and by due to the nature of the investigation or disclosure, it will be necessary to disclose the identity of the complainant. In such circumstances, every effort will be made to inform such person(s) before such disclosure is made. Moreover, reasonable steps will be taken to protect the grievance owner from any victimization or detriment because of having made a disclosure.

The grievance redressal flow chart has been presented below.



2.1 LODGING OF GRIEVANCES

Communities can submit their grievances through a number of methods, but not limited to thefollowing:

- In Person: To Admin Manager/ Project Head
- Over telephone using the following number *+01704167438 (Admin)* In writing: through Grievance box currently located outside the entrance of the factory complex. The grievance box is emptied every Thursday of every week by the site Welfare Officer

2.2 RECORDING AND ACKNOWLEDGING OF GRIEVANCES

All formal grievances will be logged in the Grievance Register (see Annex A). The Admin Manager shall formally acknowledge the receipt of any grievance within 48 hrs and shall inform the complainant

about the timeframe in which a response can be expected (except in the case of anonymous grievances). The Grievance shall be bearing a summary of the grievance, which shall be read to and acknowledged by the complainant.

2.3 SCREENING OF GRIEVANCES

Grievances will be screened depending the level of severity in order to determine who the grievance owner will be and how the grievance is approached. The following three levels of screening shall be followed for this purpose

Category	Description	Grievance Owner (GO)
Level 1	Grievances that poses no risk to the company, and can be resolved at the level of the welfare officer. Such grievances require no investigation and should be resolve in no less than 15 days.	Welfare Officer and Admin Manager
Level 2	Grievances that require investigation and may pose minor threat to Company reputation.Such grievances should be resolved in not less than 30 days	Sr. Executive Director
Level 3	Potentially high risk and need intervention of the chairperson. Such grievances that may jeopardize the reputation of the Company and may pose conflicts with the communities. The level 3 grievances will to the extent be resolved within in 45 days	Project Head /Factory ManagementCommittee

In cases where grievance is considering out-of-scope for the grievance mechanism, the grievances may still be recorded in the grievance register. However the Admin Manager would draft a response for signature by the Project Head explaining why it is out-of-scope and providing any guidance of where to go to get the issue addressed (if possible).

2.4 SITE INSPECTION AND INVESTIGATION OF GRIEVANCES

Depending upon the sensitivity of the issue, and nature of the complaint, a site inspection may be required, but not in all cases. The purpose of the site inspection will be to check the validity and severity of the grievance. For this purpose, the personnel appointed by the Project Head may also undertake discussions with the concerned external stakeholder. The inspection will be undertaken within seven working days of receiving the grievance. Post site inspection, the assigned individual will investigate the problem, communicate an update to the concerned complainant, and identify measures to resolve the grievance as appropriate.

Records of meetings, discussions and activities all need to be recorded during the investigation. The investigation and detail records of complex grievance will be recorded in a separate database. Proposed GRM for investigating cases is given below.

A three-tier mechanism will be adopted.

Tier 1: The complaints /grievances may be received by the Plant head in charge of the concern department/Plants or by the Grievance Officer (Welfare) verbally or through written applications. The Grievance Officer/Admin Manager will review the complaints and efforts will be made to resolve them in consultation with the complainant. The grievance/complaint should be resolved within 15 days from the date of receipt of the complaint will be made. In case the aggrieved is not satisfied with the solution provided Tier 1 he may escalate it to Tier 2.

Tier 2: Complaints /grievances that cannot be resolved at Level 1 or if the aggrieved is not satisfied with the decision of the Tier 1 can appeals for redressal only such cases would be taken up at Tier II. The Project Head, Departmental/Plants heads and Admin Manager will resolve cases under TIER 2. The entire process of investigation would be completed within 30 days of the compliant being referred to Tier II.

Tier 3: The 3rd Level The third tier will addressed high brevity issues, which may pose threat to the company that cannot be address or resolved at Tier 2 may be brought up to this tier. The Project head of CEZL will head this stage, along with the present of existing members of the FMC. The entire process at this stage will resolve the matter within a period of 45 days from the date of receipt of the complaint at Tier 3.

Court of Law: If the grievance/ complaint is not resolved at third level or the complainant is not satisfied with the solution, the person may approach Court of Law.

Note: In cases of grievances not resolved within the stipulated timeline mentioned above and may stretched up to 6 months or so, in such situation the Admin Manager shall communicate and update the Complainant on the status of the investigation on a Monthly basis.

2.5 ACTION TAKEN

Following investigation, the grievance owner for all Level 2 and 3 grievances shall discuss the grievance and of grievances cannot be resolved outcome of the investigation in the monthly Factory Management Committee (FMC) meetings. The purpose of this is to identify the actions to be taken for resolving the grievance in consensus with the FMC. Once all actions have been completed and the grievance owner feels the grievance has been resolved, they will then formally advise the complainantvia their preferred method of contact.

2.6 FOLLOW UP AND CLOSE OUT

The grievance owner will make contact with the complainant after the grievance is resolved. If the complainant accepts the proposed resolution, the agreed actions are implemented. Such resolutions are recorded in the Grievance Register with supporting documentation. Hence, the resolution of the grievance will be formally closed out. This includes signature and dates from the complainant that will be documented in the Grievance Register.

2.7 APPEAL

In cases where the complainant is unsatisfied with and/or unwilling to accept the resolution actions proposed, the grievance may be escalated to the FMC for further review and final decision. The FMC Committee reviews the case and determines if further reasonable action is possible. The complainant may also appeal the court of law in case of any dissatisfaction with the grievance redressal process.

2.8 COMMUNICATION AND PUBLICATION OF THE GRM

For the effective implementation of the GRM procedure, the GRM will be communicated/ disclosed to the local communities, local administration and other external stakeholders through written and verbal communication. The mediums to be used for this purpose are public meetings, public announcements and other communication channels such as display of GRM provisions in Union Parishad offices, and other key locations which includes:

a. How it can/should be used; and where people can go and whom they can talk to if they have any grievance.
b. Details of the process, such as who is responsible for receiving and responding to grievance;
c. When stakeholders can expect a response, and safeguards in place to ensure confidentiality.

All these information will be widely and regularly publicize and communicated in a manner appropriate to the audience in a format and languages that are readily understandable by the community during the initial stage of implementation. A half yearly engagement with the community to re-orient the community of the GRM has also been specify in the Stakeholder Engagement Plan

2.9 MONITORING

In order to ensure that the procedure is effectively functioning, the Admin Manager shall be performing a monthly review of the following parameters to be featuring in the quarterly E&S performance reporting.

- Number of open grievances by grievance level and type;
- Number of open grievances
- Number of closed grievances
- Number of grievances which exceeded the defined timeline
- Number of grievances in which an alternate route for resolution was suggested
- Repeat of grievance from the same stakeholder

3. ANNEX A: GRIEVANCE REGISTER

StakeholderName	Date Received	Contact Officer	Grievance Description	Action Taken	Accepted/Not Accepted	Stakeholder Sign	Date

Document No .	Revision	Page No .
MGI /CEZL/ E&S-PR-14	No.00	15 of 15

ANNEX K
EMERGENCY RESPONSE PLAN

K.1 INTRODUCTION

An emergency response plan is needed to address a range of plausible risk scenarios and emphasize the tasks required to respond to an emergency event. The emergency response plan (ERP) for the CuEZL has been developed listing various actions to be performed in a very short period of time in a predetermined sequence if it is to deal effectively and efficiently with any emergency, major accident or natural disaster. The existing emergency response plan of CuEZL project is attached at the end of this section. The primary objective of the plan is to undertake immediate rescue and necessary measures as quickly as possible and to keep the loss of life, material, machinery/equipment damage, and impacts on the environment to a minimum.

K.2 IDENTIFICATION OF EMERGENCY

Identification of all the hazards and risks associated with each activity which may lead to an emergency and anticipate the actions to be taken before or after the emergency arises. Probable emergencies that might arise during construction and implementation of the project have been identified. Examples are electrical accident, mechanical accident, chemical accident, explosion, fire, earthquake, flood, cyclone, thunderstorm, poisoning, sabotage, political instability. Details are given below.

Hazardous Area

- Fuel/Chemical storage areas
- Storage area of raw materials/chemicals, hazardous waste generated from factories
- Kitchen premises in labor camps
- Electrical installations - improper laying of cables
- Construction area, Scaffolds, Construction trench,

Emergency Situations

The possible emergency situations identified for the construction and operation phases of the Project areas listed below:

- Fire and Explosion
- Falls from great heights
- Leakage of fuel/chemical from storage areas
- Electrical short-circuit at campsite/project site

Mechanical and Electrical Hazards

- Structural Collapse
- Accidentally dropped object
- Loss of stability and
- Electrocution

Occupational Hazards

- Outbreak of Disease / Illness/Poisoning.
- Handling of chemicals
- Accidents due to vehicle movement; and
- Vandalism

Natural Emergency

- Earthquake
- Cyclone
- Flood
- Thunderstorm

K.3 EMERGENCEY RESPONSE TEAM OF CUEZL

To address any emergency situation, CuEZL emergency response plan forms up a Response Team (a.k.a., Emergency Response Cell; ERC). The team is comprised with the following personnel:

- General Manager of Administration
- Plant Heads (Production) of CuEZL plants
- Human Resource and Compliance Team of CuEZL plants
- Security and Safety Team of CuEZL plants
- Administrative Officers from CuEZL plants
- Section Supervisor/In-charge of from CuEZL plants

The main functions of the emergency response team are the following:

- Identification of various types of emergencies
- Identification of groups, communities, and areas those are vulnerable to different kinds of emergencies
- Preparing service teams for various operations within the organization through extensive training
- Establishment of early detection system for emergencies
- Developing reliable, instant information communication system
- Mobilizing all units in the complex within a very short time to address any emergency
- Alternate plans and contingency measures
- Coordination with external parties

K.4 RESPONSE PROCESS

The Emergency Response Team is responsible for preparing and executing a specific emergency response plan for the CuEZL complex. The team meets at regular intervals to update the plan,

based on changes in any industry's activities within the complex. The team undertakes trial runs, e.g., fire drill, in order to be fully prepared and to improve upon the communication links, response time, availability and workability of emergency gears and other critical factors. The Emergency Response Team coordinates with external agencies such as Fire brigade, Police Department, Hospitals/Ambulance Services, Utility departments (electricity, gas and water) and local authorities.

The general procedures followed during an emergency are:

- In case of fire, it must be contained with the correct extinguisher only by those trained to do so
- Those requiring assistance must be assisted and first aid must be rendered only by those trained to do so
- All personnel on site must follow the instructions of the Evacuation Officer
- Evacuation must be undertaken in accordance with the emergency layout plan
- Visitors that are not familiar with the evacuation procedure must be assisted
- Personnel must follow the directional pointers to the nearest assembly points
- The evacuation officer must be the last one to leave the area
- Personnel in the immediate vicinity of the collapsed building move away from the building to a safe location - there could be a secondary collapse
- The task of the professional Emergency Services must not be obstructed.

Specific directives are adopted in the CuEZL emergency response plan in case of specific emergency situation related to the following.

- Electrical accident
- Mechanical accident
- Chemical accident
- Explosion
- Fire
- Earthquake
- Flood, Cyclone, Thunderstorm
- Poisoning
- Sabotage
- Political instability

K.5 EMERGENCY EQUIPMENT

To tackle the emergency, the CuEZL response plan has provisions for adequate onsite emergency equipment such as first aid box, fire-fighting equipment, and personal protective equipment at the project site. The adequacy and condition of these items are assessed at periodic intervals. Inventory

and locations of respective emergency equipment's are displayed at project office building, construction areas and other work areas. First aid boxes are available at identified locations throughout the plant premises. Fire extinguishers and sand buckets are available at most of the critical areas such as fuel storage area, waste storage area, kitchens, first aid center, areas with electrical installations and project office.

K.6 TRAINING, REPORTING AND DOCUMENTATION

Periodically, CuEZL organizes trainings for all site personnel to train them in the appropriate responses to possible emergencies and disasters. Trainings include, but not limited to, the following:

- Firefighting
- First Aid
- Emergency Rescue and Evacuation

Information on all emergency situation is documented and reported to the CuEZL higher authority. All accidents and incidents are documented using CuEZL's central record keeping approach. All near misses and unsafe acts are typically verbally communicated to the concerned Site Supervisor.

CuEZL will be developed by Meghna Group of Industries (MGI). MGI has its own Emergency Response Plan and it will be implemented in CuEZL. The following sections present this Emergency Response Plan.

K.7 EMERGENCY RESPONSE PLAN OF CUEZL

	EMERGENCY RESPONSE PLAN		Document Name
	Last Reviewed:	Version: 00	EMERGENCY RESPONSE PLAN

Title:	Emergency Response Plan	**Date of Revision**	
Document		**Revision**	V-0

Document Issue and Revision History		
Date	Revision Number	Change Summary
01-June-22	V-0	Initial Issue

Prepared by	Abu Hasan Mostofa	Authorized by	Mr. Kartick Chandra Das
Signature		Signature	
Position	Deputy General Manager (DGM)	Position	Executive Director-Project

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Acronyms

Acronym	Full form
CPR	Cardiopulmonary Resuscitation
DoE	Department of Environment
EHS	Environment, Health & Safety
EMT	Emergency Management Team
ERP	Emergency Response Plan
ERT	Emergency Response Team
IC	Incident Commander
ICC	Incident Command Center
IER	Ion Exchange Column
IPA	Isopropyl Alcohol
KL	Kilo Liter
Kst	Explosion Severity
LEL	Lower Explosion Limit
LPG	Liquified Petroleum Gas
CEZ	Comilla Economic Zone
MIE	Minimum Ignition Energy
NG	Natural Gas
SEC	Site Emergency Controller
TGTDCL	Titas Gas Transmission & Distribution Company Limited
OHC	Onsite Health Clinic
WTP	Water Treatment Plant
CLO	Chief Liasioning Officer
SCBA	Self-Containing Breathing Apparatus

1 EMERGENCY RESPONSE PLAN

1.1 PURPOSE

The Emergency Response Plan (ERP) is an outline of the procedures to be followed by all workers, employees and visitors at the CEZ facility in the event of an emergency which include

- Control or limit the effect of a range of potential emergency incidents that may occur within the site;
- Ensure safe, efficient and orderly evacuation of all persons if deemed necessary;
- Ensure the safety and well-being of all personnel on the premises at the time of an emergency incident which will include assigning responsibilities for specific actions;
- Outline the procedures to be followed including communication protocols to ensure all vital information is communicated to relevant stakeholders as soon as possible;
- Contain and control an emergency incident, so as to minimise the effects on people, property and the natural environment so that normal operations can be resumed; and
- Define & record emergency training requirements and emergency plan review.

1.2 SCOPE

This Emergency Response Plan (ERP) will be applicable for all workers, employees and visitors involved in CEZ construction activities.

1.3 REGULATORY FRAMEWORKS AND SAFEGUARDS

The relevant provisions under following regulations and guideline will be applicable towards the implementation of the Emergency Response Plan:

Reference	Full Title
National Labour Laws	Bangladesh Labour Rules 2015
National Labour Rules	Bangladesh Labour Act 2006
World Bank guidance note to staff	Including contingent emergency response components in standard investment projects: guidance notes to staff
IIFC EHS Guidelines	Environmental, Health, and Safety (EHS) Guidelines General EHS Guidelines: Community Health And Safety.
IFC Performance Standards on Environmental and Social Sustainability	Emergency Preparedness and Response sections in: Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts;

	Performance Standard 2: Labor and Working Conditions; Performance Standard 4: Community Health, Safety, and Security.

1.4 *ROLES AND RESPONSIBILITIES*

1.4.1 *Incident Commander (IC)*

The Incident Commander will-

- Declare the emergency and activate the Emergency Response Team (ERT) and ensuring the ERP is current and effective;
- Communicate and provide incident briefings to Meghna Group of Industries Senior Management/ Board, as appropriate;
- Coordinate/complete additional internal and external notifications;
- Communicate with Site Emergency Controller and Emergency Response Team, as the situation demands.

1.4.2 *Site Emergency Controller (SEC)*

The Emergency Controller will

- Take control of emergency situation and liaise with external Emergency Services;
- Evaluate the severity, potential impact, safety concerns, and response requirements based on the initial information provided by the First Person On-Scene;
- Confirm safety aspects at site, including need for personal protective equipment, sources of ignition, and potential need for evacuation
- Conducting regular training exercises – readiness of all emergencies, live evacuation drills, fire-fighting equipment, spill kit use, environmental awareness, new workers trained in ERP and their specific duties, at a minimum frequency in line with the requirements of relevant regulatory authorities;
- Ensuring the evacuation alarm is activated and liaise with CEZ Site Supervisors;
- Having detailed knowledge of available fire-fighting equipment and their location;
- Assisting in the investigation into the emergency if required; and,
- Composing a detailed summary of the emergency and submit to the Incident Commander as soon as possible.

The Executive Director (Project) and Chief Liasioning Officer (CLO) respectively will perform the roles and responsibilities of the IC and SEC. The roles and responsibilities discussed for their position above shall be in addition to their already existing responsibilities being assigned ex officio.

1.4.3 *CEZ Area Supervisors:*

The CEZ Area Supervisors will-

- Initiate initial response actions if they are the first person on the scene;
- Restrict access to the incident scene and surrounding area as the situation demands. Take any other steps necessary to minimize any threat to health and safety;
- Request medical assistance, if necessary;
- Verify substance released and obtain Safety Data Sheets, as necessary;
- Coordinate further response actions with CEZ Constructions Manager, Site Emergency Controller and Emergency Response Team (ERT).

1.4.4 *CEZ Constructions Manager*

The CEZ Constructions Manager will-

- Provide support to IC, SEC and ERT;
- Manage and task additional resources to support operations and construction;

1.4.5 *Security Coordinator*

The Security Coordinator will-

- Manage the safety and security of the onsite workers, employees and visitors;
- Provide ongoing monitoring of the context and the risks during the emergency;
- Proactively adapt procedures and policies to the situation in hand;
- Monitor entry and exit of personnel into and out of premises;
- Provide security briefings to site workers and employees on a regular basis.

1.4.6 *Logistics Coordinator*

The Logistic Coordinator will-

- Coordinate logistic request and material request arrangement;
- Advises SEC and ERT on logistic issues;
- Make arrangement for requested transportation; and
- Coordinate arrangement of domestic requirement – food, refreshments etc.

1.4.7 *EHS Advisor*

The EHS Advisor will-

- Liaise with government authorities viz. Department of Environment, Department of Labour etc. during the emergency situation; and
- Advises SEC and ERT on EHS related matters.

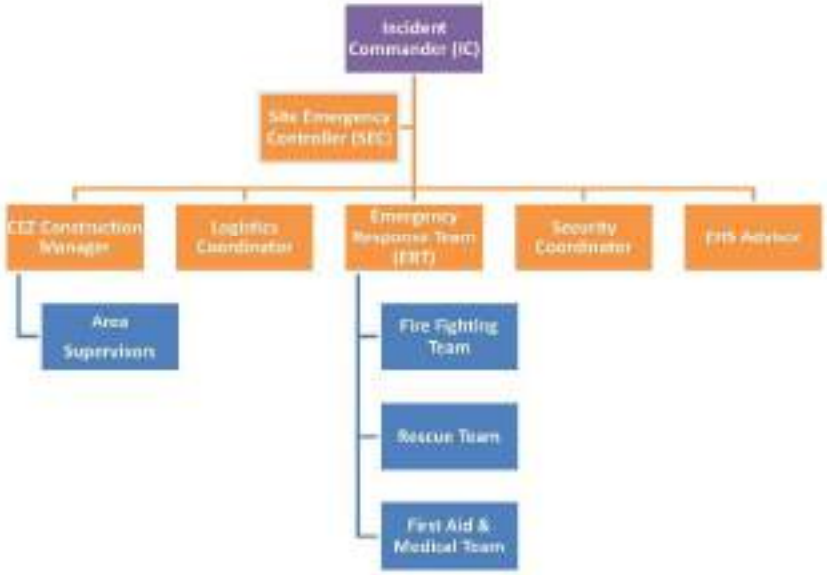
1.4.8 Site Emergency Response Team (ERT)

The ERT is an initial response team to any emergency incident onsite and comprises of personnel responsible for firefighting, rescue operations and first aid as specified in the applicable regulatory requirements. The role of the ERT is to:

- Provide immediate response.
- Assess the alert level.
- Make the initial notifications.
- Secure and contain the site.
- Co-ordinate with the SEC, CEZ Area Supervisors and arriving off-site emergency response personnel.
- Respond to distress calls and assist in rescue and evacuation;
- Administer first aid as required and if required, arrange for medical evacuation and other back up as needed;
- Keep an accurate log of all treatments given and times; and
- Maintain the response until the situation is resolved.

The organogram of the Onsite Emergency Management Team (EMT) has been presented in Figure 1.1 below with the contact details of the EMT are developed soon.

Figure 1.1: Organogram of the Onsite Emergency Management Team (EMT)



1.5 PRE-EMERGENCY PLANNING

This section provides the potential emergency scenarios that has been identified during site risk assessment exercise and can be faced by CEZ sites. Based on the operation and likelihood, CEZ may experience the following emergency scenario:

1.5.1 *Emergency caused by design failure or unsafe act*

The following emergencies have been identified based on assessment of the CEZ operations:

- Fire;
- Fuel and chemical spillage;
- Leakage of gas; and
- Medical Emergency.

1.5.1.1 *Fire*

The fire outbreak is identified as one of the major' non-structural' emergency scenarios. The site will be stored different flammable chemicals and gases such as:

- ***LPG:*** The site will require approximately 15-20 numbers LPG cylinders at CEZ construction site on daily basis for the purpose of hot work i.e. welding and cutting activity. The capacity of each LPG cylinder will approximately 12 Kg. LPG is highly flammable gas with flash point of -104° C and having lower and upper flammable limit of 2.1% to 9.5% respectively.
- ***Natural Gas:*** The Titas Gas Transmission & Distribution Company Limited (TGTDCL) will supply the natural gas to all the companies to the project by pipeline.

The site has identified the following areas with potential fire risks in the below section:

Sl. No.	Area of concern	Potential source of fire
1	CEZ construction site	LPG cylinders will be used for hot work activity. The fire from the use of LPG cylinders can be occurred due to: • Leakage from faulty gas regulators and damaged hoses. • Over pressure in the LPG cylinder that may cause explosion.

1.5.1.2 *Fuel and Chemical Spillage*

CEZ sites will be used different chemicals namely:

- ***Hydrochloric Acid (HCl):*** The site will be stored approximately 2 tons of HCl at process house located inside the CEZ. This HCl will be required for IER (Ion Exchange Column) regeneration and Water Treatment Plant (WTP). HCl is very hazardous chemical, which is

corrosive in nature and irritant. This is also a lung sensitizer in case of acute exposure and inhalation.

- ***Caustic:*** The site will also be stored approximately 20 tons of caustic near to the HCl storage tanks. This caustic will be required in Water Treatment Plant (WTP). Caustic is very hazardous chemical, which is corrosive in nature and irritant. Acute exposure can lead to chemical pneumonitis and pulmonary edema, irritation and burn of respiratory tract.
- ***Diesel:*** The site will be stored some diesel for construction purposes. Repeated or prolonged contact with diesel may result in defatting, inflammation, and possible secondary infection. This is a potential carcinogenic agent and triggers slip-trip hazard as well.

The site has identified areas the following areas with potential risks of spillages:

Sl. No.	Area of concern	Potential source of spillage
1	Water treatment plant (WTP) and effluent treatment plant (ETP)	• Spillage of HCl and caustic can occur from the respective storage tanks. This spillage can be triggered by malfunction of: - Product inlet pipe. - Drain valve. - Vapor return valve. • Spillage of citric acid and sodium carbonate from their storage areas from the leakage in their storage tanks and receptacles.

1.5.1.3 Leakage of gas:

For the CEZ sites the following gas leaks are anticipated:

- ***LPG:*** The site will be stored approximately 15-20 numbers LPG cylinders at CEZ construction site for the purpose of hot work.

The areas of concern along with the probable gas leak sources have been presented below:

Sl. No.	Area of concern	Potential source of gas leak
1	CEZ construction site	Leakage from the LPG cylinder, use for the hot work purpose at project site can be occurred from the: • Malfunction of the LPG cylinder valve; • Old pipeline with cracks.

1.5.1.4 Medical Emergency:

The site has identified the sudden onset of a medical condition manifesting itself by acute symptoms of sufficient severity including severe pain as medical emergency scenario. The following medical emergencies as identified by the site resulting from:

- Major injuries caused by traffic accident caused by on-site vehicular movement.
- Fall from height.
- Burn injury from electrocution, fire, exposure to hot steam and lightening.
- Exposure to gas and other chemical.

Apart from the above-mentioned medical emergencies, the site has also identified following health crisis:

- Difficulty and shortness of breathing.
- Fainting.
- Chest pain or and high/ fluctuation in blood pressure.
- Uncontrolled bleeding after injury.
- Sudden severe pain.

1.5.2 *Anthropogenic Emergency Sources*

The following emergencies have been identified under this section:

- Terrorist attack and Bomb threat.
- Workers and local community agitation;
- Malicious act such as theft and vandalism.

1.5.3 *Natural calamities*

The following emergencies have been identified under this section:

- ***Earthquake:*** Earthquakes are unpredictable natural disasters which are of short duration but the consequences can be severe. Based on the information available in the public domain and research publications indicates that the Comilla district comes under the seismic zone – II which indicates that this district falls under the 'Low Damage Risk Zone'.

- ***Flood*:** Flood risk may occur in case of unusually heavy rain. The Luterchar area had experienced three major flood incidents in last thirty years. The site is 2 km away from the River Meghna. The site and its adjacent area had experienced the flowing flood:
  - Year 1988: The Government main roads located near the site were under the water.
  - Year 1998: Flood water raised upto Government main road level.
  - Year 2004: Flood water level was just below the site level.

  The height of the floor level of CEZ from the nearest Government main roads will be 2.5 meter. The floor of the onsite power station will be 2.75 meter high from the nearest Government main road where as the floor level of WTP, plant equipment, diesel pump area, process and machinery area will be 2.5 meter high from the nearest Government main road.

  Wind Storm: The CEZ site is located towards north of the Chittagong coastal area of Bangladesh at an aerial distance of approximately 155.00 km. Therefore, impact of heavy windstorm and cyclone at site cannot not be ruled out.

1.6 EMERGENCY CLASSIFICATION

The CEZ has differentiated the types of on-site emergency scenarios based on the magnitude and severity of the emergencies being considered in the earlier section. The site has categorized three broad levels of emergency scenarios namely:

- ***Level 1:*** The emergency is confined to the area of occurrence and can be effectively and safely managed by the emergency equipment and available resources;
- ***Level 2:*** The emergency has occurred and has spread to a small area but can be managed by the emergency equipment and resources available at site.
- ***Level 3:*** This is an emergency or an incident which:
  - Cannot be effectively and safely managed or contained at the location of occurrence by available resource and emergency equipment;
  - Additional external support is required as it has the potential to exert effect beyond the site boundary and can be of catastrophic nature;
  - This level of incident and emergency is likely to affect the neighboring population, industries, property and environment outside of the site boundary
  - The management and control of this emergency scenario requires active support and involvement from country level and district administration.

The Incident Commander (IC) and Site Emergency Controller (SEC) will decide upon the level of emergency and deployment of external emergency responders during emergency scenario. The external agencies as identified by the site are:

- Bhaberchar Fire Service Station;
- Rapid Action Battalion (RAB) unit – 11;
- Gazaria Police Station;
- Sonargoan Central Hospital; and
- Neighboring industries.

1.7 EMERGENCY NOTIFICATION & EVACUATION PROCESS

1.7.1 *Notification*

Any emergency at the site shall be notified by sounding the alarm by activating the manual call points located at the office building of the site. The emergency contact numbers have been furnished in the ***Annexure-A*** and ***Annexure-B*** of the report

1.7.2 *Evacuation*

- Regardless of the situation if the alarm is activated, evacuation must take place.
- All personnel and workers shall act in accordance with directions given by CEZ **Site Supervisors** and ERT personnel to evacuate the building/construction site immediately.
- All shall move calmly to the nominated assembly area shall not leave the said area until the all clear has been given by the **Site Emergency Controller (SEC)** and ERT.
- If a clear danger exists, emergency services will be called by the **Site Emergency Controller (SEC)**.
- The **Incident Commander, Site Emergency Controller, Site Construction Manager and ERT** may reassess the situation for immediate actions to take place.
- If the designated assembly point becomes endangered, or the evacuees need to remain outside the premises for an extended period, personnel will be relocated to a suitable point at the direction of the **ERT**.

The emergency evacuation route map and location of the nearest assembly point must be provided in each of the floor at conspicuous locations.

1.7.3 *Head Count*

- After evacuation, all persons on site including visitors and contractors shall assemble at the assembly point.
- The **ERT** will conduct a roll call to ensure all persons are accounted for including visitors and contractors. This roll call will be done by using the muster rolls (for direct employees and contractor workers) of CEZ and visitor register. The muster roll and visitor register needs to be maintained by CEZ and these will be made readily available to ERT after an emergency.
- Missing persons shall be advised to the **Site Emergency Controller**, who will then advise the **Emergency services**.
- No personnel shall undertake search and rescue for missing persons in endangered areas except for the specialised and trained ERT personnel along with external emergency services, if any.

1.7.4 *Re-Entry*

- Re-entry to the site will not take place until advised by the **Emergency Services** to do so. This will be relayed to all personnel by the **Site Emergency Controller.**

1.7.5 *Emergency Muster Point*

The emergency muster point of the Site will be located in 2 (two) different location. One will close to the main entrance of the Comilla Economic Zone (CEZ) and another will close to ***CEZ*** Admin building. During an emergency, the personnel of ***CEZ***, contractor workers and visitors will be assembled at this emergency muster point. The following safety precautions will be taken with respect to the emergency muster point:

- The entry of goods vehicles to the CEZ will be stopped during an emergency to minimise exposure to the secondary emergency scenario such as accident owing to traffic movement near emergency muster point.
- The Site will use physical road barriers to separate this area from any internal traffic movement during an emergency;
- The ERT will assists the Site personnel (which includes visitors) to reach at the emergency muster point;
- The security guard at the main entrance of the CEZ will manage the movement of traffic on the CEZ access road during emergency to prevent traffic congestion that may occur by the goods vehicle plying in and out of CEZ.

1.7.6 *Public communication during Emergency*

There is no public community in the close proximity of the CEZ. The site is surrounded by the branch of meghna river in three sides whereas only one side is surrounded by null land. The site is divided by meghna-Homna road. MGI EMT will monitor any emergency situation and continuously monitor its impact both on internal asset and external public involvement and take decision accordingly. This information related to public will be shared with the general public by distribution of printed leaflet and meeting with community leaders.

The following safety precautions will be taken with respect to the emergency which demand protection to public:

- Immediately block the public road for outside the factory and allow the emergency vehicle only.
- Continuously announce by mike in the nearest community for evacuation if necessary due to the severity of the emergency
- Call external govt. authority (Fire service & Civil defense, Union porishod, Police etc.) to take control on the community according to govt. protocol.

Figure 1.2: Evacuation Process Flow Char

1.8 EMERGENCY RESPONSE FOR TYPICAL EMERGENCIES IDENTIFIED

This section describes the emergency response procedure that needs to be implemented during typical emergency situations.

1.8.1 Fire:

During any fire incident, the site needs to follow the following instructions to ensure resurrection of the safe working condition:

- The person who recognize the fire must activate the nearest fire alarm or inform the CEZ Area Supervisor;
- The IC will declare the emergency and activate the Emergency Response Team (ERT);
- The ERT will assess the alert level and co-ordinate with the SEC, CEZ Area Supervisors and arriving off-site emergency response personnel;
- Apart from the trained fire fighters, no other personnel will be allowed at the place of incident. The fire fighters must ensure that they have wear essential PPEs such as safety suit, safety helmet, self-containing breathing apparatus (SCBA) based on the requirement and magnitude of the fire;
- Disconnect utilities and equipment unless doing so jeopardizes site safety;
- The fire will be isolated by removing the surrounding inflammable material. This will be done without compromising safety of the fire fighters to the extent possible;
- The small fires will be extinguished by using appropriate fire extinguisher (based on the class of the fire);
- The fire hydrant system and on-site fire tenders will be used for the extinguishing the big fires;
- Rescue and attend the injured personnel and call the medical emergency number, if required.

The fire extinguishers to be used based on the types of fire: has been enumerated in the Table below:

Sl. No	Causing agent	Classification of Fire	Type Of Extinguisher
1	Combustible Packing Material	Class "A" Fires	**Water Type (Water and CO_2)**
2	Diesel	Class"B" Fires	**Foam Type**
3	IPA	Class"B" Fires	**Foam Type**
4	Electrical Panel	Class "C" Fires	**Dry Chemical powder**
5	LPG Cylinder	Class "C" Fires	**Dry Chemical powder**
6	**Natural Gas**	**Class "C" Fires**	**Dry Chemical powder**

1.8.1 Fuel and chemicals spillage

In case a large chemical Spill has occurred:

- Immediately notify the designated official such as CEZ Area Supervisor;
- The IC will declare the emergency and activate the Emergency Response Team (ERT);

- The ERT member must wear adequate PPEs prior starting of the spill management procedure;
- Secure the area and alert other site personnel. If required initiate an emergency evacuation process;
- No person will be allowed to involve in spill containing activity unless they are trained to do so;
- Contain the spill with available equipment (e.g., pads, booms, absorbent powder etc.). In case of acid spillage spray, dilute sodium carbonate and plenty of water. In case of caustic spillage spray, dilute citric acid and plenty of water. In case of oil spillage try to stop its flow, close the main valve of the storage tank or isolate the pipeline (in case of leakage from flanges) by blinding. Collect the spilled chemical in container by use of spill kit;
- Do not allow the flow of spilled chemicals in the storm water drain. Channelize it to ETP through connecting drain;
- Attend the injured personnel and call the medical emergency number, if required;
- Dispose of the spilled chemicals in environment friendly manner. If require, consult to the Department of Environment (DoE) Bangladesh in this regard.

In case a small chemical Spill has occurred:

- Immediately notify the designated official such as CEZ Area Supervisor;
- If toxic fumes are present, secure the area (with caution tapes or cones) to prevent other personnel from entering;
- Deal with the spill in accordance with the instructions described in the MSDS.
- Small spills must not be handled without wearing the proper PPEs.

1.8.2 *Leakage of gas:*

The following procedure will be followed in case of leakage of gas:

- The person who smells the gas odor or identify the gas leak immediately inform the CEZ Area Supervisor or directly to IC or SEC;
- An emergency will be declared;
- CEZ Area Supervisors will initiate the evacuation of the workers from the incident scene through safe exit in a disciplined manner. Workers will be instructed to calm and not to be panicked;
- The ERT will assess the alert level and co-ordinate with the SEC, Area Supervisors and arriving off-site emergency response personnel;
- For LPG Gas Leakage from the LPG cylinders:
  - Any LPG cylinder which develops a leak should be promptly removed to an isolated open place away from any source of ignition;
  - Cylinder with valve leakage needs must be capped immediately and tagged by mentioning the defect;
  - In case of leak from the LPG pipe, the cylinder regulator knob/ valve needs to be close;
  - Do not try to repair the appliance or any part of the system when pipe line or appliance in use;
  - Use adequate PPEs;
  - Do not use naked lights to detect the leak;

- In case of heavy Leak, stop all ignition sources in the vicinity and evacuate all the people to a safe area;
- In case of outbreak of fire, trigger the firefighting procedures as specified in previously.
- Call first aid team and get medical attention as quickly as possible. In case of any accident such as burn and asphyxiation send the affected people to the OHC and hospital.

- For Natural Gas leakage:
  - The person who smells the gas odor should inform the concern person;
  - Do not use mobile phone or switch on electrical installation as this could cause an explosion.
  - Evacuate the people from gas leakage surrounding area and send them to a safe area ;
  - Immediately contact respective operators who are handling the unit;
  - Instruct operators to close all shutoff and isolation valves and identified the leakages;
  - In case of outbreak of fire, trigger the firefighting procedures as specified in previously.
  - Call first aid team and get medical Attention as quickly as possible In case of any accident such as burn and asphyxiation;
  - Coordinate with the Emergency management team and take action as per their guideline

1.8.3 Medical Emergency

In case of any medical emergency

- If the person cannot walk then call the emergency phone number for ambulance and assistant. Inform CEZ construction manager
- Provide the following information:
  - Nature of medical emergency;
  - Location of the emergency (building, area);
  - Name of the person, department.
- Do not move victim unless absolutely necessary.
- Call the personnel trained in CPR and First Aid to provide the required assistance prior to the arrival of the ambulance
- In case of rendering assistance to personnel exposed to hazardous materials, consult the Material Safety Data Sheet (MSDS) and wear the appropriate personal protective equipment. Attempt first aid ONLY if trained and qualified
- Do remember:
  - In case of first and second-degree burn, exposed the affected area under cold water for 15-20 minutes. Do not put any chemical such as toothpaste etc. on the affected area and do not apply synthetic clothing on the burnt surface;
  - Do not use water in case the person is exposed to water reactive chemical;
  - In case of electrocution please follow the following steps to revive the person suffered from electrical shock:
    - Ensure that the source of electrocution is de-energized if the victim is still in contact with the source of electrocution. Do not touch the victim until the source has been removed or disconnected.
    - Apart from the trained first-aiders, do not allow any other person to go near to the victim.

- Conduct a head-to-toe physical examination of the victim, which will include identification of the different contact points and thermal burn. Burn injuries caused by an arc or thermal wave must be managed as burn injuries.
- Check if the victim is able to communicate and if he/she is able to talk then ask for if the victim is experiencing any pain or able to move.
- Assess for any fractures and neurological deficits caused by the shock. Do not move victim in case of any neurologic deficit such as spinal injury; keep the person in lying position unless medical help arrives.
- In case victim is not able to communicate, then monitor victim's cardiac rhythm. Provide respiratory support to the victim if he/she is not able to breathe properly (asphyxiation).
- Monitor the cardiac rhythm of the victim and if required start cardiopulmonary resuscitation (CPR) to the victim. The CPR must be given by trained first-aider.
- Based on the impact of the injury transfer the person to the nearest hospital on priority basis

1.8.4 Terrorist attack and Bomb Threat

For terrorist attack and bomb threat

- The person perceiving the attack should immediately call emergency numbers of the police department as provided in the Annexure B ;
- Upon receiving such information, the IC will initiate a short meeting with ERT, security and other department. All types of security aspect and safeguards, individual roles and responsibility will be discussed
- Strengthen security in all entrance along with arms.
- Prevent any associate from entering the factory.
- Tell the labors and visitors not to engage with any terrorists.
- Instruct general workers and management personnel not to touch any suspicious item.
- Inform ERT, area supervisor or security personnel about presence of any suspicious item.
- Weapons of mass destruction likely to be employed by terrorists. Do not try to remove, deactivate or detonate any explosive or bomb.
- If the source of the threat is outside, the ERT will:
  - Reverse-evacuate all people into pre-identified safe location i.e. all the Site personnel will be moved inside of the buildings near of the project (as the conditions inside the buildings are safer than outside)
  - Close all doors leading into such safe location to prevent entry of terrorist ;
  - Shut down all utility systems to the building (gas and electricity are the priorities);
  - All people assume the duck, cover, and hold position on the ground;
  - Allow personal and staff to leave at their own discretion once cleared to do so by public safety, emergency management, or military authorities;
- If the source of the threat is inside the plant the ERT will:
  - Evacuate site personnel to a safe distance outside of building if possible;
  - Follow the primary fire drill route, or the alternate route if the primary route is too dangerous;
  - Instructors and managers take roll after evacuating;

- Immediately notify the IC of any missing people;
- No one may re-enter the building(s) until entire building(s) is declared safe by public safety, emergency management, or military authorities.

- Inform security supervisor about the required safety measures and communicate the same to down the level.
- Inform local police station and administrative officer immediately and take all types of help required.
- Call on administrative office of neighboring factory like Bashundhara and Holcim Cement and request for help by providing additional security. Phone no's are available in emergency contact diary.

1.8.5 *Workers and Local Community Agitation*

- The person who discovers the unrest should dial the emergency contact number and notify the IC or SEC;
- IC must warn the site personnel of the unrest and mobilize ERT.
- The ERT will ensure the safety of labor and site personnel in the immediate vicinity.
- IC will instruct to seal off the affected area, if possible.
- The IC will instruct the site security personal to isolate the agitated workers.
- In case the agitation caused by the local community, the security will close all the entry gates and prevent entry of outsiders inside the site.
- Based on the magnitude of the issue, IC will call the Sonargaon Police Station for help.

1.8.6 *Malicious act such as theft and vandalism*

If MGI receives any information on the malicious act or vandalism caused by the worker (s) then:

- The worker (s) involve in such activity will be identified and the site security, area supervisor and respective contractor agency must be informed.
- The designated department will issue a show cause notice.
- A formal hearing process inclusive of self-pleading will be conducted in presence of IC and other designated personal.
- If a person is suspected of carrying a weapon to site:
  - The person who believes someone has a weapon should immediately dial emergency number;
  - The person who believes someone has a weapon should immediately notify the IC and/or area supervisor and nearest security person;
  - If suspect threatens other person with a weapon, do not engage to disarm them and remain calm;
  - The security person will dis-weapon the worker in case they are carrying any weapons if possible;
- In case of any fight among workers:
  - The person who witnesses an assault or fight should dial emergency contact;
  - Notify the incident to Commander (IC);
  - IC will initiate emergency response and security and ERT will be deployed to diffuse the situation;

- The security and ERT should seal off area where assault/fight took place, if possible;
- The ERT will document all activities and ask victim(s)/witness(es) for their account of incident, including details such as weapon use, physical injury causing substantial pain or impairment of physical condition.

- Based on the magnitude of the issue the local police station will be involved and involved person may be handed over to them.

1.8.7 *Earthquake*

During an Earthquake event:

- Stay calm and await instructions from the Emergency Coordinator or the designated official.
- Keep away from overhead fixtures, windows, filing cabinets, and electrical power.
- Assist people with disabilities in finding a safe place.
- Protect your head.
- Evacuate as instructed by the Emergency Coordinator and/or the designated official.

After the Earthquake Event:

- Visually inspect the structures such as buildings, storage tanks for any visible cracks. Identify critical and weak areas of the building and organize to support them adequately to prevent collapse.
- Isolate electrical supply if required.
- Isolate all pipelines of steam, natural gas etc. in case of any leakage.
- Empty such tanks, which are found in relatively unstable conditions.
- Take a review of material storage and ensure that stored materials are kept in safe manner.
- Ensure that LPG cylinders are removed from manufacturing areas and stored in the designated shed in safest manner. Also identify leaked cylinders if any
- Immediate ready to use all Emergency equipment like stretchers, breathing equipment, PPEs, Dewatering, portable welding gas cutting equipment, Spill kits, emergency lights, Battery operated public address equipment, ropes, lifting tackles, trolleys, emergency medical equipment, etc.
- Inspect hazardous chemicals storage area to comply with normal storage safety requirements. Also, inspect secondary containments and restore their integrity wherever necessary.
- Inspect the firefighting equipment provided at site.
- Inspect if the electrical panel and other sources of ignition for any fault and damage
- Ensure that flammable liquids i.e. Petrol, Diesel and other petroleum products are stored under secondary containment with due precautions.

After such inspection notify the top management about the damage that has been identified.

1.8.8 *Flood*

In case of any flood, incident flood alert communication procedure will be initiated as discussed below:

- Orange Alert: This will be triggered when floodwater level will raise within 2 meter of factory level. All preparations for temporary protection to be started at this state. This includes:
  - Giving sufficient notice to evacuate prior to flooding;
  - Initiate protection of raw materials, finished good, critical equipment, records and electronic equipment as best as possible;
  - Take normal actions for building evacuation and proceed to safe location;
- Red Alert: This will be triggered when floodwater level will raise within 1 meter of factory level. During red alert:
  - Evacuate all affected spaces immediately;
  - Relocate to a safe place on the upper floors of the building;
  - Prevent personnel to wade through flood waters of any depth;
  - Do NOT try to leave the building in a car. In case anyone needs to evacuate, he/ she must wear life-jackets or similar flotation devices.

The general emergency instruction for flood emergency are furnished below:

- Evacuate the people from flooded area and send them to a safe Area.
- Switch of The power supply from effected area.
- Remove obstructions from the drain.
- Coordinate with the ERT and take action as per their guideline.

Based on the magnitude of the flood incident the IC and SEC will decide upon involving outside agencies during flood scenario based on the emergency classification as mentioned in the section 1.6 of this response plan.

1.8.9 *Wind Storm:*

The nature of the wind storm provides for more warning than other natural and weather disasters. The following responses needs to be implemented:

- Once a storm alert has been issued:
  - Stay calm and await instructions from the Emergency Controller or the designated official.
  - Continue to monitor local TV and radio stations for instructions.
  - Stay away from Meghna River branch side.
  - Collect drinking water in appropriate containers.
- Once the storm has arrived:
  - Remain indoors specifically in small interior rooms on the lowest floor and without windows,
  - Stay away from doors and windows, and potential falling objects such as electrical poll, scaffoldings, cable tray etc.
- After the cyclone:
  - Inform to Emergency Management Team to investigate the property loss in the plant for further action;
  - Immediately notify the ERT for any missing personnel

Based on the magnitude of the wind storm incident the IC and SEC will decide upon the level of emergency and deployment of external emergency responders.

1.9 *EMERGENCY RESPONSE EQUIPMENT*

The Site will be used following emergency response equipment namely:

- Firefighting Equipment: The firefighting equipment includes:
  - Fire extinguishers;
  - Hose reel and fire hydrant boxes;
  - Fire water tank;
  - Fire pumps;
  - Fire tenders;
- Personal Protective Equipment (PPE): PPE includes
  - Fire retardant suits;
  - Self-Containing breathing apparatus;
  - Safety helmet, safety goggles, safety vest.
  - Life Jacket, Life Buoy
- Medical Aids
  - Ambulance;
  - First aid boxes.
- Spill Control kit.

The detail list of the emergency equipment is furnished in the ***Annexure C*** of this response plan. All the emergency response equipment specified in the Annexure shall be inspected and maintained on a monthly basis and records maintained.

1.10 *EMERGENCY RESPONSE TRAINING*

The aim of emergency response training is to build the capacity of Project employees, to improve preparedness and response at all levels before during and after emergencies. The focus of emergency response training is generally on improving the technical skills of the participants, but also on personnel and team management. It also aims to improve coordination of emergency response and the quality and availability of emergency management tools/equipment.

In accordance to the relevant provision of the *Bangladesh Labour Act, 2006* and *Bangladesh Labour Rules, 2015* all workers or at least 18% of the workers employed in project shall be trained on the following emergency response aspects:

- Fire-fighting;
- Emergency rescue operation;
- First aid; and
- Portable fire-fighting equipment usage.

The trained workers shall be divided into fire-fighting team, rescue team and first aid team (6% members in each team) and records related herewith shall be preserved in accordance with ***Form*** 22 (Refer to Annexure D) of the previously mentioned Rules.

The members of firefighting team, rescue team and first aid team shall wear the prescribed uniform while conducting their respective operations and the dress code shall be as follows:

- Firefighting team: Yellow coloured apron, in rear of which 'FIRE' shall be written in red colour.
- Rescue team: Yellow coloured apron, in rear of which 'RESCUE' shall be written in red colour.
- First aid team: White coloured apron, in rear of which 'FIRST AID' shall be written in red colour.

1.10.1 Emergency Drills/Exercises

Fire drills and emergency evacuation drills shall be arranged at least once in every six month period and records of such drills shall be maintained in ***Form*** 22. In addition, the concerned Inspector and nearby Fire Service Station shall be informed minimum 15 days before such drills are held.

1.11 EMERGENCY COMMUNICATION

Clear communication is essential during an emergency. Multiple methods needs to be use during an emergency as one single method of communication may not be able to communicate the emergency to the designated site personnel and off-site agencies in a timely manner.

The Site will be provided emergency and warning signage at conspicuous locations of Site to make Site personnel aware about the:

- Potential hazards and risks pertaining to their operation and activities;
- Pertinent risks present at a particular area;
- Emergency escape route.

The Site will be displayed emergency related signage such as:

- Emergency exit signage;
- First Aid Box Signage;
- Floatation Device Signage;
- Fire Extinguisher & Hydrant Signage;
- Safe Mustering Point Signage

In case of an emergency, the emergency communication will be initiated. The emergency communication:

- Must be made in simple language;
- No code word should be used

The methods of communication at site to notify all personnel during an emergency include:

- Emergency siren;

- Manual Call Point
- Public address system;
- Mobile phone, land line and intercom;
- Two way radio or wireless system;

The IC will evaluate the emergency and determine the best method to notify the site personnel of the emergency.

The on-site and off-site emergency contact numbers are furnished in the Annexure – B of the response plan.

1.12 *EMERGENCY RESPONSE PLAN REVIEW*

IC and SEC will annually review this Plan along with the other members of the Emergency Response Team (ERT). In addition, IC will also be involved in monitoring the following performance indicators to assess the effective implementation of the procedure:

- Emergency drill records; and
- Training records.

Annexure –A:

The On-Site Emergency Contact Numbers

On-Site First Aid Team

Fire Fighting and Rescue Team

Annexure – B: The Emergency Contact Numbers of External Agencies

EMERGENCY TELEPHONE NUMBERS:	
Police Contact Number	
Police Helpline	999
Meghna Police Station – Officer In charge	01713-373685
Gazaria Police Station – Officer In charge	01713-373401
Rapid Action Battalion unit-11	7694183, 01777-711199
Dhaka Control Room	02-9555555-7, 01730-336699, 019688-81111
Fire Brigade Contact Number	
Meghna Fire Station	01789-213532
Narayanganj Fire Station	02-7648748, 01730-002310
Daudkandi Fire Station	01557-781686, 01745-929191
Munsiganj Fire Station	7611121, 01730-002142
Hospital Contact Number	
Sonargaon Police Station Health Complex	01730-324533
Sonargoan Central Hospital	01986-440033
Modonpur Al-Baraka Hospital	01868-800280
CEZ Medical Officer	
Red Crescent Society, Narayanganj	+88 01811-438524
Contact Number of Neighboring and Important Industries	
Bashundhara Group	01730-018530
Ambulance Contact Number	
Parvez - Ambulance Driver	01730-703783
Hafiz – Ambulance Driver	01710-826536

Annexure C: List of Emergency Equipment

SN	Equipment Name	Unit	Total		CEZ
List of Equipment for Fire Emergency					
1.	Fully Equipped Water Fire Truck	Set	01	01	
2.	Fully Equipped Foam Fire Truck	Set	00	TBD	
3.	Torch Light	PCS	02	02	
4.	Lock Cutter	PCS	01	01	
5.	Hand Pump	PCS	01	01	
6.	HE Fire Foam	Liter	00	TBD	
7.	Fire Hydrant	Liter	00	TBD	
8.	Fire Bitter	Liter	00	TBD	
9.	Fire Hook	Liter	00	TBD	
10.	Fire Bucket	PCS	4	4	
11.	Fire Drum	PCS	00	TBD	
12.	DCP (5 Kg) Fire Extinguisher	Liter	30	30	
13.	Co_2 (5 Kg) Fire Extinguisher	Liter	35	35	
14.	Co_2 (25 Kg) Fire Extinguisher	Liter	03	TBD	
15.	Foam (10 Ltr) Fire Extinguisher	Liter	08	TBD	
16.	Foam (25 Ltr) Fire Extinguisher	Liter	03	TBD	
17.	Fire Water Tank	NOS	1	TBD	
18.	Hose Reel	NOS	1	1	
19.	Fire Water Pump	Set	00	TBD	
20.	Flame Detector (IR Type)	NOs		Yet to be decided	
Personal Protective Equipment					
21.	Fire Retardant Suits	Set	0	TBD	
22.	Self-Containing Breathing Apparatus	Set	0	TBD	
Spill Management					
23.	Spill Kits	Set	0	TBD	
Medical Aid					

24.	Ambulance	NOS	1	1
25.	First Aid Box	PCS	2	2
Life Jackets or Similar Floatation Device				
26.	Life Jacket	PCS	00	TBD
27.	Life Buoy	PCS	00	TBD

Annexure D: Form 22 (Record Book on the Training of Fire Extinguishment) of the Bangladesh Labour Rules 2015

Form-22 (Per Section 62(8) of the Bangladesh Labour Act 2006 and Rule 55(10) of the Bangladesh Labour Rules 2015

Record Book on the Training of Fire Extinguishment

Name of Factory/Establishment: ……...

Address of Factory/ Establishment:……...

Number of Total Workers and Employees:…… Male: …… Female:……

Serial No.	Date & Time	Type of Training			Name of the Training Institution	Number of Participants in Training			Duration of Training	Signature of Owner/ Manager	Remark
		Fire Extinguishment	Rescuer	First Aid		Male	Female	Total			
(1)	(2)	(4)	(5)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

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ANNEX L

Environmental Policy of CuEZL

Comilla Economic Zone (CEZ) is situated beside Dhaka-Chittagong highway with a gross of 246.3615 acres of land at Sonachar Mauza, Luterchar Union, Meghna Upazila, Comilla District, Chittagong Division. These land areas were treated as Null and low land by local AC Land Office. The bank of the river Meghna and its branches are considered as industrial belt, as there are many industries located in and around the Upazila. The proposed site at Luterchar Union is on the bank of a branch of Meghna River. There are already established industries on the opposite bank of the river.

Comilla Economic Zone-a sister concern of Meghna group of Industries, has been established as a most modern EZ in Bangladesh with necessary facilities for investment, where investors are cordially welcome to be development partners of the most promising country of South-Asia.

The vision, mission and values statement of **Comilla Economic Zone (CEZ)** is same as it for the Group **(Meghna Group of Industries).**

VISION: To be Bangladesh's most admired and progressive global conglomerate.

MISSION: Delighting our customers and maximizing value by innovative solutions, inspired employees, adaptation of technological advancements and living in harmony with environment.

VALUES:

1. Respect
2. Integrity
3. Customer Focus
4. Team Works
5. Keeping Promises

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CEZL ENVIRONMENT, HEALTH & SAFETY POLICY

- Conduct our operations in compliance with all applicable laws, regulations, and licenses, codes of practice and industry standards.
- Minimize the environmental footprint of our operations through adoption and implementation of pollution prevention and sustainability initiatives.
- Promote a safe and healthy work environment at all our work areas through identification, assessment, evaluation and control of risks and hazards.
- Seek continuous and sustainable improvement of EHS performance of our businesses in positive collaboration with our stakeholders.
- Conduct safety and environmental capacity building of our employees, contractors, visitors, suppliers, customers and community.
- Avoid adverse impacts on Health and Safety of communities living in the vicinity of Comilla Economic Zone Limited through appropriate mitigation and monitoring.
- Actively involve and engage employees, contractors and external stakeholders to demonstrate compliance with EHS Policy and Objectives.
- Aim at zero fatality and implement appropriate measures to achieve zero fatality.
- Increase Control to Reduce Environmental Pollution by means of active environmental monitoring and management.

All employee shall fully understand and faithfully fulfil the above policy and objectives.

Meghna Group of Industries

July, 2020
Mostafa Kamal
Chairman & Managing Director

ANNEX M

Chance Find Procedures

Annex M: Chance Find Procedures

(Ref: The World Bank Operational Manual, 1999 OP4.11)

Construction works could impact sites of social, sacred, religious, or heritage value. "Chance find" procedures would apply when those sites are identified during the design phase or construction period and the related activity will not be eligible for financing under the project.

(1) Cultural property includes monuments, structures, works of art, or sites of significant points of view, and are defined as sites and structures having archaeological, historical, architectural, or religious significance, and natural sites with cultural values. This includes cemeteries, graveyards and graves.

(2) The list of negative subproject attributes which would make a subproject ineligible for support includes any activity that would adversely impact cultural property.

(3) In the event of finding properties of cultural value during construction, the following procedures for identification, protection from theft, and treatment of discovered artifacts should be followed and included in standard bidding documents.

(a) Stop the construction activities in the area of the chance find;
(b) Delineate the discovered site or area;
(c) Secure the site to prevent any damage or loss of removable objects.
(d) Notify the supervisory Engineer who in turn will notify the responsible local authorities;
(e) Responsible local authorities and the relevant Ministry would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures (in this case, Department of Archeology Bangladesh).
(f) Decisions on how to handle the finding shall be taken by the responsible authorities and the relevant Ministry. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance), conservation, restoration and salvage.
(g) Implementation of the authority decision concerning the management of the finding shall be communicated in writing by the relevant Ministry.
(h) Construction work could resume only after permission is given from the responsible local authorities and the relevant Ministry concerning safeguard of the heritage.

(4) These procedures must be referred to as standard provisions in construction contracts. During project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered.

(5) Relevant findings will be recorded in World Bank Monitoring and Supervision Reports during project implementation. Completion Reports will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

ANNEX N

Occupational Health and Safety Protocols and Plans

ANNEX N
OCCUPATIONAL HEALTH AND SAFETY PROTOCOLS AND PLANS

N.1 INTRODUCTION

Occupational health and safety plan (OHSP) provides means of preventing workplace accidents, injuries and work related ill health. Safety relates more to health hazards that results from accidents and can cause instantaneous impairment of the workers' health. Improved health and safety management can bring significant benefits to the business. It reduces individual and human costs of accidents and ill health, direct and indirect cost to the business, improves customer perception and company profile and workers' morale. This OHSP is provided as a guidance document for identifying the potential risks involved during construction and operation phase of the project and reducing workplace injury and damage to property and environment in case of accidents and emergency.

The objectives of OHS Plan are:

- To develop, in the workplace, a collaborative approach to managing Occupational Health and Safety between management and workers
- To identify work associated risk and hazard
- To provide and maintain safe working procedures and operations
- To ensure awareness of all potential work-related risks and hazards and to develop preventive strategies against these risks and hazard
- To define responsibilities to ensure effective implementation of health and safety
- To provide appropriate training to all concerned to work safely and effectively
- To maintain a constant and continuing interest in the improvement of occupational health and safety performance and to provide the required resources necessary for the implementation and maintenance of the OHS plan.

The following sections present the general requirement of OHS, identification of risk and hazards at the workplace, suggested measures, and roles and responsibilities to implement OHS plan.

N.2 GENERAL REQIREMENTS

The main law related to occupational health and safety in Bangladesh is Labor Law 2006. The law has provisions on occupational hygiene, occupational diseases, industrial accidents, protection of women and young persons in dangerous occupation. The CuEZL project has various activities in different phases i.e., during construction of infrastructures and operation stage. The workplace environmental quality should comply with the Labor Law 2006 and other relevant policies.

General Working Condition

Housekeeping

- Work areas should be maintained in a neat and clean and orderly condition
- Scrap material, such as rags, bolts, and wedges should not be allowed to accumulate in the site area
- Spills of oil, grease, paint and other slippery substances should be cleaned up immediately
- Walkways should be kept clear of tripping hazards at all times
- All personal protective equipment required for a procedure or production area must be properly fitted and worn
- Maintain a free access to all safety equipment including firefighting equipment, electrical panels, and boxes, etc.
- Scaffolding and ladders must be secured
- Proper barricades, safety rings, and safety wires should be used for openings, manholes, etc.
- Barricades must be properly lighted for visibility
- Operating equipment, tools or machinery without proper guards and/or signaling devices is prohibited
- Observe all warning signs in the yard and
- Before leaving the job, always check the area for any sparks or smoldering materials

Ventilation and illumination

- Adequate local ventilation is to be arranged in connection with all types of works involving injurious or irritating gases/smoke/ fumes, which may occur or may form while the work is going on
- Ventilation is to start up before work commences and a check is to be made by the EHS Manager
- Workplace should be properly illuminated

First Aid

- All work areas must be provided with adequate first aid facilities with a trained first aider during working hours
- The contractor must provide or ensure that there is the provision of adequate and appropriate facilities for enabling first aid to be rendered to their employees if they are injured or become ill at work

Overcrowding

- Workplace should not be overcrowded. Enough space should be provided for every worker in a work room.

Dust and Fumes

- Any dust or fumes or other impurities likely to be injurious to the workers. Effective measures should be adopted to avoid its accumulation and protective gears should be used to prevents its inhalation by the workers.

Latrines and Urinals

- Sufficient latrines and urinals shall be provided
- Shall be maintained in clean and sanitary condition
- Shall be adequately lighted and ventilated

Precautions in case of fire

- Shall be provided with means of escape in case of fire
- Effective measures shall be taken to ensure that all the workers are familiar with the means of escape
- Firefighting apparatus should be provided and maintained

Disposal of wastes and effluents

- Provide with proper disposal system for solid waste and effluents.
- Dustbins and Spittoons should be provided in proper places.

Occupational and poisonous diseases

- During construction and operation phases of CuEZL project, use of chemicals (paints, solvents, thinners etc.) batteries, welding materials, lubricants etc. may contribute to health hazards to the workers. These substances may be carcinogenic or detrimental in other ways. Use of industrial solvents can cause anemia, liver and kidney damage, cardiovascular diseases and neurological disorder. Different occupational diseases due to some heavy metals such as lead poisoning, lead tetraethyl poisonings, poisoning by nitrous fume, chrome ulceration, poisoning by halogens, arsenic poisoning, mercury poisoning should be notifiable to the Factory Supervisor/Inspector and the medical officer.

Hazardous Materials Storage and Handling

During construction and operational process of different industries, commercially available chemicals (paints, thinners, etc.) will be used and stored in the project area. Hence small amount of unused or spent chemicals (used paints, motor oils) will be generated and guidelines should be prepared and adopted to store those hazardous materials. The storage place must be sheltered from rain and other water sources and if possible, away from heat sources. The storage place must have a ground cover. The storage place must have an exhaust ventilation system in order to avoid gas accumulation. The storage place must have a restricted access and be identified as a hazardous material storing place marked accordingly

N.3 REMEDIAL AND COMPENSATION MEASURES

To minimize the hazards arising from the activities at different phases of construction and operation, the following remedial measures should be undertaken:

- employees should be informed of the potential health impacts they are facing
- the employer arranges proper medical examination prior to and during employment, as well as tests and analyses necessary for the detection of diseases
- works with volatile toxic chemicals should be undertaken in a well-ventilated place
- laborers handling offensive toxic chemicals should be provided with and forced to use protective clothing
- workers exposed to an excessive amount of noise should be provided with protective gear and be relieved frequently from their works
- workers exposed to large amounts of dust should be provided with adequate protective gear
- frequent spraying of water should be undertaken to minimize dust pollution
- persons undertaking construction and installation works should have access to amenities for their welfare and personal hygiene needs such as sanitary toilets, potable drinking water, washing facilities, shelter sheds etc.
- proper disposal of waste and sullage should be arranged
- health education and information on hygiene should be provided to the workers
- regular checks on food quality should be arranged within the work site

Safety

Safety implies the reduction of risk of accidents at the work site. Accident prevention is more valuable than any mitigatory or compensatory measures. This may be achieved through strict rules and procedures for the execution of specific tasks, enforcement of the rules, and discipline amongst workers, maintenance of machineries used and by providing all necessary gear or equipment that may enhance the safety of the workers. The following guidelines should be followed to maintain the safety of the workers:

- workers have to be well informed about the possible damage or hazards related to their respective jobs
- if pedestrian, traffic or plant movements at or near the site are affected by construction works, the person with control of the construction project must ensure that these movements are safely managed so as to eliminate or otherwise to control any associated health and safety risks
- must ensure sufficient lighting in the area where a person performs construction work or may be required to pass through, including access ways and emergency exit or passage without risk to health and safety
- construction site needs to provide safe access to and egress from all places where they may be required to work or pass through. This includes the provision of emergency access and egress route that must be free from obstructions
- adequate perimeter fencing should be installed on the site before construction work commences and that should be maintained during the construction work and signs should be placed which is clearly visible from outside the site including emergency telephone numbers
- must ensure that electrical installations materials, equipment and apparatus are designed, installed, used, maintained and tested to eliminate the risk of electrical shock, burns, fire or explosion
- construction site should be kept orderly and tidy. Access ways should be kept clear of materials and debris and maintained in a non-slippery condition. Materials should be stored in an orderly manner so that it does not pose any risk to the health or safety of any person
- arrangements of first aid facility should me made accessible when construction work is being undertaken

Suggested Safety Directives for Work Equipment

It is the contractor's obligation that every possible measure is taken to ensure the safety of the work equipment made available to workers and the project proponent will oversee the situation. During the selection of the work equipment the contractor should pay attention to the specific working conditions which exist at the workplace, especially in relation to safety and health of the workers. A brief list of work equipment safety issues during construction phase of the project is given below:

- Work equipment control devices which affect safety must be clearly visible, identifiable and appropriately marked where necessary.
- All work equipment must be fitted with a control to stop it completely and safely. Where appropriate and depending on the hazards the equipment presents and its normal stopping time, work equipment must be fitted with an emergency stop device
- Work equipment presenting hazards due to emissions of gas, vapor, liquid or dust must be fitted with appropriate containment and/or extraction devices near the sources of the hazard

- Where there is a risk of mechanical contact with moving parts of work equipment which could lead to accidents, those parts must be provided with guards or devices to prevent access to danger zones or to halt movements of dangerous parts before the danger zones are reached
- Work equipment must bear the warnings and markings essential to ensure the safety of workers
- All work equipment must be appropriate for protecting workers against the risk of the work equipment catching fire or overheating, or of discharges of gas, dust, liquid, vapor or other substances produced, used or stored in the work equipment
- All work equipment must be appropriate for protecting exposed workers against the risk of direct or indirect contact with electricity
- Fork-lift trucks carrying one or more workers must be adapted or equipped to limit the risk of the fork-lift truck overturning
- Mobile work equipment such as Bulldozer or Road Rollers with ride-on workers must be designed to restrict, under actual conditions of use, the risks arising from work equipment roll-over
- Machinery for lifting loads, such as Crane, must be clearly marked to indicate its nominal load, and must where appropriate be fitted with a load plate giving the nominal load for each configuration of the machinery
- Work equipment must be erected or dismantled under safe conditions, in particular observing any instructions which may have been furnished by the manufacturer

Suggested Safety Directives for Protective Gears

Personal Protective Equipment (PPE) must be used by the workers and even by the visitors at the construction site to minimize the risk. All personal protective equipment must:

- be appropriate for the risks involved, without itself leading to any increased risk
- correspond to existing conditions at the workplace
- fit the wearer correctly after any necessary adjustment

The Contractor must provide the appropriate equipment to the workers and must ensure that it is in good working order. The Contractor shall organize training and demonstrate the use of personal protective equipment. Workers shall be informed of all measures to be taken. Consultation and participation shall take place on the matters related to the use of these protective equipment. A partial list of protective gears to be worn by the workers at designated work areas is given below:

- Head Protection: Protective helmets must be worn at all times in hard-hat areas, such as the building construction sites, under scaffolds, erection and stripping of formworks, etc., where there are possibilities of head injuries from falling/flying objects.

- Hearing Protection: Ear plugs or ear muffs or full acoustic helmets, whichever is appropriate, should be worn in areas where exposure to high noise level is expected. Examples of such activities include percussion drill, bolt driving, etc.
- Eye and Face Protection: Spectacles, Goggles, Face Shield or Arc-welding Mask with Hand Masks, whichever is appropriate, should be worn at times when percussion drilling, spray painting, welding or similar activities are in progress at the field.
- Respiratory Protection: In work areas such as septic tanks, dump sites, sewers etc., where exposure to harmful or toxic gases is likely the workers should wear gas masks, dust filters, or insulating appliances with air supply, whichever is appropriate.
- Hand and Arm Protection: Gloves must be worn at all times when, machineries are used which involve piercing, cutting or vibration. For protection against toxic chemicals special chemical resistant gloves should be worn. Over sleeves must be worn to protect ones arms.
- Foot Protection: Working on or under scaffolds, roof works, formwork erection at the construction site and dismantling, safety shoes/boots are essential protective measures. When working with chemicals special chemical resistant shoes may be necessary. Electrical works require insulated and antistatic shoes/boots.
- Trunk, Abdomen and Body Protection: Where heavy loads need to be lifted and/or physical force becomes necessary body belts are the appropriate protective measure. Safety aprons are essential when welding works are in progress or when handling chemicals. Body harness along with safety ropes and nets are required when working at higher elevation or where possibilities of accidental falls exist.

Table N.1: List of protective gear to be worn at the construction site

Works/ Equipment Use	**Safety Measures for Workers and/or Work Areas**
Common Construction Works	HH, STB, HG
Earth-works	HH, STB, HG
Electric works	RSB, HG
Wood works	HH, STB, HG
Road paving	HH, STB, HG, BP, FM
Cranes	HH, STB, HG, WB
Pile Driver	HH, STB, HG, EP, WB
Arc Welder	HH, WV, HG
Bull Dozer	HH, STB, WB
Heavy Roller	HH, STB, HG, WB
Concrete Mixer	HH, STB, HG, WB
Fork Lift	HH, HG, STB, WB
Percussion Drill	HH, STB, HG, WB, EG, EP, WB
Sledge/Pick Hammer	HH, STB, HG, WB
Vibrator	HH, STB, HG, WB
Working on Scaffolds	HH, STB, HG, WB

Note: HH = Hard Hat, STB = Steel-tipped Boot, HG = Hand Gloves, BH = Body Harness WB = Waist Belt, EM = Ear Muff, EP = Ear Plug, WV = Welding Visor, FM = Face Mask, BP = Body Protective Apron, RSB = Rubber Soled Boot, EG = Eye protection Glasses

Safety and Health Signs

Safety signs, health signs, prohibition sign, warning sign, mandatory sign, emergency escape sign, first-aid sign, information sign, signboard, supplementary signboard, safety color, symbol, pictogram, illuminated sign, acoustic signal, verbal communication and hand signal are essential tools for preventing accidents by providing information in advance.

The Contractor must provide or ensure that appropriate safety and/or health signs are in place at their work sites where hazards cannot be avoided or reduced. Workers and their representatives must be informed of all the measures taken concerning health and safety signs at work and must be given suitable instruction about these signs.

During construction of the park, commercially available chemicals (paints, thinners, etc.) will be used and stored in the construction area. Hence small amount of unused or spent chemicals (used paints, motor oils) will be generated. Operation and maintenance of the HTC also may generate some hazardous wastes. However this is not often the case and the following set of storage guidelines should be adopted: - the storage place must be sheltered from rain and other water sources and if possible , away from heat sources - the storage place must have a ground cover - the storage place must have an exhaust ventilation system in order to avoid gas accumulation - the storage place must have a restricted access and be identified as a hazardous material storing place - any other lead materials which may eventually arise, such as plumbing, should be conveniently packaged and stored in accordance with its characteristics

Compensation measures

There should be arrangements for compensation if any worker is injured by workplace accident or became ill due to work related activities and occupational diseases. It is the owner's responsibility to pay the compensation and the workers should be well informed of the compensation policy at the beginning of his employment. The compensation policy should comply with the Labour Law 2006.

N.4 ROLES AND RESPONSIBILITIES

To ensure the effective implementation of OHSP, everyone (Environmental Health and Safety (EHS) Manager, Safety Officer, Workers, Employees) should play his/her roles properly. There duties are outlined as follows:

EHS Manager

The duties of an EHS Manager shall include the following:

- Ensure that the operations at the facility are in compliance with EHS requirements at all times
- Conducting Health and Safety Audits on a regular basis and advice management for necessary action
- Providing first aid facilities and personal protective equipment as required
- Recording all type of accidents and Reporting to Site Supervisor
- Training of workers and ensuring that they are issued with adequate instructions and creating awareness of safe work practice among them
- Carrying out Job Safety Analysis to determine "Hazards of the operations/activity and facilitating suitable solutions
- Participate in the preparation of, all Safety instructions, procedures and activities

Safety Officer

The contractor will employ safety officer to maintain EHS at the project site. His roles are:

- identify potential hazards and potential major incidents
- review the effectiveness of health and safety measures
- inspect the site with a view to the health and safety of employees, at regular intervals
- participate in any internal health or safety audit
- ensure that the operations at the facility are in compliance with EHS requirements at all times

The client shall ensure the provision of necessary assistance, facilities and training to carry out the functions of a health and safety representatives established above.

Employees/Workers

- Use the correct tools and equipment for the job
- use Safety equipment and protective equipment/clothing supplied, e.g. Safety helmets, shoes, harness, goggles, etc
- Report all defects in plant or equipment to health and safety representatives

N.5 TRAINING

The CuEZL authority and the individual industry should establish procedures to identify training needs and provide adequate safety training for all levels of employees. The safety training should provide staff with the knowledge and skills necessary for organizing and managing occupational

safety and health programs; management should implement and apply occupational safety and health activities; and workers with the knowledge, skills and right attitudes to enable them to work safely.

Table N.2: Proposed Training Programs

Training	Frequency	Description	Responsibility
Induction Training on Health and Safety, covering • HSE Policy • Hazard and Risk associated with activities at work place • Control measures • Emergency response procedures such as fire-fighting, evacuation procedure, artificial resuscitation	Once in every three months	All staff and contractor workers at the time of joining/engagement	EHS Manager
Tool Box Training or pre-task briefings, highlighting hazards and the method of dealing with them	Once in every three months	Held at each work location by head of the contractor to discuss day's activities and specific hazards	Supervisor
Workers Safety Training	Once in every three months	Review safety performance for week Discuss safety for upcoming operations	Supervisor
Fire Safety and Fire Drill	Once in every month	Fire Safety measure and Fire Drill	EHS Manager
Emergency Response	Once in every two months	For emergency preparedness	EHS Manager
First Aid	Once in every three months	First Aid	EHS Manager

N.6 DOCUMENTATION, RECORD KEEPING AND REPORTING

Site/Factory Supervisor should maintain data and records concerning the identification of hazards, assessment, and control of risks of the ongoing activities. The document should establish and

maintain procedures for controlling all relevant EHS documents and data. Such documents should include but not limited to EHS Policy, Hazard Identification Records, Incident-Accident Records, Control Methods including process control and machine design, Safe work procedures, In-house work rules, Meeting Records, Training and Drill Reports, Inspection and Audit Records etc. All the incidents and accidents should be reported to the higher relevant authority.

The risk assessment should be reviewed and revised upon the occurrence of any injuries to any person as a result of exposure to a hazard in the workplace; or where there is a significant change in work practices or procedures.

ANNEX O
LABOR MANAGEMENT

O.1 INTRODUCTION

This chapter describes how labor and working conditions are managed in the CuEZL project. This chapter specifically address the following:

- Legal and Policy Context
- Health and Safety aspect
- General conditions and hiring policy of CuEZL

O.2 LEGAL AND POLICY CONTEXT OF LABOR MANAGEMENT

For worker management during construction and operational period of CuEZL project will be compliance with national requirements (Bangladesh Labor Act, 2006) and core labor management standards. This law specifies the requirements/guidelines for lowest wages of the labor, discharge wages, trade unions, disputes management, hours of work, overtime, leave privilege, welfare facilities and safe working conditions, housing facilities, medical care, group insurance, etc. A few core aspects of the labor law, specific to industrial working environment are as follows:

- Ensure occupational rights and safety of factory workers
- Ensure protection to the workers against harmful effect to their health, safety and morality
- Provision of a comfortable work environment and reasonable working conditions
- Ensure social justice means an equitable distribution of profits and benefits accruing from industry between industrialists

O.3 HEALTH AND SAFETY ASPECS OF LABOR MANAGEMENT

Health and safety aspects are an integral part of labor management. The health and safety protocols and workplace environmental quality in the CuEZL project should comply with the Labor Law 2006 and other relevant policies in Bangladesh. General requirements and framework of an occupational health and safety plan is described in Annex N.

O.4 GENERAL CONDITIONS AND HIRING POLICY OF CUEZL

To ensure an effective labor management and compliance with the national requirements, CuEZL has developed their own plan on recruitment and hiring. The existing policy on recruitment and hiring of CuEZL is attached at the end of this chapter. The CuEZL's policy ensure the following:

- Prohibition of underage labor
- Equal opportunity
- Prevent forced labor
- Anti-harassment and anti-discriminatory practice
- Anti-corruption and anti-bribery policy
- Termination practice as per labor law 2006

O.5 POLICY OF CUEZL

The HR Policies of CuEZL are as follow.

HR Policy of **Comilla Economic Zone (CEZ)** is same as it for the Group **(Meghna Group of Industries).**

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CHAPTER-1: INTRODUCTION

Rule-

Definition

Unless there is anything repugnant in the subject or context or clear violation of prevailinglaws of the country-

"***Apprentice***" means a learner who is paid an allowance during the period of his training.

"***Appropriate Authority***" means the chairman, managing director, board of directors, human resources & administration officer or any other authorized person of **MGI**.

"***Bonus***" means a payment declared at the sole discretion of the company as bonus and payable in addition to monthly pay.

"***Business Purposes***" means the activities that involve performance of employees' duties forthe benefit of the company. These activities should be in accordance with the directives and instructions received from MGI' management.

"***Code of Conduct***": means and shall include MGI' Code of Conduct, if any, applicable for the employees of MGI.

"***Company***": means Meghna Group of Industries (MGI)

"***Confidential Document***": means all business or technical information, whether it is received, accessed or viewed by in writing, visually, electronically or orally in connection with the employment or performance of the employment with MGI. Confidential information shall include, without limitation, technical information, marketing and business plans, databases, specifications, formulations, tooling, prototypes, sketches, models, drawings, specifications, procurement requirements, engineering information, samples, computer software (source and object codes), forecasts, identity of or details about actual or potential customers or projects, techniques, inventions, discoveries, know-how and trade secrets. Confidential Information also includes all such business or technical information of any thirdparty that is in the possession of an employee.

"***Day***" means a period of 24 (twenty-four) hours beginning at 6.00 am.

"***Dependent***" means any of the following relatives widow, minor child, unmarried daughter (up to 25 Years), or widowed mother If wholly or partly dependent on the earnings of the worker at the time of his death, a widower, father, or widowed mother, a daughter ifunmarried or minor or widowed, a minor brother, an unmarried or widowed sister, a widowed daughter-in-law, a minor child of a deceased son, a minor child of a deceased daughter where no father of the child is alive or, where no parent of the worker is alive, a paternal grandparent and illegitimate son or illegitimate unmarried daughter.

"***Discharge***" means the separation of services of an employee by the appointing authority for reasons of physical or mental incapacity or continuing ill health of the employee or for such other similar reasons not amounting to misconduct.

"***Dismissal***" means the separation of services of an officer, employee or a worker by the employer for misconduct.

"***Family***" means and includes wife/husband, Children and Parents;

"***Flexible Hours***" means the option to choose the start and consequently finish time, of the working day, within specified hours;

"***Go-Slow***" means organized deliberate and purposeful slowing down of normal output of work by a body of employee or employees in a concerned manner, and which is not due to any mechanical defect, failure or defect in power supply or in the supply of normal materials;

"***Gross Salary***" means total monthly Basic, House Rent, Conveyance, Medical and Passage Free Travel Allowance paid to the employees.

"***Holiday***" means a day declared as such by an order of the MGI;

"***Lay-off***" means the failure, refusal or inability of an employer, on account of any reason, to give employment to an employee or worker whose name is borne on the master rolls of establishment;

"***Month***" means a calendar month. In calculating a period expressed in terms of months and days, complete calendar months, irrespective of number of days in each, should first be calculated and the additional number of days calculated subsequently;

"***Non-Roster Employees***" means employees working general office hours;

"***Overtime***" means Extra working time before or after one's regularly scheduled working hours, or on employees' rest days. Alternatively, the term also refers to payment/compensation for additional time worked;

"***Pay***" means the amount drawn monthly by an employee as his pay which has been sanctioned for the post held by him substantively, temporarily or on officiating capacity or to which he is entitled by reason of his position in a post and includes personal pay or any other emoluments classed as pay;

"***Probationer***" means an employee employed on probation for specific period (s) against a regular vacancy in a permanent post;

"***Provident Fund***" means the Fund established under chapter seventeen of the Bangladesh labor Act 2006, to be managed and maintained by a Board of Trustees formed and registered

under the provisions of the **Trust Act 1882 & Income Tax Ordinance & Rules 1984** for the benefit of the employees.

"***Retirement age***" means normal separation of employment of a worker on attaining age of60 (sixty) years.

"***Retrenchment***" means the separation of service by the appropriate authority not as a measure of punishment inflicted by way of disciplinary action, but on the ground of redundancy;

"***Roster Employees***" means employees working on shift duty or as per roster administered by Head of Department or Line Manager;

"***Subsistence Allowance***" means half of the basic pay of an officer, employee or worker paid following to his suspension and shall be paid during the period he remains under suspension.

"***Travelling allowance***" means an allowance to which employees are entitled for his travel on official duty as per travelling allowance rules and declared by the management from timeto time.

"***Transfer***" means movement of employees from one work station to any other work stationunder the orders of the appropriate authority in the interest of the business;

"***Unauthorized Absence***" means failure to report to work on a scheduled workday, without proper notification to Line Manager or applying for leave.

"***Vendor***" means a legal entity with which the company has agreement for obtaining various products and services.

"***Year***" means a calendar year starting from 1st day of January and ending at 31st day of December, unless otherwise specified.

CHAPTER-2: GENERAL CONDITION OF WORK

Rule-	Classification of Employee
Rule	Management Structure
Rule-	Category of Employment
Rule-	Conditions of Recruitments
Rule-	Child Labor
Rule-	Adolescent Labor
Rule-	Force Labor
Rule-	Collection of Personal Data
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Rule-	Probationary Period
Rule-	Handling of Personal Files
Rule-	Seniority
Rule-	Promotion
Rule-	Certificate of Service
Rule-	Record of Age
Rule-	Performance Management

Rule-
Classification of Employee

(1) Employees employed in any establishment may be classified in any of the following classes according to the nature and condition of work, namely-

a) Permanent
b) Temporary
c) Probationer
d) Substitute
e) Casual
f) Apprentice
g) Outsourced

(2) An employee may be called a permanent worker if he is employed in an establishment on a permanent basis or if he has completed the period of his probation satisfactorily in the establishment.

(3) An employee may be called a temporary worker if he is employed in an establishment for a work which is essentially of temporary nature and is likely to be finished within a limited period.

(4) An employee may be called a probationer if he is employed for the time being in an establishment in a permanent post and the period of his probation is not ended.

(5) An employee may be called a substitute if he is employed in an establishment in the post of a permanent worker or of a probationer for the period of his temporary absence.

(6) An employee may be called a casual worker if he is employed on ad-hoc basis in an establishment for work of a casual nature.

Rule-
Management Structure (1) the Managing Director is supported by the Admin, General Managers, Managers, Officers and other staff members, eachresponsible for a particular departmental function.

Rule-
Category of Employment (1) Considering the nature of employment, responsibilities and authorities, all the employees of MGI are broadly categorizedinto two categories:

Management Employee

The Employees are having hiring and firing authority, performing in a managerial, administrative or supervisory capacity will be treated as Management Staff. The specified provisions of this service Rules and their appointment contact and other relevant laws will be the Governing Regulations for this class of employee but no provisions of Bangladesh Labor Act, 2006 or Bangladesh Labor Rules 2015 will be applicable forthe Management Staff. There are three categories of management staffs-

Representatives of the Company

This specific category of employees doesn't fall within the definition of workers or supervisory officer, Administrative Officer/ Manager as provided respectively in sections 2(65) of Bangladesh Labor Act, 2006 and Rule 2(g), 2(j) of Bangladesh Labor Rule, 2015. Therefore, they should be termed as an employer under the provisions of section 2(49) (e) of the Bangladesh labor Act, 2006 considering their capacity to represent and manage the affairs of the Organization.

Administrative or Managerial Officer

Employees authorized by the owner or the managing authority in writing to appoint workers or employees, determine the salaries and allowances of the workers or employees, terminate

the services or remove from the services, pay off the final dues and approve or control the expenditures of the company. These persons are employed mainly in a managerial, administrative orsupervisory capacity directly excluded from the definition of 'worker

Supervisory Officer

Employees who are authorized by the owner or the managing authority in writing to supervise, monitor, coordinate the services and performance of subordinate workers/employeesin a team/section/ department or also responsible for individual performance, achievement to his/her direct Manager.

Workers

The employees who have no hiring and firing authority, managerial, administrative, supervisory capacity rather who are employed to perform any skilled, unskilled, manual, technical, trade promotional or clerical works to be categorized as the employee of Worker category. The specified provisions ofthis Service Rules, their appointment letter, provisions of Bangladesh Labor Act, 2006, Bangladesh Labor Rules, 2015 andother relevant laws will be the Governing Regulations for this class of employee.

Rule-
Conditions of Recruitment

Recruitment shall be followed by companies Human Resources guidelines and procedures from time to time as per business requirements ensuring right candidate get selected within timeline.

The recruitment strategy is to attract competent incumbents having potential, required education, experience, good communication capability, possess high level integrity and zeal to grow in career to join the company and retain them. Also, it is ensured to an equal opportunity employer taking decisions free from unfair treatment or biasness, complies with the local regulatory requirements and labor codes.

The recruitment strategy of MGI is to recruit and retain the bestavailable person into each position and be an equal opportunityemployer with decisions free from unfair treatment or biasness,complies with the local legislation and labor codes.

Priority shall be given to the qualified employees within the company to fill any vacant position internally subject to the availability of competent candidate. In such a situation, internalcircular to be announced so that interested candidates can apply, however, during selection, Management will consider suitability of candidates evaluating previous performance record, experience, behavioral approach, seniority of service in the Company and other relevant factors if any. Only when, thereis no suitable candidates available within, Management maydecide hiring from external sources.

Close relatives of the existing employees will not be considered for recruitment.

High level confidentiality shall be maintained throughout the recruitment process.

Managing Director or Head of HR or Head of the Department should jointly be the final approving authority for selection of right candidates against any approved incremental or newly created or back fill or replacement position.

All type of position including incremental/newly created/back fill/replacement head count should obtain prior approval from Corporate/Region office as required before commencing any recruitment process by agency/country HR.

In the event of recruitment from external sources, HR shall postjob advertisement in the online job portal/look for internal reference/CV bank, however, if the position is so urgent to recruit, and could not find suitable candidate by using stated methods, HR shall post Job AD in to a local leading daily newspaper for suitable candidates to apply.

HR Department shall verify incumbents all personal information's/data and may review all kinds of the original credentials including qualification certificates, professional accreditations, national identity card and driving license etc. before final selection. If so required, HR may conduct security background checking for the potential contender irrespective ofthe position. Applicant/contenders personal details and

information is confidential, so it has to be limited to thoseinvolved in the recruitment process.

Applicant selected for employment must be ensured by theappointing authority that a legal aged candidate has get selected.

MGI does not consider sex, religion, caste, color, region, tribe or height etc. as discrimination for employment.

Rule-
Child Labor

1. Recruitment of any child laborer in any establishment of MGI will be fully forbidden.

2. Less than 14 years old person shall be considered as child laborer.

3. If any child laborer is recruited by MGI, that laborer will be subject to termination from job with full termination benefit according to this rule.

4. If any employee of MGI intentionally engages any child laborer, that employee will face disciplinary action.

5. During recruitment if any candidate is suspected as child labor, that candidate shall not be recruited without doctor's clearance.

Rule-
Adolescent Labor

1. Recruitment of any Adolescent Labor in any establishment of MGI will be fully forbidden.

2. More than 14 years old and less than 18 years old person shall be considered as Adolescent Labor.

3. Intentional engagement of any adolescent laborer will be punishable offence.

4. Recruitment of Adolescent laborer by MGI will be subject to termination from job with full termination benefit according to this rule.

Rule-
Force Labor

a) Force Labor is forbidden in any establishment of MGI.

b) Intentional engagement of any Force labor will be punishable offence.

c) HR & Compliance will continuously monitor to avoid force labor in the establishment.

Rule-
Appointment Letter

1. Successful candidate shall be issued a letter of appointment letter where it is to be stated, the position, details on salary & benefits, date of join and other necessary instructions. Upon accepting the offer, the candidate shall sign in all the pages, if the letter exceeds one page and return a copy of the letter to MGI for personal filing.

2. A letter of appointment would be issued to the successful candidate.

3. Employee's detail information should be updated in HRIS system. A personal file will be opened and maintained for every employee. The file should be updated continuously.

Rule- Identity
Card

(1) An identity card shall be issued to every employee indicating Name, ID number, Photos, Blood Group etc. and other particulars as needed for the specific purpose of identification. A temporary ID card to be provided to a new joiner on the first day of reporting to duty.

(2) Staff Identity Card is a property of the company and should be returned to the HR Department upon cessation of employment.

(3) Employees should immediately report to HR and lodge a general diary to the nearest police station without delay if they lost or damaged the ID Card, and send a copy of the GD to HR dept. requesting to issue replacement ID.

In such cases, to get the replacement card, employee has to bearthe full cost.

Rule- Induction

(1) On the day of reporting to duty, HR will have an orientation program with the employee and explain the contents of employment letter, organization structure, reporting relationships, policies, guidelines, tasks, responsibilities of the position and general terms & conditions of the employment.

(2) Each employee shall have a job description stating his/her duty, responsibilities, accountabilities and reporting relationship in detail.

Rule- Service Book

(1) Every employee employed in the service of the MGI shall open a service book to be maintained by the company and returned to the owner of the service book on termination of his service.

Rule- Probationary Period

All newly hired full time employees (FTE) employed in a permanent post, will go through a probationary period. Theperiod of probation for the management clerical employee shallbe 06 (six) months.

During the probation period, employee's performance and conduct shall be evaluated by the Department Manager on a regular basis. After successful completion of the probation period, a letter of confirmation to be issued to the employee.

If, during the probation period, employee's performance or conduct is found unsatisfactory, company at its own discretion may terminate the appointment without giving any benefit or may extend period of probation for another 3 (three) months.

Employee under probation is not entitled to get accrued leave, festival bonus, provident fund, salary increment or adjustment etc.

During the period of probation, employment may be terminatedby either party tendering any notice period.

Employee who has completed period of probation satisfactory, Department Manager/Head of the Dept. shall recommend for confirmation. Obtaining such request, HR Dept. after review employee's performance feedback by the respective Dept. Head,shall issue letter of confirmation upon completion of 06 (Six) months or after subsequent extension.

A confirmed employee shall start enjoy all kind of employment benefits extended by the Company.

Salary review with confirmation is completely Management discretion. However, this cannot be regarded as regular event with employment confirmation, even Management award this discretionary review to any of the employee(s) upon their job confirmation for any reason what so ever.

Rule-
Handling of Personal Files

(1) HR Department shall maintain personal files and record of each employee. This would be treated as confidential document which contains employee's personal and employment related information as required for the employment with the company. Managing Director shall have the authority to see any personal file at any time.

Rule-
Seniority

(1) Seniority of an employee shall be calculated from the date ofhis joining to the company provided that there is no break in his service.

(2) Seniority shall be determined in order of hierarchy.

Rule-
Promotion

Subject to organization's functional requirement, an opportunity for promotion may arise from time to time. Full time employees are eligible to be considered for promotion to the next level or grade.

Company intends to promote deserving and qualified employees within the organization to fill suitable positions whenever vacancies arises. A promotion involves movement from a lowerto a higher job grade or level with increased roles and responsibility. It is mostly accompanying job title, grade

change and a salary adjustment to recognize the higher position.However, if there is no suitable candidate available within, company may recruit or fill up the position externally.

Promotion considerations also include assessment of an individual's current performance and competence level and should take into account of the person's readiness and proficiencies for the senior role.

For promotion to a job which is two grades higher than the incumbent current grade, there shall be no double promotion.

In such instances, employee is expected to stay in the new position for a minimum of 12 months to consider for alignment to that higher position subject to performance review during this period.

January is the main window to review promotion of which the incumbent's job scope, size and responsibility increase that qualify a higher job grade.

Ad-hoc/off cycle promotion review is only allowed for replacement to resignation or newly created positions. If the promotion request arises near the fixed promotion cycle, it shallbe reviewed in the fixed promotion cycle.

Rule-
Certificate of Service

(1) All employees other than casual shall be entitled to a certificate of service from employer at the time of his retrenchment, discharge, dismissal, removal, retirement or termination of employment.

Rule-
Equal opportunity and diversity

MGI is committed to build image where team members feel theyare valued and respected regardless of race, color, nationality, ethnicity, origin, gender or sexual orientation, disability, age, religious, political beliefs.

Rule-
Performance Management

(1) To foster effective performance management supporting a results-oriented mind-set aligned with our business strategy and ensuring linkage of performance to rewards and development MGI use its performance management system where the principles are:

(2) Linked to business strategy through effective objective setting, with timeline aligned to business activities

(3) Performance evaluation is based on achievement of results and demonstration of competencies

(4) Managers and Employees to engage in regular dialogue on performance, expectations and development opportunities

(5) Performance Appraisal Process

a) Employee Self-Assessment
b) Achievement versus past objectives
c) Definition of next year draft objectives
d) Competency assessment
e) Development plan
f) Employee overall rating

CHAPTER-3: SEPARATION OF EMPLOYMENT

Rule-	Retrenchment
Rule-	Discharge
Rule-	Dismissal
Rule-	Removal
Rule-	Separation during Probation Period
Rule-	Termination
Rule-	Resignation
Rule-	Unauthorized Resignation
Rule-	Retirement
Rule-	Death

Rule-Retrenchment redundant employees.

(1) On the ground of redundancy to downsize number of employees, **MGI** will retrench its redundant

(2) Retrenchment can be done based on department or across the entire organization.

(3) Last in first out system will tracked to retrench employee either in department or in entire organization.

(4) In case of re-employment in similar position, former employees will be given priority.

(5) Those worked less than one year will not be entitled to any compensation for retrenchment.

(6) The employee shall be given thirty days prior written noticeof retrenchment or pay in lieu of such notice if the continuous service period of the concerned employee is more than one year.

(7) As compensation thirty days basic salary will be paid for every year completed of service.

Rule-Discharge

(1) If a registered medical practitioner certifies any employeehaving physical or mental incapacity or continued ill-health,such employee can be discharged on medical ground.

(2) Employee or **MGI** disagrees with the diagnosis report of registered medical practitioner, either of them will succumb thereport for re-examination to any specialist physician with the rank of at least assistant professor of the government medical college.

(4) The report of specialist physician will be considered as decisive statement for discharge.

(5) No prior notice will be essential to discharge any employee from his service.

(2) Thirty days basic salary will be entitled to all dischargedemployees for every completed year of service.

Rule-
Dismissal (1) The engagement can be dismissed without prior notice if any employee is convicted for any criminal offence or found guiltyof gross misconduct.

(2) No compensation will be entitled by any dismissedemployee.

(3) All other benefit except compensation is due to pay to that employee.

(4) Such dismissed employee may lose its re-employment rightin **MGI** for era.

Rule-
Removal (1) If any employee is found to be guilty of any misconduct, considering the past service record and nature of the misconduct, the concerned employee may be removed by the company in lieu of dismissal.

(2) Fifteen days basic salary will be entitled by any removed employee as compensation for every completed year.

(3) Removed employee may be re-employed by **MGI** but in different department.

(4) Aforementioned compensation will be additional paymentof all other benefit entitled by the employee.

Rule-
Separation during
Probation Period (1) An employee during probationary period can be discontinued for dissatisfactory performance.

(2) No prior notice will be essential to discontinue any employee during probationary period.

(3) Aforementioned discontinuation will be effective as soon as discontinuation letter will be served.

(4) No compensation will be entitled by probationer for such immediate discontinuation for performance.

Rule-

Termination (1) With one hundred twenty days prior notice, the employment of a permanent employee may be terminated by **MGI**.

(2) In lieu of the aforementioned notice, one hundred twenty days basic salary will be payable to the terminated employee.

(3) No cause of termination should be mentioned in the termination letter.

(4) Terminated employee will be entitled to experience letter if wishes to have it.

(5) For every completed year thirty days basic salary shall be entitled by any terminated employee as compensation.

Rule-Resignation (1) permanent employee of **MGI** may resign from service by giving sixty days prior written notice.

(2) In lieu of aforementioned notice, sixty days salary will have to surrender before **MGI**.

(3) Issuance of experience certificate subjects to the final settlement of financial matters with the employee.

(4) Employee entitles at the rate of fourteen days salary for every completed year of service, if completes five years of continuous service or more but less than 10 ten years.

(5) Thirty days salary for every completed year of service, if employee completes ten years of continuous service or more.

Rule-Unauthorized Resignation (1) if an employee remains absent from his work place for more than ten days without notice or permission, **MGI** shall serve him a notice to explain the reason of his absent and join the service within ten days and, in such case, if the employee does not submit any written explanation or join the service within the stipulated time, **MGI** shall give him further seven days to defendhimself.

(2) If the employee does not join the service or defend himself and shall be deemed to have been resigned from service on and from the date of such absence.

(3) No notice pay deduction shall be made upon due salary of the employee.

(4) If employee or his nominee remains missing more thantwelve months, all due payments shall be deposited in favor Workers Welfare Foundation Fund.

Rule-
Retirement

(1) Employee can avail voluntary retirement on completion of 25 years of service in **MGI**.

(2) An employee engaged in **MGI** shall retire from employment on the completion of sixty years of his age.

(3) Every retiring employee shall be paid thirty days basic salaryfor every completed year.

(4) A retiring employee can be recruited under contract.

Rule-
Death

(1) During service tenure if employee dies, it will be considered as retirement.

(2) One basic for every completed year of service will be payableto successor of the employee.

(3) Aforementioned compensation will be additional to death compensation.

(3) No compensation subjects to payable to deceased employee's successor unless deceased completes one complete year of service.

CHAPTER- 4: DISCIPLINARY PROCEEDINGS, PENALTY & GRIEVANCE

Rule-	Punishment for misconduct and conviction
Rule-	Procedure of Punishment
Rule-	Whistle Blowing
Rule-	Grievance Handling

Rule-
Punishment for misconduct and conviction

I. An employee may be dismissed without a notice or without wages in lieu of a notice if he is-

(a) convicted of any criminal offence; or

(a) found guilty of misconduct

II. An employee found guilty of misconduct may, instead of being dismissed under sub-rule (1), under any extenuating circumstances, be awarded any of the following punishments, namely-

a. removal;
b. reduction to a lower post, grade or scale of pay for a period not
c. exceeding 1 (one) year;
d. stoppage of promotion for a period not exceeding 1 (one) year;
e. withholding of increment for a period not exceeding 1 (one) year;
f. fine;
g. suspension without wages or without subsistence allowance for a period not exceeding 7 (seven) days;
h. censure and warning.

III. The following acts shall be treated as misconduct and subject to Disciplinary Proceedings-

a. Habitual Indiscipline;
b. Sleeping while on duty;
c. Habitual late attendance;
d. Habitual negligence of work;
e. Leaving work without permission;
f. Engaging Force labor in the establishment;
g. Recruitment of child or Adolescent laborer;
h. Taking or giving bribes or any illegal gratification;
i. Causing any damage to any property of the organization;
j. Theft of any kind inside the premises of the organization;
k. Willful abstention or absence from work singly or with others;
l. Using official email or IT related equipment for personal issue;
m. Drunkenness, fighting, riotous, disorderly or indecent behavior;
n. Gambling in the boundaries of the premises of the organization;
o. Disorderly behavior in the establishment, setting fire or vandalism;
p. Failing to improve behavior for which disciplinary action was taken;
q. Smoking within the premises of the organization where it is prohibited;

r. Sabotage or Wastage caused to material & stores of the company or factory;
s. Giving false information regarding name, age, qualification, previous service etc.;
t. Malingering and slowing down work either alone or in collaboration with others;
u. Falsifying, tampering, damaging or causing loss of official records of the organization;
v. Habitual absence without leave or long absence without leave for more than ten days;
w. Improper use or Non-use of personal protective equipment, clothing, uniform while on duty;
x. Using work situation and position inappropriately for personal benefit or attempting to do so;
y. Taking part in or suspected or being engaged in subversive activities either alone or with others;
z. Carrying on money lending or any other private business, within the premises of the organization;

aa. Committing an act of sexual harassment against other persons or violatingother persons' human rights;

bb. Having personal sexual & love relation with colleagues within the boundariesof the premises of the organization;

cc. Carrying, using & trading illicit drug according to Bangladesh NarcoticsControl Act 2018 in the establishment;

dd. Theft, misappropriation, grabbing, fraud or dishonesty in connection with thebusiness or property of company;

ee. Wrongly demanding the resignations of any other persons, agitating them, orcommitting assault or intimidation;

ff. Holding meeting within the boundaries of the premises of the organizationwithout the sanction of the organization;

gg. Remaining employees of other company and are being employed by any thirdparty without permission of the company;

hh. Willful insubordination or disobedience, whether alone or in combinationwith others to any lawful or reasonable order of a superior authority;

ii. Canvassing or the collection of any money within the boundaries of thepremises of the organization for any purposes not approved by the employer;

jj. Bringing dangerous or harmful goods to the workplace or to the premises of the company without permission of the company or attempting to do so;

kk. Embezzling, defrauding or stealing or attempting to embezzle, defraud or stealmoney or goods from organization or any other person;

ll. Disobeying instructions and orders related to work, being destructive in words and actions, and disturbing the order of the workplace or attempting to do so;

mm. Distribution or exhibition within the boundaries of the premises of theorganization of any handbill, pamphlets, or poster without the permission of the employer;

nn. Leaking or attempting to leak confidential information obtained in the course of their work or from any other sources, or employees who use or would use confidential information improperly;
oo. Through willful misconduct or gross negligence violating the law or violating this Rule or any other rules of organization, or any employees who carry out illegal accounting processing and thereby causing significant damage to organization, or significantly harming the reputation and public trust of organization;
pp. Making a false statement in their resumes or any other documentations submitted to organization at the time they were hired or taken by the company through recruitment examination; employees who are found to have hidden information about certain important points in their personal history; employees who used improper methods to be hired;
qq. Producing defective products or trying to produce defective products through willful misconduct or gross negligence; wrecking, destroying, concealing, or carrying away organization facilities, equipment, material, information, and other assets, or attempting such action or causing major accident, damage, theft, leaks of confidential Information and other harmful incidents, or attempting such action;

Rule-
Procedure of Punishment

(1) No order of punishment for harassment shall be made against an employee unless-

a. No disciplinary proceeding will be initiated without having any written complaint against the accused employee.
b. At every stage in the disciplinary procedure, employees will be clearly advised in writing of the nature of the allegations against them, and will have the opportunity to state their case before any decision regarding disciplinary action is made.
c. A copy of the show cause/charge sheet is to be given to the concerned accused employee to give him/her at least 8 (Eight) days' time to reply.
d. To consider the accused employee to be guilty, an enquiry shall be conducted by an Enquiry Committee consisting of equal number of members from the management and employee side. Disciplinary proceedings should be undertaken by an Investigation Committee consisting of those in higher positions than the alleged employee.
e. An employee charged for misconduct may be suspended pending enquiry into the charges against him and unless the

matter is pending before any court, the period of such suspension shall not exceed 60 (sixty) days;

f. Provided that during the period of such suspension, an employee shall be paid by **MGI** subsistence allowance (Half of Basic) and shall be entitled to receive other allowances in full as applicable.

g. An order of suspension shall be in writing and shall take effect immediately on delivery to the employee.

h. In an enquiry preceding the accused employee may be assisted by any person nominated by him who is employed in **MGI**.

i. If any verbal evidence is given on behalf of any party by any witness in the enquiry proceeding, the party against whom the evidence is given shall have all rights to cross examine the witness.

j. Disciplinary action should not be taken against any superior, directly in front of his/her subordinates.

k. The management shall take into account the gravity of the misconduct, the previous record of the employee, achievements and contribution during the employment and any other matters that may exist, while taking the decision on the penalty to be imposed.

l. If the charges against the employee are not proved in the enquiry, he shall be deemed to have been on duty for the period of suspension for enquiry, if any and shall be entitled to his wages for such period of suspension and the subsistence allowance shall be adjusted accordingly.

m. In cases of punishment, a copy of the order infliction such punishment shall be supplied to the employee concerned.

n. If an employee refuses to accept any notice, letter, charge-sheet, order or any other document addressed to him by **MGI**, it shall be deemed that such notice, letter, charge-sheet, order or the document has been delivered to him, if a copy of the same has been exhibited on the notice board and another copy has been sent to the address of the employee as available from the records of the employer, by registered post.

o. Domestic inquiry shall be completed within sixty (60) days from the date of serving notice of enquiry.

p. The application of penalty should be constructive with the purpose of giving the alleged employee a chance to correct themselves.

q. After the investigation proceedings, the employee should be treated normally and without any discrimination.

Rule-
Whistle Blowing

1. **MGI** are committed to conducting our business with honesty and integrity and we expect all staff to maintain high standards in accordance with our policies and procedures. However, all organizations face the risk of things going wrong from time to time, or of unknowingly harboring illegal or unethical conduct. A culture of openness and accountability is essential in order to prevent such situations occurring or to address them when they do occur.
2. Partners, all employees, contractors and sub-contractors & consultants will be able to blow whistle.
3. Whistle blowing is the disclosure of information which relates to suspected wrongdoing & generally a breach of a legal, statutory or regulatory requirement or unethical, immoral behavior.
4. The Whistle blower can report the event with identity or anonymously.
5. The Whistleblower should promptly report the suspected or actual event to supervisor.
6. If the whistle blower would be uncomfortable or otherwise reluctant to report to supervisor, then the whistleblower could report the event to the next highest or another level of management, including to an appropriate board committee or member.
7. The Whistle blower shall receive no retaliation or retribution for a report that was provided in good faith.

Rule-
Grievance Handling

1. It is expected that all staffs of **MGI** will maintain regular harmony of workplace but if anybody feels discomfort at workplace with coworker or supervisor or policy or any other issues can complain to the superior.

2. For General Issues:

The complainant should complain verbally to the superior for nominal issues; if not satisfied then he or she will submita written letter or mail to him. If does not get reply in two days; must report it to Head of Human Resources and withinthree days to Chairman, Managing Director, Board of Directors.

3. For Serious Issues

a) Any employee working in **MGI** will be able to issue grievance regarding any issue related to employment.

b) Employee will be able to file grievance through Email, SMS, Grievance box or Complaint Box, Complaint letter to line manager & HR manager or any other comfortable media.

c) From the reception date, concern authority will take action within 30 days.

d) Before concluding the matter, the concern will arrange personal hearing for the employee who has submitted the grievance.

e) If the person wants to hide his or identity, the concern may allow them to hide it.

f) HR & Line management will be considered as the concern to solve any grievance raised by employee.

g) The final decision regarding grievance will be informed to the employee through letter.

h) A grievance register will be maintained by concern authority to manage the record.

i) **MGI** may form a committee to solve or handle any grievance raised by employees.

j) No grievance will be settled without personal hearing of the complainant.

k) Complaint should be specific and supported by evidence in any form.

l) Committee should provide all protection to the complainant.

m) For fake complaint, if proved, complainant will face disciplinary action by committee.

n) No unnamed complaint should be entertained.

CHAPTER-5: MATERNITY LEAVE & BENEFIT

Rule-	Maternity Leave
Rule-	Maternity Leave Without Benefit
Rule-	Post Birth Maternity Leave
Rule-	Miscarriage Leave
Rule-	Maternity Benefit payment

Rule-
Maternity Leave The aim of providing maternity leave in MGI is to meet legal requirements of Bangladesh Labor Act 2006 & Rules 2015 as well as ensuring safety & rest for an expecting mother and for a new mother.

Any female permanent, temporary, probationer or outsourced employee who has not two issues alive and has completed **six months** of service in MGI before **Expected Date of Delivery (EDD)** will be eligible for pre-natal eight weeks & post-natal eight weeks maternity leave with benefit.

Rule-
Maternity Leave
Without Benefit However, if any female permanent, temporary, probationer or outsourced employee who has two issues alive or has not completed six months of service in MGI before **Expected Date of Delivery (EDD)** will be entitled for pre-natal eight weeks & post-natal eight weeks maternity leave without prescribed benefit.

In case of entitlement of Maternity Leave Without Benefit, her for pre-natal eight weeks & post-natal eight weeks leave will beadjusted from annual leave and medical leave.

But provided that if more leave is needed after adjusting above mentioned leave, MGI will grant leave without pay to the concerned female employee in that case.

Rule- Post
Birth
Maternity Leave If any female employee informs employer about giving birth to a child by a notice within three days of her giving birth to child.

In that case, she will be entitled for post-natal eight weeks maternity leave.

For post birth maternity leave, she will receive her full maternitybenefit along with post-natal eight weeks maternity leave.

Rule-
Miscarriage Leave In case of miscarriage, she will not be entitled for maternity benefit but she will be entitled for maternity leave if her physicalcondition demands rest for healing from sickness.

She will be entitled for it as many times as she faces suchmiscarriage related problems in her service tenure in MGI.

Such Miscarriage leave will be adjusted from sick and annual leave if any such balance is due to the organization and after adjusting such leaves, rest of the required leave shall be adjustedwith leave without pay.

Rule-
Maternity Benefit
Payment (1) For the purpose calculating maternity benefit the daily, weekly or monthly average salary shall be calculated by dividingthe total salary earned by the concerned female employee during three months immediately preceding the date on which she gives notice by the number of days she actually worked during that period.

(2) Total maternity benefit will 16 weeks including the date of delivery of the child.

(3) A female shall not be entitled to maternity benefit unless shehas worked under MGI for a period of not less than 6 (six) months immediately preceding the day of her delivery.

(3) No such benefit shall be payable to a female employee if at the time of her delivery she has two or more surviving children.

(4) A female employee shall not be entitled to any maternity benefit or any part thereof, the payment of which is dependent upon the production of proof that she has given birth to a child, unless such proof is produced within three months of the day of her delivery.

CHAPTER-6: HEALTH & HYGIENE

Rule-	Cleanliness
Rule-	Ventilation and Temperature
Rule-	Dust & Fume
Rule-	Disposal of Wastes and Effluents
Rule-	Overcrowding
Rule-	Lighting
Rule-	Potable Water
Rule-	Toilets and Washrooms
Rule-	Dustbin and spittoon

Rule-
Cleanliness

Establishments of MGI shall be kept clean and free from effluvia arising from any drain, privy or any other nuisance, and in particular-

1. the dirt and refuge shall be removed daily by sweeping in a suitable manner from the floors, work-rooms, staircases and passages of the establishment;
2. the floor of every work-room shall be washed at least once in every week and, if necessary, disinfectant shall be used in washing;
3. where any floor becomes wet in the course of any manufacturing process to such an extent that drainage is required thereof, effective means of drainage shall be provided and maintained;

Rule-
Ventilation and Temperature

1. Arrangements for adequate ventilation shall be made for securing and maintaining circulation of fresh air in every work-room of every establishment.
2. Suitable measures shall be taken to keep the temperature in every such room in such a condition that may secure to workers therein reasonable conditions of comfort, and prevent injury to health of the workers.
3. Where the nature of the work in an establishment is such that it likely to produce excessive high temperature, the suitable measures, as far as possible shall be taken to separate the source of producing such excessive temperature or the hot part of it by insulating such source or part or by any other means from the workroom of the workers.

Rule-
Dust & Fume

1. If in any establishment, by reason of any manufacturing process carried on, there is given off any dust or fume or other impurity of such a nature and to such an extent as is likely to be injurious to the health of, or offensive to, the workers employed therein, the effective measures shall be taken to prevent its accumulation in any work-room and its inhalation by workers, and if any exhaust appliance is necessary for this purpose, it shall be applied as near as possible to the point of origin of the dust, fume or other impurity, and such point shall be enclosed as far as possible.
2. In any establishment no internal combustion engine shall be operated unless the exhaust is conducted into open air, and no internal combustion engine shall be operated in any work-room unless effective measures are taken to prevent such accumulation of fumes therein as are likely to be injurious to the health of the workers employed in the work-room.

Rule-
Disposal of Wastes and Effluents

1. Effective arrangements shall be taken in every establishment for disposal of wastes and effluents due to manufacturing process carried on therein.

Rule-
Overcrowding

1. No work-room in any establishment shall be overcrowded to an extent injurious to the health of the workers employed therein.
2. Without prejudice to the generality of the above provisions at least 9.5 cubic meters of space shall be provided for every worker employed in a work-room.

Rule-
Lighting

1. Sufficient and suitable lighting, natural or artificial, or both, shall be provided in every part of an establishment where workers are working or passing.
2. In every establishment, all glass windows and skylights used for the lighting of the work-room shall be kept clean on both surfaces, and free from obstruction as far as possible.

Rule-

Potable Water

1. In every establishment, arrangements shall be made at a suitable point to supply sufficient purified potable water for all workers employed therein.
2. All water supply points shall be legibly marked with "Potable water" in Bangla.
3. Where dehydration occurs in the body of workers due to work near machineries creating excessive heat, oral re-hydration therapy shall be provided to those workers.
4. From April to September cool water will be provided for employees.

Rule-
Toilets and Washrooms

1. Sufficient number of sanitary toilets and washrooms shall be provided at the suitable places so that the workers employed therein at the time of work may use easily.
2. such toilets and washrooms shall be provided separately for male and female workers.
3. toilets and washrooms shall be adequately lighted and ventilated and water shall be provided at all times.
4. Toilets and washrooms shall be maintained in a clean and sanitary condition at all times with suitable detergents and disinfectants.

Rule-
Dustbin and spittoon

1. Sufficient number of dustbins and spittoons shall be provided in every establishment at convenient places and these shall be maintained in a clean and hygienic condition.
2. No person shall throw any dirt or spit within the premises of an establishment except in such dustbins and spittoons.
3. A notice containing this provision and the fact that contravention thereof is a punishable offence shall be posted at different suitable places of every establishment so that it may easily come to the notice of all.

CHAPTER-7: SAFETY

Rule-	Maintenance of Safety Record Book
Rule-	Constitution of Safety Committee
Rule-	Precaution as to Fire
Rule-	Floors, Stairs and Passages
Rule-	Excessive Weights
Rule-	Protection of Eyes
Rule-	Precautionary Measures against Dangerous Fumes
Rule-	Explosive or Inflammable Gas, Dust
Rule-	Personal Safety Equipment

Rule-
Maintenance of safety record book

1. In every establishment of MGI, workers are employed, a compulsory safety record book shall be maintained and a safety information board shall be exhibited.
2. Every week the concern person will update the safety record book.

Rule-
Constitution of Safety Committee

1. Every establishment of MGI will constitute a safety committee for ensuring safety of the employees.
2. The committee will be selected by employee & employer.
3. The committee will remain valid for two years
4. The committee will arrange meeting after every three months.

Rule-

Precaution as to Fire

1. Every establishment of MGI shall be provided with such means of exit including at least one alternative staircase connecting with every floor at the time of fire and requisite number of firefighting equipment in every floor as may be prescribed by rules.
2. In every establishment the door affording exit from any room shall not be locked or fastened so that the person working in the room may easily and immediately open it from inside and all such doors, unless they are of the sliding type, shall be constructed to open outwards, or where the door is between two rooms, in the direction of the nearest exit from the building and no such door shall be locked or obstructed while work is being carried on in the room.
3. In every establishment, while work is going on, no exit of a room shall be kept locked or fastened and no exit shall be hindered or no barrier shall beput on the way.
4. All doors shall be made in such a way that they may be opened at once from inside of a working room to outwards.
5. If there is any door between 2 (two) rooms, it shall be made in such a way that it may be opened near to the nearest exist of the building and no such door shall be kept locked or hindered while work is going on.
6. In every establishment of MGI, except the exit for ordinary use, every window, door or other exit affording means of escape in case of fire shall be distinctively marked in Bangla letters by red color or marked by other clearly understood sign.
7. In every establishment, the clearly audible whistle shall be provided to alarm every worker employed therein in case of fire or danger.

8. A free passage-way giving access to each way of exit in case of fire shall be provided for the use of the workers in every room of the establishment.
9. Any place above the ground floor, or explosive or highly inflammable materials are used, or stored, effective measures shall be taken to ensure that all workers may be familiar with the means of escape in case of fire and are adequately trained in the routine work to be followed in such cases.
10. At least once in every 6 (six) months a mock firefighting shall be arranged and a book of records in this regard shall be maintained.

Rule-

Floors, Stairs and Passages

1. all floors, stairs, passages shall be of sound construction and properly maintained and where necessary strong railing shall be provided to ensure their safety, and the passages and stairs shall be kept opened for easy movement during continuance of work.
2. there shall, in so far as reasonably practicable, be provided with safe means of access to every place where any person is, at any time, required to work.
3. passages and stairways shall be clean, wide and clear of all obstructions.
4. an employer may, for overall safety of the factory and workers, bring the passages of movements, stairs, gates, warehouse and common utility area of the place of work under close circuit camera.

Rule-
Excessive Weights

1. No worker shall be allowed in any establishment to lift, carry or move any load so heavy as to be likely to cause his injury.
2. No man or woman can be employed for lifting, carrying or discharging weights with hands or head except the weights that are cited below without using any auxiliary instruments or without taking help from others:
    a. Adult Male- 50 kilograms &
    b. Adult Female- 30 kilograms
3. If the weights have to be carried above, the aforesaid amount must be less as per the order of the Inspector, which would never be more than 40 kilograms in case of adult male workers and 25 kilograms in case of adult female workers.
4. No woman, teenager or pregnant woman can be employed for carrying, lifting or removing weighty goods and instruments in any establishments of MGI.

Rule-
Protection of Eyes

1. Any establishment of MGI where manufacturing process is carried on, by rules, require that suitable goggles or eye screens shall be provided for the protection of eyes of the persons employed therein, if any of the following risks involves in such process, namely-
    a. risk of injury to the eyes from particles or fragments thrown off in the course of the process.
    b. risk to the eyes by reason of exposure to excessive light or heat.

Rule-
Precautionary Measures against Dangerous Fumes

1. No person shall enter or be permitted to enter any room, vessel, hole, pipe, flue or other confined space of any establishment, where the dangerous fumes are likely to exist to such extent as to involve risks to any person.
2. No portable electric light of a voltage of exceeding 24 (twenty-four) volts shall be permitted to use inside any confined space referred to in sub-rules-1 and where fumes are likely to be flamed, no light other than the light made of flame misstating metal shall be allowed to use in such place.
3. In every establishment, the suitable breathing apparatus, reviving apparatus, belts and ropes shall be kept ready for instant use beside any such space and such apparatus shall be periodically examined by a competent person, and shall be certified by him that it is fit for use, and a sufficient number of persons employed in every establishment shall be trained and practiced in the use of all such apparatus and the method of restoring respiration.
4. In any establishment no person shall be permitted to enter into any boiler, furnace, flue chamber, tank, pipe or other confined space for the purpose of working or making any examination therein until it is sufficiently cooled by ventilation or otherwise made it fir for human entry.

Rule-
Explosive or inflammable gas, dust

1. Where, in any establishment gas, fume, dust or vapor produced due to any manufacturing process is of such character or to such extent which is likely to be exploded or ignited, all practicable measures shall be taken to prevent any such explosion.
2. Where in any establishment the plant or machinery used in a process is not so constructed as to withstand the probable pressure which is produced in the case of such explosion, all practicable measures shall be taken to restrict the spread and effects of the explosion by the provision of chokes, baffles, vents or any other effective apparatus in the plant or machinery.

3. Where in any establishment any plant, tank or vessel contains or contained at any time any explosive or inflammable substance, no welding or cutting shall be carried out by using heat, unless adequate measures are first taken to remove such substance or fumes or to render them un-flammable or un-explosive and such substance shall not be allowed to enter such plant, tank or vessel after any such works until the metal is cooled down sufficiently to prevent any risk of igniting the substance.

Rule-
personal safety equipment

1. No authority shall engage any worker in work without providing him with personal safety equipment and ensuring uses thereof and a record book shall be maintained in this behalf by the employer in the prescribed manner.
2. If any personal safety equipment is supplied but not used, the worker concerned shall be liable.
3. Every worker shall be made aware of the hazards of work through training in order to ensure the protection and safety of his professional health in the place of work.

CHAPTER-8: WELFARE

Rule-	First-aid appliances
Rule-	Washing facilities
Rule-	Canteen
Rule-	Rest room
Rule-	Rooms for children
Rule-	Introduction of compulsory group insurance

Rule-
First-aid appliances

1. In every establishment of MGI, the first-aid box or cupboard equipped with the required contents shall be provided to be readily accessible during all working hours.
2. Every first-aid box or cupboard shall be kept in charge of such a responsible person who is trained in first-aid treatment, and who shall be available during all working hours of the establishment.
3. A notice shall be affixed in every work-room stating the name of such person and such person shall wear a badge so as to facilitate his identification.
4. In every establishment of MGI, where 300 (three hundred) or more workers are ordinarily employed, a sick room with a dispensary of a size and containing equipment or other facilities prescribed by Bangladesh Labor Rules 2015 shall be provided and such room shall be in the charge of such medical practitioner and nursing staff.

Rule-
Washing facilities

1. In every establishment of MGI sufficient number of suitable bathrooms and washing facilities with provisions of their maintenance shall be provided for the use of the workers employed therein.
2. Facilities shall be provided separately for male and female workers, and they shall be properly screened.
3. Facilities shall be kept clean at all times and easily accessible.

Rule-
Canteen

1. In an establishment of MGI where workers are ordinarily employed, adequate number of canteens shall be provided for their use.
2. Adequate number of utensils, spoons, furniture and other instruments has to be kept in the canteen for well management.
3. All types of food items have to be preserved and served in such a way so that the food items cannot be polluted or come in contact with mosquito, flies and dusts.
4. There has to be appropriate arrangements for washing utensils and other instruments in addition to the supply of hot water in it.
5. The foods, drinks and other materials supplied in the canteen shall be sold without gaining profits. The quality and price of the supplied food items shall be fixed and approved by the canteen management committee.

Rule-
Rest room

1. In every establishment where workers are ordinarily employed, adequate and suitable number of rest rooms shall be provided and maintained for use of the workers, and a suitable lunch room with arrangement for drinking water, shall also be provided and maintained in that establishment so that the workers may eat their meals that they may have brought with them.
2. The said rest rooms and lunch rooms shall be sufficiently lighted and ventilated and shall be maintained in a clean and tolerable temperature condition.
3. In the establishments of MGI where female workers are employed, separate rest room shall be provided for male and female workers and in establishments where female workers are employed, separate screened spaces shall be provided in the rest room for female workers.

Rule-

Rooms for children.

1. In every establishment of MGI, where female workers are ordinarily employed, one or more suitable rooms shall be provided and maintained for the use of their children who are under the age of 6 (six) years.
2. The said room shall be provided with adequate accommodation, light and ventilation and shall be maintained in clean and sanitary condition, and shall be under the charge of an experienced or trained woman for the care of children.
3. The said rooms shall be easily accessible to the mothers of the children, and, so far as is reasonably practicable, they shall not be situated adjacent to or near any part of the establishment where obnoxious fumes, dust or odors are given off, or where excessively noisy works are carried on.
4. The said rooms shall be strongly constructed, and all walls and roofs thereof shall be of suitable heat resisting materials, and shall be water-proof.
5. Suitable and effective provisions shall be made in every part of each such rooms for sufficient light, air and ventilation of fresh air.
6. The said rooms shall be adequately furnished and in particular, 1 (one) cot or cradle with bed shall be kept therefore each child, and there shall be at least one chair or any similar seat for the use of each mother while she is feeding or attending to her child, and adequate and suitable toys shall be supplied for the comparatively older children.

Rule-
Introduction of compulsory group insurance

1. In an establishment of MGI where workers are employed, the employer shall introduce group insurance under the existing insurance laws.
2. The amount claimed as insurance shall be in addition to the other dues of a worker. it shall be settled by joint initiatives of the insurance company and MGI within 120 (one hundred and twenty) days from the date of raising such claim.

CHAPTER-9: WORKING HOURS

Rule-	Working Hour
Rule-	Employee In & Out Time Management
Rule-	Attendance
Rule-	Overtime

Rule
Working Hour

MGI intends to provide a congenial and challenging working atmosphere. Management of working hours, work schedulesand overtime etc. is vital for a positive working environment.

Fulltime working in a week consists of 6 working days.The

regular working hours of MGI is as follows:

Working Hours	Sunday to Thursday	Break Time
Normal Hours	9:00 AM – 6:00 PM	1:00 PM-2:00 PM
Weekly Off	Friday & Saturday (Half day for Head Office) Friday (Full Day for Factory)	

Management reserves the right to amend or vary the working hours when there is a need to do so due to the company'sbusiness or requirements of the clients' subject to the strict compliance of the total working hour limit as prescribed by the Bangladesh Labor Act 2006. Any change in the working hours shall be made known to the employees accordingly.

During the Holy Month of Ramadan, office hours will be reviewed by the Management and announced in a separate memo.

Rule-
Office IN & Out Time
Management

Employees' in/out time management shall be maintained through their actual time data recorded in time attendance system at office. all employees have to punch card or face swap to the device to register their regular office attendance with thissystem.

Rule
Attendance

It is an employee's prime responsibility to report for duty on orbefore office start time on workdays.

In case of sudden inability to report for duty, employee has to notify to respective HOD or Supervisor and HR immediately withcause of delay and probable time to reach at office.

Unauthorized absence and habitual tardiness (coming late to work) should cause to undertake proper disciplinary action.

It is employees' responsibility to make their stay in office truly productive for company's business.

During working hours, an employee shall not practice habit of leaving office for personal works. manager or supervisor is responsible to maintain respective team member's discipline. absence/violation of this discipline on the part of employeeshould leads to start disciplinary action.

Company may initiate disciplinary actions as per the provisionsof local law towards in case an employee fails to maintain good attendance record.

Rule-
Overtime

MGI does not encourage overtime works except in case of Operational requirements. In such situation, eligible employees working overtime shall be given overtime allowances.

Extra working hour such as overtime or holiday working shall be determined by employees' job card recorded at the Attendance System in office.

Overtime should be claimed when an eligible employee worked minimum of 15 minutes access to the given working hours.

- Employee of worker category shall be entitled for overtime.
- To perform extra hours should obtain prior approval/consent from the Dept. Manager with proper justification which has to submit along with overtime claims.

- An eligible employee may work for more than forty-eight hours in a week provided the total hours of work shall not exceed sixty hours in any week which is 2 hours per day and on the average fifty-six hours per week in any year.
- Overtime shall not apply in case of outstation travel or attending any training program.
- If any eligible employee is required to work on any holiday, and thereby employee is deprived of any of the weekly holidays, respective employee shall be allowed compensatory holidays of equal number to the holidays so deprived of as soon as circumstances permit.

CHAPTER-10: LEAVE & HOLIDAYS

Rule-	Weekly Holiday
Rule-	Casual Leave
Rule-	Sick Leave
Rule-	Annual Leave
Rule-	Festival Leave
Rule-	Temporary Disability Leave
Rule-	Occupational Disability Leave
Rule-	Compensatory Leave
Rule-	Leave Without Pay

Rule-
Weekly Holiday Every employee employed in MGI shall be entitled to one days paid holiday in a week and it will be Friday of every week.

If any weekly holiday occurs into the sick, casual or annual leavegranted shall be included sick, casual or annual leave but Employees will be able to take casual and sick leave before or after the weekly holidays.

Weekly holiday shall mean twenty-four consecutive hours beginning from the end of his shift.

An employee is deprived of any of the weekly holidays providedin the rules, he shall be allowed, within next three days, compensatory holidays of equal number to the holidays so deprived of.

If any employee works more than forty-eight hours in a week, he or she will be entitled for overtime pay as well as compensatoryholiday.

Rule-
Casual Leave Every employee working in MGI will be entitled to paid ten days casual Leave and if such leave is not availed for any reason, it shall not be accumulated and the leave of any year shall not be availed or carried forward in the succeeding year.

However, if the weekly holiday occurs into casual leave, the leave shall be included in the casual leave.

In addition, any employee will be able to enjoy the leave proportionately if he or she joins the workplace in any part of the year.

Rule-
Sick Leave An employee is entitled to fourteen days paid sick leave, if sick leave is unavailed during the year can neither be encashed at theend of the year nor be carried forward to the next year asaccumulated sick Leave.

No such leave shall be granted unless a registered medical practitioner appointed by MGI or, in the absence of such medical practitioner, any other registered medical practitioner, after examination, certifies that the employee is ill and requires leave

for treatment or cure for such period as is mentioned in the certificate.

However, if the weekly holiday & festival leave occurs into sick leave, such leave shall be included in the sick leave.

In addition, any employee will be privileged to avail the leave proportionately if he or she joins the workplace in any part of the year.

If an employee has exhausted, all types of paid leave including those accumulated to cover his absence due to prolong illness and is still absent due to illness, any further sick leave will be without pay.

Depending on the nature of illness, MGI will ask the employee toobtain fitness certificate from the registered medical practitioner to return to work.

Rule-

Annual Leave Every employee who has completed one year of continuous service in MGI shall be permitted during the following period oftwelve months' leave with pay for days calculated on the basis of the works of the preceding twelve months at the rate of one day for every eighteen days of work.

Annual Leave is not admissible to such an employee of MGI whohas not completed one year of service in MGI.

If any holiday or leave occurs into the leave granted under this rule shall be included in such leave.

If annual leave is unavailed during the year can either fiftypercent be encashed at the end of the year or be carried forwardto the next year as accrued annual leave.

Encashment can be done only once in a year & If any worker dieswhile having unused annual leave, the wages against his unusedleaves have to be paid to his or her legal successor or to the person nominated by the employee.

If the service of an employee terminates, due to retrenchment, discharge, removal, dismissal, retirement, resignation or any other reason and any annual leave is due to him, MGI shall pay him wages in lieu of the unavailed leave at the rate he is entitledto the payment of wages.

An employee shall cease to earn any annual leave, when the annual leave due to him amounts sixty days.

If an employee applies for earned leave and is refused by MGI for any reason, such refused leave shall be added to the credit ofsuch worker beyond the limit mentioned above.

If the leave asked for is refused or suspended, the fact of such refusal or postponement and the reasons thereof shall be communicated to the employee before the date on which the leave would have expected to be commenced.

Rule-
Festival Leave Every employee shall be permissible in a calendar year eleven days of paid festival holiday.

Every year MGI shall fix the leaves of festival for the next year within 31st December of each year and the list of leaves shall hang in the notice board for general information of all employees & No festival leave shall not be set in any weekly holiday.

A worker may be required to work on any festival holiday but a substitute compensatory holiday with two days wages will haveto pay to the employee.
Festival leave will not ensue on any weekly holiday if it supervenes on same date, employee will be able to claim a substitute festival leave or weekly holiday.

Rule-
Temporary Disability

Leave Employees will be permissible to get temporary disability leave for the length of disablement or for one year.

Such leave may be combined with sick leave & leave withoutpay.

Compensation for such temporary disability leave shall be compensated at the rate of full monthly gross wages for the firsttwo months, at the rate of two-thirds of the monthly gross wages for the next two months and at the rate of half of monthly gross wages for the subsequent months.

Provided that MGI shall not be liable to pay such compensation,if-

i) the worker having been at that time under the influence of drink or drugs;

ii) the willful disobedience by the worker of a clear order or to rules made for the purpose of securing the safety of workers;

iii) the willful removal or disregard by the worker of any safety guard or other device which he knew to have been provided for the purpose of securing the safety of workers.

Subject to the conditions hereafter specified temporary disability leave may be granted to employees who is disabled by injury inflicted or caused in, or consequence of, the due performance of his official duties or in consequence of his officialposition.

Such leave shall not be granted unless the temporary disability manifested itself within three days and lose the ability to work, in whole or in part, for a period exceeding three days due to injury of the occurrence to which it is attributed, and the person disabled acted with due promptitude in bringing it to notice.

Rule-
Occupational Disability
Leave Employees will be allowed to get such leave & compensation for period shall in no case exceed two years for occupational disability.

Such leave may be combined with sick leave & leave without pay.

In the case of prolonged occupational disease, compensation for disablement shall be remunerated at the rate of half of monthly gross wages during the period of disablement,

Any employee in any employment specified in "Part-A" of the Third Schedule of Bangladesh Labor Act 2006, is attacked with any disease specified therein as an occupational disease peculiar to that of employment.

An employee, while in the service of an employer for a continuous period of not less than 6 (six) months in any employment specified in Part-B of the Third Schedule Bangladesh Labor Act 2006, is attacked by any disease specifiedtherein as an occupational disease peculiar to that employment.

Rule-

Compensatory Leave Such entitlement of leave subject to deprival of festival leave and weekly holidays.

MGI subjects to compensate such compensatory leave within next three days after the unwanted deprival of festival leave andweekly holidays.

Such leave may be combined with annual leave or with any other leave authorized by **MGI** management.

All compensatory leaves are subject to be paid as normal salaryof employee and no payment for leave days will not be measuredas additional payment.

(2) Such half day short leave will be adjusted from causal leave balance but annual leave will similarly be adjusted if casual leave balance is exhausted.

(3) Half day leave will consist of four hours in a day.

(5) Only once in a month employee can avail it with consent of leave authority.

Rule-

Leave Without Pay If employee exhaust his entitled leaves but needs to additional leave for emergency situation or in case of prolonged sickness,will be able to avail leave without pay.

The amount of leave without pay shall not exceed thirty days ina year.

No employee is entitled to avail such leave without prior approval from authorized management person and authorized management person will be able to reduce the amount of asked leave.

During such leave employee will be entitled to festival bonuses and other allowances and benefits except basic salary.

No salary except basic is permissible to deduct during leave without pay tenure.

CHAPTER-11: SALARY, COMPENSATION, BENEFIT

Rule-	Salary
Rule-	Advance Salary
Rule-	Mobile Phone Allowance
Rule-	Motorcycle & Motorcycle Allowance
Rule-	Car & Car Allowance
Rule-	Travel Allowance (Home & Abroad)
Rule-	Advance Payment from Provident Fund
Rule-	Salary to be Paid in Currency
Rule-	Fixation of Salary Period
Rule-	Duration of Payment of Salary
Rule-	Annual Increment
Rule-	Payment from Provident Fund
Rule-	Payment of Salary for Un-availed Leave
Rule-	Group Insurance
Rule-	Medical Insurance
Rule-	Profit Sharing
Rule-	Death Compensation
Rule-	Compensation for Temporary Disablement
Rule-	Compensation for Accidental Death
Rule-	Compensation Permanent Total Disablement

Rule-
Salary

(1) all below components are considered under salary head inMGI and they are:

a) any bonus will be additional remuneration payable under the terms of employment,
b) any remuneration payable for leave, holiday or overtime work,
c) any sum payable under any agreement or this Act for the reason of termination of employment, whether by way of retrenchment, discharge, removal, resignation, retirement, dismissal or by whatever means,
d) any sum payable due to lay-off or suspension.

(2) Salary break down will be as mentioned below:

50% basic Salary
30% House Rent of basic salary10% Medical Allowance
10% Conveyance Allowance

(3) Tax deduction from salary is applicable as per section-50 of Income Tax Ordinance 1984.

(4) Deduction for Absenteeism is applicable on basic salary andin case of deduction basic will be divided by 30 days.

(5) Any types of deduction for any fund investment is subject to make on basic salary.

(6) Any sort of fine & penalty is deductible on basic salary.

(7) The salary of an incomplete month shall be calculated after dividing the total salary including house rent allowance, travel allowance and medical allowance by the total number of days of that month and at last multiplying the quotient by the number of days of the work.

Rule-
Advance Salary

(1) More than two months of estimated salary cannot be disbursed to the employees in advance in case of giving advancemoney to them.

(2) The disbursed advance money can be collected within maximum twelve months through installments.

(3) No installment shall exceed one-thirds of basic salary amount.

Rule-
Mobile Phone Allowance

1. Employees of MGI shall be entitled to mobile allowance according to business need.
2. Usage ceiling will be allocated to users based on functional position and demonstrated business need.
3. Ceiling shall be distributed as mentioned below:

Mobile Credit Ceiling & Data plan for functional Unit		
Designation	**Usages Ceiling (In BDT)**	**Data Plan**
Junior Officer/ Officer	250	Business based
Senior Officer	350	Business based
Assistant Manager/ Deputy Manager	600	Business based
Manager/ Senior Manager	700	Business based
Assistant General Manager	800	2GB
Deputy General Manager	800	2GB
General Manager	1000	3GB

Mobile Credit Ceiling Policy for Business Unit		
Designation	**Usages Ceiling (In BDT)**	**Data Plan**
Sales Executive/ Marketing Executive/Senior Marketing Executive	250/350	Business based
Territory Manager	800	2GB

Regional Sales Manager /Area sales Manager	1000	2GB
National Sales Manager/ Sales Manager /	1500	2GB
Marketing Manager/ Senior Marketing Manager	1500	2GB
Assistant General Manager	1500	2GB
Deputy General Manager	1500	2GB
General Manager	2000	2GB

4. The limit can be readjusted as per business need and requirement. Subject to the approval of the authority with actual demand of credit limit. As per below table:

Increase Mobile Limit			
Applicant	**Recommended By**	**Department**	**Approval Authority**
SE/TSE/TSO/ME/SME	Manager/ NSM	Sales Marketing	HOD
TM/ASM/DASM/RSM	NSM/BM/MM	Sales Marketing	HOD
AM/DM/PM/AGM/DGM/GM	HOD	Factory/Project	HOD
Below AM (Management employee)	DM/AGM/DGM	Factory/Project	HOD
Jr. Officer/Officer/Sr. Officer	AM/DM/Line Manager	Functional Unit	HOD
AM/DM/MANAGER/AGM/DGM/GM	HOD	Functional Unit	VC

Rule-
Motorcycle
& Motorcycle
Allowance

1. Employees of sales team of MGI shall be entitled formotorcycle & motorcycle allowance for business purpose;

Rule-
Car &
Car Allowance

1. Senior management employees of MGI shall be entitled for car & car allowance for business purpose;

2. Head of Department, Assistant General Manager, General Manager, Director will be provided car & car allowance.

Rule- Travel Allowance (Home & Abroad)

5. Employees of MGI shall be entitled for travel allowance in home and abroad for business purpose;

6. The amount will be at actual expense made by employee during his business visit.

Rule- Advance Payment from Provident Fund

(1) Any member can take in advance as per the following terms and conditions on the approval of the Board of Trustees frombalance of his account, namely –

a) For execution of medical expenses of the contributor or any member of his family;

b) For execution of any other essential expenses of the marriage, death rites of the contributor or any member of his family;

c) For execution of expenses to build or repair homes or to buy homes or flat or to buy land to build home;

d) To pay the life insurance premiums of a contributor or his wife;

e) For execution of expenses of sea or air travel of a contributor or any member of his family; and

f) For execution of education expenses of the children of any contributor member.

(4) Advance will not be more than eighty percent of the total balance of income tax-free contributions and dividends deposited in the account of the member, and no other advance will be granted until the previous one is fully paid.

(5) The received money as advance shall equally be divided into installments for the payment of the main advance, a further installment will be paid out as interest thereon.

(6) Money received as advance to be paid in not more than 60 sixty equal monthly installments.

Rule-
Salary to be Paid

in Currency (1) Salary shall be paid through bank transfer in **Bangladeshi Taka** to employees' individual bank accounts.

(2) In case of unavailability of bank account of employee, salary shall be disbursed in cash or cash cheque for the first month.

(3) Foreign employee may be paid in US dollar as per their employment obligation.

Rule-
Fixation of Salary
Period (1) Salary period has been fixed from 30th of the current month to 01th of the following next month.

(2) Under no situation, salary period shall exceed one month.

(7) Managing Director and Chief Financial Officer shall be liablefor such payment.

Rule-
Duration of Payment of Salary

1. Job of an employee is terminated due to layoff, discharge, termination, removal, dismissal, resignation by employee or for any other reasons, the arrear salary of the employee has to be paid within 7 seven working days after termination of the job.
2. Where the employment of a worker ceases due to retirement, discharge, retrenchment, dismissal, removal, termination or any other reason, all amounts except arrear salary due to him shall be paid by the appointing authority within a maximum period of thirty working days following the date of cessation of his employment.

Rule-
Annual Increment

1. Employees who perform their duties satisfactorily are entitled to one annual salary increment based on merit;

2. Salary increments are effective the first day of the pay period following the anniversary date of the employee's appointment (through hiring, Promotion, etc.) to their current position;

3. Generally, if an employee is laterally transferred to a new position, or if they are demoted, they will retain their original anniversary date;

4. Merit increase is determined based on the following merit percent increase grid, measured by employees' performance as assessed through their regular [ANNUAL/SEMI-ANNUAL] performance reviews. We are committed to open communication about what is expected in order to qualify for each level in the merit increase range.

5. Employees who are included in minimum wage gazette will get annually 5% increment automatically on gross salary.

6. All types of increment shall be given on gross salary of the employee.

7. Cost of living increase is applied to all employees' salaries, regardless of their performance, to account for inflation and other increases in cost of living and ensure all employees can maintain a quality standard of living.

8. Market Adjustment following the evaluation of our salaries against yearly market survey data, MGI will adjust base salaries for roles that are being paid below the market. If an employee's position is significantly overpaid compared to the market, the employee will be notified in writing that they will not be provided with a market adjustment increase until their salary comes in line with the market.

Rule-
Festival Bonus

(1) Every employee who has completed one-year of continuous service in MGI, will be eligible for two festival bonuses.

(2) Bonus will be disbursed according to the employees' individual religious festival.

(8) Amount of bonus will be equivalent to the basic salary of all eligible employees.

Rule- Payment from Provident Fund

(1) In case money deposited in the name of any member or after deducting the remaining money is payable in accordance with rules, in that case the board will close the account of that personand the money is payable to which employee, a written notice will be issued to him specifying the amount of payable money.

(2) As per this rule upon receipt of this in accordance with the interested person has to apply to the board in written and money can be sent through cross check by money-order or registered post as per the wish of the employee or through bank draft or pay order by hand delivery with acknowledgement.

(3) If termination of employment of any employee happens after completing two years of service the organization, he will receive all his deposited money in his name with the part of the MGI.

(4) If tenure of service of any employee is less than two years but member of a fund for more than a year, employee will receive both part from the fund.

(9) Whatever the tenure is, due to the death or closure of the organization the employee will receive the both parts deposited in the fund.

Rule- Payment of Salary for Un-availed Leave

(1) If the service of an employee terminates, due to retrenchment, discharge, removal, dismissal, retirement, resignation or any other reason and any annual leave is due, thepayment shall be paid to employee in lieu of the un-availed leaveat the rate employee is entitled to the payment of salary during the period of leave.

(2) The payment has to be made within a maximum period of thirty working days following the date of cessation of his employment.

(3) Calculation of Salary & Payment during the period of Leave & Holiday will be at the rate equal to the daily average of his full-time salary except any overtime allowance and bonus for the days on which he worked during the month immediately preceding his leave.

Rule-
Group Insurance
in MGI.

(1) Every employee is eligible for compulsory group insurance

(2) The amount claimed as insurance shall be in addition to all other dues of an employee.

(3) Group insurance policy shall be applicable in case of thedeath of employee and their permanent disabilities.

(4) Group insurance amount is maximum 1,00,000 taka and annual premium of the policy shall be paid by MGI.

(5) In case of death of the employee while remaining on employment, the insurance money has to be paid to the person nominated by employee.

Rule-

Medical Insurance

(1) Employees working for MGI shall be entitled for Medical Insurance from the joining date.

(2) The amount for medical insurance will be paid by MGI & no amount will be deducted from salary for medical insurance.

(3) The amount for medical insurance will be 25,000/- taka yearly and will used only for the treatment of the employee.

(4) Any unused balance of medical insurance is not permissibleto carry forward in the succeeding years.

(5) The availability of medical insurance subjects to medical admission or for any kinds of illness.

(6) No insurance money is payable to employee if valid billcopies are not produced before concerned authority within 45 days of payment of such bills.

(7) MGI may publish or fix a name list of hospitals to avail such medical insurance facility.

(8) Violation of any clause of this rule by employee may lose his right to get the medical insurance benefit.

Rule-
Death Compensation (1) If an employee dies while in service for at least more thantwo years continuously under MGI.

(2) While in service an employee dies, MGI shall pay as compensation thirty days basic salary for every competed year of service or any part thereof exceeding 6 (six) months.

(2) In case of death while working in the establishment forty- five days basic salary for every competed year of service or any part thereof exceeding 6 (six) months.

(3) In case of death following an accident while working in the establishment forty-five days basic salary for every competed year of service or any part thereof exceeding 6 (six) months.

(3) In addition to death compensation, dependents will be entitled for retirement benefit if employee completes one year of service.

Rule-Compensation for Temporary Disablement (1) Accidental temporary disablement & prolonged occupational disease disablement shall be compensated by MGI.

(2) Compensation for accidental temporary disablement shallbe paid for the period of disablement or for one year whichever is shorter.

(3) At the rate of full monthly gross salary for the first two months, at the rate of two-thirds of the monthly gross salary forthe next two months and at the rate of half of monthly gross salary for the subsequent months shall be paid for accidental temporary disablement.

(4) In case of prolonged occupational disease disablement, compensation shall be paid at the rate of half of monthly gross salary during the period of disablement, but such period shall in no case exceed two years.

(5) MGI shall not be liable to pay such compensation, if-

(a) An employee does not lose the ability to work, in whole orin part, for a period exceeding three days due to injury;

(b) the cause of injury to an employee, not resulting in death, bythe accident directly attributed to-

(i) Employee having been at that time under the influence of drink or drugs;

(ii) The willful disobedience by the employee of a clear orderor to rules made for the purpose of securing the safety of workers;

(ii) The willful removal or disregard by employee of any safety guard or other device which he knew to have been provided forthe purpose of securing the safety of workers.

Rule-Compensation for Accidental Death

(1) In case of accidental death 2,00,000 taka is payable to the successor of the deceased employee.

(2) If employee leaves any nominee or nominees before death, that person (s) will receive the amount.

(3) If any employee dies, MGI may deposit the amount to the labor court or will directly handover the amount to the deceased employee's successor or nominee.

Rule-Compensation Permanent Total Disablement

(1) In case of permanent total disablement 2,50,000 taka is payable to the disabled employee.

(2) Where permanent partial disablement results from theinjury, -

(i) In case of injury specified in the First Schedule of Bangladesh Labor Act 2006, such percentage of the compensation which would have been payable in the case of permanent total disablement which is equal to the ratio specified therein as being the percentage of the loss of earning capacity caused by that injury;

(ii) In case of an injury not specified in the First Schedule of Bangladesh Labor Act 2006, such percentage of the compensation payable in the case of permanent total disablement as is proportionate to the loss of earning capacity permanently caused by the injury;

(10) More than one injury is caused by the same accident, theamount of compensation payable shall be aggregated, but not in such a way as to exceed the amount which would havebeen payable if permanent total disablement would have resulted from the injuries.

CHAPTER- 12: COMPENSATION FOR INJURY CAUSED BY ACCIDENT

Rule-	Payment of Compensation
Rule-	Amount of Compensation
Rule	Method of Calculating Wages
Rule-	Medical examination
Rule-	Compensation in the case of a contract

Rule-
Payment of Compensation

1. If a worker is bodily injured by an accident arising out of the course of his employment, MGI shall be liable to pay him compensation.
2. MGI shall not be liable to pay such compensation, if-
    a. a worker does not lose the ability to work, in whole or in part, for a period exceeding three days due to injury;
    b. the cause of injury to a worker, not resulting in death, by the accident directly attributed to-
        I. the worker having been at that time under the influence of drink or drugs;
        II. the willful disobedience by the worker of a clear order or to rules made for the purpose of securing the safety of workers;
        III. the willful removal or disregard by the worker of any safety guard or other device which he knew to have been provided for the purpose of securing the safety of workers.

3. If-
    a. (a) any worker, employed in any employment specified in "Part-A" of the Third Schedule of Bangladesh Labor Act 2006, is attacked with any disease specified therein as an occupational disease peculiar to that of employment; or
    b. (b) a worker, while in the service of an employer for a continuous period of not less than 6 (six) months in any employment specified in Part-B of the Third Schedule of Bangladesh Labor Act 2006, is attacked by any disease specified therein as an occupational disease peculiar to that employment, being attacked of such disease shall be deemed to be an injury by accident within the meaning of this section, and, unless the employer proves the contrary, such accident shall be deemed to have arisen out of the course of his employment.

Rule-
Amount of compensation

1. The amount of compensation shall be as follows, namely: -
   a. where death results from the injury, 2,00,000/- shall be given to successor.
   b. where permanent total disablement results from the injury 2,50,000/- /- shall be given to employee.
   c. where permanent partial disablement results from the injury
      I. in the case of injury specified in the First Schedule of Bangladesh Labor Act 2006, such percentage of the compensation which would have been payable in the case of permanent total disablement which is equal to the ratio specified therein as being the percentage of the loss of earning capacity caused by that injury;
      II. in the case of an injury not specified in the First Schedule of Bangladesh Labor Act 2006, such percentage of the compensation payable in the case of permanent total disablement as is proportionate to the loss of earning capacity permanently caused by the injury; and
   d. where temporary disablement, whether total or partial, results from the injury, a monthly compensation shall be payable on the first day of the month following the month in which it is due after the expiry of a waiting period of 4 (four) days from the date of disablement and thereafter shall be payable for the period of disablement or for a period as specified in the last column of the Fifth Schedule of Bangladesh Labor Act 2006, whichever is shorter.

Rule-

Method of calculating Wages

1. Such wages shall be calculated as follows, namely: -
   a. where the worker was in the service of the employer who is liable to pay compensation for a continuous period of not less than 12 (twelve) months immediately preceding the accident, the monthly wages of the worker shall be one-twelfth of the total wage to be paid to him by the employer for the preceding 12 (twelve) months;
   b. where the worker was in the service of the employer who is liable to pay the compensation for a continuous period of less than 1(one) month immediately preceding the accident, the monthly wage of the worker shall be the sum equal to the monthly average of income

which, during the 12 (twelve) months immediately preceding the accident, was being earned by a worker employed on the same workby the same employer, or, if there was no worker so employed, by any other worker employed on similar work in the same locality;

c. in other cases, the monthly wages shall be the sum arrived at on the basis of the following calculation:

30 (thirty) times of the total wages earned from the employer who is liable to pay compensation for a continuous period of service immediately preceding the accident divided by the number of days comprising such period

Rule-

Medical examination

1. Where a worker gives notice of an accident, the employer shall, within 3 (three) days of service of such notice, cause the worker to be examined at the expense of the employer by a registered medical practitioner and the worker shall submit himself for such examination.
2. If the accident or illness of the worker is of grave nature, the employer shall cause him to be examined at the place where the worker is staying.
3. Where a worker is not examined as aforesaid, he may get himself examined by a registered medical practitioner and the employer shall be liable to pay him the expenses for such examination.

Rule-

Compensation in the case of a contract

1. Where any employer in the course of his trade or business or for the purposes of it contracts with any other person, hereinafter in this section referred to as the contracting agency, for the execution of the whole or any part of any work which is ordinarily the part of his trade or business, the said employer shall be liable to pay to any worker employed by the contractor for the execution of the work any compensation which he would have been liable to pay if the worker had been directly employed by him and where compensation is claimed from the employer the wages received from the contractor shall be taken into cognizance for fixing the compensation.
2. Where sub-section (1) applies, all compensation shall be paid by the principal or original employer

CHAPTER-13: PROVIDENT FUND

Rule-	Establishment of Provident Fund
Rule-	Investment of the fund
Rule-	Dividends or profit
Rule-	Conditions for payment of the fund money
Rule-	Receiving Advance from the fund
Rule-	Meeting Board of Trustee Board
Rule-	Quorum of Board
Rule-	Maintaining the Accounts of Provident Fund
Rule-	Member's account

Rule-
Establishment of Provident Fund

1. MGI Shall establish provident fund in the organization for the benefit of the employee.
2. The said provident fund shall be administered by a Board of Trustees.
3. Such Board of Trustees shall consist of equal number of representatives of the employer and employee employed in the establishment concerned; and a person nominated by the Government shall be its Chairman.
4. All members of the Board of Trustees shall hold office for a period of 2 (two) years:
5. Every permanent worker shall, after completion of 1 (one) year of his service in the establishment, where the provident fund is constituted, subscribe to the provident fund, unless otherwise agreed upon, in every month a sum, not less than seven percent and not more than eight per cent of his monthly basic wages; and the employer shall contribute to it an equal amount.
6. The cost of maintenance of the provident fund shall be borne by the MGI.

Rule-
Investment of the fund

1. At least half of the total accumulations in such provident fund shall be invested for any of the following purposes, namely: -
    a. I.C.B, Mutual Fund Certificate;
    b. I.C.B, Unit Certificate; and
    c. any government securities including defense and postal saving certificate.
    d. purchase the immoveable assets in Bangladesh.

Rule-
Dividends or profit

1. Dividends or profits earned by investment of the deposited money in the fund to be deposited in a proportionate in account as every member at the end of the year.
2. The accumulated profits in the accounts of the members to be shown in the fund as cost.
3. Profit from the first day to last day to be deposited in the deposit sector of each member.
4. Profit on the payment claim or partial term to be paid at the rate of profit of the previous year and will be deposited as monthly rate for months of partial term.

Rule- Conditions for payment of thefund money

1. If termination of any job of any member happens after completing two years of service the organization, he will receive all his deposited money in his name with the part of the owner.
2. Any member can withdraw his membership from the fund by applying in writing to the board if he does not intend to hold his membership, and if such withdrawal of membership happens after completing two years of service in the organization then he will receive all his deposited money in his name with the part of the owner.
3. If tenure of service of any member is less than two years or member of a fund for less than a year, he will receive his part form the fund:
4. Anyway, the tenure is, due to the death or closure of the organization the member will receive the both parts deposited in the fund.

Rule-
Receiving Advance
from the fund

1. any member can take in advance as per the following terms and conditions on the approval of the board of trustees from balance of his account, namely: -
   a. For execution of medical expenses of the contributor or any member of his family;
   b. For execution of any other essential expenses of the marriage, death rites of the contributor or any member of his family;
   c. For execution of expenses to build or repair homes or to buy homes or flat or to buy land to build home;
   d. To pay the life insurance premiums of a contributor or his wife;
   e. For execution of expenses of sea or air travel of a contributor or any member of his family; and
   f. For execution of education expenses of the children of any contributor member.

2. Any advance will not be more than 80% (eighty) percent of the total balance of income tax-free contributions and dividends deposited in the account of the member, and no other advance will be granted until the previous one is fully paid.
3. Money received as advance to be paid in not more than 60 sixty equal monthly installments.
4. no installment of the advance will be more than one-third of the monthly wages of the worker.
5. By sharing the money received as advance into equal installments for the payment of the main advance, a further installment will be paid outas interest thereon.

Rule-
Meeting Board of
Trustee Board

1. Trustee board meetings will be held at least once in every four months, and board secretary, by consultation with the chairman, will fix date, place and time of each meeting, notice will be sent to the address of each trustee by registered post or by any other means acceptable to the trustees at least seven days before the date of each meeting of the meeting, but in case of emergency meetings, notice of such meetings to be sent in the three days before the meeting.
2. If at least half of the members of board of directors' request in writing, the secretary, by consult with the chairman, will convene board meeting within 10 (ten) days of receiving request.
3. The chairman will preside at each meeting and if in a meeting of the board the chairman is absent, secretary, labor and employment ministry, the vice-chairman of the board, will preside over the meeting and will sign the meeting's resolution.

Rule-
Quorum of Board

1. At least one of the trustees representing the owners and workers and more than half of the trustees will be in attendance to make the quorum at a meeting of the Board of trustees.
2. If the quorum of any meeting does not form in one hour, the meeting will be adjourned and the adjourned meeting will be held in the next ten days and if the quorum is not formed in adjourned meeting, then for the third meeting in the presence of any number will be treated as the quorum.

Rule-
Maintaining the accounts of provident fund

1. The secretary will deposit all money received in the fund by opening of an account of a scheduled bank determined by the board.
2. The bank account will be jointly governed by the chairman of the board of trustees, representatives of the owners and workers parties and money can be withdrawn by the joint signature of the chairman and another member approved by the board.
3. Money deposited with the subscription of the employer and the worker, and the earned profit or revenue or profit to be kept separately in the register in account of each member.

Rule-

Member's account

1. An account to be opened in the name of each member in the ledger of the office fund in which paid subscription, owners' part in favor of the worker, proportional share received dividend from profits and investment will be submitted.
2. Within three months after the end of each year, the board secretary will examine the things shown in the account of each member and if any error appears that will be amended and a signed sector wise statement will be provided to each worker.

CHAPTER-14: SEXUALHARASSMENT

Rule-	Procedure of punishment for sexual harassment
Rule-	Punishment for Sexual Harassment

Rule-
Procedure of punishment for sexual harassment

1. No order of punishment for harassment shall be made against an employee unless-

    a. The allegation against any person is recorded in writing generally within 30 working days by harassed person or her friends or any other person and it must be submitted before anti-harassment committee.
    b. Name of complainant & alleged employee will remain secret unless complaint is proved.
    c. A five-member committee will be formed & most of the member of the committee will be female.
    d. Two members of the committee will be selected from outside of organization.
    e. Committee will send letter through registered postal system to complainant, alleged employee & witnesses to collect, hear, judge documents related to the allegation.
    f. Enquiry will be completed within 30 working days if any additional time requires more 30 working days will extended.
    g. An employee charged for misconduct may be suspended pending enquiry into the charge if requires.
    h. If alleged employee is found guilty after an enquiry made by the enquiry committee & the employer or the manager may approve the order of punishment immediately within next 30 working days as they may think appropriate.

Rule-
Punishment for Sexual Harassment

(i) An employee may be dismissed without a notice or without wages in lieu of a notice if he is-
    a. found guilty of sexual harassment

(ii) An employee found guilty of sexual harassment may, instead of being dismissed under sub-rule (1), under any extenuating circumstances, be awarded any of the following punishments, namely-
    i. removal;
    j. reduction to a lower post, grade or scale of pay for a period not
    k. exceeding 1 (one) year;

l. stoppage of promotion for a period not exceeding 1 (one) year;
m. withholding of increment for a period not exceeding 1 (one) year;
n. fine;
o. suspension without wages or without subsistence allowance for a period not exceeding 7 (seven) days;
p. censure and warning.

(iii) The following acts shall be treated as sexual harassment, namely-

a) Showing pornography;
b) Sexually colored remark or gesture;
c) Demand or request for sexual favors;
d) Sexually colored verbal representation;
e) Attempt to establish sexual relation by intimidation, deception or false assurance.
f) Making love proposal and exerting pressure or posing threats in case of refusal to love proposal;
g) Taking still or video photographs for the purpose of blackmailing and character assassination;
h) Indecent gesture, teasing through abusive language, stalking, joking having sexual implication;
i) Unwelcome sexually determined behavior (whether directly or by implication) as physical contact and advances;
j) Attempts or efforts to establish physical relation having sexual implication by abuse of administrative, authoritative or professional powers;
k) Preventing participation in sports, cultural, organizational and academic activities on the ground of sex and/or for the purpose of sexual harassment;
l) Insult through letters, telephone calls, cell phone calls, SMS, pottering, notice, cartoon, writing on bench, chair, table, notice boards, walls of office, factory, classroom, washroom having sexual implication.

a. **'Stalking'** as defined below;
A male individual stalks a female if the maleengages in a course of conduct-

(a) with the intention of causing sexual harassment or of arousing apprehension of sexual harassment in the female and

(b) that includes any of the following:

(1) following the female;
(2) contacting the female by post, telephone, fax, text message (SMS/MMS/blogging/twitting), email or other electronic communication or by any other means whatsoever;
(3) causing an unauthorized computer function in a computer owned or used by the female or her family members;
(4) entering or loitering outside or near the female's place of residence or place of business or work or any other place frequented by the female;
(5) keeping the female under surveillance;
(6) acting in any other way that could reasonably be expected to arouse apprehension or fear in the female for her own safety or the safety of her family members.

CHAPTER-15: EMERGENCY ARRANGEMENT

Rule- Strike Day & Rainstorms
Rule- Injury at Work
Rule- Stoppage of Work and Lay-off
Rule- Right of Laid-off Employees for Compensation
Rule- Closure of Establishment
Rule- Employer-Employee Relations in Disaster or Damagebeyond Control

Rule-
Stoppage of Work and Lay-off

1. The Management of the company may, at any time, if necessary, in the event of fire, sudden catastrophe, breakdown of machinery, stoppage of power supply, epidemics, wide spread riots or any other cause beyond his control, stop any section or sections of his establishment, wholly or partly, for such period as the cause for such stoppage continues to exist.

2. The period of stoppage of work does not exceed 1 (one) working day, an employee, unless s/he is directed to stay to place of work following such stoppage of work, may not be entitled to any wages.

3. If the period of stoppage of work continues for more than 1 (one) working day, every concerned employee, other than a casual or substitute employee, shall be paid wages for all stopped working days exceeding 1 (one) day.

4. If the period of stoppage of work exceeds 3 (three) working days, the workers concerned shall be laid off in accordance with the provisions of Bangladesh labor Act, 2006. The lay-off shall be effective from the first day of stoppage of work, and any wage paid to an employee for the first 3 (three) days may be adjusted against the compensation payable to such employee for the period of such lay-off.

Rule-
Right of Laid-off Employees for Compensation

1. Whenever an employee, other than a substitute or casual employee, whose name is on the muster-rolls of the company and who has completed at least 1 (one) year of service under the company is laid-off, s/he shall be paid compensation for all days during which he is so laid-off, except for weekly holidays as per the provisions of Bangladesh Labor Act, 2006.

Rule- Closure of Establishment

1. The management of the company may, in the event of an illegal strike in any section or department of any establishment, close down either wholly or partly such section or establishment and in cases of such closure the employees participated in the strike shall not be paid any wages.
2. Where by reason of closing down of any section or department of any establishment under sub-section (1) any other section or department is so affected that it is not possible to keep that section or department open,

that section or department may also be closed down and the employees affected thereby shall be paid wages equal to the amount of compensation payable in the case of lay-off upto a period of 3 (three) days and for any period exceeding thereto may not get any wages.

3. The management of the company shall notify the fact of such closure, as soon as practicable, by a notice posted or hung on the notice board in the section or department concerned or at a conspicuous place in the establishment and the fact of resumption of work shall likewise be notified.

Rule-
Employer-Employee

Relations in Disasteror
Damage beyond
Control

Notwithstanding anything contained in this Service Rule, if, for sudden natural disaster or any other disaster which is beyond human control or for urgent necessity, the company is shifted or activities of the company is permanently closed, the Government may determine the employer and employee relations in such manner as may be prescribed by rules and the company shall comply such rule.

CHAPTER-16: INDUSTRIAL RELATION

Rule-	Trade Union
Rule-	Collective Bargaining Agent
Rule-	Industrial Dispute
Rule-	Participation Committee
Rule-	Functions of the participation committee

Rule-
Trade Union

1. A trade union of workers shall not be entitled to registration, unless it has a minimum membership of 20% (twenty percent) of the total number of workers employed in an establishment in which it is formed.
2. Formulation shall be followed as chapter-13 of Bangladesh Labor Act 2006.

Rule-
Collective Bargaining Agent

1. Where there is only one trade union in an establishment, the trade union shall be deemed to be the collective bargaining agent for such establishment.
2. If any CBA needs to be elected, the election process of chapter-13 of Bangladesh Labor Act 2006 shall be followed.

Rule-
Industrial Dispute

1. No industrial dispute shall be deemed to exist, unless it is raised by MGI or by a collective bargaining agent of MGI
2. If at any time an employer or a collective bargaining agent finds that an industrial dispute is likely to arise between the employer and the workers, the employer or the collective bargaining agent shall communicate his or its views in writing to the other party.
3. All other processes shall be followed as per chapter-14 of Bangladesh Labor Act 2006.

Rule-

Participation Committee

1. **MGI** will be respectful to the employees' right to organize & bargaining for rights.

2. For employees of **MGI**, company will establish an elected participation committee for all employee.

3. Chairman of the committee will be from owners & Vice Chairman will be from employees.

4. The number of employees participating in the committee will be determined as mentioned proportional rate of employees in the organization mentioned in the table, namely: -

Number of Employee	Number of Employee Participating in the Committee
01 to 100	6
101 to 400	10
401 to 800	12
801 to 1500	14
1501 to 3000	18
3001 to 5000	22
5001 to 7500	24
7501 or More	30

5. The validity of the committee will be 2 years & 3 months before ending the validity of the committee, the next committee will be elected.

6. The committee will arrange meeting after every two months & meeting minutes will be sent to director of labor for appraisal.

7. Equal membership must be ensured in case of election of membership in the committee.

Rule-
Functions of the Participation committee

1. The main function of the participation committee shall be to inculcate and develop sense of belonging to the establishment among the employees and employer and to aware the employees of their commitments and responsibilities to the establishment, and, in particular-

(a) to endeavor to promote mutual trust and faith, understanding and co-operation between the employer and the employee;
(b) to ensure the application of labor laws;
(c) to foster a sense of discipline and to improve and maintain safety, occupational health and working condition;

(d) to encourage vocational training, employee' education and family welfare training;

(e) to adopt measures for improvement of welfare services for the employees and their families; and

(f) to fulfill production target, increase productivity, reduce production cost, preventwastage and raise quality of products.

(2) A unit participation committee shall, underthe supervision of the principal

2. participation committee, discharge, as far as practicable, the functions mentioned in sub-rules (1).

CHAPTER-17: GENERAL PRACTICES

Rule-	Ethics
Rule-	Fair Relationships with Suppliers
Rule-	Fair Competition
Rule-	Gifts and Invitations
Rule-	Conflict of Interests
Rule-	Confidentiality
Rule-	Privacy Rights
Rule-	Representing Meghna Group of Industries
Rule-	Protecting Meghna Group of Industries' Assets
Rule-	Accurate Information- Money Laundering
Rule-	Insider Trading
Rule-	Soliciting & Offering of Interests
Rule-	Outside Employments & Investments
Rule-	Disclosure
Rule-	Return of Company Property
Rule-	Intellectual Property
Rule-	Transfer and Tours Allowance
Rule-	Political Activities
Rule-	Anti-terrorism
Rule-	Indebtedness
Rule-	Insolvency
Rule-	Borrowing
Rule-	Abandonment
Rule-	Dress Code

Rule-
Ethics

MGI believes that honesty and integrity are its essential assets. **MGI** prohibits the offer, giving or acceptance of bribes in any form. It also prohibits the provision of improper benefits. No reward, gift or favor dependent on the outcome of any work will be accepted by employees. Employees shall operatefree from any conflict of interest.

Rule-
Fair Relationships with Suppliers

Our suppliers must be selected according to clearly objective criteria and full transparency. To that respect, suppliers cannot be ruled out or favored basedon discrimination (race, creed, gender, etc.) or on personal reasons such as family relationships or friendships.

Our relationships are based on the principles of impartiality, equality and loyalty. We must ensure our suppliers adhere to our ethical principles regardless of the country they are located in.

We do not condone working with suppliers that fail to uphold our ethical principles, most notably with regards to human rights and/or anti- corruption.

We respect our suppliers. We are therefore committed to:

- Paying them within the due-date and under the conditions agreed upon.Ensuring fair conditions are set (payment methods, deadlines, etc.).
- Ensuring their financial independence from the group is maintained.
- Protecting confidential data that they entrust us with, justas we would do for our own employees.

Rule-
Fair Competition

We run our business according to fair competitive practices. We respect all stakeholders in our professional setting, including competitors, because it is in our best interest that everyone works in a market where business practicesare implemented in fairness.

We undertake to comply with national and international competition law.We do not:

- Establish practices with our competitors that jeopardize the very natureof competition
- Block a competitor from a source of supply or a business prospect by urging, for example, our suppliers to terminate agreements with a competitor
- Denigrate our competitors in any way (false statements, rumors etc.)

We push for transparency. To that end, we do not seek to obtain confidential information about our competitors through illegal means or by neglecting to identify ourselves as employees of the group.

It is your duty to inform your superior if you have received or accidentally used confidential or exclusive information regarding a competitor and over which the competitor or a third party has legitimate ownership.

Rule-
Gifts and Invitations

Gifts and invitations may be permitted within the context of business relations as long as they are not intended to obtain particular or unwarranted advantages (example: bribes).

When you receive or give a gift or invitation, keep in mind these three simple rules: be transparent with your superiors, be reasonable and ask yourself how the gesture could be perceived.

In order to be permitted, gifts and invitations must:

a. Adhere to laws and regulations in force, including known policies of the benefiting company

b. Be given for a legitimate and verifiable business objective (occasional invitations to business lunches or receptions, occasional invitations to sport events or shows)

c. Be of a reasonable value and not frequently given to the same person

Rule-
Conflict of Interests

Whether in your professional or private life, your actions must not create conflicts of interests with your professional responsibilities in **MGI**. The mereappearance of a conflict of interests could damage the company's reputation as well as the reputation of its employees and partners.

As an employee, it is your responsibility to prevent any situation that creates or could create a conflict between your personal interests (or the interests ofyour family) and the company's interests. If you find yourself confronted witha real or potential conflict of interests, inform your superior.

The following situations are examples of potential conflicts of interests:

a. Engaging in business operations with a supplier or subcontractor for your own personal gain or for the gain of a third party (relatives, friends, etc.);

b. Participating in the selection process of an employee or a supplier when we are clearly in a position of conflict of interests;

c. When family ties exist between subordinates and their superiors. By family ties we mean marriage, live-in partnerships recognized publicly but not legally and kinship (daughter or son, father or mother, nephew, niece, aunt or uncle).

Corruption is unacceptable and not compatible with **MGI** values and will leadto punishment. Corruption can take the following forms:

a. Public corruption, in other words, offering an unwarranted advantage to public officials to sway them to carry out or refrain from carrying out their official duties

b. Private corruption, which can take on different forms- a supplier who offers a purchaser a bribe or benefits in kind, etc.

As such, we condemn all direct and indirect (committed by an intermediary such as a sales representative or supplier) acts of corruption. We could be heldresponsible even if **MGI** did not give the orders.

According to this line of conduct, we must:

a. Not accept or request money or any other valuable item (gifts, invitation, etc.) that could sway us to neglect our duty of loyalty with **MGI** or that could be perceived as influencing a business relationship.

b. Not engage intermediaries to do what we do not have the right to do or what we are directly prohibited from doing.

c. Carefully choose and closely monitor our business partners.

d. Ensure that our partners are aware of our values and are committed to respecting them, especially when they have to represent us in countries with a high risk for corruption.

Furthermore, in various countries so-called 'facilitation' payments are common in order to implement or speed up certain administrative formalities(customs, visa procedures, etc.). This practice is in fact an act of "petty corruption", and is illegal in the majority of signatory countries of anti- corruption conventions. **MGI**, therefore, does not condone facilitationpayments.

However, in exceptional circumstances (an employee's health or safety is at risk), a 'facilitation' payment can be made as long as it is recorded in **MGI** accounts.

Rule-
Confidentiality

Information is valuable. Disclosing internal information without authorizationmay cause injury to **MGI**, our employees and our partners. We are, therefore,all responsible for protecting internal information.

Here are a few simple rules to follow:

a. Disclose sensitive information only to the people who legitimately need it for their professional activity.

b. Keep all confidential information (suppliers, customers, etc.), whether hard copies or in electronic format, in a secure place.

c. When working with people outside **MGI**, keep in mind that internal information must not be disclosed.

d. Do not work with sensitive internal information in public places where conversations can be overhead and the security of data compromised.

Those of us who have had access to confidential information during negotiations with business partners are under the same obligation to preventthe disclosure of said information.

When carrying out your duties, you may be faced with extortion attempts. If you are not sure whether you can disclose information or use information in your possession, feel free to ask for advice from your superior or from the Legal Department.

Rule-
Privacy Rights

Personal data protection aims to restrict access to information that directly or indirectly identifies a natural person (surname, name, telephone number, home address, email, etc.).

MGI collects and processes personal data from third parties and as such it undertakes to guarantee the security of its information systems. To achieve this, it controls the informational risk at all corporate levels: secure access to information, monitoring of partners, confidentiality agreements with our suppliers and access control.

Rule-
***Representing* Meghna Group of Industries**

You represent **MGI** and as such you should be aware of the image you portray. Therefore, your behavior needs to be professional and reflect **MGI** values. **MGI** reputation depends on the individual behavior of each and every one of us.

To that effect, we should:

a. Ensure that no confusion can be made between our opinions and personal interests and those of **MGI**.

b. Always identify ourselves as **MGI** employees when we use social media for our professional activities.

c. Keep in mind that our professional conduct and use of language are a reflection of **MGI** values.

d. Not use **MGI** resources (letterhead, professional email address) for our personal affairs or to express our personal opinions.

MGI will have to address the media and may be asked by the media to discussits strategy, performance, future projects, etc. Only people authorized bygeneral management can speak or write on behalf of **MGI**.

Speaking, writing or making commitments in the name of **MGI** is prohibited without prior authorization.

Rule-

Protecting* Meghna Group of Industries' *Assets

Assets of **MGI** are not solely physical or tangible elements (goods, supplies, computers, etc.), they also include the following:

a. Intangible property such as ideas, sketches, concepts or even the knowledge that you have acquired throughout your professional career at **MGI*.***

b. Customer or supplier databases and all the information to which you have had access while carrying out your duties also constitute Assets of **MGI*.***

We must make maximum efforts to safeguard and protect **MGI** resources against damage, illegitimate use and unauthorized transfer.

It is our duty to safeguard these assets and to respect the intellectual property of others. We must not use resources belonging to third parties (images, data, articles, etc.) without first making sure **MGI** has the right to use them.

Please take the time to read over the rules on how to use and protect information systems that **MGI** sets forth in its Acceptable Use Policy available on **MGI** intranet.

Rule-
Accurate Information- Money Laundering

All employees have the obligation to ensure that the information in our financial documents is accurate. This is an essential pre-requisite for the honest, effective and lawful running of our business.

Money laundering is an offence which involves concealing funds gained through illegal activities. Employees must:

a. Be vigilant in order to ensure that we are working with business partners with legitimate activities and whose funds do not come from criminal activities.

b. Refuse transactions paid in cash. If no other possibility exists, these transactions can be made as long as they are within legal limits authorized, explicitly authorized by general management and correctly recorded and referenced in **MGI** accounts.

c. If any element of a transaction seems inappropriate or likely to violate laws or regulations in force, inform your superior who will take the matter up with **MGI** Legal Department.

Rule-
Insider Trading

During the normal course of your work as an employee, you may have access to privileged information pertaining to **MGI** financial situation, which:

a. Might influence the value of **MGI** Development stocks if the information were to be disclosed to the public;

b. You might be tempted to use or let others use to engage in stock market operations before the public has been informed.

MGI does not aim to restrict the freedom of its employees to make personal investments in the stock market. However, **MGI** is a company listed on the stock exchange and is therefore subject to securities laws in several jurisdictions which regulate the use and public disclosure of information.

As long as information which could have repercussions on the value of **MGI** remains undisclosed to the public, it is considered to be insider information and must remain confidential.

Using this information for personal motives or disclosing this information to anyone before it is disclosed to the public may infringe upon the laws and regulations on securities. Sanctions for breaches to these regulations areharsh and can range from fines to prison sentences.

These regulations also apply to situations in which you have access to non- public confidential information regarding other companies- including customers, suppliers and partners- listed on any stock exchange.

Rule-

Soliciting & Offering of Interests

The company prohibits employees to solicit any advantages from clients, contractors, suppliers or any person in connection with company business. Employees should also refuse an advantage or entertainment in any kinds ifit may induce an employee to act against the company's interests, or lead to questions or complaints of basis or impropriety.

Analogously, employees should not offer bribes and the like to any person or company for the purpose of obtaining or retaining business for, or directing business to the company. Employee is not allowed to obtain any commissionspaid or payments made to any person or company in the conduct of company business.

In case of doubt, employees should refer the case to Line Manager as well as Compliance Officer for advice. Non-compliance to this rule/ code of conduct shall lead to disciplinary actions.

Rule-

Outside Employments& Investments

Employees should not engage in any outside employments, business, Investment, or activity that may conflict with company interests, and when concurrent employment of any kinds is planned, employee should notify the company and obtain prior approval before accepting the offer.

Rule-
Disclosure

Every employee shall disclose to **MGI** all his business interests, whether or not those are similar to or in conflict with the business or activities of the company in all circumstances in respect thereof and whether there is, or mightbe, a conflict of interest between the employee and the company.

Rule-
Return of
Company Property

The employees shall promptly upon request by the company and in any event upon the separation of his employment, deliver up to **MGI** all assets, devices and/or other equipment belonging to the company which might be provided to the concerned employee during the course of his employment, all lists of clients or customers, correspondence and all other documents, papers and records in whatever form, including but not limited to, electronically held dataconcerning the business of **MGI** which might be prepared by the client or come into his possession, custody or control in the course of his employment,including any prior employment with **MGI**. No employee shall keep any copiesof these items. No employee shall, without prior written consent of the company, publish any book, brochure or article concerning any matter relatingto any area or activity of the company or its vendors, particularly if the contents of any such proposed publication fall in the domain of confidential orsecret information or is against the interests of **MGI**.

Rule-
Intellectual Property

Subject to any relevant legislation, if any employee, at any time in the course of his employment with **MGI**, makes or discovers or participates in making ordiscovering of any letters, patent, trademarks, service marks, designs, copyrights, inventions, drawings, computer programs, know-how and rights of like nature however arising and whether registered or unregistered ("intellectual property"), relating to or capable of being used in **MGI**, such intellectual property would vest exclusively with **MGI** and the concerned employee would immediately disclose full details thereof to the company andat the request and expense of the company, the concerned employee would doall things which might be necessary or desirable for obtaining appropriate forms of protection for such intellectual property in such parts of the world as may be specified by **MGI** and for vesting all rights in the same in the company or its nominee. Therefore, all employees are bound to disclose full details of the Intellectual Property only to **MGI** before his departure from thecompany and by no means will he be allowed to use, publish, refer or discloseany or more of the above-mentioned Intellectual Property of **MGI** for his personal benefits or for the benefit of any other company wherever he may be employed after his departure from **MGI**.

Rule-
Transfer and Tours Allowance

An employee is liable to be transferred from one post, department to another. Similarly, no employee can refuse to go on tour as and when he or she is required to undertake the same by his seniors. Refusal to undertake tour or go on transfer will make the employee liable for disciplinary action that may culminate in the termination of his/her services.

Rule-
Political Activities

No employee shall take part in activities of any political party, nor shall he/she associate himself/herself with any political party or subscribe any aid or assistin any other manner in any political movement or activity.

Rule-

Anti-terrorism Policy

1. **MGI** follows a zero-tolerance policy towards any association with Terrorism and Organized Crime. To that end, **MGI** will ensure:

   a. Cash/funds are not provided directly or indirectly to individuals or company associated with Terrorism and/or Organized Crime;
   b. all individuals or company involved in implementing/facilitating projects on behalf of **MGI** are in no way in association directly or indirectly to any company, company or individuals associated with Terrorism and/or Organized Crime;
   c. all activities, individuals/company/company involved and the general practice and functionality of **MGI** adheres and complies with the relevant laws, regulations and policies of Bangladesh and thecountries in which **MGI** operates;
   d. any breach of this policy will be immediately brought to the attention of the relevant authorities and the appropriate authorities in any other jurisdiction in which **MGI** operates and, if appropriate, the national security hotline and the Bangladesh Police.

MGI will comply with counter-terrorism laws and policies existing in Bangladesh. It will use its best endeavors to ensure that there is no link ofany employee with any entity or individual associated with terrorism. **MGI** suppliers are required to know the persons/company that are beingdirectly assisted by them. **MGI** shall make sure that suppliers are aware of and obliged to comply with the laws of Bangladesh. In case of violationsof any provisions of anti-terrorism laws of Bangladesh, the company or any employee engaged shall be guided as the law provides.

Rule-Indebtedness

1. An employee shall not indulge in habitual indebtedness. She or he shall beliable to be terminated on being adjudged or declared insolvent.

Rule-Insolvency

1. An employee who is adjudged or declared insolvent or who applies to anycourt to be declared insolvent shall report this fact in writing to the management.

Rule-Borrowing

1. No employee shall borrow money or any pecuniary obligation from any business contact or from any person with whom he/she is likely to have official or other dealings during the normal course of business of the company.

Rule-Abandonment

1. If an employee remains absent beyond the period of leave originallygranted or subsequently extended, he or she shall be deemed to have abandoned the service of the company of his or her own accord and shall loose his/her lien on the job unless he/she returns to duty within eight days of the expiry of the leave so granted and explains his/her overstay to the entire satisfaction of the management.

Rule- Dress Code

1. All male and female employees shall wear socially acceptable and standard formal dress in the office.

2. Employee shall not wear any dress in the office, that may indicate to sexual harassment, culture violation or division, racism, political discrimination or gender discrimination.

3. Employees shall be allowed to wear religious dress inside the establishment but it should be maintained in such way so that other employees of different religion do not feel offensive.

4. Weekly dress code will be as mentioned below:

Name of Week Day	Name of Dress Item
Saturday to Thursday	Dress Code for Female Employees: • Business attire includes full sleeve aprons, long slacks or salwar and head cover or pashmina scarfs of sensible color. • Clothing that has words, terms or pictures that may be offensive to our patrons is unacceptable. • Accessories in reasonable size, sensible color and noise free. Dress Code for Male Employees: • Business attire includes formal suits, formal shirt, formal pants, formal shoes of sensible color. • Clothing that has words, terms or pictures that may be offensive to our patrons is unacceptable. • Accessories in reasonable size, sensible color and noise free.

ANNEX P

DoE and BEZA Clearance Letters

Government of the People's Republic of Bangladesh
Department of Environment
Head Office, Paribesh Bhawan
E-16 Agargaon, Dhaka-1207
www.doe.gov.bd

Memo No : DoE/Clearance/5727/2017/81 Date: 08/06/2023

Subject: Site Clearance for Cumilla Economic Zone Limited at Luterchar, Meghna, Cumilla.

Ref : Your Application dated 08/01/2023.

With reference to the above, the Department of Environment (DoE) hereby approves Environmental Impact Assessment (EIA) Report and accords Site Clearance to Cumilla Economic Zone Limited at Luterchar, Meghna, Cumilla subject to the compliance of terms and conditions and environmental safeguards as under:

1. The Site Clearance is valid for following activities:
   a) Development of the Economic Zone on 360.14 acres land at Sonachar mouza of Luterchar union of Meghna Upazila under Cumilla District.
   b) Proposed Industry Sectors for CEZ are- Light Engineering, Agro based industry (Food processing), Plastic items, Electrical Goods Manufacturing, Non-Metallic Mineral Products, Power Plant, Garments, Footwear, Leather Goods, Furniture, Glass fa[illegible] Re-Rolling and steel Mills
2. The project proponent shall prepare Resettle Action Plan (RAP) to address issues related to involuntary resettlement and/or the loss of assets or income as a result of the land acquisition for the project. Necessary budgetary allocation shall be made in the project document to implement the RAP.
3. Resettlement and Rehabilitation of the displaced population (including those who do not own land) should be done properly.
4. Project Proponent may open L/C (Letter of Credit) for importing machineries for the project which shall also include machineries relating to waste treatment plant and other pollution control devices.
5. The activity under Cumilla Economic Zone Limited project shall not release any pollutant that affect human health or will have damaging impact on the environment or natural resources.
6. Proper and adequate mitigation measures shall be ensured throughout land preparation, construction and development of the project activities.
7. Any heritage sight, ecologically critical area, and other environmentally, religious and archeologically sensitive places shall be kept protected during project construction phase.
8. The project proponent shall not fill in any wetland, pond and lake or make any diversion of natural water courses in the project area.
9. Environment friendly construction and development practices shall be followed to minimize loss of habitats and fish breeding, feeding & nursery sites.
10. Construction works shall be restricted to day time hours so as to avoid/mitigate the disturbance of local lives as well as implementation schedules of the works shall be notified in advance to nearby residents.

11. Proper and adequate sanitation facilities shall be ensured in labor camps throughout the proposed project period.

12. In order to control noise pollution, vehicles & equipment shall undergo regular maintenance; working during sensitive hours and locating machinery close to sensitive receptor shall be avoided.

13. No solid waste can be burnt in the project area. An environment friendly solid waste management system should be in place during the whole period of the project in the field.

14. Proper and adequate on-site precautionary measures and safety measures shall be ensured so that no habitat of any flora and fauna would be endangered or destructed.

15. All the required mitigation measures suggested in the EIA report along with the emergency response plan are to be strictly implemented and kept operative/functioning on a continuous basis.

16. To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.

17. Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions as presented before the Environmental Clearance Committee, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.

18. Adequate dust control system with dust extraction and bag filters at unloading areas and at each transfer points shall be installed.

19. Storage area for soils and other construction materials shall be carefully selected to avoid disturbance of the natural drainage.

20. Adequate facilities should be ensured for silt trap to avoid clogging of drain/canal/water bodies.

21. The entire project area shall be provided with water sprinkler and automated moisture sensor to control self-combustion.

22. Waste water treatment and sewage treatment plant shall be established with the approval of the DoE.

23. Construction material should be properly disposed off after the construction work is over.

24. Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed along the mine lease area in a phased manner. The green belt comprising a mix of native species shall be developed all along the major approach/ granite transportation roads

25. As described in the report environmental monitoring should be strictly followed and monitoring report should be shared with DoE to ensure the environmental management properly.

26. All activities (pre-construction, construction and post-construction stage) should be implemented according to EMP clearly listed in the EIA report.

27. A third party/independent monitoring bodies excluding project authority should be engaged immediately for monitoring of all the activities during preconstruction, construction and development phases as per monitoring plan of EIA report and monitoring report must be

submitted to Cumilla District Office, Chattogram Regional Office and Headquarters of the Department of Environment simultaneously.

28. Regular monitoring of the susceptible places for protecting ecosystem, biodiversity and forest coverage should be made using latest high resolution image for keeping ambient environment.

29. A separate hydrological study shall have to be conducted for ground water extraction to develop sound environmental management plan.

30. Air quality (PM_{10}, $PM_{2.5}$, and SO_2), water quality and water level data should be monitored regularly with a network monitoring system and report of monitoring results should be submitted to Cumilla District Office, Chattogram Regional Office and Headquarters of the Department of Environment simultaneously.

31. There should be regularly disclosure of the report through workshops and websites and responses should be taken care accordingly.

32. The project authority should provide all sort of logistics support to DoE and other relevant agencies for monitoring environment related items/events

33. Conduct stakeholder meetings on regular basis for better performance the project as a whole

34. The Environmental Management Plan (EMP) under the EIA study shall strictly be implemented and kept functioning on a continuous basis.

35. The project authority shall submit a detail work plan with time schedule of development activities at least 7 (seven) days ahead of the work commences in the field to the Cumilla District Office, Chattogram Regional Office and Headquarters of the Department of Environment simultaneously.

36. Environmental Monitoring Reports according to specific format specified in the EIA Report shall be made available simultaneously to Cumilla District Office, Chattogram Regional Office and Headquarters of the Department of Environment on a monthly basis during the construction period of the project.

37. The following records must be kept in respect of any samples required to be collected for the purposes of environmental monitoring activities :
    (a) the date(s) on which the sample was taken;
    (b) the time(s) at which the sample was collected;
    (c) the point at which the sample was taken; and
    (d) the name of the person who collected the sample.

38. In case of pollution incidents, the following information shall immediately be reported to Cumilla District Office, Chattogram Regional Office and Headquarters of the Department of Environment simultaneously
    (a) Nature of incident (oil spill, fire, accident, collision, land slide etc.)
    (b) Personnel affected (injured, missing, fatalities, etc.)
    (c) Emergency support available and its location (standby transport, medical facilities, etc.)
    (d) Weather conditions
    (e) Current operations (abandoning the site, fire fighting, etc.)

39. Appropriate permission would require to be obtained from the Forest Department in favor of cutting/felling of any plant/tree/sapling forested by any individual or government before doing such type of activity.

40. A full-fledged institutional setup for EHS and CSR must be put in place before operation of the power plant.
41. Violation of any of the above conditions shall render this approval void.
42. Without installation of Central Effluent Treatment Plant (CETP), Sewage Treatment Plant (STP), online air and water quality monitoring system and other pollution control equipment and obtaining Environmental Clearance Certificate the proponent shall not start operation of the project.
43. This Site Clearance is valid for one year from the date of issuance and the project authority shall apply for renewal to the Cumilla District Office of DoE at Cumilla with a copy to the Head Office of DOE in Dhaka.
44. This Site Clearance shall void the earlier EIA approval issued on 08/03/2021 vide memo no.- DoE/Clearance/5727/2017/302.

This Site Clearance has been issued with the approval of the appropriate authority.

08.06.20

(Masud Iqbal Md. Shameem)
Director (Environmental Clearance)
Phone # 222218342

Managing Director
Cumilla Economic Zone Limited
Fresh Villa, House-15, Road-34
Gulshan-1, Dhaka.

Copy Forwarded to :

1) Director, Department of Environment, Chattogram Regional Office, Chattogram.
2) Deputy Director, Department of Environment, Cumilla District Office, Cumilla.
3) Assistant Director, Office of the Director General, Department of Environment, Head Office, Dhaka.

Government of the People's Republic of Bangladesh
Department of Environment
Head Office, Paribesh Bhaban
E-16 Agargaon, Dhaka-1207
www.doe.gov.bd

Memo No : DoE/Clearance/5727/2017/587 Date: 26 /11/2017

Subject: **Approval of Environmental Impact Assessment (EIA) Report for Proposed Comilla Economic Zone Project at Luter Char of Meghna Upazila under Comilla district.**

Ref: Your Application dated 06/11/2017 and 21/11/2017.

With reference to the above, the Department of Environment (DOE) is pleased to approve Environmental Impact Assessment (EIA) Report for Comilla Economic Zone Project at Luter Char of Meghna Upazila under Comilla district. This approval authorizes and regulates the following activities:

1. This Environmental Impact Assessment (EIA) report is approved only for construction of Comilla Economic Zone Project. Any expansion or extension of this project will require obtaining further EIA approval with additional EIA Study.
2. The detail design and layout plan should be maintained as per EIA report. In case of any changes in design the proponent must obtain consent from DoE.
3. Project Proponent may undertake activities for land development and infrastructural development of the project.
4. Project Proponent may open L/C (Letter of Credit) for importing machineries for the project which shall also include machineries relating to waste treatment plant and other pollution control devices.
5. The activity under construction of Comilla Economic Zone Project shall not release any pollutant that affect human health or will have damaging impact on the environment or natural resources or ecosystem.
6. Proper and adequate mitigation measures shall be ensured throughout preparation and construction period of the proposed Comilla Economic Zone Project activities.
7. Any heritage sight, ecologically critical area, wetlands and other environmentally, religious and archeologically sensitive places shall be kept protected.
8. Environment friendly construction and development practices shall be followed that minimize loss of habitats and fish breeding, feeding & nursery sites.
9. Construction works shall be restricted to day time hours so as to avoid/mitigate the disturbance of local lives as well as implementation schedules of the works shall be notified in advance to nearby residents.
10. Proper and adequate sanitation facilities shall be ensured in labor camps throughout the proposed project period.
11. In order to control noise pollution, vehicles & equipment shall undergo regular maintenance; working during sensitive hours and locating machinery close to sensitive receptor shall be avoided.
12. No solid waste can be burnt in the project area. An environment friendly solid waste management system should be in place during the whole period of the project in the field.

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13. Proper and adequate on-site precautionary measures and safety measures shall be ensured so 'that no habitat of any flora and fauna would be endangered or destructed.
14. All the required mitigation measures suggested in the EIA report along with the emergency response plan are to be strictly implemented and kept operative/functioning on a continuous basis.
15. To control dust, spraying of water over the earthen materials should be carried out from time to time.
16. Storage area for soils and other construction materials shall be carefully selected to avoid disturbance of the natural drainage.
17. Adequate considerations should be given to facilitate drainage system for run off water from rain/tidal surge.
18. Adequate facilities should be ensured for silt trap to avoid clogging of drain/canal/water bodies.
19. There should be adequate and properly designed Central Effluent Treatment Plant (CETP) and Sewage Treatment Plant (STP).
20. Resettlement plan should be properly implemented and people should be adequately compensated.
21. Construction material should be properly disposed off after the construction work is over.
22. As described in the EIA report, environmental monitoring should be strictly followed and monitoring report should be shared with DOE to ensure the environmental management properly.
23. All activities (pre-construction, construction and post-construction stage) should be implemented according to EMP clearly listed in the EIA report.
24. A third party/independent monitoring bodies excluding project authority should be engaged immediately for monitoring of all the activities during pre-construction, construction and post construction phases as per monitoring plan of EIA report and monitoring report must be submitted to Comilla District Office, Chittagong Regional Office and Headquarters of the Department of Environment simultaneously.
25. Regular monitoring of the susceptible places of surroundings for protecting ecosystem, biodiversity and forest coverage should be made using latest high resolution image for keeping ambient environment protected.
26. Air, water, soil, biological and social data should be monitored regularly with a network monitoring system with a view to assess the natural quality of the surroundings and other fragile ecosystem and report of monitoring results should be submitted to Comilla District Office, Chittagong Regional Office and Headquarters of the Department of Environment simultaneously.
27. There should be regularly disclosure of the report through workshops and websites and responses should be taken care accordingly.
28. Online air and water quality monitoring system should be made functional throughout the life of the project.
29. Management Information System (MIS) are to be developed for this project. The scope of MIS services will obviously include representing the real time monitored data especially environmental parameters displaying at Comilla District Office, Chittagong Regional Office and Headquarters of the Department of Environment, project office and other agencies/Ministries concerned. The MIS should be web based for accessing every individual to show the real time monitored records.
30. The project authority should provide all sort of logistics support to DOE and other relevant agencies for monitoring environment related items/events
31. Conduct stakeholder meetings on regular basis for better performance the project as a whole

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32. Additional environmental baseline data to be collected as suggested in the EIA report and conveyed to DOE and other authorities concerned.
33. The Environmental Management Plan under the EIA study shall strictly be implemented and kept functioning on a continuous basis.
34. The project authority shall submit a detail work plan with time schedule of development activities at least 7 (seven) days ahead of the work commences in the field to the Comilla District Office, Chittagong Regional Office and Headquarters of the Department of Environment simultaneously.
35. Environmental Monitoring Reports according to specific format specified in the EIA Report shall be made available simultaneously to DOE Chittagong District Office, Chittagong Regional Office and Headquarters on a quarterly basis during the construction period of the project.
36. The following records must be kept in respect of any samples required to be collected for the purposes of environmental monitoring activities :
    (a) the date(s) on which the sample was taken;
    (b) the time(s) at which the sample was collected;
    (c) the point at which the sample was taken; and
    (d) the name of the person who collected the sample.
37. The results of any monitoring required to be conducted under this EIA report must be recorded.
38. In case of any emergency, the following information shall immediately be reported to Comilla District Office, Chittagong Regional office and Headquarters of the Department of Environment (DOE) simultaneously
    a) Nature of incident (fire, accident, collision, land slide etc.)
    b) Personnel affected (injured, missing, fatalities, etc.)
    c) Emergency support available and its location (standby transport, medical facilities, etc.)
    d) Weather conditions
    e) Current operations (abandoning the site, fire fighting, etc.)
39. The project authority or its employees must notify the Department of Environment of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident.
40. All pollution incidents shall be reported immediately and simultaneously to the Comilla District Office, Chittagong Regional Office and Headquarters of the Department of Environment (DOE) in Dhaka.
41. Appropriate permission would require to be obtained from the Forest Department in favor of cutting/felling of any plant/tree/sapling forested by any individual or government before doing such type of activity.
42. No activity of cutting/razing/ dressing of hill or hilly land is endorsed under this approval without due permission/clearance of the concerned authority of the Government of Bangladesh.
43. Re-vegetation and replantation under green belt activities shall be undertaken in consultation with the Forest Department according to those mentioned in the EIA report.
44. Climate Change impacts and maximum storm surge height (if necessary) shall have to be considered at the design and construction phase.
45. A separate hydrological study shall have to be conducted for ground water extraction to develop sound environmental management plan.
46. A full-fledged institutional setup for Environment, Health & Safety (EHS) and Corporate Social Responsibility (CSR) must be put in place before operation of the project.

47. The project authority shall extend active cooperation to DOE officials to facilitate their visit to the site as and when necessary.
48. Any injunction on this project from the Honourable High Court Division or Appellate Division of the Supreme Court shall render this approval void.
49. Without installation of Central Effluent Treatment Plant (CETP), Sewage Treatment Plant (STP), online air and water quality monitoring system and other pollution control equipment and obtaining Environmental Clearance Certificate the proponent shall not start operation of the project.
50. This EIA approval is valid for one year from the date of issuance and the project authority shall apply for renewal to the Comilla District Office of DOE at Comilla with a copy to the Chittagong Regional Office of DOE in Chittagong.
51. Violation of any of the above conditions shall render this approval void.

This EIA approval has been issued with the approval of the appropriate authority.

26.11.2017

(Syed Nazmul Ahsan)
Director (Environmental Clearance)
Phone # 02-8181673

Managing Director
Comilla Economic Zone Ltd.
Fresh Villa, House#15, Road#34
Gulshan-1, Dhaka-1212.

Copy Forwarded to :

1) PS to Secretary, Ministry of Environment and Forests, Bangladesh Secretariat, Dhaka.
2) Director, Department of Environment, Chittagong Regional Office, Chittagong.
3) Deputy Director/Office in-charge, Department of Environment, Comilla District Office Comilla.
4) Assistant Director, Office of the Director General, Department of Environment, Head Office, Dhaka.

4/4

সূত্র নংঃ এমজিআই/সিইজেড/পরিবেশ/২৪/০১ তারিখ ঃ ০১.০১.২০২৪ ইং

উপ-পরিচালক
পরিবেশ অধিদপ্তর
কুমিল্লা জেলা কার্যালয়
কার্জন কুঠির, জর্জকোর্ট রোড, কুমিল্লা।

পরিবেশ অধিদপ্তর, কুমিল্লা জেলা কার্যালয়
ডিজি পুষ্টি
তারিখ: ০৭/০১/২০২৪

বিষয় ঃ কুমিল্লা ইকোনমিক জোন লিমিটেডের অনুকূলে পরিবেশগত ছাড়পত্র ইস্যু প্রসঙ্গে।

মহোদয়,

উপরোক্ত বিষয়ে আপনার সদয় অবগতির জন্য জানানো যাচ্ছে যে, বাংলাদেশ সরকার অনুমোদিত অর্থনৈতিক অঞ্চল কুমিল্লা ইকোনমিক জোন লিমিটেড; ঠিকানা: লুটেরচর, মেঘনা, কমিল্লা এর অনুকূলে পরিবেশগত ছাড়পত্র ইস্যুর লক্ষ্যে প্রয়োজনীয় কাগজপত্র আপনার পরবর্তী কার্যক্রমের জন্য অত্র পত্রের সহিত প্রেরণ করা হলো।

অতএব মহোদয়, আবেদনটি গ্রহণ পূর্বক কুমিল্লা ইকোনমিক জোন লিমিটেডের অনুকূলে পরিবেশগত ছাড়পত্র ইস্যু করার জন্য বিনীত অনুরোধ করছি।

ধন্যবাদান্তে

M. Rahman 01/01/2024

(মোঃ মজিবুর রহমান)
ডেপুটি জেনারেল ম্যানেজার
মোবাইলঃ ০১৭০৪১৬৭৪০১
ই-মেইলঃ rahman.mozibur@mgi.org

Private Economic Zone License

For

Comilla Economic Zone Ltd.

Awarded By

Bangladesh Economic Zones Authority

Prime Minister's Office

Government of the People's Republic of Bangladesh
Bangladesh Economic Zones Authority
Prime Minister's Office
Biniyog Bhaban (7th, 8th & 9th floor)
E-6/B Agargaon, Sher-e-Bangla Nagar, Dhaka-1207

PRIVATE ECONOMIC ZONE LICENSE

License No: BEZA/PEZ/LICENSE-12 **Date: 10 April 2022**

Bangladesh Economic Zones Authority, hereinafter referred to as the Authority, in exercise of the powers conferred by Sub-article (3) of Article 7 of the Bangladesh Private Economic Zones Policy, 2015, hereinafter called the Policy, hereby issue this Private Economic Zone License to **Comilla Economic Zone Ltd., Fresh Villa, House # 15, Road # 34, Gulshan-1, Dhaka-1212** hereinafter referred to as the Licensee, on this 10th day of April, 2022 for the purpose and under the terms and conditions, as follows:

1. This License is issued to the Licensee for the purpose of establishment, development, operation, maintenance and promotion of **Comilla Economic Zone Ltd.** on **246.3615 (Two Hundred Forty Six Point Three Six One Five)** acres of land located at Mouza: Sona Char, Union: Luter Char, Upazila: Meghna, District: Cumilla more specifically described in (Annexure-I).

2. Subject to other applicable conditions, this License shall remain valid for 15 years from the date of its issuance.

3. If the performance of the Licensee in respect of establishment, development, operation, maintenance and promotion of the Economic Zone, to the estimation of the Authority, is found satisfactory and the Authority finds reasons to consider that the license requires to be renewed, this License may be renewed for 10 years after expiry of 15 years and thereafter for more durations of 10 years after expiry of each 10 years upon payment of renewal fees as may be prescribed by the Authority.

4. The Licensee shall not sell or transfer any part or whole of this License.

5. The licensee shall preserve at least 50% of the land under this license for the purpose of establishing industries by other entities in addition to licensee's own industries.

6. The Licensee shall complete the work of establishing the Economic Zone according to the Master Plan (Annexure-II). All approved activities shall be completed phase-wise as set out in the timetable for execution of such activities (Annexure-III) within the specific time as scheduled in (Annexure-IV).

7. The Licensee shall obtain prior approval from the Authority for -

   (a) The planned activities to be carried out in the Comilla Economic Zone Ltd.;
   (b) Providing utility and basic services;

(c) Fixing up-

(i) The charges for providing utility and basic services; and

(ii) Rental to be charged from the industrial units and other users; and

(d) For any other activities as may be required under the Policy.

8. The Licensee shall have the right, subject to the Bangladesh Economic Zones Act, 2010, hereinafter called the Act, the Policy and all other applicable laws, rules, regulations and government orders, to carry out and allow to be done by any Private entity or Private Economic Zone Resident any lawful economic activity. which-

(a) Shall not be contrary to the policies relating to public morality, order, public safety, or public health;

(b) Shall not violate environmental laws or policies;

(c) Shall not endanger health or life of human, animal or plant;

(d) Shall not violate any intellectual property rights;

(e) Is not prohibited, restricted or excluded under any other applicable laws.

9. The Licensee shall not undertake or carry out or allow, by any kind of delegation, contract or sub-contract or arrangements, any other enterprise, entity or person or group of persons to undertake or carry out any prohibited or restricted activity as described in Schedule-1 of the Policy (Annexure-V).

10. Subject to the Act, the policy and applicable laws, rules, regulations and this License, the Licensee shall enjoy the following rights-

(a) Establishment, development, operation, promotion and preservation of the designated area of the Comilla Economic Zone Ltd.;

(b) Appointment of Developer or Operator or Developer and Operator; and

(c) Issuance of License or Permit to any other Enterprise through any sub-contract or any legal arrangement for development, operation, promotion and maintenance of any part or whole of such area.

11. The Licensee shall bear the ultimate legal responsibilities for development, operation, promotion and maintenance of Comilla Economic Zone Ltd., regardless of whether any part or whole of such responsibilities is delegated to any other Enterprise and in such case, all the Enterprises affiliated to the licensee shall be liable jointly and severally.

12. Where a Licensee delegates any part or all of its rights and obligations for development, operation, promotion and maintenance of the designated area to any other enterprise, the Licensee, by virtue of a sub-contract, shall hold such a level of control over such Enterprise that enables the Licensee to discharge all of its legal responsibilities under the Act, the Policy, this License and other applicable laws, rules, regulations and Government orders.

13. The provision of Clauses 10 and 11 shall be applicable also to sale or transfer of any land of the Comilla Economic Zone Ltd. by a Licensee to any other Enterprise for carrying out the activities of development, operation, promotion and maintenance under the Act and the Policy.

14. The Licensee shall, in respect of its duties and obligations, adhere to the provisions of the Act, the Policy, any other applicable law, rules, regulations, legal instrument, any terms and conditions of this License and the agreement between the Authority and the Licensee.

15. (1) This License may be cancelled or suspended in part or as a whole if the Licensee violates any provisions of the Act, the Policy, any other applicable law, rules, regulations, legal instrument and any terms and conditions of the License and the agreement.

(2) This License shall be liable to be cancelled, if the Licensee-

(a) Sells, transfers to any third party or shifts to another place the whole or any part of the License;

(b) Fails to adhere to the Phase-wise Timetable (Annexure-III) and specific time schedule (Annexure-IV) in performing the activities of development, operation, promotion and maintenance of the Comilla Economic Zone Ltd. and receives notice in writing twice from the authority for such non-performance of obligations;

(c) Is declared bankrupt;

(d) Fails to pay any fees, taxes, or any other dues owed to the Authority or any other competent authority or agency;

(e) Obtains License upon furnishing false information, declaration or statement in the application; and

(f) Is engaged in any prohibited, unlawful or illicit activity or any of the activities specified in Schedule-1 of the Policy.

16. The Licensee and the Authority will sign the Private Economic Zone Developer and Operator Agreement within the time as may be prescribed by the Authority in respect of establishment, development, operation, maintenance and promotion of the Comilla Economic Zone Ltd. Such agreement shall be the integral part of this License and such agreement and this license shall be read together and construed as a whole.

17. In the event of cancellation of this License the agreement between the Authority and the Licensee shall be treated to have been automatically terminated.

10.04.22

(Shaikh Yusuf Harun)
Executive Chairman
(Senior Secretary)

BANGLADESH
ECONOMIC ZONES
AUTHORITY

Tracking No:PC-00034562 **Date: 03-Jan-2023**

Managing Director/ CEO
Meghna Re-Rolling and Steel Mills Ltd.
Block A, Plot No. # 1 - 7, 12 - 35
Comilla Economic Zone Limited, Cumilla, Meghna

Subject: Approval for setting up a(n) Industry (Manufacturing) in Comilla Economic Zone Limited

Dear MD/ CEO,

With reference to your Project Proposal received on 31-May-2022, this is to inform you that the Authority is pleased to issue this clearance subject to approval from competent authorities and compliance of all legal requirements of your project for setting up a(n) **Industry (Manufacturing) in Comilla Economic Zone Limited, Cumilla, Meghna** on terms and conditions as indicated below:

01. Name of the project: **Meghna Re-Rolling and Steel Mills Ltd.**

02. Products: MS Rod (D-Form Bar & Plain Bar) with different graded.

03. Cost of the project: **285.00 Million USD**

04. Type of Investment: 0.00% Export Orient
100.00% Domestic Orient

05. Type of Industry: C - Local Oriented

06. Annual production capacity: MS Rod (with various grades) 1000000 Ton,

07. Employment: 2025 persons including 80 foreign nationals

08. Status of the Company: Private Limited

09. Manufacturing Process: The state-of-the-art electric steelmaking process with Electric Arc Furnace (EAF) and Laddle Furnace (LF) to optimizes melting according to the available types of charging mix. Manufacturing Process: Step 01 : Raw Material (RM) Handling Step 02 : Sorted RM Stored in RM Pit Step 03 : Feeding into EAF (Electric Arc Furnace) Step 04 : Melted Steel Transfer to Laddle Furnace (LAF) for further refine Step 05 : Transferred to Continuous Casting Machine (CCM) Step 06 : Billet transferred to rolling mill for processing Step 07 : Billet staking at billet stand if rolling is busy or repair & Maintenance Step 08 : Staking Billet Transfer to re-Heating furnace Step 09 : Billet from re heating furnace transferred to rolling mill for processing Step 10 : From Both process (step 06 & Step 09) from rolling mill Finished product (MS Rod) Produced

10. Area of land/SFB to be allotted: 287731.746 Square Meters plot in Block A, Plot No. # 1 - 7, 12 - 35 at Sonachar: 2, 3, 4, 5, 8, 11, 12, 14, 17, 20, 21, 22, 23, 24, 26, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 61, 62, 63, 325, 337, 339, 340, 343, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 380, 381, 382, 383, 384, 385, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 417, 418, 419, 432, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 562, 563, 564, 565, 588, 589, 590, 592

11. Machinery and equipments required to be imported for the project valued approximately at 103357831 USD only on the terms and conditions acceptable to this Authority.

BANGLADESH
ECONOMIC ZONES
AUTHORITY

12. Machinery to be imported for the project (as per list enclosed with the Project Proposal) shall be New. However, the import of old or used Machinery and equipment is allowed upon the fulfillment of the conditions laid down in the import Policy Order. Prior approval of the Authority shall be required for the import/shipment of machinery from abroad.

13. Before procurement of Machinery and building-materials from abroad you are required to submit 3 (three) sets of price quotations from reputed machinery suppliers or in case of procurement of machinery from manufacturer, 1 (one) set of price quotation along with catalogues etc. of the machinery for approval of the Authority.

14. The company will have to:

a. maintain the ratio of export and domestic sale within 0.00:100.00 of entire product of its factory;

b. submit monthly reports to the Authority on the progress of implementation of the project;

c. commission the project in the allotted land space within a period of twelve months failing which the Authority may revoke this permission;

d. furnish such other data on the project to this Authority and to any other agency as may be required;

e. obtain work permits / permission of the Authority prior to entry for any foreign nationals on employment in the project;

f. submit to this Authority, the audited Financial Statement for every financial year within 4(four) months from the closure of each financial year of the company;

g. comply with the provisions of minimum wages of the workers as declared by the government from time to time and the EPZ Workers Welfare Association and Industrial Relations Act, 2010 (Act no-43 of 2010) (as amended from time to time by the Authority) in regards to wages, employment, salary, leave, discipline, health, compensation, insurance and other benefits to the employees engaged for work in your enterprise;

h. comply with the rules pertaining to environment protection, pollution control and effluent treatment and take necessary safety measures against possible fire hazards;

i. comply with all laws, by-laws, rules, regulations, directives of the government and of this Authority which are in force or which may be issued from time to time in future;

j. comply with provisions of the "Principles and Procedures Governing Setting up of Industries in EZ";

k. obtain prior approval of the Authority in case the company decides to appoint a Managing Agent or transfer the shares of the company;

l. the company shall have to submit actual investment, export, domestic sales, employment information to the Authority and/ or with other government agency(s) in quarterly basis.

BANGLADESH
ECONOMIC ZONES
AUTHORITY

15. The construction of the factory building and other civil construction shall have to commence immediately and not later than 03 (three) months from the date of issuance of this letter and will have to start commercial production within 01(one) year from the date of signing the land lease agreement. If the company fails to start construction work of factory building within 03(three) months, the land lease agreement may be terminated without issuance of any further notice. The building shall conform to the conditions and specification laid down in Bangladesh Economic Zones (Construction of Building) Rules , 2017. Prior approval of the building plan has to be obtained from the Authority

16. The company shall bear the cost of Services and Regulatory permit fees as prescribed by the Authority from time to time

17. No waste/old materials will be allowed to import as raw materials.

18. In the event of your failure to set up the unit within the stipulated time or infringement of any rules and regulations or violation of any of the above terms and conditions, the Authority may revoke the permiss

19. This permission is not transferable.

20. This permission is valid until expiration of the License awarded by Bangladesh Economic Zones Authority to .

21. If you agree with the terms and conditions contained in this letter along with those contained in the BEZA Act, Rules, Policies, Guidelines, SROs, Circulars, Office orders etc. you are requested to proceed for signing the land lease agreement with the Developer/ Operator of with intimation to the Authority. Thanking and assuring you of our best cooperation at all times.

Yours faithfully

Md. Moniruzzaman
General Manager (Investment Promotion)
Bangladesh Economic Zones Authority (BEZA)

Copy for information to
a. Sr. DGM,
b. Commissioner, Customer Bond...
c. .....
d. .....

BANGLADESH
ECONOMIC ZONES
AUTHORITY

Tracking No:PC-00034563

Date: 02-Jun-2022
Amendment date : 06-Jul-2023

Managing Director/ CEO
MEGHNA GLASS INDUSTRIES LIMITED
Block B, Plot # 38-45, Luterchor, Cumilla Economic Zone,
Meghna, Cumilla.
Comilla EZ, Comilla, Meghna

Subject: Approval for setting up a(n) Industry (Manufacturing) in Comilla EZ

Dear MD/ CEO,

With reference to your Project Proposal received on 17-Jun-2023, this is to inform you that the Authority is pleased to issue this clearance subject to approval from competent authorities and compliance of all legal requirements of your project for setting up a(n) **Industry (Manufacturing) in Comilla EZ, Comilla, Meghna** on terms and conditions as indicated below:

01. Name of the project: **MEGHNA GLASS INDUSTRIES LIMITED**

02. Products: Clear Glass, Tinted glass, Tempered glass, Laminated glass, Insulated Glass, Windshield, Prefabricated glass, Reflective glass, Mirror Glass

03. Cost of the project: **140.00 Million USD**

04. Type of Investment: 50.00% Export Orient
50.00% Domestic Orient

05. Type of Industry: C - Local Oriented

06. Annual production capacity: Clear Glass 225000 Ton, Tinted glass 75000 Ton, Tempered glass 5000 Ton, Laminated glass 2500 Ton, Insulated glass 2500 Ton, Windshield 2500 Ton, Prefabricated glass 2500 Ton, Reflective glass 175000 Ton, Mirror Glass 10000 Ton.

07. Employment: 18001170 persons including 1800 foreign nationals

08. Status of the Company: Private Limited

09. Manufacturing Process: Raw Material---Melting---Forming---Annealing----Inspection & Testing----Finished Goods

10. Area of land/SFB to be allotted: 340664.67480000004 Square Meters plot in Block B, Plot # 38-45, Luterchor, Cumilla Economic Zone, Meghna, Cumilla, at Mouza, Sonachar. Dag: 601-610, 612-674, 682-731, 749-788, 790-821, 823-829, 831-842, 845-848, 870, 873-875, 877-879, 998, 1001-1029

11. Machinery and equipments required to be imported for the project valued approximately at 44,843,700.00 USD only on the terms and conditions acceptable to this Authority.

BANGLADESH
ECONOMIC ZONES
AUTHORITY

12. Machinery to be imported for the project (as per list enclosed with the Project Proposal) shall be New. However, the import of old or used Machinery and equipment is allowed upon the fulfillment of the conditions laid down in the Import Policy Order. Prior approval of the Authority shall be required for the import/shipment of machinery from abroad.

13. Before procurement of Machinery and building-materials from abroad you are required to submit 3 (three) sets of price quotations from reputed machinery suppliers or in case of procurement of machinery from manufacturer, 1 (one) set of price quotation along with catalogues etc. of the machinery for approval of the Authority.

14. The company will have to:

a. maintain the ratio of export and domestic sale within 50.00:50.00 of entire product of its factory;

b. submit monthly reports to the Authority on the progress of implementation of the project;

c. commission the project in the allotted land space within a period of twelve months failing which the Authority may revoke this permission;

d. furnish such other data on the project to this Authority and to any other agency as may be required;

e. obtain work permits / permission of the Authority prior to entry for any foreign nationals on employment in the project;

f. submit to this Authority, the audited Financial Statement for every financial year within 4(four) months from the closure of each financial year of the company;

g. comply with the provisions of minimum wages of the workers as declared by the government from time to time and the EPZ Workers Welfare Association and Industrial Relations Act, 2010 (Act no-43 of 2010) (as amended from time to time by the Authority) in regards to wages, employment, salary, leave, discipline, health, compensation, insurance and other benefits to the employees engaged for work in your enterprise;

h. comply with the rules pertaining to environment protection, pollution control and effluent treatment and take necessary safety measures against possible fire hazards;

i. comply with all laws, by-laws, rules, regulations, directives of the government and of this Authority which are in force or which may be issued from time to time in future;

j. comply with provisions of the "Principles and Procedures Governing Setting up of Industries in EZ";

k. obtain prior approval of the Authority in case the company decides to appoint a Managing Agent or transfer the shares of the company;

l. the company shall have to submit actual investment, export, domestic sales, employment information to the Authority and/ or with other government agency(s) in quarterly basis.

BANGLADESH
ECONOMIC ZONES
AUTHORITY

15. The construction of the factory building and other civil construction shall have to commence immediately and not later than 03 (three) months from the date of issuance of this letter and will have to start commercial production within 01(one) year from the date of signing the land lease agreement. If the company fails to start construction work of factory building within 03(three) months, the land lease agreement may be terminated without issuance of any further notice. The building shall conform to the conditions and specification laid down in Bangladesh Economic Zones (Construction of Building) Rules . 2017. Prior approval of the building plan has to be obtained from the Authority

16. The company shall bear the cost of Services and Regulatory permit fees as prescribed by the Authority from time to time

17. No waste/old materials will be allowed to import as raw materials.

18. In the event of your failure to set up the unit within the stipulated time or infringement of any rules and regulations or violation of any of the above terms and conditions, the Authority may revoke the permiss

19. This permission is not transferable.

20. This permission is valid until expiration of the License awarded by Bangladesh Economic Zones Authority to .

21. If you agree with the terms and conditions contained in this letter along with those contained in the BEZA Act, Rules, Policies, Guidelines, SROs, Circulars, Office orders etc. you are requested to proceed for signing the land lease agreement with the Developer/ Operator of with intimation to the Authority. Thanking and assuring you of our best cooperation at all times.

Yours faithfully

Md. Moniruzzaman
General Manager (Investment Promotion)
Bangladesh Economic Zones Authority (BEZA)

Copy for Information to

a. C,

b. Commissioner, Customer Bond...

c. .....

d. .....

ANNEX Q

Comparison with OP4.03 Standards

ANNEX Q
COMPARISON WITH OP4.03 STANDARDS

Q.1 COMPARATIVE ANALYSIS OF OP4.03 STANDARDS WITH CuEZL STATUS

Analysis of the gaps in the existing Environmental and Social Management System of CuEZL with respect to the eight World Bank Group Performance Standard Requirements pertaining to OP 4.03 and provide recommendations of closing the gap have been performed.

Table Q.1 WB Performance Standard OP4.03 Requirements and Recommendations

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
1	**PS 1: Assessment and Management of Environmental and Social Risks and Impacts**		
	Environmental and Social Assessment and Management System		
1.1	The client will conduct a process of environmental and social assessment, and establish and maintain an ESMS appropriate to the nature and scale of the project and commensurate with the level of its environmental and social risks and impacts.	The role of CuEZL is to provide space for rent for entrepreneurs to develop industrial projects. Although individual companies may have their own ESMS and are responsible for environmental and social compliance, CuEZL should have an overarching role and its own ESMS should ensure that level of top supervision. A template for screening and assessment for new industries is provided in Annex E. An environmental management procedure and communication of environmental and social compliance information need to be established in its ESMS. The CuEZL's own ESMS needs to reflect its own environmental and social compliance which includes common facilities such as water extraction and treatment, CETP operation and compliance, chemical storage, firefighting and waste management.	CuEZL should establish its own ESMS commensurate with its nature and scale of impacts due to operation of its common/shared facilities. This will include i) effect of water extraction, ii) drinking water compliance for water treatment, iii) CETP operation and compliance, iv) solid and hazardous waste management, v) chemical storage and hazard management, vi) documentation and reporting. For industries, ESMS should also address i) E&S screening for new industries, ii) effectiveness of environmental compliance and mitigation measures of existing industries, iii) a system of communication of compliance information with CuEZL

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
1.2	The client will establish an overarching policy defining the environmental and social objectives and principles that guide the project to achieve sound environmental and social performance.	CuEZL follows its policies of Meghna Group in which environmental and social objectives are defined. The overarching policy is provided in Annex L. Individual industries often found not to have their own policies regarding E&S objectives.	Individual industries need to develop their own environmental and social policies.
Identification of Risks and Impacts			
1.3	The client will establish and maintain a process for identifying the environmental and social risks and impacts of the project.	The process of identification of the E&S risks and impacts are laid out in the screening forms for industries to be set up within the project site (Annex E). The screening process needs to be integrated with the ESMS.	See recommendations of 1.1
1.4	Where the project involves specifically identified physical elements, aspects, and facilities that are likely to generate impacts, environmental and social risks and impacts will be identified in the context of the project's area of influence.	All industrial units (Yellow, Orange and Red category) within the facilities will have to have ECC and IEE/EIA/EMP as per ECR 2023. However, for Green category industries, ECR 2023 does not necessitate any environmental screening to be done.	CuEZL needs to ensure that i) all industrial units (Yellow, Orange and Red category) have their IEE/EIA/EMP available at their premises (can be exempt if they have a fully documented ESMS). ii) Green industries perform E&S screening and develop an ESMS
1.5	In the event of risks and impacts in the project's area of influence resulting from a third party's actions, the client will address those risks and impacts in a manner commensurate with the client's control and influence over the third parties, and with due regard to conflict of interest.	Third party may be involved in construction of buildings and installation of facilities within the premises either contracted by CuEZL or the individual industries. CuEZL needs to ensure that Environmental Codes of Practices are followed for their own construction (Annex Q) and their lessees ensure that their respective EMP is put into action and regular auditing is done. Currently no such system is in place.	CuEZL needs to ensure that regular audits are done during construction.
1.6	Where the client can reasonably exercise control, the risks and impacts identification process will also consider those risks and impacts associated with	Primary supply chain is not relevant to operations of CuEZL	Not applicable

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	primary supply chains, as defined in Performance Standard 2 and Performance Standard 6.		
1.7	Where the project involves specifically identified physical elements, aspects and facilities that are likely to generate environmental and social impacts, the identification of risks and impacts will take into account the findings and conclusions of related and applicable plans, studies, or assessments prepared by relevant government authorities or other parties that are directly related to the project and its area of influence.	Current study assesses that there are no ongoing activities or projects around the CEZ premises that could affect the operation of the economic zone.	No action required
1.8	Where the project involves specifically identified physical elements, aspects and facilities that are likely to generate impacts, and as part of the process of identifying risks and impacts, the client will identify individuals and groups that may be directly and differentially or disproportionately affected by the project because of their disadvantaged or vulnerable status.	The E&S screening form (Annex E and F) incorporates a checklist for individual industries to identify individuals and groups that could be directly, differentially or disproportionately affected.	No action required
Management Programs			
1.9	Consistent with the client's policy and the objectives and principles described therein, the client will establish management programs that, in sum, will describe mitigation and performance improvement measures and actions that address the identified environmental and social risks and impacts of the project.	A generic environmental and social management plan has been developed for typically identified risks and impacts for the CuEZL project. Industry-specific plans should be developed by individual industries which will be made operational through their ESMS.	See recommendations of 1.1

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
1.10	Depending on the nature and scale of the project, these programs may consist of some documented combination of operational procedures, practices, plans, and related supporting documents (including legal agreements) that are managed in a systematic way.	Currently CuEZL is constructing some infrastructure of their own such as Administrative Building, Sub-station etc. Neither construction of industries nor their operation have started in the project site.	CuEZL should develop a system where an account of their own compliance related to operation of common/shared facilities as well as compliance information of individual industries are compiled. Sharing of compliance information need to be made a legally binding agreement.
1.11	Where the identified risks and impacts cannot be avoided; the client will identify mitigation and performance measures and establish corresponding actions to ensure the project will operate in compliance with applicable laws and regulations, and meet the requirements of	A generic environmental and social management plan has been developed for typically identified risks and impacts for the CuEZL project. Industry-specific plans will be developed by individual industries.	CuEZL and the individual industry should follow environmental and social management plant of their own.
1.12	The management programs will establish **Environmental and Social Action Plans**, which will define desired outcomes and actions to address the issues raised in the risks and impacts identification process, as measurable events to the extent possible, with elements such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods, and with estimates of the resources and responsibilities for implementation.	An Environmental and Social Action Plan (ESAP) has been developed for CuEZL in order to address the gaps in the system with respect to Performance Standards 1 - 8	CuEZL should follow the plan
Organizational Capacity and Competency			
1.13	The client will establish, maintain, and strengthen as necessary an organizational structure that defines roles, responsibilities, and authority to implement the ESMS. Key environmental and social responsibilities should be well	The Deputy General Manager of Human Resources is currently acting as the EHS focal person of CuEZL. However, there is no link and flow of information regarding E&S compliance of individual industries. Some industries also do not have a designated post of	The organizational structure needs to be developed for effective implementation of ESMS. This includes: - Needs to ensure that all industries under CuEZL has a

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	defined and communicated to the relevant personnel and to the rest of the client's organization.	Environmental Manager within the industry and roles and responsibilities of environmental and safety issues are not clearly defined and documented.	designated focal person for ESMS - Establish a clear link between EHS focal person of CuEZL and that of individual industry and establish well-defined roles and hierarchy in monitoring and reporting
1.14	Personnel within the client's organization with direct responsibility for the project's environmental and social performance will have the knowledge, skills, and experience necessary to perform their work, including current knowledge of the host country's regulatory requirements and the applicable requirements of Performance Standards 1 through 8.	The Deputy General Manager of Human Resources is currently acting as the EHS focal person of CuEZL. Meghna group human resources department has started to develop training modules for E&S compliance and conducting training for the EHS managers of their sister industries (Unique Cement Fiber Industries Limited for example). However, more training tailored towards learning the requirements of PS 1 – 8 as well as country's regulatory requirements need to be done. Also, the EHS focal persons of other industries should be included in the training.	CuEZL should arrange for training of the EHS focal point (both their sister concerns and others) on relevant regulations, and the applicable requirements of PS 1 to 8
1.15	The process of identification of risks and impacts will consist of an adequate, accurate, and objective evaluation and presentation, prepared by competent professionals.	Risks and impacts of CuEZL as documented in their EIA report operation are prepared by environmental consultants who have competence in their respective field of work.	No Action Required
Emergency Preparedness and Response			
1.16	Where the project involves specifically identified physical elements, aspects and facilities that are likely to generate impacts, the ESMS will establish and maintain an emergency preparedness and response system so that the client will be prepared to respond to accidental and emergency situations associated with the project in a manner	CuEZL has an emergency preparedness and response system developed (Annex K). Environmental audit showed that while some factories had their individual emergency response plans, others did not. For example, S2S Chemicals Ltd. did not practice emergency preparedness including fire drill in the industry. Also, the premises lack in fire	CuEZL should ensure that all factories under its premises have their own emergency and preparedness response system.

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	appropriate to prevent and mitigate any harm to people and/or the environment.	extinguisher or any other fire safety measures.	
1.17	Where applicable, the client will also assist and collaborate with the potentially Affected Communities (see Performance Standard 4) and the local government agencies in their preparations to respond effectively to emergency situations, especially when their participation and collaboration are necessary to ensure effective response.	CuEZL liaise with local police station and has established an MoU with a nearby private hospital for security and emergency medical treatment respectively. Emergency ambulance and firefighting services are available round the clock. The involvement of local communities in addressing emergency situations has so far has not been necessary.	Not applicable
		Monitoring and Review	
1.18	The client will establish procedures to monitor and measure the effectiveness of the management program, as well as compliance with any related legal and/or contractual obligations and regulatory requirements.	Industries are yet to start their operation.	Streamline all compliance monitoring of common facilities (CETP) as well as in other industries so that effectiveness of ESMS can be assessed. CuEZL needs to perform an internal audit of all entities under the economic zone to assess gaps in monitoring and establish procedures to fill up these gaps. Competent third party should be engaged for environmental monitoring which requires specific expertise (ambient air, volatile organic compounds, effluent quality, drinking water quality parameters, etc.)
1.19	In addition to recording information to track performance and establishing relevant operational controls, the client should use dynamic mechanisms, such as internal inspections and audits, where relevant, to verify compliance and progress toward the desired outcomes.	Same as above	CuEZL should establish a process of internal audit for environmental and social compliance verification through their ESMS. Examples of checklist-based audit is given in Annex F.

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
1.20	Senior management in the client organization will receive periodic performance reviews of the effectiveness of the ESMS, based on systematic data collection and analysis		Periodic performance reviews of ESMS should be communicated to CuEZL senior management.
	Stakeholder Analysis and Engagement Planning		
1.21	Clients should identify the range of stakeholders that may be interested in their actions and consider how external communications might facilitate a dialog with all stakeholders	A stakeholder engagement exercise has been conducted through focus group discussions. The findings and documentations of the stakeholder engagement programs are presented in Chap 6.	No Action Required
1.22	The client will develop and implement a Stakeholder Engagement Plan that is scaled to the project risks and impacts and development stage and be tailored to the characteristics and interests of the Affected Communities.	NA	CuEZL needs to develop a stakeholder engagement plan.
1.23	In cases where the exact location of the project is not known, but it is reasonably expected to have significant impacts on local communities, the client will prepare a Stakeholder Engagement Framework, as part of its management program, outlining general principles and a strategy to identify Affected Communities and other relevant stakeholders and plan for an engagement process compatible with this Performance Standard that will be implemented once the physical location of the project is known.	The location of CuEZL is known. So this does not apply.	Not applicable.
	Disclosure of Information		
1.24	Disclosure of relevant project information helps Affected Communities and other stakeholders understand the risks, impacts and opportunities of the project.	Field level consultations have been carried out as a part of the environmental assessment process (see Chapter 2, 6 and Annex B).	The types of industries and facilities to be established within CuEZL should be disclosed through the CuEZL website.

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
1.25	When Affected Communities are subject to identified risks and adverse impacts from a project, the client will undertake a process of consultation in a manner that provides the Affected Communities with opportunities to express their views on project risks, impacts and mitigation measures, and allows the client to consider and respond to them.	Consultations have been carried out during EIA/IEE approval.	The stakeholder engagement plan of CuEZL should take into consideration consultations to be carried out during project operation.
	Informed Consultation and Participation		
1.26	For projects with potentially significant adverse impacts on Affected Communities, the client will conduct an Informed Consultation and Participation (ICP) process that will build upon the steps outlined above in Consultation and will result in the Affected Communities' informed participation.	The project may have significant impact on the communities (influx of workers, CETP not working properly, noise, air pollution etc.).	The stakeholder engagement plan of CuEZL should take into consideration ICP to be carried out during project operation
	Indigenous Peoples		
1.27	For projects with adverse impacts to Indigenous Peoples, the client is required to engage them in a process of ICP and in certain circumstances the client is required to obtain their Free, Prior, and Informed Consent (FPIC).	Since there are no indigenous people in the vicinity of project area, potentially significant adverse impacts on Indigenous People are not anticipated as a result of CuEZL operation.	Not applicable
	Private Sector Responsibilities Under Government-Led Stakeholder Engagement		
1.28	Where stakeholder engagement is the responsibility of the host government, the client will collaborate with the responsible government agency, to the extent permitted by the agency, to achieve outcomes that are consistent with the objectives of this Performance Standard.	There is no government-led stakeholder engagement in the CuEZL operation	Not applicable
	External Communications and Grievance Mechanisms		
	External Communications		

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
1.29	Clients will implement and maintain a procedure for external communications that includes methods to (i) receive and register external communications from the public; (ii) screen and assess the issues raised and determine how to address them; (iii) provide, track, and document responses, if any; and (iv) adjust the management program, as appropriate.	A grievance redress mechanism has been developed for CuEZL as per the requirement of the PS. The procedures of grievance redress is outlined in Annexes J and O.	The GRM developed needs to be formally endorsed by CuEZL management. It is to be noted that the individual industries should have their separate external grievance redress mechanism. They may rely on the GRM of CuEZL.
	Grievance Redress Mechanism for Affected Communities		
1.30	The client will establish a grievance mechanism to receive and facilitate resolution of Affected Communities' concerns and grievances about the client's environmental and social performance.	The GRM developed (as mentioned in 1.29) will consider affected communities as well as general public. Annexes J and O.	The GRM developed needs to be formally endorsed by CuEZL management.
	Ongoing Reporting to Affected Communities		
1.31	The client will provide periodic reports to the Affected Communities that describe progress with implementation of the project Action Plans on issues that involve ongoing risk to or impacts on Affected Communities and on issues that the consultation process or grievance mechanism have identified as a concern to those Communities.	The GRM developed (as mentioned in 1.29) has taken into consideration reporting back to the communities if they identified specific environmental and social risks in the GRM process (see Annexes J and O).	The GRM developed needs to be formally endorsed by CuEZL management.
2	**PS 2: Labor and Working Conditions**		
	Working Conditions and Management of Worker Relationship		
	Human Resources Policies and Procedures		
2.1	The client will adopt and implement human resources policies and procedures appropriate to its size and workforce that set out its approach to managing workers consistent with the requirements of this Performance Standard and national law.		CuEZL as well as industries should have a human resource policy. CuEZL should follow Bangladesh Labor Law 2006 (amended 2013) and Labor Rules 2015 in managing workforce which are also in congruent with the Performance Standards.

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
2.2	The client will provide workers with documented information that is clear and understandable, regarding their rights under national labor and employment law and any applicable collective agreements, including their rights related to hours of work, wages, overtime, compensation, and benefits upon beginning the working relationship and when any material changes occur.	This requirement of the PS is in congruent with the provisions of national Labor Law 2013 (amended 2016) CuEZL follows the Bangladesh Labor Law 2013 (amended 2016) in hiring their own workforce. They provide their employees with documented information during their appointment where particulars of their work requirements and rights are stated. In case of contracted workforce or contract with other industries, the terms and conditions pertinent to Labor Law 2013 are not reflected in the contract. During audit it has been observed that although some industries provided documented information to their workers and employees, the others did not document worker's roles, responsibilities, confirmation and benefits and did not provide the workers anything in written form, and practiced only verbal communication. .	CuEZL should explicitly include the relevant provisions of the Labor law 2013 (amended 2016) in their contract with construction contractors as well as the industries. They should provide their employees with documented information during their appointment where particulars of their work requirements and rights are stated. CuEZL should follow up with industries so that they provide in writing to their workforce about their rights and privileges under the Labor Law 2013 during appointment. Workers' roles, responsibilities, confirmation and benefits should be in written form, and rather than in verbal form.
	Working Conditions and Terms of Employment		
2.3	The client will provide reasonable working conditions and terms of employment, where collective agreements do not exist, or do not address working conditions and terms of employment.		CuEZL should explicitly include the relevant provisions of the Labor law 2013 (amended 2016) in their contract with construction contractors as well as the industries. CuEZL should establish a system of audit to ensure that reasonable working conditions have been established.
2.4	The client will identify migrant workers and ensure that they are engaged on substantially equivalent terms and conditions		CuEZL should ensure equal rights for migrant (if any) and non-migrant workers.

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	to non-migrant workers carrying out similar work.		
2.5	Where accommodation services are provided to workers covered by the scope of this Performance Standard, the client will put in place and implement policies on the quality and management of the accommodation and provision of basic services	Workers working within the industries are not provided accommodation within the CuEZL premises.	Not applicable
	Workers' Organizations		
2.6	In countries where national law recognizes workers' rights to form and to join workers' organizations of their choosing without interference and to bargain collectively, the client will comply with national law.	Bangladesh Labor Law 2013 (amended 2016) recognizes workers' organizations and collective bargaining.	CuEZL and industries within its premises should follow Bangladesh Labor Law 2013 (amended 2016).
2.7	In either case described above row, and where national law is silent, the client will not discourage workers from electing worker representatives, forming or joining workers' organizations of their choosing, or from bargaining collectively, and will not discriminate or retaliate against workers who participate, or seek to participate, in such organizations and collective bargaining.	This provision is not applicable as Bangladesh Labor Law 2013 (amended 2016) recognizes workers' organizations and collective bargaining. See explanation above.	Not applicable
	Non-Discrimination and Equal Opportunity		
2.8	The client will not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements. The client will base the employment relationship on the principle of equal opportunity and fair treatment and will not discriminate. The client will take measures to prevent and address, harassment, intimidation, and/or		There should be no discrimination within the organization with respect to sex and ethnic origin. The wage rate varies depending on the experience of the workers and the work type. Industries should establish a GRM to prevent and address, harassment, intimidation, and/or exploitation.

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	exploitation, especially in regard to women.		
2.9	In countries where national law provides for non-discrimination in employment, the client will comply with national law. When national laws are silent on non-discrimination in employment, the client will meet this Performance Standard		Bangladesh Labor Law is not silent on non-discrimination. Therefore, Labor law 2013 should be followed.
	Retrenchment		
2.10	Prior to implementing any collective dismissals, the client will carry out an analysis of alternatives to retrenchment and implement to reduce the adverse impacts of retrenchment on workers.		For Contracted workers, this performance standard criteria is not applicable.
2.11	The client should ensure that all workers receive notice of dismissal and severance payments mandated by law and collective agreements in a timely manner.		If any worker violates the regulations, CuEZL should provide them notice, give time for corrections. If there is no corrections, dismissal is done with payments as per agreements.
	Grievance Redress Mechanism		
2.12	The client will provide a grievance redress mechanism for workers (and their organizations, where they exist) to raise workplace concerns. The client will inform the workers of the grievance mechanism at the time of recruitment and make it easily accessible to them.	CuEZL has its own GRM.	GRM for industry workers should be made more transparent. This includes: - Informing the workers before start of work about the GRM and its redressal process - Maintaining a log-sheet of issues raised and resolved with time-stamps and necessary details
	Protecting the Work Force		
	Child Labor		
2.13	The client will not employ children in any manner that is economically exploitative, or is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical,		CuEZL should follow Government's National Child Labor Elimination Policy 2010 and Vendors should not employ any worker having an age<15 years. The nature and

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	mental, spiritual, moral, or social development. If national laws allow minors, the client will follow the laws applicable to the client. But children <18 will not be employed in hazardous work and will be subjected to appropriate risk assessment and regular monitoring of health and working conditions and hours of work		technicality of the work demands that the workers have a certain experience which is typically not found in workers at a young age. Child labor should also not be employed in individual industries.
	Forced Labor		
2.14	The client will not employ forced labor, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty.		All the workforce are Bangladesh citizens and free to work without any duress. There is no scope for employing forced labor (e.g. convicted criminals, trafficked persons) in such work in Bangladesh.
	Occupational Health and Safety		
2.15	The client will provide a safe and healthy work environment, taking into account inherent risks in its particular sector and specific classes of hazards in the client's work areas, including physical, chemical, biological, and radiological hazards, and specific threats to women.		CuEZL should ensure that - an occupational health and safety plan is in place for individual industries commensurate with the risks associated with each type of industry - The requirement for providing safe and healthy working conditions are specifically included in the contract between CuEZL and the industries. - Auditing is done periodically (third party audits can be done)
	Workers Engaged by Third Parties		
2.16	With respect to contracted workers the client will take commercially reasonable efforts to ascertain that the third parties who engage these workers are reputable and legitimate	For the purpose of construction, CuEZL hires construction contractors who typically hires day-laborers (temporary) for the purpose of construction. CuEZL currently does not have a	CuEZL should conduct regular auditing to assess the working condition of day-laborers within their premises.

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	enterprises and have an appropriate ESMS that will allow them to operate in a manner consistent with the requirements of this Performance Standard, except for Retrenchment and supply chain related paragraphs.	mechanism through which they can ensure that proper working conditions are maintained.	The contract between CuEZL and the Contractor should address requirements related to Child labor, EHS at working hours, wages, overtime, benefits, child labor, health and safety of employees.
2.17	The client will establish policies and procedures for managing and monitoring the performance of such third party employers in relation to the requirements of this Performance Standard. In addition, the client will use commercially reasonable efforts to incorporate these requirements in contractual agreements with such third party employers.	CuEZL currently do not have any policies and procedures outlined for contracting out construction works.	CuEZL should establish policies and procedures for managing and monitoring the performance of construction contractors. Some of these policies could be: - Withholding payment or not issuing Work Completion Certificate (WCC) if site not fully restored to pre-work condition, PPE (safety equipment) usage or site housekeeping non-compliance etc. - Blacklisting certain contractors not willing to oblige safeguard issues - Reprimand or penalty, etc. - Rewarding contractors for compliance issues
2.18	The client will ensure that contracted workers, have access to a grievance mechanism. In cases where the third party is not able to provide a grievance mechanism the client will extend its own grievance mechanism to serve workers engaged by the third party.	The contracted third party has no GRM and CuEZL should extend its GRM.	CuEZL GRM should be extended to contracted workers.
Supply Chain			
2.19	Where there is a high risk of child labor or forced labor in the primary supply chain, the client will identify those risks	CuEZL contract out to Third Party Construction contractors. Primary supply chain workers not relevant.	Not applicable

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	consistent with paragraphs 2.13 and 2.14 above. If child labor or forced labor cases are identified, the client will take appropriate steps to remedy them.		
2.20	Additionally, where there is a high risk of significant safety issues related to supply chain workers, the client will introduce procedures and mitigation measures to ensure that primary suppliers within the supply chain are taking steps to prevent or to correct life-threatening situations.	CuEZL contract out to Third Party Construction contractors. Primary supply chain workers not relevant.	Not applicable
2.21	The ability of the client to fully address these risks will depend upon the client's level of management control or influence over its primary suppliers. Where remedy is not possible, the client will shift the project's primary supply chain over time to suppliers that can demonstrate that they are complying with this Performance Standard 2.	CuEZL contract out to Third Party Construction contractors. Primary supply chain workers not relevant.	Not applicable
3	**PS 3:Resource Efficiency and Pollution Prevention**		
3.1	During the project life-cycle, the client will consider ambient conditions and apply technically and financially feasible resource efficiency and pollution prevention principles and techniques that are best suited to avoid, or where avoidance is not possible, minimize adverse impacts on human health and the environment	Ambient baseline conditions of the project area are documented in Annex B. A description of impacts due to CuEZL activities and mitigation measures is presented in Chapters 4 and 7. This includes water extraction, waste management, CETP operations.	Individual industries should be responsible for their own impact mitigation stated through their EMP/IEE/EIA. Environmental audit of these industries should be done in a regular basis.
3.2	The client will refer to the EHS Guidelines or other internationally recognized sources, as appropriate, when evaluating and selecting resource efficiency and pollution prevention and	General EHS guidelines are referred to in the mitigation measures and the occupational health and safety plan for CuEZL (see Chapter 7, Annexes D and N).	No Action Required

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	control techniques for the project.		
		Resource Efficiency	
3.3	The client will implement technically and financially feasible and cost effective measures for improving efficiency in its consumption of energy, water, as well as other resources and material inputs, with a focus on areas that are considered core business activities.		The industries should be screened for large quantities of water to be used and appropriate water use efficiency measures should be included in the EMP. The new industry screening form includes a screening question to obtain this information.
	Greenhouse Gases		
3.5	In addition to the resource efficiency measures described above, the client will consider alternatives and implement technically and financially feasible and cost-effective options to reduce project-related GHG emissions during the design and operation of the project.	GHG emission is likely to be low in CuEZL operation. The plant will use a total of 20MWhr electricity generated from gas-based power plant outside the CuEZL premises (transmitted through privately drawn line along the road) and GHG emission from that is low. CuEZL has tried to select machinery other equipment which will emit less CO2 and other GHGs. It should be also noted that overall air quality (including GHG) of Bangladesh is dominated by the regional pollutant transport primarily from India and China. Contribution of due to the GHG emission from the point sources in Bangladesh, like those in CuEZL, is minimal compared to the impact of regional sources from the neighboring countries.	Not to be considered significant. However, CuEZL should ensure installation of state of the art of technology for minimization of GHG emission, if any, from the industries to be constructed in the Economic Zone.

3.6	For projects that are expected to or currently produce more than 25,000 tons of CO_2- equivalent annually, the client will quantify direct emissions from the facilities owned or controlled within the physical project boundary, as well as indirect emissions associated with the off-site production of energy8 used by the project. Quantification of GHG emissions will be conducted by the client annually in accordance with internationally recognized methodologies and good practice.	CO_2 emission is 0.23 MT per hour which is approx. 2000MT per year (96 m^3 natural gas per hour will be used)	Not applicable
	Water Consumption		
3.7	When the project is a potentially significant consumer of water, in addition to applying the resource efficiency	The total Groundwater extraction potential of the area is unknown although being situated close to the Meghna tributary, groundwater	Need to install piezometers at strategic locations and measured using pressure transducers

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	requirements of this Performance Standard, the client shall adopt measures that avoid or reduce water usage so that the project's water consumption does not have significant adverse impacts on others.	extraction from the aquifer is unlikely to cause large drawdown as it will be replenished during the four-month long flood season due to the proximity to the Meghna River. However, the groundwater level in the tubewells owned by CuEZL, other tubewells owned by	Stakeholder discussion should be carried out with the people living around CuEZL to assess whether they are facing difficulties in extracting water from their tubewells.
	Pollution Prevention		
3.8	The client will avoid the release of pollutants or, when avoidance is not feasible, minimize and/or control the intensity and mass flow of their release. This applies to the release of pollutants to air, water, and land due to routine, non-routine, and accidental circumstances with the potential for local, regional, and trans-boundary impacts.		Industries are to develop their own ESMS based on their assessments (IEE/EIA/EMP) which will address the mitigation measures for pollution prevention based on the mitigation hierarchy.
3.9	To address potential adverse project impacts on existing ambient conditions, the client will consider relevant factors, including, for example (i) existing ambient conditions; (ii) the finite assimilative capacity of the environment; (iii) existing and future land use; (iv) the project's proximity to areas of importance to biodiversity; and (v) the potential for cumulative impacts with uncertain and/or irreversible consequences.	Ambient conditions, existing vegetation cover, projects' proximity to areas of biodiversity are addressed during the site clearance process of CuEZL. DoE has given site clearance to CuEZL scrutinizing the abovementioned impacts. This ESIA study uses the current baseline condition and assesses the impact considering the issues mentioned in the PS (Chapters 4 and 7, Annex B).	No Action Required
	Wastes		
3.10	The client will avoid the generation of hazardous and non-hazardous waste materials. Where waste generation cannot be avoided, the client will reduce the generation of waste, and recover and reuse waste in a manner that is safe for human health and the environment.	Some amount of solid waste (non-hazardous) is generated as a result of the construction works and drilling works (construction debris, loose soil, refuse, food waste, etc.). Disposal of those wastes are the responsibility of the contractor. Regarding waste generated from operation of industries, a DoE-approved Third Party has been hired by CuEZL. However, their	Information of final disposal needs to be provided by waste-handlers to CuEZL

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
		method of final disposal is unknown to CuEZL.	
	Hazardous Materials Management		
3.11	Hazardous materials are sometimes used as raw material or produced as product by the project. The client will avoid or, when avoidance is not possible, minimize and control the release of hazardous materials.		Hazardous materials management should be part of the EMP of individual industries. CuEZL should ensure that the individual industries develop a hazardous waste and raw material management plan and audit their activities accordingly. Each industry should maintain an Inventory of hazardous materials/chemicals (if it has) such as paints, solvents, thinners etc. The solid wastes (steel scraps, shreds, paint residues, etc.) should be disposed of in a designated wastage area in such a way that will not affect surrounding environment.
	Pesticide Use and Management		
3.12	The client will, where appropriate, formulate and implement an Integrated Pest Management (IPM) and/or Integrated Vector Management (IVM) approach targeting economically significant pest infestations and disease vectors of public health significance.	There is no pesticide use. This provision of the standard not relevant.	Not applicable
3.13	When pest management activities include the use of chemical pesticides, the client will select chemical pesticides that are low in human toxicity, that are known to be effective against the target species, and that have minimal effects on non-target species and the environment.	There is no pesticide use. This provision of the standard not relevant.	Not applicable

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
3.14	The client will design its pesticide application regime to (i) avoid damage to natural enemies of the target pest, and where avoidance is not possible, minimize, and (ii) avoid the risks associated with the development of resistance in pests and vectors, and where avoidance is not possible minimize.	There is no pesticide use. This provision of the standard not relevant.	Not applicable
3.15	The client will not purchase, store, use, manufacture, or trade in products that fall in WHO Recommended Classification of Pesticides by Hazard Class Ia (extremely hazardous); or Ib (highly hazardous).	There is no pesticide use. This provision of the standard not relevant.	Not applicable
4.	**PS 4: Community Health, Safety, and Security**		
	Community Health and Safety		
4.1	The client will evaluate the risks and impacts to the health and safety of the Affected Communities during the project life-cycle and will establish preventive and control measures consistent with Good International Industry Practice (GIIP), such as in the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) or other internationally recognized sources.	Risks have been evaluated during feasibility study. CuEZL has established policies that reflect GIIP or WBG EHS policies (see Annex L for CuEZL Policy)	No Action required
4.2	*Infrastructure and Equipment Design and Safety* The client will design, construct, operate, and decommission the structural elements or components of the project in accordance with GIIP, taking into consideration	CuEZL has professional and competent structural engineers in-house who hashave designed the structural elements and supervised construction in accordance with BNBC. Safety to communities must be ensured by the contractors whose contract currently does not	Construction safety provisions need to be specified into the contract documents by CuEZL

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	safety risks to third parties or Affected Communities.	include construction safety provisions.	
4.3	*Hazardous Materials Management and Safety* The client will avoid or minimize the potential for community exposure to hazardous materials and substances that may be released by the project.	Waste management has been contracted out to DoE-approved waste handlers which basically collects the waste from all industries in its premises. Treatment of liquid waste is done by the CETP to comply with Bangladesh Standards for effluent discharge as per ECR 2023. Annex C presents the CETP influent and effluent quality parameters which basically confirms that the CETP is in compliance with applicable standards. Since CuEZL does not have any in-house facility for monitoring these parameters.	CuEZL should contract out CETP effluent quality monitoring activities to competent agencies.
4.4	*Ecosystem Services* The project's direct impacts on priority ecosystem services may result in adverse health and safety risks and impacts to Affected Communities. With respect to this Performance Standard, ecosystem services are limited to provisioning and regulating services.	There is no significant impact on ecosystem services as a result of CuEZL activities.	CuEZL should ensure that all effluent discharge meets national standards which will be protective of the ecosystem.
4.5	*Community Exposure to Disease* The client will avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases, and communicable diseases that could result from project activities, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups.		CuEZL should ensure that all effluent discharge meets national standards. CuEZL will also ensure that all workers have a clean bill of health so that communicable diseases are not transmitted
4.6	The client will avoid or minimize transmission of communicable diseases that may be associated with the influx of temporary or permanent project labor.	Construction Contractors employ day-laborers for the work. Health inspection is not routinely done for day-workers in Bangladesh.	If communicable diseases are suspected, CuEZL should take appropriate measure in this regard. Contractors will be encouraged and made

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
			aware to keep health records of their workers.
4.7	*Emergency Preparedness and Response* In addition to the emergency preparedness and response requirements described in Performance Standard 1, the client will also assist and collaborate with the Affected Communities, local government agencies, and other relevant parties, in their preparations to respond effectively to emergency situations, especially when their participation and collaboration are necessary to respond to such emergency situations.		CuEZL needs to involve local communities in their emergency response plan
Security Personnel			
4.8	When the client retains direct or contracted workers to provide security to safeguard its personnel and property, it will assess risks posed by its security arrangements to those within and outside the project site.	CuEZL employs both direct and contracted security personnel.	There could be potential risk of conflict of security personnel with the local community. CuEZL should assess this risk and establish their GRM accordingly.
4.9	The client will assess and document risks arising from the project's use of government security personnel deployed to provide security services.	Government security personnel are not deployed for CuEZL operation	Not applicable
4.10	The client will consider and, where appropriate, investigate all allegations of unlawful or abusive acts of security personnel, take action (or urge appropriate parties to take action) to prevent recurrence, and report unlawful and abusive acts to public authorities.	This may be done using the CuEZL GRM. The updated CuEZL GRM has been presented in Annexes J and O which reflects the corresponding PS related to security personnel.	CuEZL to endorse the updated GRM
5. Performance Standard 5: Land Acquisition and Involuntary Resettlement			
PS5 not applicable because CuEZL has acquired land through 'voluntary land transaction'. (market transactions in which the seller is not obliged to sell and the buyer cannot resort to expropriation or other compulsory procedures when negotiations fail). To confirm that voluntary land transactions have taken place, Annex H provides a copy of a 'Willing buyer-willing seller' agreement. Also, Annex H documents a discussion held among the sellers where they confirm the validity of this transaction.			

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
6	**Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources**		
	General		
6.1	The risks and impacts identification process as set out in Performance Standard 1 should consider direct and indirect project-related impacts on biodiversity and ecosystem services and identify any significant residual impacts.	Addressed through the E&S screening forms, IEE/EIA/EMP of individual industries.	No Action required
6.2	As a matter of priority, the client should seek to avoid impacts on biodiversity and ecosystem services.	The wastewater generated from the facility will be treated before discharge into the branch of Meghna river. This river branch is the source of fish and livelihood of the surrounding people. CETP parameters monitoring and external stakeholder (local community) engagement will be required to identify any adverse impacts to ecosystem services and devise mitigation measures.	CETP relevant parameters monitoring and external stakeholder engagement needs to be incorporated in the CuEZL ESMS.
6.3	In case of natural habitats, the client will retain competent professionals to assist in conducting the risks and impacts identification process. In case of critical habitats, the client should retain external experts with appropriate regional experience to assist in the development of a mitigation hierarchy that complies with this Performance Standard and to verify the implementation of those measures.	The wastewater generated from the facility will be treated before discharge into the Meghna River branch. Meghna river is a natural habitat of a range of aquatic lives. If CETP is compliant to applicable standards, its emission will not likely affect natural or critical habitats. New industries will be installed in developed plots within the premises of CuEZL. Therefore, alternation of natural habitats is not applicable.	Performance of CETP should be routinely monitored.
	Protection and Conservation of Biodiversity		
6.4	For the protection and conservation of biodiversity, the mitigation hierarchy includes biodiversity offsets, which may be considered only after appropriate avoidance, minimization, and restoration measures have been applied.	Usually, avoidance and minimization measures would be sufficient to protect the biodiversity in case of CuEZL operation and a biodiversity offset will not be required.	Not applicable
	Modified Habitat		

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6.5	The client should minimize impacts on such biodiversity and implement mitigation measures as appropriate.		CuEZL should carry out Its plantations within its premises using native species of trees.
	Natural Habitat		
6.6	The client will not significantly convert or degrade natural habitats.	See 6.3 above. Natural habitat degradation unlikely if factory emissions are within allowable standards.	Emission should be monitored.
6.7	In areas of natural habitat, mitigation measures will be designed to achieve no net loss of biodiversity where feasible.	See 6.3 above. Natural habitat degradation unlikely if factory emissions are within allowable standards.	Emission should be monitored.
	Critical Habitat		
6.8	In areas of critical habitat, the client will not implement any project activities unless certain conditions are demonstrated.	See 6.3 above. Critical habitat degradation unlikely if factory emissions are within allowable standards.	Emission should be monitored.
6.9	In such cases where a client is able to meet the requirements defined above, the project's mitigation strategy will be described in a Biodiversity Action Plan and will be designed to achieve net gains of those biodiversity values for which the critical habitat was designated.	See 6.3 above. Critical habitat degradation unlikely if factory emissions are within allowable standards.	Emission should be monitored.
6.10	In instances where biodiversity offsets are proposed as part of the mitigation strategy, the client must demonstrate through an assessment that the project's significant residual impacts on biodiversity will be adequately mitigated to meet the requirements above.	Usually avoidance and minimization measures would be sufficient to protect the biodiversity in case of CuEZL operation and a biodiversity offset will not be required.	Not applicable
	Legally Protected and Internationally Recognized Areas		
6.11	In circumstances where a proposed project is located within a legally protected area or an internationally recognized area, the client will meet the above general requirements of of this Performance Standard,	The area designated for CuEZL does not fall in any legally protected areas.	Not applicable

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	as applicable. In addition, the client will: Demonstrate that the proposed development in such areas is legally permitted; Act in a manner consistent with any government recognized management plans for such areas; Consult protected area sponsors and managers, Affected Communities, Indigenous Peoples and other stakeholders on the proposed project, as appropriate; and Implement additional programs, as appropriate, to promote and enhance the conservation aims and effective management of the area.		
	Invasive Alien Species		
6.12	The client will not intentionally introduce any new alien species (not currently established in the country or region of the project) unless this is carried out in accordance with the existing regulatory framework for such introduction.	CuEZL operation will not involve introduction of any non-native species.	Native trees should be used for plantation inside the CuEZL premises.
6.13	Where alien species are already established in the country or region of the proposed project, the client will exercise diligence in not spreading them into areas in which they have not already been established.	See above	No action required
	Management of Ecosystem Services		
6.14	Where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the client will conduct a systematic review to identify priority ecosystem services.	The wastewater generated from the facility will be treated before discharge into the tributary of Meghna river. It is the source of fish and livelihood of the surrounding people. CETP parameters monitoring and external stakeholder (local community) engagement will be	CETP relevant parameters monitoring and external stakeholder engagement need to be incorporated in the CuEZL ESMS.

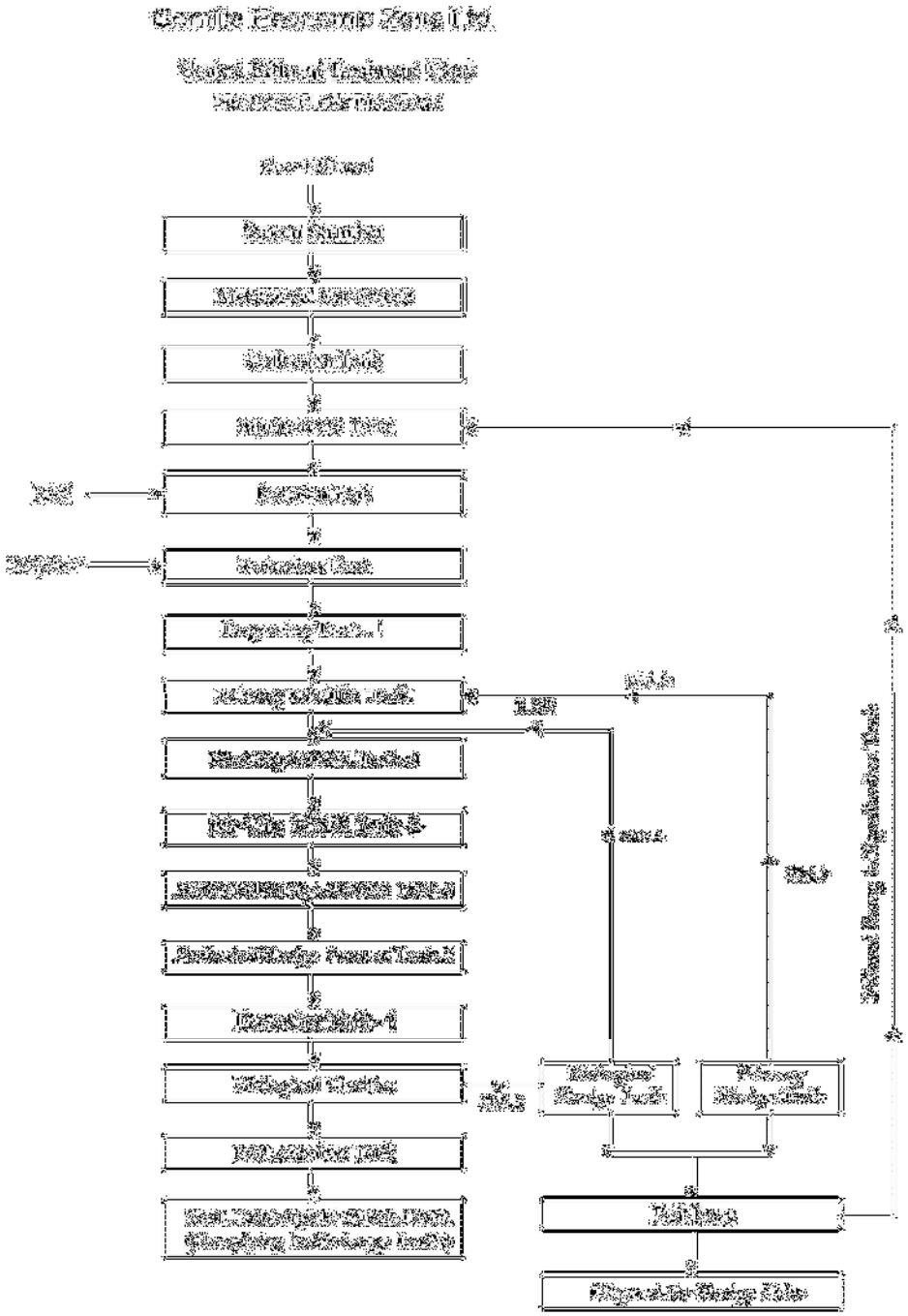
Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
		required to identify any adverse impacts to ecosystem services and devise mitigation measures.	
6.15	With respect to impacts on priority ecosystem services of relevance to Affected Communities and where the client has direct management control or significant influence over such ecosystem services, adverse impacts should be avoided.	See above	See above
Sustainable Management of Living Natural Resources			
CuEZL is not engaged in the primary production of living natural resources, including natural and plantation forestry, agriculture, animal husbandry, aquaculture, and fisheries. Therefore the provisions under this section are not applicable for CuEZL operation.			
Supply Chain			
6.16	Where a client is purchasing primary production (especially but not exclusively food and fiber commodities) that is known to be produced in regions where there is a risk of significant conversion of natural and/or critical habitats, systems and verification practices will be adopted as part of the client's ESMS to evaluate its primary suppliers.	CuEZL does not purchase primary production relevant to this provision	Not applicable
7. Performance Standard 7: Indigenous Peoples			
Baseline studies show that there are no indigenous people in the surrounding area of the CuEZL premises. Construction of new industries and their operation are limited within the CuEZL premises. Therefore this provision is not relevant.			
8 Performance Standard 8: Cultural Heritage			
Protection of Cultural Heritage in Project Design and Execution			
8.1	In addition to complying with applicable law on the protection of cultural heritage, including national law implementing the host country's obligations under the Convention Concerning the Protection of the World Cultural and Natural Heritage, the client will identify and protect cultural heritage by ensuring that internationally recognized practices for the protection, field-based study,	New industries under CuEZL will be located within its premises in developed land. There are no cultural heritage sites within its premises. The cultural heritage sites (Sonargaon area) is located far from CuEZL premises. The GRM established for CuEZL will take into consideration potential effect to cultural heritage sites due to influx of workers in the area. The screening form for new industries has taken into account	No Action Required

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	and documentation of cultural heritage are implemented.	potential effect on cultural heritage sites.	
8.2	Where the risk and identification process determines that there is a chance of impacts to cultural heritage, the client will retain competent professionals to assist in the identification and protection of cultural heritage.	Will be addressed through the existing GRM and environmental screening for new industries.	No Action Required
	Chance Find Procedures		
8.3	The client is responsible for siting and designing a project to avoid significant adverse impacts to cultural heritage. The environmental and social risk and impact identification process should determine whether the proposed location of a project is in areas where cultural heritage is expected to be found. As a part of the client's ESMS, the client will develop provisions for managing chance find procedure which will be applied in the event that cultural heritage is subsequently discovered.	Potential impact on cultural heritage is done during screening process. Since earth excavation within the premises of CuEZL will occur for constructing foundations of new industries, there is chance of accidental discovery of artifacts or culturally significant items. A Chance Find Procedure has been developed on the event of such findings (see Annex M).	No Action Required
	Consultation		
8.4	Where a project may affect cultural heritage, the client will consult with Affected Communities within the host country who use, or have used within living memory, the cultural heritage for longstanding cultural purposes.		CuEZL project operations will not likely to affect any cultural heritage or religious institutions (mosques).
	Community Access		
8.5	Where the client's project site contains cultural heritage or prevents access to previously accessible cultural heritage sites being used by, or that have been used by, Affected Communities within living memory for long-standing cultural purposes, the client	CuEZL project operations will not likely to affect any cultural heritage. CuEZL has constructed a separate mosque within their premises and therefore workers or other employees will not need to go outside of its premises to attend prayer services, overcrowd them or avail sanitation facilities.	No Action Required

Sl #	OP 4.03 Performance Standard Requirements	Observations	Recommendations
	will, based on consultations, allow continued access to the cultural site or will provide an alternative access route, subject to overriding health, safety, and security considerations.	Therefore, there is no possibility of blocking access of religious institutions during praying hours.	
	Removal of Replicable Cultural Heritage		
8.6	Where the client has encountered tangible cultural heritage that is replicable and not critical, the client will apply mitigation measures that favor avoidance.	CuEZL activities will be restricted within its premises and there is no probability of directly intercepting a physical location of a cultural heritage. Therefore this provision is not relevant.	Not applicable
	Removal of Non-Replicable Cultural Heritage		
8.7	The client will not remove any nonreplicable cultural heritage, unless certain conditions are met.	Same as above	Not applicable
	Critical Cultural Heritage		
8.9	The client should not remove, significantly alter, or damage critical cultural heritage.	Same as above	Not applicable
8.10	Legally protected cultural heritage areas are important for the protection and conservation of cultural heritage, and additional measures are needed for any projects that would be permitted under the applicable national law in these areas.	Same as above	Not applicable
	Project's Use of Cultural Heritage		
8.11	Where a project proposes to use the cultural heritage, including knowledge, innovations, or practices of local communities for commercial purposes, the client will inform these communities of (i) their rights under national law; (ii) the scope and nature of the proposed commercial development; and (iii) the potential consequences of such development.	There is no scope for CuEZL to use the cultural heritage for any purpose.	Not applicable

ANNEX R

Central Effluent Treatment Plant (CETP)



Comilla Economic Zone Limited

Central Effluent Treatment Plant

Wastewater characteristics and desiga criteria

1. Raw Wastewater Quantity and Quality

1.1 Raw Wastewater Quantity

Total amount: 1000 m^3/day

Hourly: 42 m^3/day

Duration of operation: 24 hours

1.2 Raw Wastewater Quality

Given below the raw water quality from factory

Table 1: Raw wastewater quality

Parameter	Raw wastewater Concentration
pH	7.8 to 10
Temperature, ^{0}C	30 to 40
BOD_5, mg/L	≤ 3000
COD, mg/L	≤ 7000
TSS, mg/L	≤ 500

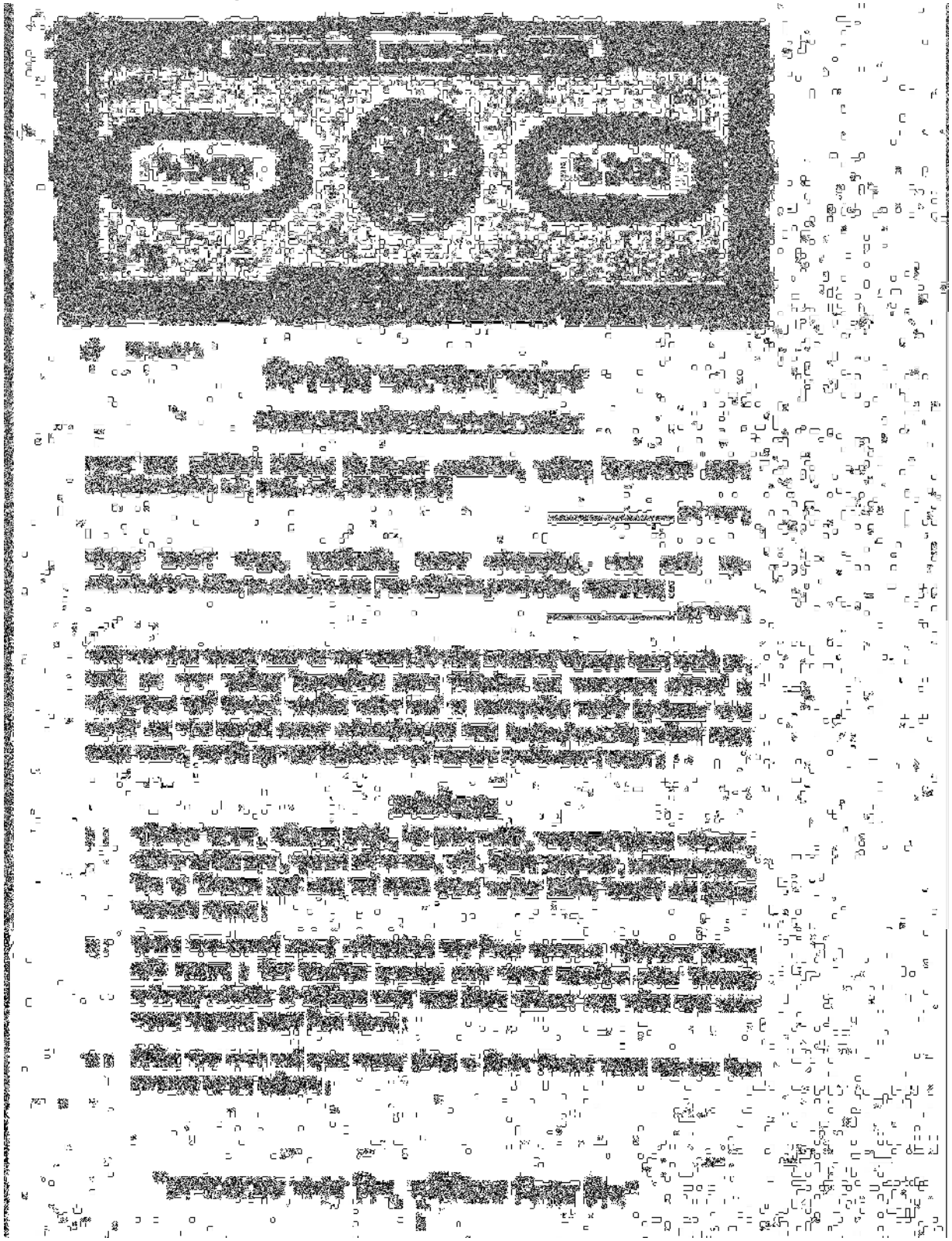
1.3 Discharge guaranteed parameter following ECR, 2023

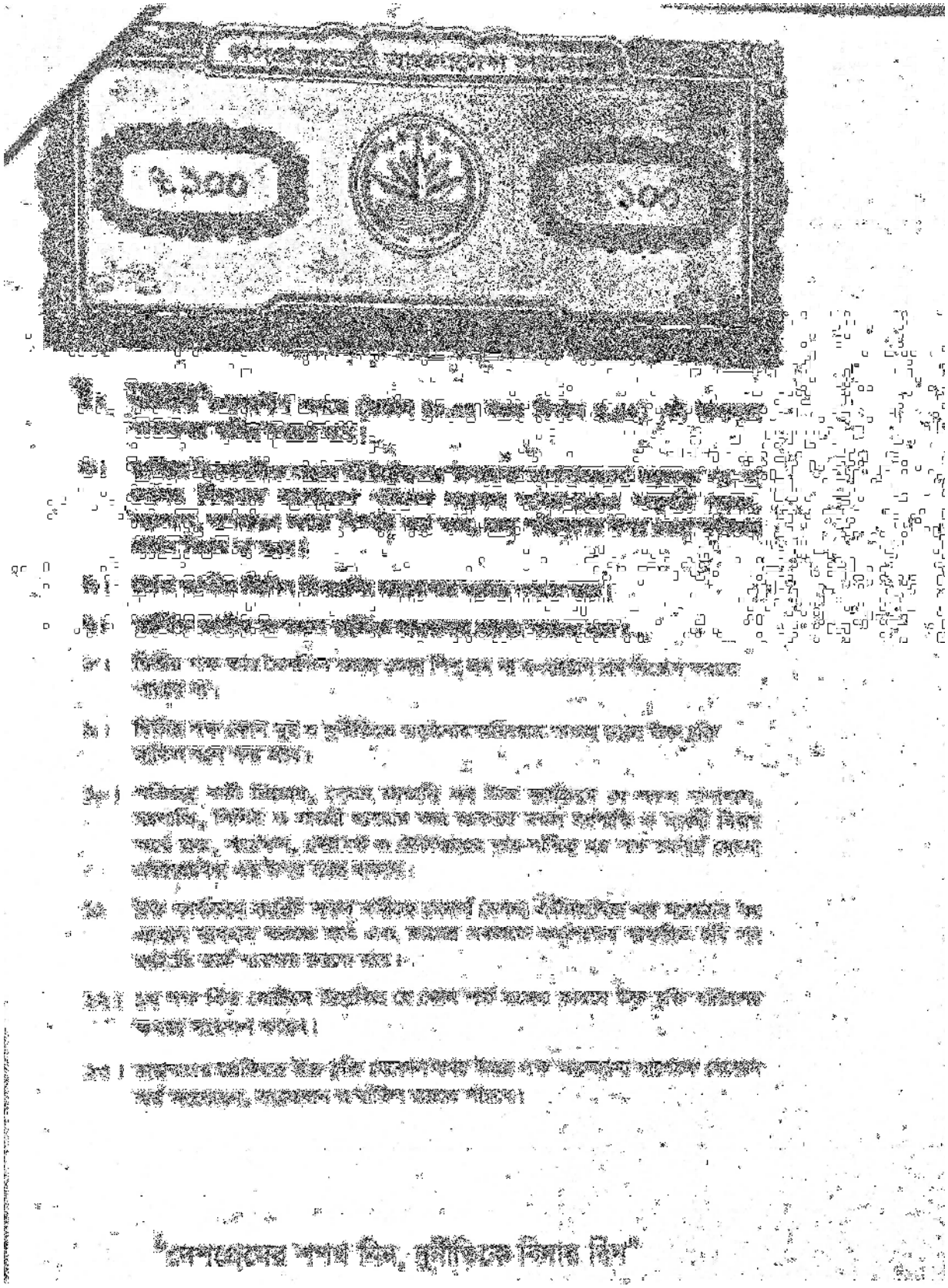
Following Table shows the concentration of outlet water of ETP

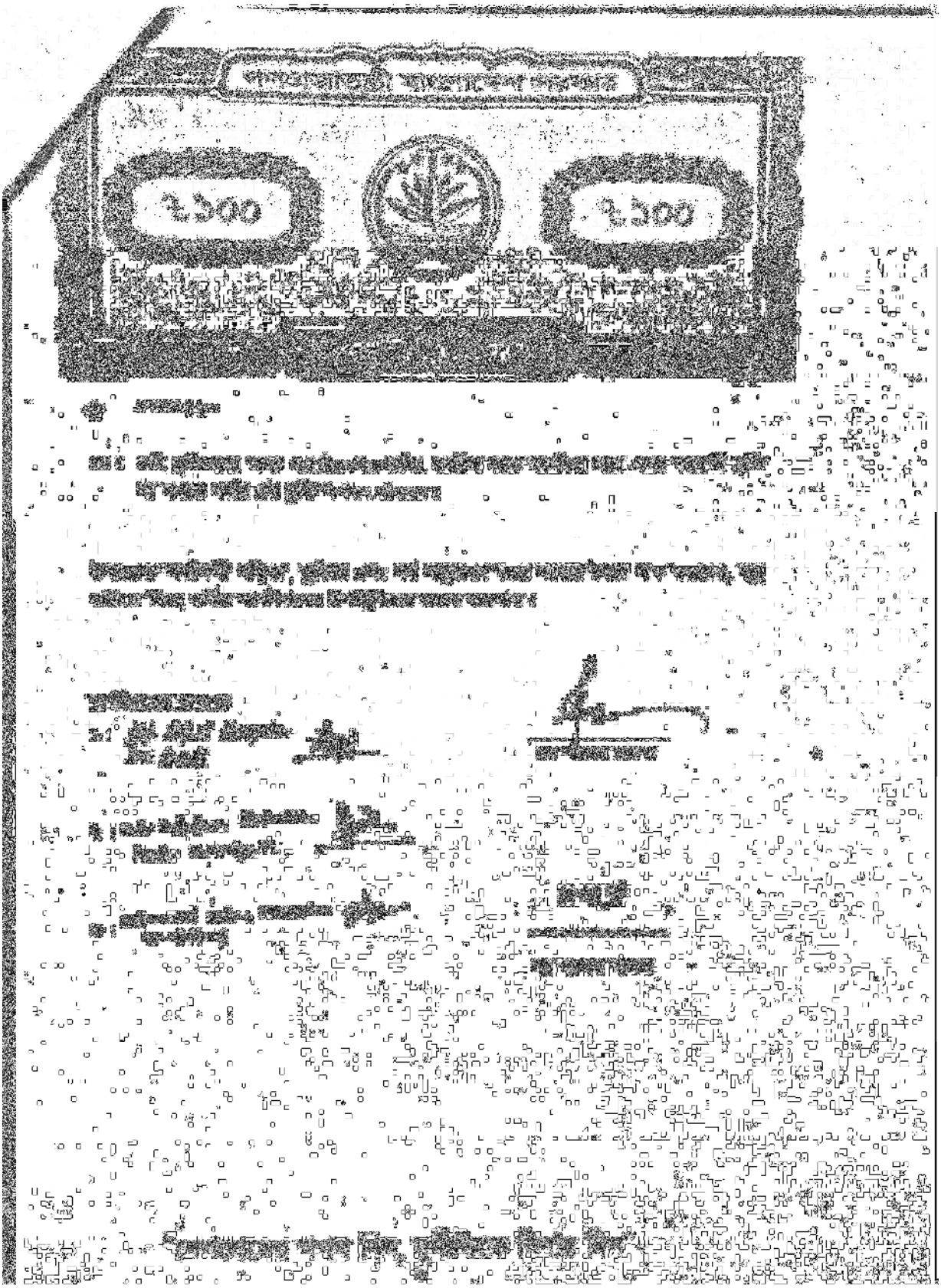
Parameter	Standard value for discharging into		
	Inland Surface Water	Sewerage system	Water in Coastal area
pH	6 -9	6 -9	6 -9
Temperature, ^{0}C	Not more than 5 degree of that water	----	Not more than 5 degree of that water
BOD_5, mg/L	30	250	100

COD, mg/L	200	400	250
TSS, mg/L	100	500	100

Solid Waste Management:







Sewage Treatment Plant (STP):

Sewage treatment is the process of removing contaminants from wastewater, comprising of storm run- off, domestic sewage and primary treated effluent. It includes physical, chemical and biological processes to remove various contaminants. Sewage would be managed through soak well and depending on requirement would be developed to full scale plant.

ANNEX S

Anti-harassment and anti-abuse policy of CuEZL

Meghna Group of Industries

Date: June 1, 2022

ANTI-HARASSMENT POLICY

Introduction : The authorities of Meghna Group of Industries are committed to creating and maintaining a harassment-free work environment. Authorities will strive to adhere to this policy in order to maintain the dynamism of work in a work-friendly environment. Authorities will never tolerate any kind of harassment.

Purpose : The purpose of this policy is to protect the dignity, fundamental rights, and fair working environment of all, including all workers, employees, and officials in the workplace.

Commitment : The authorities are committed to protecting the dignity, fundamental rights, and a fair working environment of all, including all workers, employees, and officials in the workplace.

Reference : Bangladesh Labor Act, 2006 and Bangladesh Labor Rules, 2015.

Policy:

Possible harassing behaviors in the workplace:

(A) Physical abuse of any kind.
(B) Using slang language, and giving intimidation.
(C) Mental torture.
(D) Misbehave.
(E) Sexual harassment.
(F) Interference with fundamental rights.
(G) Restrictions imposed on regular movement.

The following types of harassment are strictly prohibited in the workplace

1. Using slang language and giving intimidation.
2. Any kind of physical abuse.
3. Misbehaving of any kind.
4. Throw something to someone to hit them.
5. As a punishment, keep a worker standing outside the gate.
6. Any kind of restriction to drink water.
7. Hurdles to go to the toilet.
8. Forcing or intimidating workers/employees to do overtime against his/her will.
9. Making any kind of blasphemy comment about one's religion, caste, tribe, or marital status.
10. Passing a negative comment on someone's mental or physical ability.
11. Touching someone's (especially girls) body in any way.
12. Making sexually explicit comments to anyone.
13. Making any kind of bad comments about someone's physical structure.
14. Displaying indecent images or making obscene gestures to someone in the workplace.

01/06/2022

01.06.22

Head Office: Fresh Villa, House 15, Road 34, Gulshan-1, Dhaka-1212, Bangladesh | **Tel:** +88 09666777055
Fax: +880 2222289361, 2222284896 | **Email:** info@mgi.org | **Factory:** Meghnaghat, Sonargaon, Narayanganj, Bangladesh

If any worker, employee, or official faces any kind of harassment in the workplace, he or she should immediately place a complaint report to the Human Resources Management or Administration Department. The authority will take immediate action through proper investigation or inquiry against any arisen complaint report regarding harassing behaviors that occurred in the workplace. If found guilty after the investigation, Disciplinary Action will have to be taken against the accused employee as per the company policy and the country's prevailing laws.

Procedure for Complaint and Punishment:

If a worker, employee, or official thinks he or she has been harassed, he or she can complain in the following ways.

Complaint procedure

Meghna Group of Industries is committed to taking action on each complaint as per the complaint policy. And if the allegation is proved, the authorities will take necessary action against the guilty person in accordance with the Bangladesh Labor Act, 2006 and Disciplinary Policy.

Re-evaluation: The policy will be re-evaluated once a year.

Policy Maker	Approver
01/06/2022 Assistant General Manager-Human Resources	01.06.22 Senior General Manager-Human Resources

Head Office: Fresh Villa, House 15, Road 34, Gulshan-1, Dhaka-1212, Bangladesh | **Tel:** +88 09666777055
Fax: +880 2222289361, 2222284896 | **Email:** info@mgi.org | **Factory:** Meghnaghat, Sonargaon, Narayanganj, Bangladesh
Web: www.mgi.org

ANNEX T

Water Demand, Water and Effluent Treatment Plant and Fume Treatment Plant for Steel Mill

Water Demand:

The demand for water differs significantly for industrial users. Although the EZ would house a large number of employees, but the major demand for water would be from the industries. The demand for water in industrial usage varies depending on several factors, such as: Type of product, technology being used, actual production level etc. The demand for water for the zone is estimated and shown in Table T.1. Total water requirement is 192,282 m^3 per day, among which 192,000 m^3 per day will be used for industrial processes. The water for industrial processes will be pumped from the nearby Meghna River branch. The water for personal use in the industry area, offices, and dormitories will be extracted groundwater. Sufficient tubewells will be installed to extract the water. Figure T.1 and T.2 show borelogs of tubewell inside CEZL area. A water treatment plant (WTP) shall be built to treat river water to make them suitable for industrial usage. Figure T.3 shows the location of the WTP inside the CEZL area.

Table T.1: Water demand estimates

A	Industrial Use	Water Demand	Source	Remarks
	Meghna Re-Rolling & Steel Mills ltd.	12,000 m^3 per hr.	River	This water will be recirculated and only make up water will be added when required which is minimal.
	Meghna Glass Industries Ltd.	7,000 m^3 per hr.	River	
	Other Future Industries	4,000-5,000 m^3 per hr.	River	
	Sub-Total	24,000 m^3 per hr		
		192,000 m^3 per day	Considering 8 hr. operation hour	
B	**Personal Use**			
	Dormitory, Office Building etc.	282 m^3 per day	Groundwater	For Residential use only like drinking water and washing purpose.
C	**Total**	192,282 m^3 per day		

Project:	12th storied admin building	BORELOG	
Client:	Meghna Group of Industries Ltd	Borehole Top RL, m:	-0.55
Co-ordinates:	N=11940.683 E=11428.001	Date Started:	15-Feb-23
Borehole No:	BH-01	Date Completed:	18-Feb-23
Method of Boring:	Percution	Borehole water RL,(m):	-5.05
Depth of Boring (m):	100m Boring Dia (mm): 150	TBM RL:	+0.00 m
Soil Classification:	ASTM D-2487 & D-2488		
Location:	Cumilla Economic Zone, Meghna, Cumilla		

Depth Below EGL (m)	Sample ID	Thickness (m)	Description of Soil Strata
0			
-5.0	D-1	5m	Grey, Loose, Silty Sand, SM, trace of mica
-10.0	D-2	5m	Grey, Loose, Non Plastic , Silt with sand, ML
-15.0	D-3	20m	Grey, Loose to dense, Silt sand, SM
-20.0	D-4		
-25.0	D-5		
-30.0	D-6		
-35.0	D-7	10m	Grey, Medium loose to dense, Silty sand, SM
-40.0	D-8		
-45.0	D-9	5m	Grey, loose to medium dense, non plastic, Silt, ML
-50.0	D-10	10m	Medium dense to dense, non plastic, sand with silt, trace of mica
-55.0	D-11		
-60.0	D-12	10m	Soft, low plastic clay silt, trace of mica
-65.0	D-13	5m	Grey, loose, non plastic, silt with sand, ML, trace of mica
-70.0	D-14	10m	Medium dense to dense, non plastic, sand with silt, trace of mica
-75.0	D-15		
-80.0	D-16	20m	Brown, medium dense to dense, non plastic, coarse sand
-85.0	D-17		
-90.0	D-18		
-95.0	D-19		
-100.0	D-20		

Soil Classification Symbol

CL	Clay with low plasticity
CH	Clay with high plasticity
ML	Silt with low plasticity
MH	Silt with high plasticity
OH	Organic soil with high plasticity
OL	Organic soil with low plasticity
SM	Silty Sand

Figure T.1: Borelog of Borehole No. BH 1

Project:	12th storied staff dormitory building	BORELOG	
Client:	Meghna Group of Industries Ltd	Borehole Top RL, m:	-0.55
Co-ordinates:	N=11634.015 E=10793.077	Date Started:	15-Feb-23
Borehole No:	BH-02	Date Completed:	18-Feb-23
Method of Boring:	Percution	Borehole water RL,(m):	-5.05
Depth of Boring (m):	100m Boring Dia (mm): 150	TBM RL:	+0.00 m
Soil Classification:	ASTM D-2487 & D-2488		
Location:	Cumilla Economic Zone, Meghna, Cumilla		

Depth Below EGL (m)	Sample ID	Thickness (m)	Description of Soil Strata
0			
-5.0	D-1	5m	Grey, Loose, Silty Sand, SM, trace of mica
-10.0	D-2	5m	Grey, Loose, Non Plastic , Silt with sand, ML
-15.0	D-3	15m	Grey, Loose to dense, Silt sand, SM
-20.0	D-4		
-25.0	D-5		
-30.0	D-6	15m	Grey, Medium loose to dense, Silty sand, SM
-35.0	D-7		
-40.0	D-8		
-45.0	D-9	5m	Grey, loose to medium dense, non plastic, Silt, ML
-50.0	D-10	10m	Medium dense to dense, non plastic, sand with silt, trace of mica
-55.0	D-11		
-60.0	D-12	10m	Soft, low plastic clay silt, trace of mica
-65.0	D-13	5m	Grey, loose, non plastic, silt with sand, ML, trace of mica
-70.0	D-14	10m	Medium dense to dense, non plastic, sand with silt, trace of mica
-75.0	D-15		
-80.0	D-16	25m	Brown, medium dense to dense, non plastic, coarse sand
-85.0	D-17		
-90.0	D-18		
-95.0	D-19		
-100.0	D-20		

Soil Classification Symbol

CL	Clay with low plasticity
CH	Clay with high plasticity
ML	Silt with low plasticity
MH	Silt with high plasticity
OH	Organic soil with high plasticity
OL	Organic soil with low plasticity
SM	Silty Sand

Figure T.2: Borelog of Borehole No. BH 2

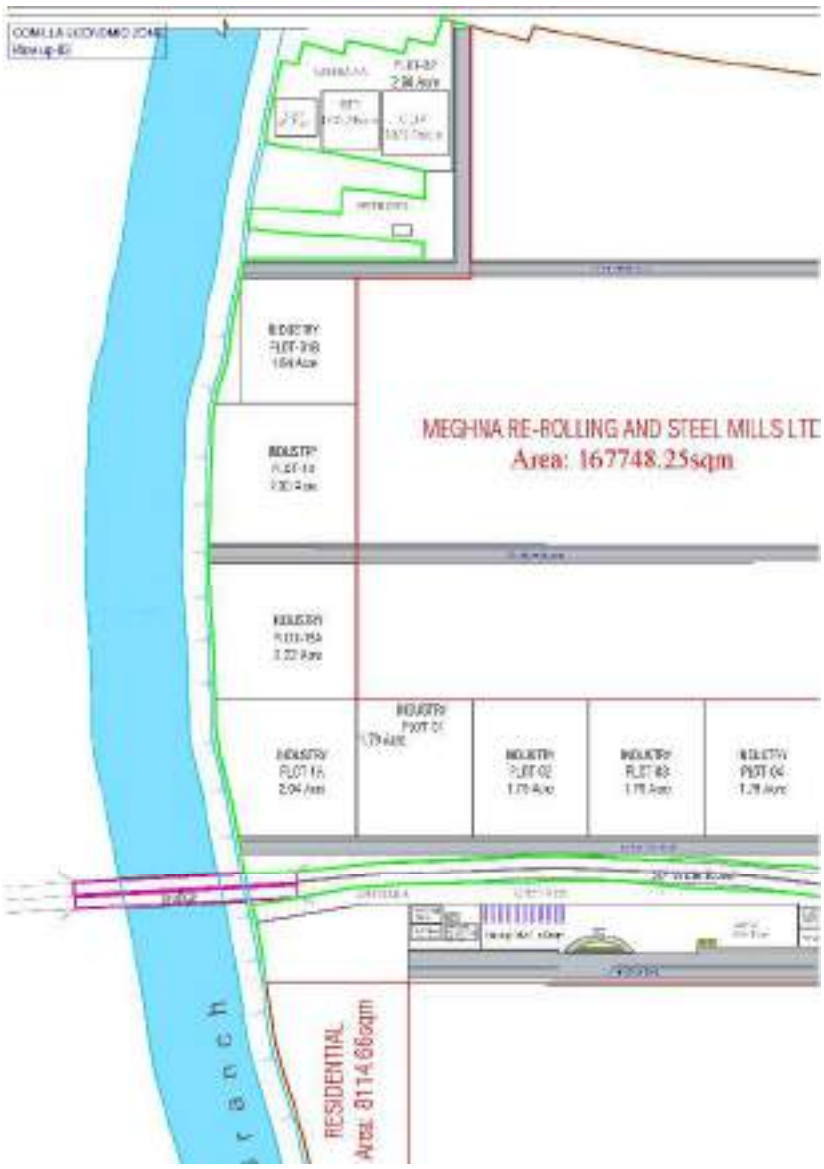


Figure T.3: Location of WTP inside the CuEZL area

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Integrated Mini Steel Plant

Central Water Treatment Plant

Technical Proposal

(Primary Design)

for

Meghna Steel and Re-rolling Mills Ltd. (Meghna Group of Industries)

Shanghai Heavy Mining ChunJiang Environment

July 2023

MENU

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3 EQUIPMENT LIST 35

3.1 PROCESS EQUIPMENT LIST 35
3.2 ELECTRIC EQUIPMENT LIST 35
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4. CONSUMPTION TABLE 36

5. BOUGHT-OUT EQUIPMENT VENDOR LIST 37

1 General

1.1Project Background

Central water treatment plant shall be comprised of below sectors:

（1）Raw water pre-treatment system;

（2）Circulating cooling water treatment system;

- Non-contact (close-circuit) cooling water system (QW);
- Non-contact cooling water system (CW);
- Emergency water system (EW);
- Contact water cooling system (KW)

1.2 Design Code & Standard

SN	Code	Category
1	GB 50013-2018	Design Standard for Outdoor Water Supply Engineering
2	GB 50014-2021	Design Standard for Outdoor Drainage Engineering
3	GB 50265-2010	Code for Design of Pumping Stations
4	GB 50050-2007	Code for Design of Water Supply and Drainage for Iron and Steel Enterprises
5	GB 50050-2017	Design Code for Industrial Circulating Cooling Water Treatment
6	GB/T 50102-2014	Design Code for Industrial Circulating Water Cooling
7	GB/T 50109-2014	Design Code for softening and demineralizing Industrial Water
8	GB 50015-2019	Design Standard for Water Supply and Drainage of Buildings
9	GB 50046-2018	Standard for Anti-corrosion Design of Industrial Buildings
10	GB50332-2002	Code for Piping Structure Design of Water Supply and Drainage Engineering
11	GB50052-2009	Code for Design of Power Supply and Distribution Systems
12	GB50054-2011	Design Code for Low-voltage Distribution
13	GB50055-2011	Code for Distribution Design of General Electrical Equipment
14	GB50053-2013	Code for the Design of Substation 20kV and Below
15	GB50060-2008	Specification for Design of 3-110kV High Voltage Distribution Devices
16	GB50062-2008	Code for Design of Relay Protection and Automatic Devices for Electric Power Installations
17	GB50217-2018	Code for Design of Electric Power Engineering Cables
18	GB50057-2010	Code for Lightning Protection Design of Buildings
19	GB/T50065-2010	Code for Grounding Design of AC electrical Devices
20	GB50034-2013	Architectural Lighting Design Standard
21	GB50016—2014	Code for Fire Protection Design of Buildings
22	GB50414-2018	Code for Fire Protection Design of Iron and Steel Metallurgy Enterprises
23		Other technical regulations of the People's Republic of China
24		Other industry norms in China
25		Other relevant technical regulations of the manufacturer

1.3 Design principle

1.3.1 Implement national environmental protection policies in accordance with

relevant laws, regulations and standards;

1.3.2 Strictly implement environmental protection regulations, ensure that the water quality after treatment meets relevant standards, and reduce project investment and operating costs as much as possible on the premise that the water quality meets relevant requirements.

1.3.3 Select mature, reliable and advanced processing technology, improve automated management according to the design characteristics of the treatment plant, and achieve simple management and stable operation.

1.3.4 The general layout of the water treatment plant is mainly to concentrate the building structure, save space, expand the green area, and minimize the impact on the surrounding environment under the premise of convenient installation and maintenance;

1.3.5 The vertical design of the plant shall save the power cost on the premise of meeting the requirements of gravity emission;

1.3.6 The selection of equipment conforms to the principles of excellent technical performance, high reliability and easy maintenance to ensure that the process conditions and environmental requirements are met.

1.3.7 The architectural structure of the water treatment plant seeks a simple, clean, elegant style and harmony with the landscape of the area.

1.4 Design base & data

1.4.1 Environmental & climate design data

- Location:
- Altitude: 4m
- Maximum dry bulb temperature: 33.2℃
- Minimum dry bulb temperature: 13.8℃
- Wet bulb temperature: 28.7 ° C

1.5 Raw water pre-treatment system

1.5.1 Raw water quality

The raw water used in this project (from the river mentioned in the customer's report dated March 24, 2022) is shown in the following table:

Parameters	Design Value	Unit
pH	7.5	

Total dissolved solids (TDS)	155	ppm
Electric conductivity	242	μS/cm
Total hardness	90	ppm $CaCO_3$
Calcium hardness	32	ppm $CaCO_3$
M alkalinity	84	ppm $CaCO_3$
Chloride	24	ppm
Sulfate	N/A	ppm
Total suspended Solids (TSS)	< 2	ppm
Silicon dioxide	N/A	ppm SiO_2
Total iron	0.27	ppm Fe
Manganese	N/A	ppm Mn
Total organic carbon	N/A	ppm
Grease	N/A	ppm

1.5.2 Raw water flow requirement

Raw water consumption is about 250 m^3/h.

1.6 Circulating cooling water system

1.6.1 Water consumption statistic table

System QW – Non-contact closed cooling circuits

	Close-circuit Users	Q	P_{in}	ΔP	T_{in}	T_{out}
		[m³/h]	[bar]	[bar]	[°C]	[°C]
1	CCM Mould	705	14	8	38	49
2	RHF	415	5	3	38	53
	Total	**1120**				

System CW – Non-contact open cooling circuits

	Open-circuit User	Q	P_{in}	ΔP	T_{in}	T_{out}
		[m³/h]	[bar]	[bar]	[°C]	[°C]
1	CCM Tertiary & Hydraulic unit	394	7	5	35	49
2	E.A.F. + MSP spare+ Loose	3252	6	4	35	45
3	LF	352	6	4	35	45
4	FTP	3000	6	4	35	55
5	Rolling mill	203	4.5	2	35	40
6	CCM Mould secondary side (PHE)	705	3	1	35	46
7	RHF secondary side (PHE)	415	3	1	35	50

8	Scrap shear	180	4	2	35	44
9	Air separation plant	750	4	2	35	49

Total Max. 9251

System EW – Emergency users

EW User		Q	P_{in}	ΔP	Time
		[m³/h]	[bar]	[bar]	[min]
1	CCM Mould	235	3.5		20’
2	CCM tertiary closed	53	3		Continues.
3	E.A.F	536	3		Continues.
4	RHF	250	2		Continues.
5	Finishing mill stands	170	3		Continues.

System KW – Contact cooling circuits

DCW User		Q	P_{in}	ΔP	T_{in}	T_{out}
		[m³/h]	[bar]	[bar]	[°C]	[°C]
1	RM +RHF 轧机和加热炉	745	5	5	35	43
2	QTB 轧线穿水冷却	465/1465	7.5/13.5	-	35	45
4	C.C.M secondary 连铸机二冷水（弧形段）	420	7	-	35	55
5	C.C.M. tertiary open + spare 连铸机辅助开路+备用	121	7	-	35	55

Total Max. 2751

Note:

- All pressure data are gauge pressure (pressure gauge) with a reference value of 0.00.
- 30 m3/h effluent from the cooling tower is used in the MSP temporary slag cooling area.

2、Process and technical description

2.1、Process description

2.1.1 Raw water pre-treatment system

The raw water first enters the raw water reservoir (G15WTK), and then is

pumped (G26WPU) to the multi-media filter (G26WFS), after filtering, it flows into the new water reservoir (G40WTK). Then part of the water (245m3/h) is pressurized with a pump (G40WPU) as supplementary water for the circulating water system; A set of pumps (F01WPU) are also provided to provide backwash water to the multi-media filter. The other part of the water (5m3/h) is pressurized by the pump (G41WPU) to the automatic soft water preparation device (G42WFS), prepared into soft water, the art-flow into the soft water storage tank (G41WTK), and then pressurized by the pump (G41WPU) as the supplementary water for the closed cooling water system.

The water discharged by the multi-medium filter (G26WFS) backwashing enters the sludge storage tank (F51WTK), and is pressurized by the pump (F51WPU) to the plate and frame filter press (F11WTH) for dehydration. The dehydrated mud cake is regularly loaded into the truck and transported away.

The automatic soft water preparation device (G42WFS) is in the form of ion exchange resin and consists of a resin regeneration system. The recycled waste liquid goes into the recycled waste liquid pond (J01WTK), and is lifted to the sewage pond (J02WTK) through the pump J02WPU, and then discharged to the plant through the pump J02WPU.

2.1.2 Circulating cooling water system

1）Close-circuit cooling water system

The closed-circuit cooling water system mainly serves the closed-circuit equipment cooling system of continuous casting machine and heating furnace. The water quality is soft water, and the total flow rate of cooling water is 1120m3/h, which is sent to the use place by their respective supply pump sets. After use, only the water temperature rises, and the water quality is not polluted. After the return water is cooled by the remaining water pressure through the respective plate heat exchangers (B21WEX, B41WEX), the self-flow is returned to the closed circuit cooling water storage tank (B01WTK), and then sent to the use place by the pump (B21WPU, B41WPU), and the cycle is repeated.

Secondary cooling water of plate heat exchangers (B21WEX, B41WEX) is provided by non-contact cooling water system.

The supplementary water of the closed cooling water system is

supplemented by the soft water prepared by the raw water system, and the supplementary water volume is 4.5m3/h.

In order to ensure the stability of the water quality of the circulating water system, improve the efficiency of the water circulation, reduce and save the amount of new water (make-up water), the system is designed to improve the water quality by chemical agent dosing equipment, used to add corrosion and scale inhibitors, bactericidal and algal agents.

2）Non-contact cooling water system

The indirect cooling water system provides indirect cooling water to the equipment and secondary refrigerant water to the plate heat exchanger of the closed cooling water system. The water quality is the level of net ring water, and the total cooling water amount is 9251m3/h. Each is supplied to the site by its own water supply pump set. After use, only the water temperature rises, and the water quality is not polluted. After the residual water pressure is cooled by the cooling tower (A01WCT), the return water flows back into the indirect cooling water storage tank (A01WTK), and then the pump (A21WPU, A22WPU, A41WPU, A61WPU, A62WPU, A71WPU, A72WPU) is sent to the use place, and the cycle is repeated.

The make-up water of the non-contact cooling water system is supplemented by new water after pre-treatment in raw water system, and the supplementary water flow is 185m3/h. In order to ensure water quality, the indirect cooling water system is equipped with a side filter, and the side filter water is 500m3/h, accounting for about 5.4% of the circulating water. Side-filtered water is sent to the side-filtered filter by the side-filtered water supply pump, and the effluent flows into the indirect cooling water tank.

In order to ensure the stability of the water quality of the circulating water system, improve the efficiency of the water circulation, reduce and save the amount of new water, the system is designed to improve the water quality with chemical dosing equipment, used to add corrosion and scale inhibitors, bactericidal and algal agents.

In order to ensure water quality, the indirect cooling water system is provided with sewage discharge, sewage discharge water of 41m3/h. Discharge

to the sump tank (J02WTK), and then discharge to the factory through the pump J02WPU.

3）Emergency water system

The emergency water system is used to supply water to each device in case of an accident.

The CCM mould closed circuit system emergency water is soft water, which is supplied by safety water tower.

The emergency water of the closed circuit system of the heating furnace is pure ring water, which is supplied by the safety water tower and the diesel engine pump (A62WPM).

The emergency water of auxiliary equipment of CCM, EAF and RM 's indirect cooling water system of rolling mill is ICW, which is supplied by emergency OHT, and OHT is filled by diesel pump (A03WPM) and electric pump (A03WPU) driven by diesel generator in case of accident.

4）Contact cooling water system

The direct cooling water system mainly supplies direct cooling water to the equipment, and the water quality is turbidity circulating water. The total cooling water is 2751m3/h, and the water is supplied to the user by the respective water supply pump sets. After use, not only the water temperature rises, but also the water quality is polluted. Among them, the direct cooling water return water of the CCM first enters the continuous casting cyclone well in the workshop, and after preliminary precipitation and oil removal, it is pressurized by a pump (C31WSP) to the advection sedimentation tank (C81WTR). The direct cooling water return water of the rolling mill first enters the rolling mill cyclone well in the workshop, and after preliminary precipitation and oil removal, part of the water is sent to the slag flushing ditch by pump (C59WSP), and the other part of the water is sent to the advection sedimentation tank of water treatment (C81WTR) by pump (C51WSP) under pressure, and is combined with the direct cooling water of CCM after preliminary precipitation for further precipitation and oil removal treatment. Through water cooling return water flows into through water cooling pool (C52WTK) and is pressurized by pump (C52WPU) to advection tank outlet tank (C81WTK). The effluent from the advection sedimentation tank

(C81WTR) flows into the hot well of the advection sedimentation tank (C81WTK), and is then pressurized by the pump to the high-speed sand filter (C81WFS) to remove the suspended matter and oil again. The effluent from the high-speed sand and gravel filter (C81WFS) enters the cooling tower (C01WCT) by using the residual pressure to cool down. The direct cooling water (C01WTK) is then sent to the user by pump (C21WPU, C41WPU, C42WPU) for recycling. The direct cooling water pool cold water well (C01WTK) is also equipped with a set of pumps (F01WPU) for backwashing water to the high speed sand filter.

The cyclone well and advection sedimentation tank are provided with a slag crane, which uses a grab bucket to clean slag in the bottom of the tank regularly and send out by truck.

High speed sand filter (C81WFS) backwash drainage into the backwash tank (F51WTK), pressurized by pump (F51WSP) to the sludge thickening tank (F11WTH), after thickening, Pump (F11WPU) to the sludge storage tank (F41WTK) and then through the mud supply pump (F41WPU) pressurized to the plate and frame filter press (F32WBP) for dehydration, the dehydrated mud cake is regularly loaded into the truck for external transport.

The make-up water of the direct cooling water system is supplemented by the new water of the raw water pre-treatment system, and the supplementary water flow is 60m3/h. At the same time, in order to ensure the water quality, the system is equipped with sewage branch, flow 14m3/h.

In order to ensure the stability of the water quality of the circulating water system, improve the efficiency of the water circulation and save the amount of new water, the system is designed to improve the water quality by chemical dosing device, who add corrosion and scale inhibitor, bactericidal and algicide and other chemical agents. At the same time, in order to help the water purification of the direct cooling water system, flocculant and coagulant are added to the direct cooling water system.

In order to ensure water quality, the direct cooling water system is equipped with sewage, sewage water 17m3/h. Discharge to the sump tank (J02WTK), and then through the pump (J02WPU) to the plant.

2.2 Main process equipment and structures

The efficiency of all centrifugal pumps shall be >85%.

2.2.1 Raw water pre-treatment system

2.2.1.1 Raw water storage tank (G15WTK)

Raw water storage tank

Type: RCC

Qty: 01 nos.

Size: Volume 250m3

2.2.1.2Raw water pump (G26WPU)

Type: Single stage horizontal centrifugal pump

Qty: 2-working-1-standby

Spec: Q=125m^3/h, H=28m

Motor: N=18.5kW, V=415V

Material: Casted iron

2.2.1.3 Multi-media pressure filter (G26WFS)

Type: Multi-media pressure filter

Qty: 2-working-1-standby

Total flow: Q=250m^3/h

Diameter: Φ3800mm

Filter material: Quartz sand + Anthracite

2.2.1.4 New water storage tank (G40WTK)

Type: RCC

Qty: 01 nos.

Size: Volume 400m3

2.2.1.5 New water pump (G40WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=250m^3/h, H=20m

Motor: N=22kW, V=415V

Material: Casted iron

2.2.1.6 Filter backwashing water pump (F01WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=140m^3/h, H=15m

Motor: N=15kW, V=415V

Material: Casted iron

2.2.1.7 Soft water lifting pump (G42WPU)

ype: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=25m^3/h, H=30m

Motor: N=7.5kW, V=415V

Material: Casted iron

2.2.1.8 Soft water plant (G42WFS)

Type: Resin ion exchange

Qty: 1-working-1-standby

Specs: Q=25m^3/h

Including resin regeneration system

2.2.1.9 Soft water storage tank (G41WTK)

New water storage tank

Type: RCC

Qty: 01 nos.

Size volume: 50m^3

2.2.1.10 Soft water supply pump (G41WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=50m^3/h，H=20m

Motor: N=11kW，V=415V

Material: Casted iron

2.2.1.11 Mud storage tank (F41WTK)

New water storage tank

Type: RCC

Qty: 01 nos.

Size volume: 10m^3

2.2.1.12 Mud supply pump (F41WPU)

Type: Screw pump

Qty: 1-working-1-standby

pecs: Q=3m^3/h，H=20m

2.2.1.13 Blower (G15WBF)

Type: Blower

1 台 Qty: 01 nos.

Specs: Q=350Nm^3/h，H=0.5MPa

Motor: N=15kW，V=415V

2.2.1.14 Recycled liquid tank (J01WTK)

Soft water producer unit regenerated waste liquid storage tank

Type: RCC

Qty: 01 nos.

Specs: Volume 20m^3

2.2.1.15 Recycled liquid tank lifting pump (J01WPU)

Type: Self-priming pump

Qty: 1-working-1-standby

Specs: Q=5m^3/h，H=15m

2.2.1.16 Sludge drainage tank (J02WTK)

Type: RCC

Qty: 01 nos.

Specs: Volume 100m^3

2.2.1.17 Sludge drainage pump (J02WPU)

Type: Self-priming pump

Qty: 1-working-1-standby

Specs: Q=60m^3/h，H=30m

2.2.2 Non-contact cooling water system

2.2.2.1 Non-contact cooling water storage tank (B01WTK)

Type: RCC

Qty: 01 nos.

Size: Volume: 270m^3

2.2.2.2 Mould cooling water supply pump (B21WPU)

Type: Single stage horizontal centrifugal pump

Qty: 3-working-1-standby

Specs: Q=235m^3/h，H=150m

Motor: N=160kW，V=415V

Material: Casted iron

2.2.2.3 CCM Mould emergency cooling water supply (B03WPM)

Type: Diesel pump

Qty: 01 nos.

Specs: Q=250m^3/h，H=45m Diesel

pump working time: 20min Matching

fuel tank, exhaust pipe, etc

2.2.2.4 BRF supply pump (B41WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=415m^3/h，H=60m

Motor: N=132kW，V=415V

Material: Casted iron

2.2.2.5 Mould plate heat exchanger (B21WEX)

Type: Water-Water plate heat exchanger

Qty: 01 nos.

Specs: Q=705m^3/h，F=900m^2

Processing (primary) water I/O temp.: 49℃/38℃

Cooling (secondary) water I/O: 35℃/46℃

Material: Casted steel

2.2.2.6 BRF plate heat exchanger (B41WEX)

Type: Water-Water plate heat exchanger

Qty: 01 nos.

Specs: Q=415m^3/h，F=500m^2

Processing (primary) water I/O temp.: 53℃/38℃

Cooling (secondary) water I/O: 35℃/50℃

Material: Casted steel

2.2.2.7 Chemical dosing device

One set of corrosion and scale inhibitor dosing device and one set of bactericidal and algicidal dosing device

Type: 2 pumps 1 tank

Qty: 02 nos.

Processing flow: Q=1120m^3/h

2.2.2.8 Mould cooling water self-cleaning filter

Type: Pipe online

Qty: 01 set

Specs: Q=705m3/h

Filtration accuracy: 0.1mm

2.2.2.8 BRF cooling water self-cleaning filter

Type: Pipe online

Qty: 01 set

Specs: Q=415m3/h

Filtration accuracy: 0.1mm

2.2.3 Non-contact cooling water system

2.2.3.1 Non-contact cooling water storage tank (A01WTK)

Type: RCC

Qty: 01 nos.

Size volume: 1030m^3

2.2.3.2 CCM non-contact cooling water pump (A21WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=394m^3/h，H=80m

Motor: N=160kW，V=415V

Material: Casted iron

2.2.3.3 EAF/LF/TP non-contact cooling water pump (A22WPU)

Type: Single stage horizontal centrifugal pump

Qty: 4-working-1-standby

Specs: Q=1320m^3/h，H=70m

Motor: N=355kW，V=415V

Material: Casted iron

2.2.3.4 RM non-contact cooling water pump (A41WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=275m^3/h，H=60m

Motor: N=90kW，V=415V

Material: Casted iron

2.2.3.5 Scrap shear non-contact cooling water pump (A71WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=180m^3/h，H=50m

Motor: N=55kW，V=415V

Material: Casted iron

2.2.3.6 Air compressor station non-contact cooling water pump (A72WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=750m^3/h，H=50m

Motor: N=160kW，V=415V

Material: Casted iron

2.2.3.7 Mould heat changer secondary water pump (A61WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=705m^3/h，H=35m

Motor: N=110kW，V=415V

Material: Casted iron

2.2.3.8 BRF cooling water heat exchanger secondary water pump (A62WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=415m^3/h，H=35m

Motor: N=75kW，V=415V

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Material: Casted iron

2.2.3.9 Non-contact cooling water system emergency water pump (A03WPM)

Type: Diesel pump

Qty: 01 nos.

Specs: Q=589m^3/h，H=40m

Endurance time: 04 hrs

Supply with oil tank, exhaust pipe etc.

2.2.3.9 Non-contact cooling water emergency water pump (A03WPU)

Type: Diesel generator driving electric pump

Qty: 01 nos.

Specs: Q=589m^3/h，H=40m

2.2.3.10 BRF emergency water supply pump (A03WPM)

Type: Diesel pump

Qty: 01 nos.

Specs: Q=250m^3/h，H=35m

Endurance time: 04 hrs

Supply with oil tank, exhaust pipe etc.

2.2.3.11 Non-contact cooling water cooling tower (A01WCT)

Type: Counter flow mechanical ventilation cooling tower (RCC structure)

Qty: 04 nos.

Total flow: Q=9250m^3/h

I/O temp.: 49℃/35℃

Motor: N=132kW

2.2.3.12 Chemical dosing device

One set of corrosion and scale inhibitor dosing device and one set of bactericidal and algicidal dosing device

Type: 2 pumps 1 tank

Qty: 02 nos.

Flow: Q=9251m^3/h

2.2.3.13 CCM non-contact water self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Specs: Q=394m^3/h

Filtration accuracy: 0.1mm

2.2.3.14 EAF, LF, FTP non-contact cooling self-cleaning filter

Type: Pipe online fitler

Qty: 01 set

Specs: Q=6604m^3/h

Filtration accuracy: 0.1mm

2.2.3.15 RM non-contact cooling self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Specs: Q=275m^3/h

Filtration accuracy: 0.1mm

2.2.3.16 Scrap shear non-contact cooling self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Specs: Q=180m^3/h

Filtration accuracy: 0.1mm

2.2.3.17 Air compressor station non-contact cooling self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Specs: Q=750m^3/h

Filtration accuracy: 0.1mm

2.2.3.18 Mould cooling PHE 2ndary water self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Q=705m^3/h

Filtration accuracy: 0.1mm

2.2.3.19 BRF cooling PHE 2ndary water self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Specs: Q=415m^3/h

Filtration accuracy: 0.1mm

2.2.3.20 Non-contact circuit bypass filter pump

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=500m^3/h，H=30m

N=90kW，V=415V

Material: Casted iron

2.2.3.21 Non-contact circuit self-cleaning bypass filter

Type: Sand filter

Qty: 01 set

Specs: Q=500m^3/h

2.2.4 Contact cooling water system

2.2.4.1 Contact cooling water storage tank (C01WTK)

Type: RCC

Qty: 01 nos.

Size volume: 280m^3

2.2.4.2 CCM contact cooling water pump (C21WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=558m^3/h，H=80m

Motor: N=200kW，V=415V

Material: Casted iron

2.2.4.3 RM & BRF contact cooling water pump (C41WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=745m^3/h，H=60m

Motor: N=200kW，V=415V

Material: Casted iron

2.2.4.4 QTB contact cooling water pump (C42WPU)

Type: Single stage horizontal centrifugal pump

Qty: 4-working-1-standby

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Specs: Q=366m^3/h，H=85m

Motor: N=160kW，V=415V

Material: Casted iron

2.2.4.5 Filter backwashing water supply pump (F01WPU)

Type: Single stage horizontal centrifugal pump

Qty: 1-working-1-standby

Specs: Q=785m^3/h，H=25m

Motor: N=75kW，V=415V

Material: Casted iron

2.2.4.6 Advection sedimentation tank Storage tank (G81WTK)

Type: RCC

Qty: 01 nos.

Size volume: 300m^3

2.2.4.7 Filter inlet water pump (C81WPU)

Type: Single stage horizontal centrifugal pump

Qty: 5-working-1-standby

Specs: Q=550m^3/h，H=30m

Motor: N=90kW，V=415V

Material: Casted iron

2.2.4.8 High speed sand filter (C81WFS)

Type: Multi-media pressure filter

Qty: 5-working-1-standby

Total flow: Q=2820m^3/h

Diameter: Φ5000mm

Filter material: Quartz sand

2.2.4.9 Contact cooling water cooling tower (C01WCT)

Type: Counter flow mechanical ventilation cooling tower (RCC structure)

Qty: 03 nos.

Total flow: Q=2820m^3/h

Water I/O temp.: 46.5℃/35℃

Motor: N=45kW

2.2.4.10 Blower (F01WBF)

Type: Roots blower

Qty: 01 nos.

Specs: Q=800Nm^3/h，H=0.8MPa

Motor: N=37kW，V=415V

2.2.4.11 CCM scale pit (C51WTK)

Type: RCC

Flow: 880m^3/h

Qty: 01 nos.

Size: Φ9m

2.2.4.12 Oil skimmer (C51WSK)

Set in CCM scale pit.

Type: Pipe type

Flow: 1000L/h

Qty: 01 nos.

Motor: N=0.37kW，V=415V

2.2.4.13 CCM scale pit lifting pump: (C51WPS)

Type: Submersible sewage pump

Qty: 1-working-1-standby

Specs: Q=745m^3/h，H=25m

Motor: N=110kW，V=415V

Material: Casted iron

2.2.4.14 RM scale pit (C31WTK)

Type: RCC

Flow: 541m^3/h

Qty: 01 nos.

Size: Φ6m

2.2.4.15 Oil skimmer (C31WSK)

Set in RM scale pit.

Type: Pipe type

Flow: 100t/h

Qty: 01 nos.

Motor: N=0.37kW，V=415V

2.2.4.16 RM scale pit lifting pump (C31WPS)

Type: Submersible sewage pump

Qty: 1-working-1-standby

Specs: Q=541m^3/h，H=20m

Motor: N=75kW，V=415V

Material: Casted iron

2.2.4.17 Advection sedimentation tank (C81WTR)

Type: RCC

Qty: 01 nos.

Size: 6m×35m

2.2.4.18 Oil skimmer (C81WSK)

Set in advection sedimentation tank

Type: Pipe type

Flow: 100t/h

Qty: 01 nos.

Motor: N=0.37kW，V=415V

2.2.4.19 Chemical dosing device

One set of corrosion and scale inhibitor dosing device and one set of bactericidal and algicidal dosing device

Type: 2 pumps 1 tank

Qty: 02 nos.

Flow: Q=2751m^3/h

2.2.4.20 CCM contact cooling self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Specs: Q=541m^3/h

Filtration accuracy: 0.2mm

2.2.4.21 RM + BRF contact cooling self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Specs: Q=745m^3/h

Filtration accuracy: 0.2mm

2.2.4.22 QTB contact cooling self-cleaning filter

Type: Pipe online filter

Qty: 01 set

Specs: Q=1465m^3/h

Filtration accuracy: 0.2mm

2.2.4.23 QTB return water tank (C52WTK)

Type: RCC structure

Qty: 01 set

Specs: Volume 150m^3

2.2.4.24 QTB return water tank lifting pump (C52WPU)

Type: Submersible sewage pump

Qty: 2-working-1-standby

Specs: Q=735m^3/h，H=20m

Motor: N=75kW，V=415V

Material: Casted iron

2.2.5 Sludge treatment system

2.2.5.1 Backwashing water tank (F51WTK)

Filter backwashing water discharging tank

Type: RCC

Qty: 01 nos.

Size: Volume 100m^3

2.2.5.2 Backwashing water lifting pump (F51WPS)

Type: Submersible sewage pump

Qty: 1-working-1-standby

Specs: Q=140m^3/h，H=15m

Motor: N=11kW，V=415V

Material: Casted iron

2.2.5.3 Flocculation sedimentation tank (F11WTK)

Type: RCC structure

Qty: 01 set

Specs: Volume 6m^3

2.2.5.4 Sludge thickening tank (F11WTH)

Type: RCC

Qty: 01 nos.

Size: Φ11m

2.2.5.5 Mud discharge pump (F11WPU)

Type: Screw pump

Qty: 1-working-1-standby

Specs: Q=3m^3/h，H=20m

2.2.5.6 Mud storage tank (F41WTK)

Type: RCC structure

Qty: 01 set

Specs: Volume 10m^3

2.2.5.7 Frame press filter (F11WPU)

Type: Screw pump

Qty: 1-working-1-standby

Specs: Q=3m^3/h，H=20m

2.2.5.8 Frame press filter (F32WBP)

Type: Screw pump

Qty: 01 nos.

Specs: Q=50m^2

PAM dosing system: Qty 01 nos.

Specs: Match with press filter

2.2.5. 9 Chemical dosing device

PAM chemical dosing device

Type: 2 pumps 1 tank

Qty: 02 sets

Specs: Q=5m^3/h

2.4 Electric Equipment

2.4.1 Power supply and control of low-voltage electrical equipment

The low-voltage supply voltage is AC415V/230V 3-phase-5-wire system. According to the calculation of the motor load, four power supplies are proposed, and four transformers are set respectively. The two transformers are mutually standby. In normal times, each busbar runs separately; When one power supply line is faulty or needs maintenance, manually operate the busbar switching, and ensure the continues operation of the main load of the central water treatment plant according to the production processing needs.

The electronic control system of the central water treatment plant consists of a main PLC in the main pump house, a PLC for high speed filters control, a remote IO station for multi-media filters communication, a PLC for cyclone well control, etc. The automation system of complete design collects the operating status signal, and the units in the water treatment plant are interconnected through industrial Ethernet. The control room of the main pump house is equipped with 1 set of Engineer-station and 2 sets of Operation-stations (Siemens). One filed operation panel is provided with a field/remote switch. All instruments that send signals to PLC have field/remote status displaying function.

The electronic control system of the central water treatment plant is equipped with soft starting cabinet, MCC cabinet, low-voltage distribution cabinet, etc., to power, control, operate and display all electrical equipment.

The main inlet circuit of the electronic control system of the central water treatment plant is designed with a multifunctional meter, with RS-485 communication interface, for the screen display of Siemens man-machine interface. The main inlet circuit is also designed with short circuit and overload protection, and the current rating will be determined in the detailed design later. The start, stop and interlock control of the motor is achieved through signals from the PLC and field instruments. In order to control the start/stop of the motor, the operating box must first verify that the system is in a trouble-free condition. The local operation box is equipped with manual, automatic and stop mode selection switches, the "manual" mode will be used for debugging and maintenance, the

PLC does not participate in the control. The "automatic" mode will be used for normal operation, with all interlocking controls and field instruments checked before allowing the motor to start.

The function of the field operation box of the electrical equipment is only to realize the operation of the field electrical equipment; The operating box is equipped with the start and stop buttons of the electrical equipment, the start/stop and fault display, and the field /remote switch, and the necessary process parameter signals are sent to the PLC system for control. The system has three control modes: PLC program automatic control, Centralized manual control and Local control.

2.4.2 Basic requirement

1) The materials and equipment used are qualified products that meet the requirements of drawings and national quality standards. Construction shall be carried out according to relevant instructions in drawings and national electrical standards.
2) The holes involved in the project shall be sealed by the buyer's construction unit at the same time of construction to ensure that no small animals such as snakes and mice are allowed into the holes after electrical construction and that they meet the requirements of fire prevention.
3) Each motor provides overheat load and overvoltage protection.

2.4.3 Design basis, design standard, construction specification

The national electrical design regulations, design specifications and design standards, the specific content is as follows:

- Code for Design of power supply system, GB50052;
- Low voltage distribution design code, GB50054;
- General electrical equipment distribution design code, GB50055;
- Code for Design of Lightning Protection for buildings, GB50057;
- Code for design of overvoltage protection for electric power installations, GB50064;
- Code for design of grounding of electric power installations, GB50065;
- Code for Design of Electric Power Engineering cables, GB50217;

- Steel cable bridge engineering design code, CECS31;
- Code for Acceptance of Construction Quality of Building Electrical Engineering, GB50303;
- Code for Construction and Acceptance of Low-voltage Electrical appliances, GB 50254;
- Code for Construction and Acceptance of distribution works of 1kV and below, GB 50258.

2.4.4 Motor Control Center (MCC)

1) Location: power distribution room.
2) Use: to supply power to on-site electrical equipment, and control the electrical circuit of on-site electricity.
3) Type: GGD cabinet type. Overall weld-free assembly structure, front and rear doors, cabinet color RAL7035 (or user specified color code).
4) Input and output cable: (bottom of cabinet) Input and output cable.
5) Protection level: indoor type /IP30.
6) Electrical components in the cabinet: all power supply circuits and control systems use air switches or plastic-case switches. The electrical circuit of each electrical equipment includes but is not limited to the following equipment: mainly includes components such as air switch (plastic-case switch), contactor, thermal relay, intermediate relay.
7) The effective value of three-phase short circuit current of the bus bar in the MCC cabinet is determined according to the system capacity.
8) Reserve no less than 15% of the total number of terminals in the MCC cabinet. Empty terminals should be isolated between terminals of the AC circuit, DC circuit, current circuit, voltage circuit, closing circuit and tripping circuit in the terminal block. The rating of the terminal block is not less than 10A, 600V, and each terminal is provided with a corresponding number.
9) The power supply circuit is equipped with the necessary electrical protection (short circuit, overload, etc.).
10) The MCC cabinet provides the interface with the PLC control system, receives the control signal from the PLC, and feedbacks the equipment

operation signal, fault signal and preparation signal to the PLC system.

11) Reliable isolation between control power supply and primary power supply.
12) All control loop wires are made of multi-stranded copper wire with heat-resistant, moisture-proof and flame-retardant insulation. The cross section of the control loop wire is not less than 0.75mm2, the cross section of the weak loop wire is not less than 0.75mm2, and the minimum cross section of the secondary wiring of the current transformer is 2.5mm2.
13) Each MCC cabinet is equipped with N wire, PE wire, N wire, PE wire copper bar, located below the control cabinet (if the user has its own regulations, according to the user's regulations).
14) The top of each MCC cabinet is provided with a lighting fluorescent lamp and a cooling fan, which is interlocked with the cabinet door travel switch. When the cabinet door is opened, the cooling fan will stop and the daylight will be on. When the cabinet door is closed, the fan will run and the fluorescent lamp will be off.

2.4.5 Wiring requirement

1）All external cables pass through the terminal block, which is provided in the control cabinet. All terminal insulation materials are flame retardant. Each terminal is connected to only one external wire, and the connection between the internal circuit of the control cabinet and the terminal block is also connected to one wire per terminal, with a maximum of two wires. 20% of the terminal block should be reserved. There should be empty terminal isolation between the terminals of the AC circuit, DC circuit, current circuit, voltage circuit, closing circuit, and tripping circuit of the terminal block. The terminal block is rated at least 10A/600V, and each terminal block will be numbered according to the specification.

2）All the wiring in the cabinet is in line with the corresponding national regulations, the color of the selected wire is as follows:

Category	Item	Color	Remarks

Main circuit	A-phase	Yellow	
	B-phase	Green	
	C-phase	Red	
	Neutral	Blue	
	GND	Yellow and green	
Control loop AC	Firing line	Red	or others
	Zero line	Black	
Dc control loop	Positive electrode	Red	
	Negative electrode	Black	

At both ends of each cable/wire are provided with the line number corresponding to the drawing, using a circular number tube, using a special number machine printing, will not fade. Number tube fixed firmly, do not slip.

2.4.6 主要电气设备 Main Electrical Equipment

2.4.6.1 Transformer

The primary technical parameters of the power transformer are as follows:

- Type: Indoor oil immersed
- Primary voltage: AC 10kV±2x2.5% no-load tap changer
- Secondary voltage: AC 415V～230V±7%
- Frequency: 50Hz
- Overload capacity: 125% 10mins
- Impedance voltage: U_k: 4~6%
- Insulation class: A
- Factor group: DYn11
- Secondary lead-out: Cable

2.4.6.2 Low-voltage PDC /MCC cabinet

The main technical parameters of the low-voltage PDC /MCC cabinet are as follows:

- Cabinet structure type: Fixed (GGD)
- Main components in the cabinet: circuit breaker, contactor, soft starter, etc
- Protection level: IP30
- Incoming and outgoing cable mode: Incoming and outgoing cable

2.4.6.3 Operation desk (panel)

Main technical parameters of operation desk (panel) are as follows:

- Operation desk structure: Metal closed, front panel stainless steel, other plastic steel
- Operation panel structure: Metal closed, front panel indoor plastic cladding steel / outdoor stainless steel
- Protection grade: IP30(indoor), IP54(outdoor)

2.4.6.4 UPS

UPS for PLC system main specifications:

- Input voltage: three-phase AC380V or AC220V;
- Frequency: 50 Hz;
- Output voltage: AC220V;
- Backup time: 30 min;
- Battery cabinet: Use fully sealed and maintenance-free lead-acid batteries.

UPS power distribution cabinet: multiple single-phase distribution switches are installed in the cabinet.

2.4.7 Cable laying

The cable is laid by cable bridge and underground conduit. The cable bridge is made of cold-rolled galvanized and sprayed plastic and has a cover. The holes of the cables in the electrical room are sealed with fireproof materials.

The power cable adopts ZR-YJV-0.6/1kV cable, and the control cable adopts flame retardant shielded cable ZR-KVVRP.

2.4.8 Lighting & Earthing

2.4.8.1 Lighting

The lighting in the WTP is designed according to the factory standard requirements (**lighting design and supply are not in Seller's scope**), there is no need to design special lighting, just some areas requires emergency lighting.

2.4.8.2 Earthing

All equipment shall be effectively grounded to prevent the failure caused by the surge impact. The grounding system includes the main grounding network of

the water treatment station, the grounding electrode of the internal connecting conductor and key parts, the grounding resistance of 4 ohms, and the main institutional equipment and structural design are directly connected with the grounding network system (**outside the scope of supply by the seller**).

Each motor and distribution circuit should be connected in MCC ground bus, and the MCC ground bus is directly connected to the ground network system of WTP.

The PLC system includes grounding of the instrumentation and device power supply with a separate ground point within the station.

If the shell of an onsite device is metal, it must be grounded.

2.4.8.3 Embedded pipe

WTP's all electric profession embedded pipe and trough pipe shall be designed by Buyer's design institute or consultant.

2.4.9 Power supply T.O.P.

1) The main incoming power supply system adopts the power supply system. The buyer shall be responsible for sending four 415VAC power supplies to the incoming terminal (bus bar) of the corresponding incoming cabinet. The seller shall be responsible for all power supply equipment behind the incoming cabinet.
2) Power supply and signal between all water treatment systems shall be completed by the seller.

2.5 Automation control and instrumentation system

The WTP system is mainly composed of raw water system, closed cooling water system, indirect (non-contact) cooling water system, direct (contact) cooling water system and sludge treatment system.

2.5.1 Instrument selection

2.5.1.1 Instrument

Signal detection items and instrument configuration see detail list of instrumentation hardware list.

2.5.1.2 Instrument selection

- Use bimetal thermometers (on site display), thermocouples, platinum resistors or non-contact infrared pyrometers for temperature measurement.
- Pressure is measured with an intelligent pressure transmitter or pressure controller.
- Differential pressure is measured using intelligent differential pressure transmitters.
- The general flow measurement use throttling device and differential pressure transmitter.
- Electromagnetic flowmeter and ultrasonic flowmeter are used for water flow measurement.
- Liquid level measurement using radar, ultrasonic, float level meter and transmitter.
- The automatic control valve is mainly pneumatic type, and the automatic cut-off valve is pneumatic type.

2.5.1.3 Application standard and general features

——Instrument specification code:

- ISO
- IEC
- CEN
- GB

——Instrument equipment power supply technical parameters:

- AC: 380/220V AC±10%, 50HZ±1HZ;

- DC: 24V DC;
- Solenoid valve voltage: 24V DC;
- Sensors and operating devices: 220V AC or 24V DC;

——Instrument equipment main signal technical parameters:

- Analog voltage: 1~5VDC;
- Analog voltage: 0~10VDC;
- Analog current: 4~20mADC;
- Standard thermocouple: K, S, etc.;
- Standard thermal resistance: PT100;
- Switching voltage: 0/24VDC;

——Instrument equipment main communication interface:

- TCP/IP；
- PROFIBUS-DP。

2.5.1.4 Main instrument performance

2.5.1.4.1 Thermocouple

- Index number: Pt100, temperature measurement accuracy: grade B;
- Waterproof junction box;
- Protection tube material: 1Cr18Ni9Ti;
- Process connection: M27x2.

2.5.1.4.2 Electromagnetic flowmeter

- Accuracy: not less than 0.5%;
- Isolated output: 4 ~ 20mADC, converter with instantaneous flow and cumulative flow display;
- Power supply: 220VAC, 50Hz;
- With matching mounting flange and complete set of fasteners;
- The sensor is protected with IP65 or higher.

2.5.1.4.3 Pressure, differential pressure transmitter

- Intelligent type;
- Accuracy: 0.2%;
- With LCD display;
- Protection level IP65.

2.5.1.4.4 Regulating valve

- DN: according to calculation;
- Material: according to the site environment and process control requirements;
- Operation time: according to process control requirements;
- Adjustment characteristics: equal percentage;
- Valve with pneumatic actuator;
- With matching mounting flange and all fasteners;
- With filter pressure reducing valve, E/P positioner, etc.

2.5.1.4.5 Shutoff valve

- Material: according to the site environment and process control requirements;
- Operation time: according to process control requirements;
- Adjusting characteristics: ON/OFF;
- Valve with pneumatic actuator;
- With matching mounting flange and all fasteners;
- With filter reducing valve and position switch (as required).

2.5.2 Control system

The control system adopts electrical and instrument integrated PLC design. Hardware adopts Siemens PLC system S7-1500 series and ET200SP series modules, and equipped with peripheral equipment, such as circuit breakers, signal lights, intermediate relays and so on.

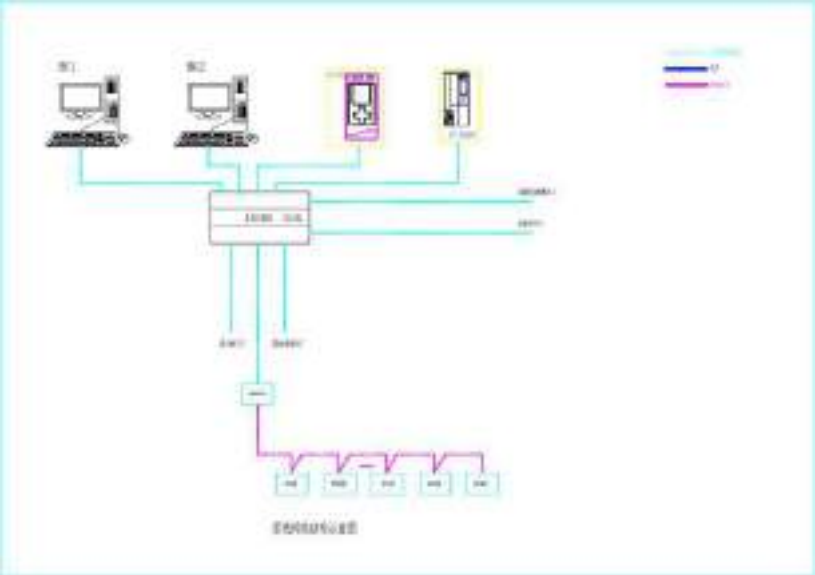
The software uses Siemens special programming debugging software Botu (version no less than V16), and the screen programming uses WINCC V7.5.

According to the layout of the process equipment, it is proposed to set up a master PLC, which is responsible for the logic control and protection of the main process equipment. Set up a set of remote IO station for the control of high speed filter; Set up a set of remote IO station for the equipment control of the cyclone well (can be changed according to the actual situation); The control of multi-media filter is also controlled by a set of small PLC; The on-site dosing device system also uses small PLC to complete signal collection and control. Each PLC can

exchange signals with the main PLC through the industrial Ethernet and switch, and complete the networking with the HMI system, and the relevant signals can be displayed/prompted in the HMI, and can also send commands to achieve control.

The actual Settings will be adjusted according to the layout of the process equipment and the layout of the electrical room.

PLC control system network structure diagram is shown below.



3 Equipment List

3.1 Process equipment list

See equipment list & commercial price.

3.2 Electric equipment list

See equipment list & commercial price.

3.3 Automation equipment list

See equipment list & commercial price.

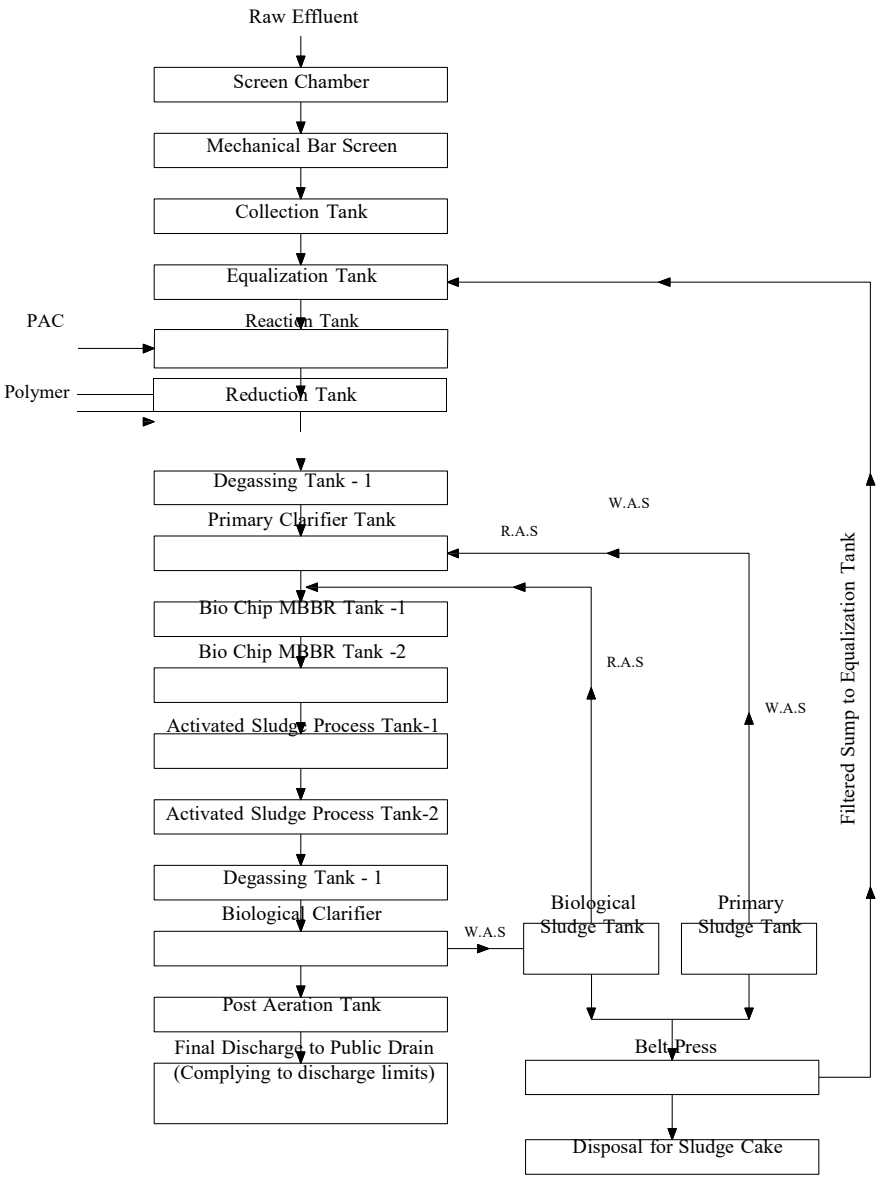
4. Consumption Table

Item	Pressure	Aver. Flow	Remarks
Instrument air	0.5Mpa	1m3/h	Discontinuous
Equipment compressed air	0.8Mpa	5m3/h	Discontinuous
Raw water treatment	0.25mpa	250m3/h	Continuous

5. Bought-out Equipment Vendor List

SN	Item	Vendor
1	Centrifugal pump	https://www.kaiquan.com.cn/ https://www.lcpumps.com/
8	Mixer	www.yxguoan.com/ http://www.guomaoreducer.com/
10	Press filter	http://www.jjylj.com/ www.xingyuan-hb.com/
1	Ultrasonic level meter	E+H http://www.cqcy.com/
2	Pressure gauge	http://www.cqcy.com/ www.shop.saic.sh.cn/
3	Flowmeter	www.kfbtkj.cn/ http://www.cqcy.com/
	Thermometer	http://www.cqcy.com/

PROCESS FLOW DIAGRAM



Design Concept - FUME TREATMENT PLANT

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2.2.1 Introduction

This project concerns a fume de-dusting plant designed for the primary, secondary and auxiliary suction lines fumes of the **150 tons** tapped steel EAF according to process parameters shown in the Design Concept (EAF-LF sections).

The plant is designed to capture and treat the fumes of:

- Primary fumes line from the furnace roof (Direct Extraction System - DES);
- Secondary fumes line from the canopy hood arranged on the building roof over the furnace shell;
- Ladle Furnace (LF);
- Materials Handling System.

This project includes also the basic design of a roof canopy hood above the furnace. Since the canopy hood is conceived as an extension of the building structure, it is considered being part of the building itself.

The data shown in this offer are preliminary. Should it be necessary, Danieli reserves the right to change them during the development of the project, with plant performance remaining unaltered.
Being the Fume Treatment Plants a complex system of ducts, its routing determines the characteristics of the Fans. Due to this fact, significative variations of the preliminary routing could determine a recalculation of such characteristics, dimensioning of the machinery and parts of the FTP.
In the case that the preliminary or final layout will require modifications for reasons not attributable to the Seller, the overall timeline of the Fume Treatment Plant could be affected as well as the machinery and related power requirement could need to be resized with possible effects on costs.

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2.2.2 Plant Description

The fume plant is designed for the treatment of fumes produced during operation of the EAF (Electric Arc Furnace).
A water-cooled duct conveys the fumes sucked from the EAF fourth hole to the settling and post-combustion chamber followed by another water-cooled duct and then a Hairpin Cooler.
After the Hairpin Cooler, the pre-treated fumes are conveyed to the main duct connecting the roof canopy hood to the filter plant.
Filtering is performed by a suction type filter design with bags. Cleaning of the bags is performed by means of compressed air injection (Pulse-Jet system).
The main fans installed at the bag filter clean side deliver the fume to the stack.
The plant is provided with a dust conveying system, which conveys the dust from the bag filter, the axial cyclone and the cooler to the dust collecting system.

The proposed plant features the following:

- Settling and post-combustion chamber for the oxidation of carbon monoxide (CO) and the settling of heavier particles contained in the primary fumes;
- Very efficient bag cleaning system, which allows a high air-to-cloth ratio, resulting in compact equipment;
- Cyclone as spark arrestor to protect the bags of the filter;
- Suction design (negative pressure) used for the bag filter, no dust leakage underneath the filter hoppers (Pulse Jet type filter);
- Bag changing is performed from the top of the filter, on the clean side; there is no need for workers to operate inside the bag filter;
- Main fans are installed on the clean side of the bag filter, which allows the use of high efficiency airfoil backward vane impellers, resulting in low energy consumption;
- Booster fan for some auxiliary suction lines to ensure the suction in any plant operating condition;
- Hairpin cooler to control the primary fumes temperature before mixing them with the canopy fumes and deliver them to the bag filter;
- High consideration has been given to the environment inside the EAF bay, sizing the secondary suction as well as the Bag filter in order to provide the necessary ventilation and heat removal from the EAF area.

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2.2.3 Process Description

2.2.1.1 Primary fumes suction

The fumes are sucked from the 4th hole on EAF roof through a water-cooled elbow duct. The fumes coming out of the furnace elbow are captured by a water-cooled sliding sleeve (DES, direct extraction system) and treated in the primary suction line.

By means of a hydraulic cylinder (operated by furnace hydraulic system), the water-cooled sliding sleeve can be positioned in two different operating conditions:

- Linked to the elbow duct flange during fume suction from the 4th hole
- Moved backward during furnace scrap charging to consent free rotation of the EAF roof

This safety system prevents any damage to the fumes ducts and to the bag filters.

Water-cooled sliding sleeve

A settling-combustion chamber is installed near the furnace: it is designed to complete the combustion of CO gas and to collect pieces of light scrap, coarse dust and slag sucked from the EAF.

The settled material can be easily removed through a water-cooled door, by means of a small front-end loader.
The DES fumes are mixed with the secondary fumes sucked from the canopy hood over the furnace and then conveyed to the bag filter.

2.2.1.2 Primary fumes conveying

The primary fumes are collected by means of a water-cooled sliding sleeve, followed by a fixed duct connected to the settling chamber.

After the settling chamber, there is another water-cooled duct for a further cooling of the primary fumes, and when the temperature of the hot fumes is cooled down to a temperature in compliance with the downstream single-wall duct or cooling equipment, the water-cooled duct ends.

All water-cooled components, such as settling and post-combustion chamber and water-cooled ducts are provided with walls having a pipe-to-pipe water-cooled design.

Water-cooled duct

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2.2.1.3 Primary fumes cooling and mixing

A “Hairpin” cooler is used to significantly reduce the temperature of the primary fumes before mixing them with the secondary fumes collected by the furnace canopy hood. The name of this particular heat exchanger derives from the long U-shaped fume tubes, which are naturally cooled by ambient air. This design is very efficient and, at the same time, does not require much maintenance as the forced draft coolers which have fume tubes of smaller diameter and require frequent cleaning to prevent an excessive increase of the cooler pressure drop.

Hairpin Cooler

Downstream of the fumes cooler there is an electrically driven damper, that can be used to adjust the flow rate of primary fumes according to the requirements of the EAF process cycle.
An emergency damper, installed downstream of the fumes mixing point, is used to protect the filter bags against the risk of overheating due to the malfunctioning of the control system of the other dampers.

2.2.1.4 Spark arresting

An axial cyclone is used as spark arrestor to protect the bags of the filter (installed downstream) from the risk of being damaged by hot particles conveyed by the fumes. The cyclone is provided with a double-flap vane valve that allows the extraction of the settled material without infiltration of ambient air into the fume circuit.

Depending on the requirements of the Client, the extracted material can be temporarily stored in a container or collected and sent to the centralized dust silo.

Axial Cyclone

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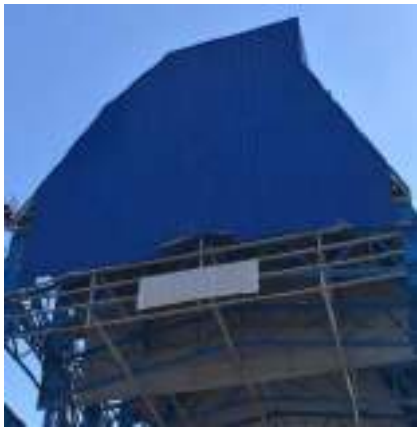
2.2.1.5 Secondary fumes sucked by the canopy hood

The secondary fumes emitted by the EAF, mainly during charging/tapping phases, are captured by the canopy hood installed above the EOT cranes on the roof of the building.

During the charging/tapping phases, the flow dampers are completely open and provide the necessary melt shop ventilation ensuring the suction of the generated fumes.

The flow dampers of the canopy hood are positioned automatically to a pre-set value during the melting phase. This position is automatically adjusted by the computerized control system in order to allow the correct ventilation inside the building and the correct dilution air for primary fumes cooling.



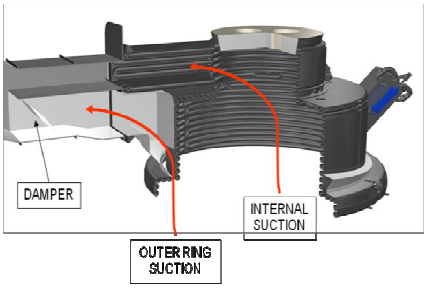
Canopy Hood

2.2.1.6 Fumes sucked from the LF

An independent suction line is provided for the Ladle Furnace.

The fumes are sucked from the LF roof. The duct has a booster fan with regulating speed that exhausts the fumes and, by compensating the pressure losses along the ducting, conveys them to the mixing point.

The fumes are then mixed with those collected by the canopy hood over the EAF and conveyed to the filter plant.



Ladle Furnace suction line

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2.2.1.7 Fume filtration

DANIELI's pulse-jet bag filter technology combines efficient filtration of the fumes with low energy consumption.

The filter bags are cleaned by compressed air jets blown through electric diaphragm valves. For each bag, the air jet takes place inside a Venturi tube and therefore a strong induced gas draft is used for expanding the bag, with a sudden removal of its dust cake.

To maximize the cleaning efficiency, the bag compartment is automatically put in off-line mode during the cleaning operation. This procedure is used only during the EAF melting phase.

BAG FILTER – Internal view

The bag cleaning frequency is set by the automation system during the start-up of the plant, thus assuring effective filtration and low compressed air consumption in all operating conditions.

Upstream of the filter there is an emergency safety valve for dilution air intake. This valve opens automatically if the fume temperature should exceed the design temperature for the bags.

Normally, this safety valve is fully closed, even under the heaviest operating conditions.

BAG FILTER – External view

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2.2.1.8 Fume suction and exhaust

The induced draft fans, installed downstream of the filter, suck the fumes from the whole circuit and deliver them to the centralized stack.

The main fans are located downstream of the filter and therefore they operate with filtered fumes, so high efficiency fan impellers can be used. This design reduces the maintenance requirements and the consumption of electric energy as well.

Centralized stack

2.2.1.9 Dust collection and storage

The coarser dust sucked from the 4th hole is intercepted in the settling chamber located near the EAF. The chamber has a maintenance door ensuring the access of a small front-end loader to remove the accumulated dust.

The dust discharged in the filter, cyclone and cooler is collected by chain conveyors under the hoppers and is sent to a storage silo by means of a chain elevator.
The dust is discharged from the silo through a screw conveyor to the transport truck.

Dust collecting silo

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2.2.1.10 Controls and regulating systems

The variable operating conditions of the EAF requires the use of a regulation loop, to maintain a constant negative pressure inside the EAF. The pressure monitoring sensors, and the signal transducer, enable adjustment of the flow-rate, influencing the de-dusting efficiency of the plant.

Another regulation loop adjusts the operating condition of the circuits, in series with the pressure control loop, based on the temperature of the fumes.

The fume temperature control loop consists mainly of two logical circuits:

- Control of the fume temperature at the water-cooled sliding sleeve on the 4th hole circuit. The flow of combustion air is controlled by adjusting the movable duct position according to the specified fume temperature set-point. An emergency set-point causes the opening of the movable duct to prevent damages to the water-cooled duct.
- Fumes temperature control at the Bag- Filter inlet. The dilution air, required to keep the fumes temperature at the Bag-Filter inlet within design temperature, is sucked from the regulating damper of the canopy hood. An emergency set-point causes the opening of the second dilution air valve situated just upstream the Bag-Filter, to prevent damages to the bags.

Another emergency control loop is based on the monitoring of the cooling water temperature and pressure. The levels of temperature and pressure are monitored via the PLC.

Any of the above-mentioned set-points can be adjusted at any time, via the PLC, to allow for optimum performance of the de-dusting plant.

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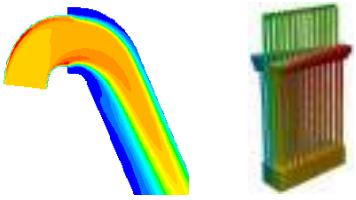
2.2.4 Design Optimization

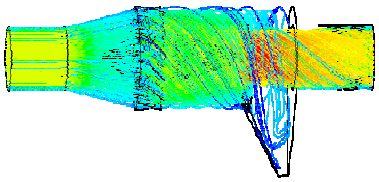
At the base of the Fume Treatment Plant engineering there is a careful and detailed study of each equipment.
During the years, FTP machines have been modelled by means of dedicated CFD (Computational Fluid Dynamics) software in order to refine their design and optimize their efficiency and performances.



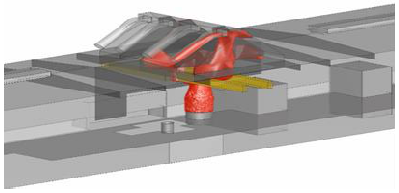
The CFD analysis involves the numerical solution of the governing partial differential equations that describe the transport of mass, momentum and energy of a fluid.

With the use of the CFD modelling it is possible to predict and analyze the fumes flow and to optimize the design of the equipment in order to maximize the efficiency of the entire system.

Even though this type of study cannot be applied to all processes (for numerical reasons), its applicability is quite wide, allowing to predict multi-phase flow processes inside equipment and buildings as well.
One of the advantages of the CFD analysis is that it is based on the homothety principle, so it is more related to the shape of the equipment than to its size. For this reason, it is not necessary to repeat the analysis for each different size of the same equipment, but only if its geometry changes.



Everything starts from a 3D model of the specific equipment and with the definition of the boundary conditions. After that, the input data are entered in the model and, when everything is properly set up, the analysis is launched. As a result, the software shows the route of the fumes flow as well as possible problems and efficiency losses.



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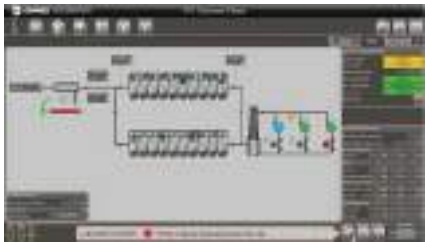
2.2.5 Process Automation

The fume treatment process is fully automated by means of a dedicated Programmable Logic Controller (PLC), which is interfaced with a PC used for data acquisition, recording and visualization.

Computerized process control



PC visualization of FTP operating data

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2.2.6 Design Data

Fume Treatment Plant	
Equipment	One Fume Treatment Plant common for EAF and canopy hood
Suction lines	Electric Arc Furnace primary fumes Electric Arc Furnace secondary fumes from canopy hood LF suction line MHS suction line
Filter design	Suction design pulse jet filter

2.3.6.1 Operating conditions

The variable operating conditions of the EAF requires the use of a regulation loop, to maintain a constant negative pressure inside the EAF. The pressure monitoring sensors, and the signal transducer, enable adjustment of the flow-rate, influencing the de-dusting efficiency of the plant.

Melting phase
EAF in melting phase (roof closed, primary fumes suction line open):
- Suction from the primary line (direct extraction system);
- Suction from the canopy hood to provide melt shop ventilation and primary fumes cooling;
- Suction from the LF in refining phase;
- Suction from the Materials Handling System.

Charging / Tapping phase
EAF in charging/tapping phase (roof open or inclined EAF, primary fumes suction line closed):
- Suction from the canopy hood;
- Suction from the LF in refining phase;
- Suction from the Materials Handling System.

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2.3.6.2 Process Flow Diagram

Height above sea level: 0 m

EAF 150 ton - MELTING - PULSE JET FILTER

Description	Point	Qn [Nm^3/h]	T [°C]	Qe [m^3/h]
Water-cooled duct inlet	A	300.000	1.200	1.619.000
Water-cooled duct outlet	B	300.000	550	904.000
Hairpin Cooler Outlet	C	300.000	300	630.000
EAF Canopy hood duct	D	815.000	55	979.000
LF duct	E	77.500	150	120.000
Material Handling System	F	50.000	40	57.000
Stack	G	1.242.500	115	1.786.000

EAF 150 ton - CHARGING / TAPPING - PULSE JET FILTER

Description	Point	Qn [Nm^3/h]	T [°C]	Qe [m^3/h]
Water-cooled duct inlet	A	-	-	-
Water-cooled duct outlet	B	-	-	-
Hairpin Cooler Outlet	C	-	-	-
EAF Canopy hood duct	D	1.624.000	80	2.100.000
LF duct	E	77.500	150	120.000
Material Handling System	F	50.000	40	57.000
Stack	G	1.751.500	80	2.277.000

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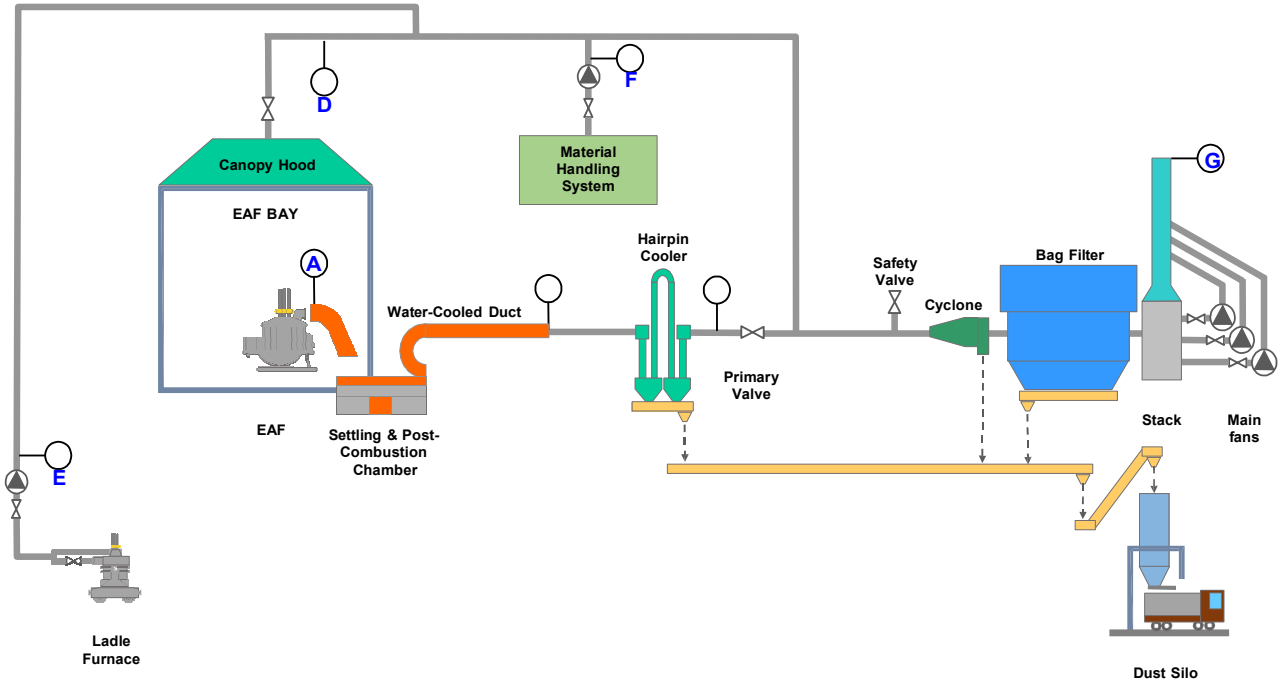
2.3.6.3 Flow Sheet



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